Any interested party may attend the City Commission meeting in person or submit comments on agenda items in writing to the City Clerk no later than noon on the day of the meeting. All meetings are broadcast live on Comcast Cable TV Channel 27 or streamed live online at www.cityoffortpierce.com.

Comments on agenda items should be submitted via email to lcox@cityoffortpierce.com; comments must include your name and address to be read into the record. The City Clerk will read all comments on agenda items submitted by the deadline. Please note that the decorum policy applies to both written and oral comments and all comments shall be limited to 3 minutes as read by the City Clerk.

C I T Y O F F O R T P I E R C E
CITY COMMISSION AGENDA

Regular Meeting - Monday, October 5, 2020 - 6:00 p.m.
City Hall - City Commission Chambers, 100 North U.S. #1, Fort Pierce, Florida

1. **CALL TO ORDER**

2. **OPENING PRAYER -** Pastor Brian Jamison, Common Ground Vineyard Church

3. **PLEDGE OF ALLEGIANCE**

4. **ROLL CALL**

5. **APPROVAL OF MINUTES**

   a. Approval of Minutes from September 08, 2020 Regular Meeting; September 14, 2020 Special Meeting; September 21, 2020 Regular Meeting, September 21, 2020 Special Meeting and September 28, 2020 Special Meeting.

6. **PROCLAMATIONS**

7. **LETTERS TO COMMISSION**

   a. Email from Phil Schwegler expressing his appreciation and gratitude for the City Commission approving an idle speed zone restriction for Jaycee Park.

   b. Email from Dan Cushman thanking Mike Reals, Public Works Director and his staff for their cooperative service-oriented attitude when resolving a small problem with curbside trash pickup at River's Edge.

8. **COMMENTS FROM THE PUBLIC ON AGENDA ITEMS NOT REQUIRING PUBLIC HEARINGS**

   Any person who wishes to comment on an agenda item which is not under Public Hearings on the Agenda may be heard at this time and must sign up to speak in advance. Please limit your comments to three (3) minutes or less, as directed by the Mayor, as this section of the Agenda is limited to thirty minutes. The City Commission will not be able to take any official actions under Comments from the Public. Speakers will address the Mayor, Commissioners, and the Public with respect. Inappropriate

language will not be tolerated.

9. **ADDITIONS OR DELETIONS TO AGENDA AND APPROVAL OF AGENDA**

10. **MISCELLANEOUS REPORTS**

11. **CONSENT AGENDA**

a. Approval of payment schedule of three annual payments for paying reduced demolition lien against 2152 S. Jenkins Road, Ft. Pierce, FL, Parcel ID Number 2418-333-0002-000-6 owned by BGDN LLC, 1820 Avenue K, Brooklyn, NY 11230. On August 17, 2020 the City Commission approved the request to reduce the demolition fees in the amount of $38,241.68 to $21,827.00 payable in 30 days.

b. Approval of an agreement on the distribution of surplus funds related to the foreclosure sale of a property located at 118 Hialeah Avenue.

c. Approval of request to reduce code enforcement fees in the amount of $7,670.00 against 711 S Ocean Drive, Ft. Pierce, FL 34949, Parcel ID Number 2401-503-0079-000-5 owned by Fond De Blanc Inc, Jermaine Leclerc, 275 SW Lost River Road, Stuart, FL 34997. In accordance with previously established policy, staff recomends reducing the fines to $1,200.00 payable in 90 days. If not paid within this time period, the lien will revert to the original amount. However, applicant is requesting a waiver of $7,650.00 leaving a balance due of $20.00 for recording fees which requires a direct vote by Commission.

d. Approve letter of support to St. Lucie County Board of County Commissioners requesting a three (3) way stop sign at the intersection of Savannah Road and Indian River Drive.

e. Approval of Way to Grow Lincoln Park Grant Award to JC Salon and Boutique LLC, 914 Avenue D, in the amount of $3,000.00.

12. **PUBLIC HEARINGS**

Any Public Comment on these Public Hearing items, if not being offered in person, should be submitted by noon on the day of the meeting using the Sworn Public Comment Form which is available on the city's website at:
http://www.cityoffortpierce.com/DocumentCenter/View/8741/Sworn-Public-Comment-for-Public-Hearings

a. Legislative Hearing - Ordinance 20-025 REZONING THE PROPERTY GENERALLY LOCATED AT OR NEAR 10050 WEST MIDWAY ROAD, FROM AG-2.5, AGRICULTURAL, 1 DU/2.5 AC (SAINT LUCIE COUNTY ZONING) TO PLANNED DEVELOPMENT (PD); PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT HEREWITH; AND PROVIDING FOR AN EFFECTIVE DATE. SECOND READING

b. Legislative Hearing - ORDINANCE 20-023 AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA; AMENDING THE FUTURE LAND USE MAP OF THE COMPREHENSIVE PLAN TO CHANGE THE DESIGNATION OF PROPERTY GENERALLY LOCATED AT OR NEAR 3000 OKEECHOBEE ROAD, FROM GENERAL COMMERCIAL, GC, TO MEDIUM DENSITY RESIDENTIAL, RM; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; PROVIDING FOR AN EFFECTIVE DATE. SECOND READING

c. Legislative Hearing - Ordinance 20-024 REZONING THE PROPERTY GENERALLY LOCATED AT OR NEAR 3000 OKEECHOBEE ROAD, FROM C-3, GENERAL COMMERCIAL ZONE, TO R-4, MEDIUM DENSITY RESIDENTIAL ZONE; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; AND PROVIDING FOR AN EFFECTIVE DATE. SECOND READING

d. POSTPONED FROM SEPT. 21, 2020 - Quasi-Judicial Hearing - Application for Site Plan, Design Review, and conditional Use submitted by Property Owner, Arrow Investment Group, LLC and Representative, Michael Sanchez of Managed Land Entitlements, to construct a 112 unit Innovative Residential Multi-Family Development on a property located at 3000 Okeechobee Road in Fort Pierce, FL. The property is currently zoned General Commercial (C-3). There is an active rezoning application by the applicant to rezone the property to Medium Density Residential (R-4). Parcel ID: 2417-504-0020-001-6

e. Resolution No. 20-R47 and Quasi-Judicial Hearing – A hearing to allow the owners and/or parties of interest in the property identified as 1311 Avenue E to show cause why the structure located on the premises should not be condemned and demolished.

f. Legislative Hearing - Ordinance 20-028- Text amendment to Chapter 38, Reducing the distance of the No Wake Zone at Jaycee Park. FIRST READING

13. **CITY COMMISSION**

a. Update on the demolition of 2607 Avenue D - Continued from February 18, 2020 as Resolution No. 20-R12

14. **COMMENTS FROM THE PUBLIC**

Any person who wishes to comment on any subject may be heard at this time. Please limit your comments to three (3) minutes or less, as directed by the Mayor, as this section of the Agenda is limited to thirty minutes. The City Commission will not be able to take any official actions under Comments from the Public. Speakers will address the Mayor, Commissioners, and the Public with respect. Inappropriate language will not be tolerated.

15. **COMMENTS FROM THE CITY MANAGER**

a. Reports

16. **COMMENTS FROM THE COMMISSION**

17. **ADJOURNMENT**

Immediately following adjournment, please move toward the doors and exit the chambers. This allows for the safe and courteous exit of all persons, and those on the dais. Conversations after the meeting should be held outside of chambers, in the foyer or elsewhere, but not in the commission chambers where lights will be out as soon as the chambers are empty.

Pursuant to Sec. 2-49, Fort Pierce Code of Ordinances, persons desiring to place an item on the agenda may make written request to the city manager no later than 5:00 p.m. fifteen (15) days preceding the regular city commission meeting. Such request must state the subject matter of the individual's appearance and should include any background materials pertinent to the issue. The city manager shall review the request to determine if the item might be handled administratively or whether the subject matter is an item of city business. If appropriate, the city manager shall submit the item for placement on the agenda to the city clerk no later than 5:00 p.m. ten (10) days preceding the regular city commission meeting. The mayor may impose a time limitation of five (5) minutes, or allow such additional time he or she determines necessary and appropriate for such person to make presentation. All reports, communications, ordinances, resolutions, contracts, documents or other materials to be submitted to the commission shall, no later than 12:00 noon on Wednesday prior to each meeting, be delivered to the city clerk and furnish each member thereof with a copy of the same prior to the regular meeting.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises you that if you or another person decide to appeal any decision made by the City Commission with respect to any matter considered at its meeting or hearing, that you or said person will need a record of the proceedings, and that for such purpose, affected persons may need to insure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals not otherwise allowed by law.

In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons with disabilities needing special accommodation to participate in this meeting should contact the City Clerk’s Office at (772) 467-3065 at least 48 hours prior to the meeting.

City Commission Regular Meeting - 6:00 pm **5. a.**

Meeting Date: 10/05/2020

Re:

SUBJECT:

Approval of Minutes from September 08, 2020 Regular Meeting; September 14, 2020 Special Meeting; September 21, 2020 Regular Meeting, September 21, 2020 Special Meeting and September 28, 2020 Special Meeting.

SUMMARY:

RECOMMENDATION:

ALTERNATIVES:

RESPONSIBLE STAFF:

COORDINATED WITH:

Attachments

Minutes 09.08.2020
Minutes 09.14.2020 Special
Minutes 09.21.2020 Regular
Minutes 09.21.2020 Special
Minutes 09.28.2020 Special

Form Review

Form Started By: Maura Stokes Started On: 09/28/2020 09:21 AM
Final Approval Date: 09/28/2020

MINUTES OF A REGULAR MEETING OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, HELD IN THE CITY HALL COMMISSION CHAMBERS, 100 NORTH U.S. #1, FORT PIERCE, FLORIDA, AT 6:00 P.M. ON TUESDAY, **SEPTEMBER 08, 2020.**

1. CALL TO ORDER

Mayor Hudson called the September 08, 2020 Regular Meeting of the City Commission to order at 6:00 PM.

2. OPENING PRAYER - Reverend Ellis E. Brust, St. Andrews Episcopal Church

3. PLEDGE OF ALLEGIANCE

4. ROLL CALL

Present: Mayor Linda Hudson; Commissioner Rufus Alexander; Commissioner Jeremiah Johnson; Commissioner Thomas Perona; Commissioner Reginald Sessions

Staff Present: City Clerk Linda Cox
City Manager Nicholas Mimms
City Attorney Peter Sweeney

Commissioner Alexander was present by telephone.

5. APPROVAL OF MINUTES

a. Approval of Minutes from August 17, 2020 Regular Meeting

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve the minutes from the August 17, 2020 Regular Meeting.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

6. **PROCLAMATIONS**

a. Hunger Action Month Proclamation

b. Constitution Week Proclamation being received by Linda Gallup.

c. Suicide Prevention Awareness Month

d. Proclamation recognizing Jeremy Pittman, Jr.

7. **LETTERS TO COMMISSION**

a. Letter from Gary L. Robinson, Unit Manager, Staff Inspections/Accreditation Professional Compliance Bureau, Palm Beach County Sheriff's Office commending Mr. Akeem Johnson, Accreditaton Manager, for his professionalism and exceptional representation of the Fort Pierce Police Department as a member of the Florida Gulf Coast University Police Department accreditation on-site assessment team.

b. Thank you note from Joan Friedman, Executive Director and Holly Theuns, Grants and Marketing Manager, thanking Public Works Department employees: Troy Hall, Chris Dimaiio, Michael Amelca and Jose Sanchez for removing a fallen tree so that Heathcote Botanical Gardens could reopen to the public.

c. Letter from Hortense Spivey, Hortense/ Mills Memorial Funeral Home, thanking Fort Pierce Investigator Clark and the Police Officers, who assisted with picking up the deceased from a residence, for their professionalism and compassion shown to the family.

8. **COMMENTS FROM THE PUBLIC ON AGENDA ITEMS NOT REQUIRING PUBLIC HEARINGS**

Any person who wishes to comment on an agenda item which is not under Public Hearings on the Agenda may be heard at this time and must sign up to speak in advance. Please limit your comments to three (3) minutes or less, as directed by the Mayor, as this section of the Agenda is limited to thirty minutes. The City Commission will not be able to take any official actions under Comments from the Public. Speakers will address the Mayor, Commissioners, and the Public with respect. Inappropriate language will not be tolerated.

No comments.

9. **ADDITIONS OR DELETIONS TO AGENDA AND APPROVAL OF AGENDA**

City Clerk Linda Cox received a request from the applicant to postpone Item 12a to the September 21, 2020, City Commission Meeting.

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve and set the Agenda as amended.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

10. MISCELLANEOUS REPORTS

a. Presentation by CEO, Will Armstead, and COO, Melanie Wiles, of the partnership efforts with the Boys and Girls Clubs of St. Lucie County.

Boys & Girls Clubs of St. Lucie County (BGC) CEO Will Armstead and COO Melanie Wiles gave a presentation on their current initiatives and future objectives. Mr. Armstead expressed his gratitude to the City Commission and Staff for their efforts and support with collaborative events which has benefited the community. Ms. Wiles discussed the immediate relief given to the community through the distribution of food, meals, and essentials to families in need. BGC also conducted welfare checks and distributed valuable COVID-19 information as well as providing 24/7 emergency childcare for essential workers. BGC provided educational support for the students who have chosen virtual learning; and, through a collaborative effort with local business was able to provide jobs for 156 teens.

b. Presentation of Arts and Culture Advisory Board's recommendation to display donated 9/11 artifacts in a display case at the River Walk Center.

Ms. Holly Theuns from the Fort Pierce Arts & Culture Advisory Board presented a recommendation to the City Commission to purchase a display case to be located at River Walk Center which will display 9/11 artifacts including items from Ground Zero and Shanksville, Pennsylvania. The City Commission gave consensus to purchase the display case.

c. Monthly Financial Report for the Month Ending July 31, 2020

Director of Finance Johnna Morris provided an overview of the Monthly Financial Report for period ending July 31, 2020. Ms. Morris summarized the Fund Evaluation Report for the General, Marina, Solid Waste, Golf Course, Sunrise Theatre, and Building and Code Funds.

11. CONSENT AGENDA

a. Approve request by the Fort Pierce Police Department to accept an award from the Department of Justice (DOJ) Community Oriented Policing Hiring Grant (COPS-HR) in the amount of $1,250,000.00 to hire 10 additional officers. The Department will modify the grant, once accepted, and utilize 50% of the original award to hire 5 officers. An email from the COPS Office is included explaining that the modification will be allowed.

b. Approve acceptance of the AARP Community Challenge Grant and Memorandum of Understanding in the amount of $10,000 to assist residents 55 years and older in obtaining access to laptop computers or tablets to assist in navigating online benefits and to provide socialization through the RICH (Resources In Community Hope) House in the Lincoln Park neighborhood specifically and beyond.

c. Approval of traffic equipment purchase from Econolite Group Inc. of Jacksonville, FL in the amount of $79,400.00.

d. Approve awarding the bid for Property & Casualty Insurance, RFP #2020-027, to the Florida League of Cities thru Florida Municipal Insurance Trust (FMIT) in the amount of $2,092,411.00 representing a savings of $183,276.00.

e. Approve award of Banking Services RFP #2020-005 to Center State Bank.

f. Approve of Florida Housing Finance Corporation Subrecipient Agreement to receive Coronavirus Relief Fund (CRF) allocation in the amount of $183,812.00.

Motion was made by Commissioner Reginald Sessions, seconded by Commissioner Jeremiah Johnson to approve items 11a, 11b, 11c, 11d, 11e and 11f.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

12. PUBLIC HEARINGS

Any Public Comment on these Public Hearing items, if not being offered in person, should be submitted by noon on the day of the meeting using the Sworn Public Comment Form which is available on the city's website at:
http://www.cityoffortpierce.com/DocumentCenter/View/8741/Sworn-Public-Comment-for-Public-Hearings

a. POSTPONED TO 9/21/2020 MEETING AT REQUEST OF APPLICANT. Quasi-Judicial Hearing - Review and approval of an application for Final Plat, submitted by Property Owner and Applicant, Lennar Homes, Inc., to subdivide approximately 23.32 acres of land for a portion of a Planned Unit Development lying in Section 7, Township 35 South, Range 40 East, City of Fort Pierce, St. Lucie County, Florida, being a replat of Tract "B-2," Bent Creek Master Plat, as recorded in Plat Book 47, Pages 9 through 14, Public Records of St. Lucie County, Florida. The property is zoned Planned Development (PD). Parcel ID: 2407-700-0026-000-2.

b. Legislative Hearing - Ordinance 20-020 Amending Chapter 2, Police Officers Retirement/Pension Funds making appropriate changes to the Plan in order to maintain the Plan's tax qualified status. FIRST READING

City Clerk Linda Cox introduced the ordinance, read by title only, into the record.

ORDINANCE NO. 20-020
AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF FORT PIERCE, FLORIDA CHAPTER 2, ADMINISTRATION, ARTICLE IV, OFFICERS AND EMPLOYEES, DIVISION 5, POLICE OFFICERS' RETIREMENT/PENSION FUNDS, SUBDIVISION II – POLICE OFFICERS' RETIREMENT TRUST FUND; BY AMENDING SECTION 2-383, ESTABLISHMENT, PURPOSE, EFFECTIVE DATE; AMENDING SECTION 2-393, REQUIRED DISTRIBUTIONS; AMENDING SECTION 2-397(d)(1), DEFERRED RETIREMENT OPTION PLAN; PROVIDING FOR SEVERABILITY; REPEALING ALL ORDINANCES OR PARTS THEREOF IN CONFLICT; PROVIDING FOR AN EFFECTIVE DATE. FIRST READING.

City Attorney Peter Sweeney indicated that the Ordinance is being put forward at the request of the 185 Board to keep in compliance with current laws.

Mayor Hudson opened the Public Hearing. Seeing no one, Mayor Hudson closed the Public Hearing.

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve Ordinance No. 20-020.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

c. Legislative Hearing - Ordinance 20-021 - extending the territorial limits of the City of Fort Pierce, to include a 1.50 acre unaddressed parcel abutting 3280 South 25th Street in Fort Pierce, Florida. SECOND READING

City Clerk Linda Cox introduced the ordinance, read by title only, into the record.

ORDINANCE NO. 20-021
AN ORDINANCE EXTENDING THE TERRITORIAL LIMITS OF THE CITY OF FORT PIERCE, FLORIDA, TO INCLUDE A 1.50 ACRE UNADDRESSED PARCEL ABUTTING 3280 SOUTH 25TH STREET IN FORT PIERCE, FLORIDA AND SHOWN ON EXHIBIT A; DIRECTING THE ST. LUCIE COUNTY PROPERTY APPRAISER TO ASSESS SAID PROPERTY AND PLACE IT ON THE CITY TAX ROLLS AS OF JANUARY 1, 2021; DIRECTING THE ST. LUCIE COUNTY TAX COLLECTOR TO COLLECT TAXES ON THE HEREIN DESCRIBED PROPERTY; ESTABLISHING THE ZONING DESIGNATION; ESTABLISHING THE LAND USE DESIGNATION; DIRECTING FILING OF THE ORDINANCE WITH THE CLERK OF THE CIRCUIT COURT AND CHIEF ADMINISTRATIVE OFFICER OF ST. LUCIE COUNTY; DIRECTING REVISION OF THE CHARTER BOUNDARY ARTICLE TO BE FILED WITH THE DEPARTMENT OF STATE AND SUBMITTED TO THE OFFICE OF ECONOMIC AND DEMOGRAPHIC RESEARCH; PROVIDING FOR A SEVERABILITY CLAUSE; REPEALING ALL ORDINANCES OR PARTS THEREOF IN CONFLICT HEREWITH; AND PROVIDING FOR AN EFFECTIVE DATE. SECOND READING.

Mayor Hudson opened the Public Hearing. Seeing no one, Mayor Hudson closed the Public Hearing.

Motion was made by Commissioner Jeremiah Johnson, seconded by Commissioner Reginald Sessions to approve Ordinance No. 20-021.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

d. Legislative Hearing - Ordinance 20-022 - Amending Chapter 103, Article IX, Section 103-343 - Clean and Safe Community Initiative. FIRST READING

City Clerk Linda Cox introduced the ordinance, read by title only, into the record.

ORDINANCE NO. 20-022
AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA AMENDING THE CODE OF ORDINANCES OF THE CITY OF FORT PIERCE, FLORIDA; AMENDING CHAPTER 103, ARTICLE IX, SECTION 103-343 “CLEAN AND SAFE COMMUNITY INITIATIVE”; PROVIDING FOR A SUNSET PROVISION; PROVIDING FOR A SEVERABILITY CLAUSE; REPEALING ALL ORDINANCES OR PARTS THEREOF IN CONFLICT; AND PROVIDING FOR AN EFFECTIVE DATE. FIRST READING

City Manager Nick Mimms introduced the proposed ordinance amendment for the Clean and Safe Community Initiative (CSI). This item was presented and discussed at a budget workshop by Code Compliance Manager Peggy Arriaz. Ms. Arriaz provided an overview of the CSI proposed Ordinance including the history, activities, revenue, and expenses and included before and after photos of projects completed by the City or property owners. The CSI program funds the abatement of unsafe structures and the abatement of nuisance conditions. Staff recommends approval of the Ordinance Amendment to provide for a change in the sunset date to September 30, 2023 to allow for the goals to be met. The proposed amendment includes three parts: Part 1 is text amendment; Part II itemizes items considered integral and do not need additional approval; and, Part III itemizes items considered peripheral and must receive City Commission approval.

Mayor Hudson opened the Public Hearing. Seeing no one, Mayor Hudson closed the Public Hearing.

Motion was made by Commissioner Rufus Alexander, Mayor Hudson passed the gavel to Commissioner Perona, and seconded the motion to approve Ordinance 20-022.

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AYE: Mayor Linda Hudson, Commissioner Rufus Alexander
NAY: Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions
Failed

Mayor Hudson reclaimed the gavel.

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Reginald Sessions to approve Ordinance 20-022 with the removal of Section III.

AYE: Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions
NAY: Mayor Linda Hudson, Commissioner Rufus Alexander
Passed

13. CITY COMMISSION

a. Resolution 20-R40 appointing members to the Police Community Advisory Board.

City Clerk Linda Cox introduced Resolution 20-R40, read by title only, into the record.

RESOLUTION NO. 20-R40
A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, CERTIFYING THE APPOINTMENT OF MEMBERS TO THE POLICE COMMUNITY ADVISORY COMMITTEE; AND PROVIDING FOR AN EFFECTIVE DATE.

Motion was made by Commissioner Reginald Sessions, seconded by Commissioner Thomas Perona to approve Resolution 20-R40 with the addition that Mr. Edwards remains on the Police Community Advisory Committee.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions
Passed

b. Resolution 20-R41 accepting returns for the August 18, 2020 primary election.

City Clerk Linda Cox introduced Resolution 20-R41, read by title only, into the record.

RESOLUTION NO. 20-R41
A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, ACCEPTING THE RETURNS OF THE PRIMARY ELECTION HELD ON AUGUST 18, 2020, AS PROVIDED BY THE COUNTY SUPERVISOR OF ELECTIONS; AND PROVIDING FOR AN EFFECTIVE DATE.

Motion was made by Commissioner Jeremiah Johnson, seconded by Commissioner Thomas Perona to approve Resolution 20-R41.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

c. Submittal of applications for consideration for appointment to the Fort Pierce Utilities Board filling an at-large position.

The Fort Pierce Utilities Board appointment of an at-large position will be revisited at the next City Commission Meeting. Commissioner Perona indicated that this is a very important appointment and suggested that the City consider doing in-person and public interviews much like what was done to hire the City Attorney. After discussion, consensus was that they would each rank their top three candidates at the September 14 special meeting, followed by in-person interviews of the top ranked 4 to 6 candidates then public interviews. Mr. Sweeney confirmed that the existing member serves until the seat is filled so we don't have to worry about going beyond the term expiration date of September 30.

d. Submittal of applications to serve on the Communitywide Council

The Communitywide Council board appointment will be revisited at the September 21, 2020 meeting.

e. Submittal of applications to fill a vacancy on the Board of Examiners of Contractors.

The Board of Examiners of Contractors board appointment will be revisited at the September 21, 2020 meeting.

14. COMMENTS FROM THE PUBLIC

Any person who wishes to comment on any subject may be heard at this time. Please limit your comments to three (3) minutes or less, as directed by the Mayor, as this section of the Agenda is limited to thirty minutes. The City Commission will not be able to take any official actions under Comments from the Public. Speakers will address the Mayor, Commissioners, and the Public with respect. Inappropriate language will not be tolerated.

Ipyana Abayomi
George Collins
Susan Parry

15. COMMENTS FROM THE CITY MANAGER

City Manager Nick Mimms addressed some issues raised by the public.

Regarding Moore's Creek, Mr. Mimms stated that an inspection will be made at Linear Park and if there is a need for improvement to the landscape maintenance or the maintenance of the banks it will be addressed. Regarding the Savannah Road RFP, that is scheduled for an update at the September 14, 2020 Conference Agenda meeting. The Citrus Avenue bridge project is ready to move forward with the construction starting in October. The construction will be an eight-month process and there will be lane closures with the possibility of temporary full closures. Bids went out today for re-surfacing. The bids are due the last week of September.

City Attorney Peter Sweeney had no updates.

City Clerk Linda Cox had no updates.

a. Reports

16. COMMENTS FROM THE COMMISSION

Commissioner Alexander is concerned that money is not being spent on improvements fairly city-wide.

Commissioner Perona saw an article on September 04, 2020 regarding Chuck's Seafood and the old Fire Station which may be potentially sold by the County. The County may be looking to build a combined use facility. The City of Fort Pierce should be able to participate because we will be dealing with the impact. Please take the pandemic seriously.

Commissioner Sessions appreciates Commissioner Perona sharing his experience with COVID-19 and would like to thank the City Manager and Fort Pierce Police Department for helping with the COVID-19 Allied Testing. Commissioner Sessions urges citizens to get tested and follow the medical recommendations. Commissioner Sessions would like the maintenance of Moore's Creek to be part of the regular City maintenance. Commissioner Sessions would like a workshop to follow up on his presentation regarding social issues.

Commissioner Johnson followed up on what Commissioner Sessions was discussing. The City Commission received an email from Kelly Lang of Alleghany who would like to coordinate a regional

community meeting. Commissioner Johnson thought that the social issues were to be discussed at a Conference Agenda which followed the presentation. Commissioner Johnson would support having a workshop to discuss the community social issues and the police department. Commissioner Johnson is also concerned with the litter around the city including Moore's Creek. Commissioner Johnson would like a discussion regarding making a positive change with Pinewood Park and addressing the homeless. Perhaps staff could investigate the history and historic value of this park.

Mayor Hudson gave an update that FPUA is working directly with every customer in jeopardy of having their power shut off. There will be a virtual ceremony in honor of 9/11 and feature the wreath laying at the Cee Cee Ross Lyles memorial statue.

City Manager Nick Mimms followed up with concerns raised and discussed by the Commissioners. Mr. Mimms will work with the Commissioners to identify three specific items to be discussed at a future workshop.

17. ADJOURNMENT

Immediately following adjournment, please move toward the doors and exit the chambers. This allows for the safe and courteous exit of all persons, and those on the dais. Conversations after the meeting should be held outside of chambers, in the foyer or elsewhere, but not in the commission chambers where lights will be out as soon as the chambers are empty.

Mayor Linda Hudson adjourned the meeting at **9:34 PM.**

ATTEST:

_____ _____

CITY CLERK MAYOR COMMISSIONER

MINUTES OF A REGULAR MEETING OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, HELD IN THE CITY HALL COMMISSION CHAMBERS, 100 NORTH U.S. #1, FORT PIERCE, FLORIDA, AT 5:05 P.M. ON MONDAY, **SEPTEMBER 14, 2020.**

1. CALL TO ORDER

Mayor Hudson called the meeting to order at 5:05 p.m.

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Present:	Mayor Linda Hudson; Commissioner Jeremiah Johnson; Commissioner Reginald Sessions
Absent:	Commissioner Rufus Alexander; Commissioner Thomas Perona
Staff Present:	City Clerk Linda Cox
	City Manager Nicholas Mimms
	City Attorney Peter Sweeney

4. COMMENTS FROM THE PUBLIC ON AGENDA ITEMS NOT REQUIRING PUBLIC HEARINGS

Any person who wishes to comment on an agenda item which is not under Public Hearings on the Agenda may be heard at this time and must sign up to speak in advance. Please limit your comments to three (3) minutes or less, as directed by the Mayor, as this section of the Agenda is limited to thirty minutes. The City Commission will not be able to take any official actions under Comments from the Public. Speakers will address the Mayor, Commissioners, and the Public with respect. Inappropriate language will not be tolerated.

There was no public comment.

5. NEW BUSINESS

a. Mayor to announce the tentative millage rate which is 6.9; the millage rate exceeds the roll-back rate (6.5210), by 5.81%.

Mayor Hudson announced the millage rate at 6.9 which exceeds the roll-back rate of 6.5210 by 5.81%.

b. Overview of the proposed budget - Johnna Morris, Finance Director

Ms. Johnna Morris, Finance Director, provided an overview of the City's Proposed FY2021 budget. The balanced budget is $43,323,874 which is a $893,902 increase from FY2020. The taxable property values within the City is $2,718,065,331 which is a 6.1% increase. Ms. Morris explained that because the Florida Constitution was amended in 1995, the increase of assessed value of homesteaded properties within the City is limited to 3% or the change in consumer price index, whichever is lower. In 2020, the CIP is 2.3%. Ms. Morris provided examples of the annual increase property owners will see based upon the increase in value.

Ms. Morris provided a slide showing a 13 year history taxable values, millage rate, amount of budget based upon taxable values, and the total budget. The slide shows that the taxable values in 2020/21 have not yet reached the taxable values from 2008/09. The budget has increased since that time, but we must remember that the costs of our contracts and everything we must purchase is substantially higher than it was in 2008. Additionally, we still have 60 fewer employees than we did in 2008.

While we are seeing an increase in ad valorem revenue, overall, we have decreased most other revenue categories based upon current conditions. We did maintain $600,000 in restricted revenue for capital expenditures. All departmental operating budgets have been reduce to mitigate the impact of the anticipated revenue losses. The budget does include $451,288 for sworn officers for their cost of living increases and placing them in their proper steps. There will be no cost of living increases for bargaining and non-bargaining employees. Nine existing positions were unfunded and the hiring freeze remains in place. There is a slight increase in the retirement contribution rate and health insurance, but dental insurance saw a decrease of 8%. We have $2,125,000 budgeted for capital projects and our debt service cost increased by $321,692 as a result of less interest and more principal being paid.

6. PUBLIC HEARING

a. Public Hearing on Tentative Millage Rate and Proposed 2020-21 General Fund Budget for the City of Fort Pierce

Mayor Hudson opened the public hearing on the proposed FY2020-21 General Fund Budget. Seeing no one, she closed the public hearing.

b. Consider any proposed amendments to the 2020-21 General Fund Budget

Commissioner Sessions indicated that he had talked with City Engineer, Jack Andrews, about a grant for the reconstruction of 13th Street which is estimated to cost $9 million dollars. In order to be eligible for consideration, the project must be shovel ready. According to his conversation with Mr. Andrews, we need approximately $90,000.00 for additional planning and design to bring the plans up to current code. After discussion, it was determined that an amendment to the budget was not necessary, and that transportation impact fee funds could be used to bring the plans up to current codes. All present agreed that allocating the $90,000 was a great idea and that Ms. Morris would earmark those funds accordingly.

c. Adopt the proposed Millage Rate and recompute if necessary. The proposed millage rate is 6.90.

Mayor Hudson indicated that since there were no amendments to the budget, there is no need to recompute the millage rate.

Motion was made by Commissioner Jeremiah Johnson, seconded by Commissioner Reginald Sessions to adopt the millage rate at 6.9.

AYE: Mayor Linda Hudson, Commissioner Jeremiah Johnson, Commissioner Reginald Sessions

Passed

d. Adoption of tentative 2020-21 General Fund Budget.

Motion was made by Commissioner Reginald Sessions, seconded by Commissioner Jeremiah Johnson to adopt the proposed FY2020-21 budget.

AYE: Mayor Linda Hudson, Commissioner Jeremiah Johnson, Commissioner Reginald Sessions

Passed

7. CITY COMMISSION

a. Ranking of applicants for consideration for appointment to the Fort Pierce Utilities Board filling an at-large position.

Because Commissioners Alexander and Perona were absent and this is a very important appointment, it was suggested that this matter be postponed.

Motion was made by Commissioner Jeremiah Johnson, seconded by Commissioner Reginald Sessions to postpone this item to September 21.

AYE: Mayor Linda Hudson, Commissioner Jeremiah Johnson, Commissioner Reginald Sessions

Passed

The Commissioner's present agreed that a future special meeting was acceptable in an effort to conduct interviews of the candidates.

8. COMMENTS FROM THE PUBLIC

Any person who wishes to comment on any subject may be heard at this time. Please limit your comments to three (3) minutes or less, as directed by the Mayor, as this section of the Agenda is limited to fifteen minutes. The City Commission will not be able to take any official actions under Comments from the Public. Speakers will address the Mayor, Commissioners, and the Public with respect. Inappropriate language will not be tolerated.

There were no comments.

9. ANNOUNCEMENT

9. ADJOURNMENT

Immediately following adjournment, please move toward the doors and exit the chambers. This allows for the safe and courteous exit of all persons, and those on the dais. Conversations after the meeting should be held outside of chambers, in the foyer or elsewhere, but not in the commission chambers where lights will be out as soon as the chambers are empty.

Mayor Hudson adjourned the meeting at 6:02 p.m.

a. The second public hearing and first reading of the budget ordinances will be held at a special meeting of the City Commission on Monday, September 21, 2020 at 5:05 p.m. in the City Commission Chambers, City Hall, 100 N US Highway 1, Fort Pierce, Florida. The Second Reading of the budget ordinances will be held on Monday, September 28, 2020 at 6:00 p.m.

ATTEST:

_____ _____

CITY CLERK MAYOR COMMISSIONER

MINUTES OF A REGULAR MEETING OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, HELD IN THE CITY HALL COMMISSION CHAMBERS, 100 NORTH U.S. #1, FORT PIERCE, FLORIDA, AT 4:30 P.M. ON MONDAY, SEPTEMBER, 21, 2020.

1. CALL TO ORDER

Mayor Hudson called the September 21, 2020 Regular Meeting of the City Commission to order at 4:30 PM.

2. OPENING PRAYER

3. PLEDGE OF ALLEGIANCE

4. ROLL CALL

Present: Mayor Linda Hudson; Commissioner Rufus Alexander; Commissioner Jeremiah Johnson; Commissioner Thomas Perona; Commissioner Reginald Sessions

Staff Present: City Clerk Linda Cox
City Manager Nicholas Mimms
City Attorney Peter Sweeney

Commissioner Sessions was present at 4:39 PM.
Commissioner Alexander was present by telephone at 4:57 PM.

5. APPROVAL OF MINUTES

a. Approval of the minutes from the September 14, 2020 Special Meeting.

Motion was made by Commissioner Jeremiah Johnson, seconded by Commissioner Thomas Perona to approve the minutes from the September 14, 2020 Special Meeting.

AYE: Mayor Linda Hudson, Commissioner Jeremiah Johnson, Commissioner Thomas Perona
Passed

6. **PROCLAMATIONS**

a. Manufacturing Awareness Month Proclamation being received by Economic Development Council of St. Lucie County

b. 211 HelpLine Proclamation being received by Karen Bailey of Help Me Grow.

7. **LETTERS TO COMMISSION**

8. **COMMENTS FROM THE PUBLIC ON AGENDA ITEMS NOT REQUIRING PUBLIC HEARINGS**

Any person who wishes to comment on an agenda item which is not under Public Hearings on the Agenda may be heard at this time and must sign up to speak in advance. Please limit your comments to three (3) minutes or less, as directed by the Mayor, as this section of the Agenda is limited to thirty minutes. The City Commission will not be able to take any official actions under Comments from the Public. Speakers will address the Mayor, Commissioners, and the Public with respect. Inappropriate language will not be tolerated.

9. **ADDITIONS OR DELETIONS TO AGENDA AND APPROVAL OF AGENDA**

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Reginald Sessions to approve and set the Agenda.

AYE: Mayor Linda Hudson, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions
Passed

10. MISCELLANEOUS REPORTS

11. CONSENT AGENDA

a. Approval of seven (7) Subordination of Utility Interest Agreements to the Florida Department of Transportation associated with the FDOT North Causeway Bridge Replacement which have been approved by the Fort Pierce Utilities Authority.

b. Approval of Amendment to Developer's Agreement with Lennar Homes for the Bent Creek Subdivision.

c. Approve award of RFP No. 2020-037 - Lot Clearing to Mow 4 Less Lawn Care LLC and Gone Fishing Landscaping & More LLC for a contract to expire on September 30, 2021, with two one-year renewal options in the amount of $125,000.00 each per year.

d. Approve award of RFP No. 2020-036 - Nuisance Abatement to Mow 4 Less Lawn Care LLC and Gone Fishing Landscaping & More LLC for a contract to expire on September 30, 2021, with two one-year renewal options in the amount of $25,000 each per year.

e. Approval of Blanket Purchase Orders for the Public Works Department for Fiscal Year 2020-2021 to ensure efficient maintenance, service and repair of all City owned facilities, amenities and equipment, in the total budgeted amount of $3,658,139.42.

f. Approval of request to reduce Code Enforcement lien in the amount of $5,300.00 against 613 Emil Dr., Ft. Pierce, FL 34982 - Parcel ID Number 2422-602-0179-000-5 owned by David Smart, 613 Emil Dr., Ft. Pierce, FL 34982. Staff recommends the approval to waive $4,800.00 leaving a balance due of $500.00 payable in 10 months. However, applicant is requesting a waiver of all fines in the amount $5,300.00 leaving a balance of $.00 to be paid, which requires a direct vote by Commission.

g. Approve request to reduce the Building Department lien in the amount of $23,800.00 against 2911 Okeechobee Road, Fort Pierce, FL 34950 - Parcel ID Number: 2417-506-0018-000/8, owned by ID 2911 LLC, 18651 SW 39th Street, Pembroke Pines, FL 33029 to $2,000.00 payable in 6 months.

h. Approve request to reduce the Building Department lien in the amount of $50,300.00 against 1017 N 16th Street, Fort Pierce, FL 34950 - Parcel ID Number: 2404-811-1101-000/9, owned by Jean & Melicia Eloizin, 3400 Ave Villandry, Delray Beach, FL 33445, to $1,822.74 payable in 6 months.

i. Approval of a purchase order not to exceed $82,500.00 for the emergency repair of the Police Department's door control and security system.

Motion was made by Commissioner Reginald Sessions, seconded by Commissioner Thomas Perona to approve items 11a, 11b, 11c, 11d, 11e, 11f, 11g, 11h, 11i.

AYE: Mayor Linda Hudson, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

12. PUBLIC HEARINGS

Any Public Comment on these Public Hearing items, if not being offered in person, should be submitted by noon on the day of the meeting using the Sworn Public Comment Form which is available on the city's website at:
http://www.cityoffortpierce.com/DocumentCenter/View/8741/Sworn-Public-Comment-for-Public-Hearings

a. CONTINUED FROM 9/8/2020 MEETING AT REQUEST OF APPLICANT. Quasi-Judicial Hearing - Review and approval of an application for Final Plat, submitted by Property Owner and Applicant, Lennar Homes, Inc., to subdivide approximately 23.32 acres of land for a portion of a Planned Unit Development lying in Section 7, Township 35 South, Range 40 East, City of Fort Pierce, St. Lucie County, Florida, being a replat of Tract "B-2," Bent Creek Master Plat, as recorded in Plat Book 47, Pages 9 through 14, Public Records of St. Lucie County, Florida. The property is zoned Planned Development (PD). Parcel ID: 2407-700-0026-000-2.

City Clerk Linda Cox introduced the Application for Final Plat, continued from the September 08, 2020 Regular Meeting, submitted by Property Owner and Applicant, Lennar Homes, Inc., to subdivide approximately 23.32 acres of land for a portion of a Planned Unit Development.

Mayor Linda Hudson asked all present to listen carefully to what City Attorney Peter Sweeney would read regarding Quasi-Judicial Hearings as they apply to all subsequent Quasi-Judicial Hearings tonight.

Before commencing this Quasi-Judicial Hearing, Peter Sweeney, City Attorney, reminded the City Commission that they serve in both a legislative and quasi-judicial role. When acting as a legislative body, the commission engages in law-making activity by passing laws and establishing policies. When acting as a quasi-judicial body, the commission applies those laws and policies and is held to stricter procedural requirements.

Quasi-judicial proceedings are less formal than proceedings before a circuit court but are more formal than the normal commission meeting. Quasi-judicial proceedings must follow basic standards of notice and due process; and decisions must be made based on competent substantial evidence.

Therefore, Commissioners have a duty to conduct the quasi-judicial proceedings more like judges than legislators. That is why the commission has established the uniform procedures for quasi-judicial hearings that will be followed this evening.

Mayor Linda Hudson called the proceeding to order.

City Clerk Linda Cox confirmed the City complied with advertisement and notice requirements.

Mayor Linda Hudson inquired with the Commission regarding ex-parte communications and asked City Clerk to call the roll:

Commissioner Johnson - yes.
Commissioner Perona - yes.
Commissioner Sessions - none.
Mayor Hudson – none.

Mayor Linda Hudson opened the public hearing.

City Clerk Linda Cox was asked to swear in those wanting to speak during this Quasi-Judicial hearing. Individuals in the audience intending to speak on this item were asked to stand, raise their right hand, and administered an oath to tell the truth, the whole truth and nothing but the truth. Those that were sworn in were asked to clearly state their name for the record and confirm they were sworn in at such time as they were asked to come forward to testify.

Staff presentation:
Planner Vennis Gilmore, sworn, provided an overview of the proposed application for Final Plat. The subject property has a Future Land Use of Medium Density Residential, and has a Zoning designation of PD, Planned Development. The subdivision comprises a total of one (1) parcel with approximately 23.32 acres and will be subdivided into a total of one hundred and twenty-one (121) separate parcels. Each lot will meet the minimum lot width, depth, and area requirements specified by original St. Lucie County Site Plan Approval of the Planned Development. Staff recommends approval subject to two conditions:

1. Prior to final plat approval the appropriate bonding mechanism must be in place ensuring construction completion of all outstanding infrastructure (sidewalks, roadways, drainage, utilities, curb, striping, etc.); for specific information please refer to the City of Fort Pierce Code of Ordinances Section 121-12; and

2. The applicant will supply two (2) Mylars for appropriate signatures and then the plat is recorded with St. Lucie County Clerk of Courts in accordance with Florida State Statute 177.111.

The proposed project is consistent with the Comprehensive Plan. The Planning Board recommends approval of the Final Plat.

Commission questions for Staff: None.

Applicant questions for Staff: None.

Applicant presentation: Mr. Brian Nolan, Applicant Representative, sworn was present. Mr. Nolan confirmed that the bond requirement has been met. Mr. Nolan is available to answer questions.

Commission questions for Applicant: None.

Public comment: None

Mayor Hudson closed the public hearing.

Comments by the City Commission: None

Motion was made by Commissioner Reginald Sessions, seconded by Commissioner Thomas Perona to approve Item 12a with staff conditions.

AYE: Mayor Linda Hudson, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

b. Quasi-Judicial Hearing - Application for Site Plan and Design Review submitted by property owner, St. Lucie County and Representative Blue Sky Communities, to construct a 164 unit multi-family development on a property located on the west side of McNeil Road approximately 1,000 feet northwest of Okeechobee Road in Fort Pierce, FL. The property is zoned High Density Residential (R-5). Parcel ID: 2419-211-0004-000-8.

City Clerk Linda Cox introduced the Application for Site Plan and Design Review submitted by property owner, St. Lucie County and Representative Blue Sky Communities, to construct a 164 unit multi-family development on a property located on the west side of McNeil Road approximately 1,000 feet northwest of Okeechobee Road in Fort Pierce, FL.

Mayor Hudson called the public hearing to order and reminded the Commission and Public that this proceeding is a Quasi-Judicial Hearing and that City Attorney Peter Sweeney has read the legal requirements into the record.

City Clerk Linda Cox confirmed the City complied with advertisement and notice requirements.

Mayor Linda Hudson inquired with the Commission regarding ex-parte communications and asked City Clerk to call the roll:

Commissioner Johnson - yes.
Commissioner Perona - none.
Commissioner Sessions - none.
Mayor Hudson – none.

Mayor Linda Hudson opened the public hearing.

City Clerk Linda Cox was asked to swear in those wanting to speak during this Quasi-Judicial hearing. Individuals in the audience intending to speak on this item were asked to stand, raise their right hand, and administered an oath to tell the truth, the whole truth and nothing but the truth. Those that were sworn in were asked to clearly state their name for the record and confirm they were sworn in at such time as they were asked to come forward to testify.

Staff Presentation
Brandon Creagan, Planner, sworn, provided an overview of the proposed Application for Site Plan and Design Review for the construction and operation of a multi-family development with 164 units. Mr. Creagan provided maps to further describe the property including a Site Map, Future Land Use Map and Zoning Map. The application is consistent with the City Code and Comprehensive Plan; does not adversely affect the public health, safety, convenience, or general welfare of the public. The site will be developed in two phases. Planning Board recommends approval.

Staff recommends approval subject to two conditions:

1. A Landscape Bond will need to be provided at the time of Certificate of Occupancy for each building pursuant to City Code 123-6. The Landscape Bond for the common areas, clubhouse, lakes, & parking areas shall be submitted before the Certificate of Occupancy is issued for the first building in each phase.

2. At the time of Building Permit submit a signed and sealed boundary and topographic survey to the City Engineering Department in accordance with City Code 119-2 (a)(7).

Commission questions for Staff:
Commissioner Perona inquired about vehicular access. Mr. Creagan confirmed that there is currently one access to the development on McNeil Road. Commissioner Johnson inquired about a pedestrian crosswalk to the commercial property near Walmart. Mr. Creagan suggested the Applicant, who is familiar with the agreement, address this question. Commissioner Johnson inquired about gated access. Mr. Creagan stated that the vehicular access will not be gated, but the pedestrian access to Walmart will be gated.

Applicant questions for Staff: None

Applicant presentation:
Attorney Robert Schwerer, Local Counsel for Blue Sky Communities, Applicant Representative, sworn, was present and thanked Staff for their diligent work. The two conditions recommended by Staff have been accepted by the Applicant.

Mr. Jarrod Purser, Planner at WGI, sworn was present stated that the crosswalk will be discussed with Walmart and will be addressed at permitting.

Commission questions for Applicant: None

Public comment: None

Mayor Hudson, seeing no one else, closed the public hearing.

Comments by the City Commission: None

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve Item 12b with staff conditions.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

c. Quasi-Judicial Hearing - Application for Conditional Use with No New Construction submitted by Property Owner and Applicant, Augustus B. Fort Jr., to operate a Vacation Rental, offering lodging for a minimum rental period identified as two days on a property located at 715 S. Ocean Drive, Unit F in Fort Pierce, FL. The property is zoned Hutchinson Island Medium Density Residential (R-4A).
Parcel ID: 2401-504-0006-000-6

City Clerk Linda Cox introduced the Application for Conditional Use with No New Construction submitted by Property Owner and Applicant, Augustus B. Fort Jr., to operate a Vacation Rental, offering lodging for a minimum rental period identified as two (2) days on a property located at 715 S. Ocean Drive, Unit F in Fort Pierce, FL.

Mayor Hudson called the public hearing to order and reminded the Commission and Public that this proceeding is a Quasi-Judicial Hearing and that City Attorney Peter Sweeney has read the legal requirements into the record.

City Clerk Linda Cox confirmed the City complied with advertisement and notice requirements.

Mayor Linda Hudson inquired with the Commission regarding ex-parte communications and asked City Clerk to call the roll:

Commissioner Alexander - none.
Commissioner Johnson - none.
Commissioner Perona - yes.
Commissioner Sessions - yes.
Mayor Hudson – none.

Mayor Linda Hudson opened the public hearing.

City Clerk Linda Cox was asked to swear in those wanting to speak during this Quasi-Judicial hearing. Individuals in the audience intending to speak on this item were asked to stand, raise their right hand, and administered an oath to tell the truth, the whole truth and nothing but the truth. Those that were sworn in were asked to clearly state their name for the record and confirm they were sworn in at such time as they were asked to come forward to testify.

Staff Presentation
Planning Director Jennifer Hofmeister, sworn, provided an overview of the Application for Conditional Use with No New Construction to operate a vacation rental. Ms. Hofmeister present maps to further identify the property including an Aerial Map, Future Land Use Map, and Zoning Map. Planning Board has recommended approval.

Staff recommends approval subject to five (5) conditions:

1. The property manager for the vacation rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.

2. Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.

3. The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.

4. There shall be a limitation of no more than no two (2) vehicles per unit.

5. The City of Fort Pierce Business Tax License number shall be included on all advertising.

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson **to recess and reconvene following a Special Meeting of the City Commission.**

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

Mayor Hudson reconvened the Regular Meeting of the City Commissioner at 5:19 PM.

Commission questions for Staff: None

Applicant questions for Staff: None

Applicant presentation:
Applicant Gus Fort, sworn, was present and available to answer any questions.

Commission questions for Applicant: None

Public comment:
Tiffany Wright Ofeimu submitted a letter of support which was read into the record by the City Clerk.

Mayor Hudson, seeing no one else, closed the public hearing.

Comments by the City Commission: None

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve Item 12c with staff conditions.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

d. Quasi-Judicial Hearing - Ordinance 20-025 **REZONING** THE PROPERTY GENERALLY LOCATED AT OR NEAR **10050 WEST MIDWAY ROAD**, FROM AG-2.5, AGRICULTURAL, 1 DU/2.5 AC (SAINT LUCIE COUNTY ZONING) TO PLANNED DEVELOPMENT (PD); PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT HEREWITH; AND PROVIDING FOR AN EFFECTIVE DATE. FIRST READING

City Clerk Linda Cox introduced the Ordinance read by title only into the record

ORDINANCE NO. 20-025
AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA; REZONING THE PROPERTY GENERALLY LOCATED AT OR NEAR 10050 WEST MIDWAY ROAD, FROM AG-2.5, AGRICULTURAL, 1 DU/2.5 AC (SAINT LUCIE COUNTY ZONING) TO PLANNED DEVELOPMENT (PD); PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT HEREWITH; AND PROVIDING FOR AN EFFECTIVE DATE FIRST READING

Mayor Hudson called the public hearing to order and reminded the Commission and Public that this proceeding is a Quasi-Judicial Hearing and that City Attorney Peter Sweeney has read the legal requirements into the record.

City Clerk Linda Cox confirmed the City complied with advertisement and notice requirements.

Mayor Linda Hudson inquired with the Commission regarding ex-parte communications and asked City Clerk to call the roll:

Commissioner Alexander - yes.
Commissioner Johnson - none.
Commissioner Perona - none.
Commissioner Sessions - yes.
Mayor Hudson – yes.

Mayor Linda Hudson opened the public hearing.

City Clerk Linda Cox was asked to swear in those wanting to speak during this Quasi-Judicial hearing. Individuals in the audience intending to speak on this item were asked to stand, raise their right hand, and administered an oath to tell the truth, the whole truth and nothing but the truth. Those that were sworn in were asked to clearly state their name for the record and confirm they were sworn in at such time as they were asked to come forward to testify.

Staff Presentation
Planner Vennis Gilmore, sworn, provided an overview of Ordinance 20-025 for the rezoning of property located at or near 10050 West Midway Road from Agricultural (AG) to Planned Development (PD). Mr. Gilmore presented maps to further describe the property including a Site Map, Future Land Use Map and Zoning Maps. Planning Board has recommended approval of this Ordinance. Staff recommends approval of the Zoning Atlas Map Amendment

Commission questions for Staff: None.

Applicant questions for Staff: None

Applicant presentation:
Attorney Lee Dobbins, Applicant Representative, sworn, was present via telephone. Attorney Dobbins expressed his thanks to Staff for their diligent work. Attorney Dobbins provided background information on the proposed project and State of Florida Legislative changes that were made to allow a Wave Garden Surf Park to be constructed.

Mr. Jeff Fitzgerald, Engineer from Bohler, Applicant Representative, sworn was present and provided a power point and short film presentation of the proposed project.

Mr. Chad Lavonte, Developer, sworn was present.

Commission questions for Applicant:
Mayor Hudson inquired about water treatment. Mr. Fitzgerald stated that the water is recirculated and it is treated similarly to a swimming pool; however, the constant water movement promotes better water quality.

Commissioner Perona inquired how the developer chose Fort Pierce as its destination. Mr. Lavonte stated that they have owned this property since 2004.

Pete Tesch, President of the Economic Development Council for St. Lucie County, sworn, was present. The St. Lucie County EDC approves this project.

Public comment: None

Mayor Hudson, seeing no one, closed the public hearing.

Comments by the City Commission:
Commissioner Alexander welcomed the Applicants and Developers to the City of Fort Pierce.

Motion was made by Commissioner Rufus Alexander, seconded by Commissioner Reginald Sessions to approve Item 12d.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

e. **Legislative Hearing - ORDINANCE 20-023** AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA; **AMENDING THE FUTURE LAND USE MAP OF THE COMPREHENSIVE PLAN TO CHANGE THE DESIGNATION OF PROPERTY GENERALLY LOCATED AT OR NEAR 3000 OKEECHOBEE ROAD, FROM GENERAL COMMERCIAL, GC, TO MEDIUM DENSITY RESIDENTIAL, RM;** PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; PROVIDING FOR AN EFFECTIVE DATE. FIRST READING

City Clerk Linda Cox introduced the ordinance, read by title only, into the record.

ORDINANCE NO. 20-023
AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA; AMENDING THE FUTURE LAND USE MAP OF THE COMPREHENSIVE PLAN TO CHANGE THE DESIGNATION OF PROPERTY GENERALLY LOCATED AT OR NEAR 3000 OKEECHOBEE ROAD, FROM GENERAL COMMERCIAL, GC, TO MEDIUM DENSITY RESIDENTIAL, RM; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; PROVIDING FOR AN EFFECTIVE DATE. FIRST READING

Planner Vennis Gilmore provided an overview of the proposed Ordinance. Mr. Gilmore presented slides to further identify the property including an Aerial Map, current and proposed Future Land Use Maps. Planning Board recommended approval. Staff recommends approval of the proposed Amendment.

Mayor Hudson opened the Public Hearing.

Mr. Michael Sanchez of Managed Land Entitlements representing the property owner was present and available to answer any questions.

Seeing no one else, Mayor Hudson closed the Public Hearing

Mayor Hudson opened the Public Hearing. Seeing no one, Mayor Hudson closed the Public Hearing.

Motion was made by Commissioner Rufus Alexander, seconded by Commissioner Jeremiah Johnson to approve Ordinance 20-023.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

f. Quasi-Judicial Hearing - Ordinance 20-024 REZONING THE PROPERTY GENERALLY LOCATED AT OR NEAR **3000 OKEECHOBEE ROAD**, FROM C-3, GENERAL COMMERCIAL ZONE, TO R-4, MEDIUM DENSITY RESIDENTIAL ZONE; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; AND PROVIDING FOR AN EFFECTIVE DATE. FIRST READING

City Clerk Linda Cox introduced the ordinance, read by title only into the record.

ORDINANCE NO. 20-024
AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA; REZONING THE PROPERTY GENERALLY LOCATED AT OR NEAR 3000 OKEECHOBEE ROAD, FROM C-3, GENERAL COMMERCIAL ZONE, TO R-4, MEDIUM DENSITY RESIDENTIAL ZONE; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; AND PROVIDING FOR AN EFFECTIVE DATE. FIRST READING

Mayor Hudson called the public hearing to order and reminded the Commission and Public that this proceeding is a Quasi-Judicial Hearing and that City Attorney Peter Sweeney has read the legal requirements into the record.

City Clerk Linda Cox confirmed the City complied with advertisement and notice requirements.

Mayor Linda Hudson inquired with the Commission regarding ex-parte communications and asked City Clerk to call the roll:

Commissioner Alexander - none.
Commissioner Johnson - none.
Commissioner Perona - none.
Commissioner Sessions - none.
Mayor Hudson – none.

Mayor Linda Hudson opened the public hearing.

City Clerk Linda Cox was asked to swear in those wanting to speak during this Quasi-Judicial hearing. Individuals in the audience intending to speak on this item were asked to stand, raise their right hand, and administered an oath to tell the truth, the whole truth and nothing but the truth. Those that were sworn in were asked to clearly state their name for the record and confirm they were sworn in at such time as they were asked to come forward to testify.

Staff Presentation
Planner Vennis Gilmore, sworn, provided an overview of the proposed ordinance for the rezoning of property located at or near 3000 Okeechobee Road. Mr. Gilmore presented maps to further describe the property including a Site Map, Existing Future Land Use Map and proposed Zoning Map. The requested Application for Zoning Atlas Map Amendment meets the criteria specified in Section 125-136 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience, and general welfare. Planning Board recommended approval.

Staff recommends approval of the request to change the Zoning Designation from General Commercial (C-3) to Medium Density Residential (R-4).

Commission questions for Staff: None

Applicant questions for Staff: None

Applicant presentation: None

Commission questions for Applicant: None

Public comment: None

Mayor Hudson, seeing no one, closed the public hearing.

Comments by the City Commission: None

Motion was made by Commissioner Rufus Alexander, seconded by Commissioner Jeremiah Johnson to approve Ordinance 20-024.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

g. POSTPONED TO OCT. 5, 2020 - Quasi-Judicial Hearing - Application for Site Plan, Design Review, and Conditional Use submitted by Property Owner, Arrow Investment Group, LLC and Representative, Michael Sanchez of Managed Land Entitlements, to construct a 112 unit Innovative Residential Multi-Family Development on a property located at 3000 Okeechobee Road in Fort Pierce, FL. The property is currently zoned General Commercial (C-3). There is an active rezoning application by the applicant to rezone the property to Medium Density Residential (R-4). Parcel ID: 2417-504-0020-001-6

Motion was made by Commissioner Rufus Alexander, seconded by Commissioner Jeremiah Johnson to postpone this item until October 05, 2020.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

h. Legislative Hearing - Ordinance 20-020 Amending Chapter 2, Police Officers Retirement/Pension Funds making appropriate changes to the Plan in order to maintain the Plan's tax qualified status. SECOND READING

City Clerk Linda Cox introduced the ordinance, read by title only, into the record.

ORDINANCE NO. 20-020
AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF FORT PIERCE, FLORIDA CHAPTER 2, ADMINISTRATION, ARTICLE IV, OFFICERS AND EMPLOYEES, DIVISION 5, POLICE OFFICERS' RETIREMENT/PENSION FUNDS, SUBDIVISION II – POLICE OFFICERS' RETIREMENT TRUST FUND; BY AMENDING SECTION 2-383, ESTABLISHMENT, PURPOSE, EFFECTIVE DATE; AMENDING SECTION 2-393, REQUIRED DISTRIBUTIONS; AMENDING SECTION

2-397(d)(1), DEFERRED RETIREMENT OPTION PLAN; PROVIDING FOR SEVERABILITY; REPEALING ALL ORDINANCES OR PARTS THEREOF IN CONFLICT; PROVIDING FOR AN EFFECTIVE DATE. SECOND READING

Mayor Hudson opened the Public Hearing. Seeing no one, Mayor Hudson closed the Public Hearing.

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve Ordinance 20-020.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

i. Legislative Hearing - Ordinance 20-022 - Amending Chapter 103, Article IX, Section 103-343 - Clean and Safe Community Initiative. SECOND READING

City Clerk Linda Cox introduced the ordinance, read by title only, into the record.

ORDINANCE NO. 20-022
AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA AMENDING THE CODE OF ORDINANCES OF THE CITY OF FORT PIERCE, FLORIDA; AMENDING CHAPTER 103, ARTICLE IX, SECTION 103-343 “CLEAN AND SAFE COMMUNITY INITIATIVE”; PROVIDING FOR A SUNSET PROVISION; PROVIDING FOR A SEVERABILITY CLAUSE; REPEALING ALL ORDINANCES OR PARTS THEREOF IN CONFLICT; AND PROVIDING FOR AN EFFECTIVE DATE. SECOND READING

Mayor Hudson opened the Public Hearing. Seeing no one, Mayor Hudson closed the Public Hearing.

Code Compliance Peggy Arriaz was present. Ms. Arriaz reported that the changes requested by the City Commission were incorporated into the final draft of the Clean and Safe Community Initiative.

Motion was made by Commissioner Jeremiah Johnson, seconded by Commissioner Rufus Alexander to approve Ordinance 20-022.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

13. CITY COMMISSION

a. Ranking of applicants for consideration for appointment to the Fort Pierce Utilities Board filling an at-large position.

The term of Mr. Daryl Bey expires on 9/30/2020. Based upon the Charter Review Committees recommendations which are accepted by the City Commission via Resolution 18-R23, the City Commission as a whole would appoint the FPUA Board Members utilizing a point system for votes based upon the order in which the City Commission ranks their choices based upon applications received. These seats shall be referred to as FPUA At-Large Seats. (Terms which shall begin October 1, 2020 and October 1, 2021). Eligible applicants must be a qualified elector of the City of Fort Pierce and live within city limits and have no business relationship with FPUA.

Commissioner Alexander – Jannifer Lee, Nichelle Clemons, Jamiebeth Galinis
Commissioner Johnson – Kristina Gibbons, Luca Fontaine Bradley, Stephen Enns
Commissioner Perona – Stephen Ennis, Jamiebeth Galinis, Luca Fontaine Bradley
Commissioner Sessions – Jannifer Lee, Robert Poitier, Nicelle Clemons
Mayor Hudson – Kristina Gibbons, Stephen Enns, Jaimebeth Galinis

The following candidates will move forward in the selection process based upon the weighted point vote:
Nichelle Clemons
Stephen Enns
Luca Fontaine Bradley
Jamiebeth Galinis
Kristina Gibbons
Jannifer Lee

b. Request from Barbara Moore to rename 29th Street to Fannie Darden presented by Commissioner Alexander

Ms. Barbara Moore, granddaughter of Fannie Darden has requested to rename 29th Street between Avenue Q and Orange Avenue to Fannie Darden. Ms. Darden will be 101 years old this year and has been an integral part of this neighborhood and this would be a great honor.

The City Commission unanimously agreed to proceed with the process to rename 29th Street to Fannie Darden.

c. Resolution 20-R42 declaring certain real property as surplus and authorizing staff to dispose of said property.

City Clerk Linda Cox introduced the Resolution, read by title only, into the record.

RESOLUTION NO. 20-R42
A RESOLUTION DECLARING CERTAIN PROPERTIES OWNED BY CITY OF FORT PIERCE TO BE SURPLUS TO CITY OF FORT PIERCE NEEDS, DESCRIBED AS 1207 AVENUE L, LOTS 48 AND 50 OF MARAVILLA S/D ON CORTEZ BLVD., LOT 1 AND ½ OF LOT 2 OF RICHARD'S S/D ON S 11TH STREET; AND LOTS 4 AND 17 OF FEE AND MAY`S RE-S/D BLK K ON AVENUE E, AND AUTHORIZING CITY STAFF TO DISPOSE OF SAID PROPERTY IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE I, SECTION 13 OF CITY OF FORT PIERCE CHARTER; AND PROVIDING FOR AN EFFECTIVE DATE.

City Manager Nick Mimms provided an overview of this proposed Resolution to declare certain properties which do not have a designated use or future use as surplus which will help to spur development and neighborhood sustainability.

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve Resolution 20-R42.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

d. Resolution 20-R43 determining that the structure located at 1311 Avenue E is unsafe, has been condemned in accordance with the International Property Maintenance Code as adopted by the City Commission and should be demolished. A hearing to determine this matter is scheduled before the City Commission on October 5, 2020.

City Clerk Linda Cox introduced the Resolution, read by title only, into the record.

RESOLUTION NO. 20-R43
A RESOLUTION DETERMINING THAT A CERTAIN BUILDING OR STRUCTURE LOCATED AT 1311 AVENUE E IN FORT PIERCE, FLORIDA, 34950 IS UNSAFE AND A NUISANCE THAT CONSTITUTES A MENACE TO THE BUSINESS, HEALTH AND SAFETY OF THE COMMUNITY; AND THAT ALL PARTIES OF INTEREST MUST SHOW CAUSE WHY THE STRUCTURE SHOULD NOT BE DEMOLISHED IN ACCORDANCE WITH THE CODE OF ORDINANCES OF THE CITY OF FORT PIERCE; AND NOTIFYING ALL PARTIES OF POTENTIAL ACTION BY THE CITY OF FORT PIERCE FOR FAILURE TO ACT; AND THAT A PUBLIC HEARING BE HELD AT THE REGULARLY SCHEDULED CITY COMMISSION MEETING ON OCTOBER 5, 2020 AT 6:00 PM, IN THE CITY COMMISSION CHAMBERS LOCATED AT 100 NORTH US HIGHWAY 1, FORT PIERCE, FLORIDA; AND PROVIDING FOR NOTICE TO ALL PARTIES.

Motion was made by Commissioner Jeremiah Johnson, seconded by Commissioner Reginald Sessions to approve Resolution 20-R43.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

e. Resolution 20-R44 Appointing members to the Communitywide Council

City Clerk Linda Cox introduced the Resolution, read by title only, into the record.

RESOLUTION NO. 20-R44
A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, CERTIFYING THE APPOINTMENT AND REAPPOINTMENT OF MEMBERS TO THE COMMUNITYWIDE COUNCIL; PROVIDING FOR AN EFFECTIVE DATE.

WYATT HAYES – AT LARGE
VOTE FOR TARGET AREA

Ballots were distributed to the City Commission for a vote.

Commissioner Alexander – Charles Bryant – Target
Commissioner Johnson – Charles Bryant – Target
Commissioner Perona – Charles Bryant – Target
Commissioner Sessions – Charles Bryant – Target
Mayor Hudson – Charles Bryant – Target

Motion was made by Commissioner Reginald Sessions, seconded by Commissioner Thomas Perona to approve Resolution 20-R44 and appoint Charles Bryant for the Target Area, and reappoint Wyatt Hayes for the At Large positions on the Communitywide Council.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

f. Resolution 20-R45 appointing a member to the Board of Examiners of Contractors.

City Clerk Linda Cox introduced the Resolution, read by title only, into the record.

RESOLUTION NO. 20-R45
A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, CERTIFYING THE APPOINTMENT OF MEMBERS TO THE BOARD OF EXAMINERS OF CONTRACTORS; PROVIDING FOR AN EFFECTIVE DATE.

Commissioner Alexander – Jason Harris
Commissioner Johnson – Brandon Nobile
Commissioner Perona – Brandon Nobile
Commissioner Sessions – Brandon Nobile
Mayor Hudson – Brandon Nobile.

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve Resolution 20-R45 and appoint Brandon Nobile to the Board of Examiners of Contractors.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

14. COMMENTS FROM THE PUBLIC

Any person who wishes to comment on any subject may be heard at this time. Please limit your comments to three (3) minutes or less, as directed by the Mayor, as this section of the Agenda is limited to thirty minutes. The City Commission will not be able to take any official actions under Comments from the Public. Speakers will address the Mayor, Commissioners, and the Public with respect. Inappropriate language will not be tolerated.

Pamela Carithers
Marie Bevelous

15. COMMENTS FROM THE CITY MANAGER

City Manager Nick Mimms provided an update on the appeal for the Melody Lane funding from FEMA. The City of Fort Pierce has applied to St. Lucie County for CARES Act reimbursement for all of the COVID-19 expenditures. St. Lucie County administrative staff was contacted regarding 822 and 880 Seaway Drive which is Chuck's Restaurant and the old Fire Station. County staff has indicated that they have concept designs only and there has been no movement to dispose of the property or to change the lease nor have they received approval from the St. Lucie County Fire Board to move forward with the disposition of that parcel. Fisherman's Warf bid has opened and six bids were received. Residential development is strong. There will be a Community Input meeting at the Percy Peek Gym on September 25, 2020. There will be limited attendance due to the pandemic.
Mr. Mimms spoke with Mr. Lyle Sumek who suggested incorporating community input and input from the City Commission then having a formal workshop with specific action items that we can move forward with measurable goals and achievements.

City Attorney Peter Sweeney clarified that there are no outstanding items on the current agenda to carry forward to September 28, 2020. The Special Budget meeting will go forward on September 28, 2020 at 6:00 PM for the second reading on the Budget.

16. COMMENTS FROM THE COMMISSION

Commissioner Alexander does not like the time of the 4:30 PM meeting. Council on Aging is struggling. Commissioner Alexander is worried about people struggling with higher taxes. Mr. Mimms explained that the millage rate is 6.9000 which has remained constant for several years and has not changed. Property values have increased which causes the taxes to go up, so it is considered a tax increase. Commissioner Sessions stated it is a benefit to the property owner that the values are going up.

Commissioner Perona is excited about today's agenda with all the developments and the destination attraction proposal that is happening. We need to pay attention to our entryways and the beautification. Waterfront connectivity is important when looking at the future sale of the Seaway properties and keeping that open for the public.

Commissioner Sessions The value of the property on the waterfront in increasing substantially. It is a valuable asset and urges property owners to not give up. The crime rate in the City of Fort Pierce is not really decreasing, but the incidents are being reported and recorded differently. Crimes are being reported as incidents because of lack of evidence. Crimes should not be downplayed as just an incident. There appears to be a strong movement to change past discriminatory practices regarding people of color. Businesses like TC Palm should be eliminated as a vendor of the City if they do not address their

discriminatory hiring practices and lack of diversity.

Commissioner Perona commented that he would like more information on how the information from the police department is collected and reported. Mr. Mimms will arrange for a presentation at a Conference Agenda meeting on how the crime statistics are gathered and reported.

Commissioner Johnson supports learning about how statistics are done and how the data is collected and reported. Commissioner Johnson wants all Commissioners personal and City emails blocked from each other so there is absolutely no chance of a Sunshine Law violation.

Commissioner Sessions has requested the City Attorney look into any possible violation of civil rights by having the decorum screen displayed on the video during the public comment.

Mayor Hudson stated that the decorum slide was her idea; people have a right to be heard, not seen. Mayor Hudson is also excited about the developments that came before the City Commission tonight. Great things are happening in Fort Pierce. We have a bright future ahead of us.

17. ADJOURNMENT

Immediately following adjournment, please move toward the doors and exit the chambers. This allows for the safe and courteous exit of all persons, and those on the dais. Conversations after the meeting should be held outside of chambers, in the foyer or elsewhere, but not in the commission chambers where lights will be out as soon as the chambers are empty.

Mayor Linda Hudson adjourned the meeting at **7:52 PM.**

ATTEST:

_____ _____

CITY CLERK MAYOR COMMISSIONER

MINUTES OF A SPECIAL MEETING OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, HELD IN THE CITY HALL COMMISSION CHAMBERS, 100 NORTH U.S. #1, FORT PIERCE, FLORIDA, AT 5:05 P.M. ON MONDAY, **SEPTEMBER 21, 2020**.

1. CALL TO ORDER

Mayor Hudson called the special meeting to order at 5:05 p.m.

2. ROLL CALL

Present: Mayor Linda Hudson; Commissioner Rufus Alexander; Commissioner Jeremiah Johnson; Commissioner Thomas Perona; Commissioner Reginald Sessions

Staff Present: City Clerk Linda Cox
City Manager Nicholas Mimms
City Attorney Peter Sweeney

Commissioner Alexander participated by phone.

3. PUBLIC HEARINGS

a. Ordinance 20-026 levying and collecting taxes for Fiscal Year beginning October 1, 2020 and ending September 30, 2021, adopting final millage rate. FIRST READING

City Clerk Linda Cox introduced the ordinance, read in its entirety, into the record.

ORDINANCE NO. 20-026

AN ORDINANCE OF THE CITY OF FORT PIERCE, FLORIDA; PROVIDING FOR THE **LEVYING AND COLLECTING OF TAXES FOR THE CITY OF FORT PIERCE, FLORIDA, FOR FISCAL YEAR BEGINNING OCTOBER 1, 2020 AND ENDING SEPTEMBER 30, 2021**, FOR THE PURPOSE OF RAISING SUCH AMOUNT AS MAY BE NECESSARY TO CARRY ON THE GOVERNMENT OF SAID CITY DURING SAID FISCAL YEAR AND TO PAY FUNDS SO COLLECTED INTO THE ACCOUNTS PROVIDED THEREFOR; **ADOPTING THE CITY OF FORT PIERCE 2020-21 FISCAL YEAR FINAL MILLAGE RATE**; AND PROVIDING FOR AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA:

SECTION 1. The final millage rate of the City of Fort Pierce, Florida, for the Fiscal Year 2020-21 is hereby levied at the rate of 6.9000 per thousand dollar valuation for general City purposes; said rate being in excess of the roll-back rate by 5.81%.

SECTION 2. The City Commission of the City of Fort Pierce, Florida hereby levies a tax of 6.9000 per thousand dollar valuation on all real and personal property within the corporate limits of said City, subject to tax on the first day of January 2020, provided however that such 6.9000 shall not be levied upon property in the City of Fort Pierce exempt under state statute or federal constitution.

SECTION 3. That the City Manager is hereby instructed and directed to certify to the St. Lucie County Property Appraiser the above and forgoing enumerated Millage to be levied for all purposes, for the 2020-21 fiscal year in the said City of Fort Pierce, Florida, pursuant to the provision of the laws of the State of Florida and the Charter of the City of Fort Pierce.

SECTION 4. This ordinance shall be and become effective October 1, 2020.

Mayor Hudson opened the public hearing. Seeing no one, she closed the public hearing.

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve Ordinance 20-026.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

b. Ordinance 20-027 Adopting a Final Budget for Fiscal Year 2021, beginning October 1, 2020 and ending September 30, 2021. FIRST READING

City Clerk Linda Cox introduced the ordinance, read in its entirety, into the record.

ORDINANCE NO. 20-027

AN ORDINANCE OF THE CITY OF FORT PIERCE, FLORIDA; **ADOPTING A FINAL BUDGET FOR THE CITY OF FORT PIERCE, FLORIDA, FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2020, AND ENDING SEPTEMBER 30, 2021;** AND PROVIDING FOR AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA:

SECTION 1. The City Commission of Fort Pierce, Florida after having held a public hearing, hereby adopts as its final budget for the operation of the government of said City for the fiscal year beginning October 1, 2020 and ending September 30, 2021, the estimates made by the City Manager of said City presented to the City Commission on September 14, 2020, which detailed amended estimates are now on file with the City Clerk and the Director of Finance.

SECTION 2. That it shall be the duty of the City Manager to set up the aforesaid appropriation of revenues and expenses on the account records of said City, to keep such accounts thereof, as required by the Charter of said City, as may be directed from time to time by the City Commission.

SECTION 3. This ordinance shall be and become effective October 1, 2020.

Mayor Hudson opened the public hearing. Seeing no one, she closed the public hearing.

Commissioner Sessions expressed concerns regarding the hiring of higher level police officers, the command staff, from other areas that he doesn't know, and at salaries that seem high. Mr. Mimms confirmed that no new positions have been created in the police department; only what was budgeted.

Motion was made by Commissioner Jeremiah Johnson, seconded by Commissioner Rufus Alexander to approve Ordinance 20-027.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

4. ADJOURNMENT

Mayor Hudson adjourned the meeting at 5:18 p.m.

ATTEST:

_____ _____

CITY CLERK MAYOR COMMISSIONER

MINUTES OF A SPECIAL MEETING OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, HELD IN THE CITY HALL COMMISSION CHAMBERS, 100 NORTH U.S. #1, FORT PIERCE, FLORIDA, AT 6:00 P.M. ON MONDAY, **SEPTEMBER 28, 2020.**

1. CALL TO ORDER

Mayor Hudson called the meeting to order at 6:00 p.m.

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Present: Mayor Linda Hudson; Commissioner Rufus Alexander; Commissioner Jeremiah Johnson; Commissioner Thomas Perona; Commissioner Reginald Sessions

Staff Present: City Clerk Linda Cox
City Manager Nicholas Mimms
City Attorney Peter Sweeney

Commissioner Alexander participated by phone.

4. PUBLIC HEARINGS

Any Public Comment on these Public Hearing items, if not being offered in person, should be submitted by noon on the day of the meeting using the Sworn Public Comment Form which is available on the city's website at:
http://www.cityoffortpierce.com/DocumentCenter/View/8741/Sworn-Public-Comment-for-Public-Hearings

a. Ordinance 20-026 levying and collecting taxes for Fiscal Year beginning October 1, 2020 and ending September 30, 2021, adopting final millage rate. SECOND READING

Linda Cox, City Clerk, introduced Ordinance 20-026, read in its entirety on second reading, into the record.

ORDINANCE NO. 20-026 - AN ORDINANCE OF THE CITY OF FORT PIERCE, FLORIDA; PROVIDING FOR THE **LEVYING AND COLLECTING OF TAXES FOR THE CITY OF FORT PIERCE, FLORIDA, FOR FISCAL YEAR BEGINNING OCTOBER 1, 2020 AND ENDING SEPTEMBER 30, 2021**, FOR THE PURPOSE OF RAISING SUCH AMOUNT AS MAY BE NECESSARY TO CARRY ON THE GOVERNMENT OF SAID CITY DURING SAID FISCAL YEAR AND TO PAY FUNDS SO COLLECTED INTO THE ACCOUNTS PROVIDED THEREFOR; **ADOPTING THE CITY OF FORT PIERCE 2020-21 FISCAL YEAR FINAL MILLAGE RATE**; AND PROVIDING FOR AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA:

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SECTION 2. The City Commission of the City of Fort Pierce, Florida hereby levies a tax of 6.9000 per thousand dollar valuation on all real and personal property within the corporate limits of said City, subject to tax on the first day of January 2020, provided however that such 6.9000 shall not be levied upon property in the City of Fort Pierce exempt under state statute or federal constitution.

SECTION 3. That the City Manager is hereby instructed and directed to certify to the St. Lucie County Property Appraiser the above and forgoing enumerated Millage to be levied for all purposes, for the 2020-21 fiscal year in the said City of Fort Pierce, Florida, pursuant to the provision of the laws of the State of Florida and the Charter of the City of Fort Pierce.

SECTION 4. This ordinance shall be and become effective October 1, 2020.

Mayor Hudson opened the public hearing. Seeing no one, she closed the public hearing.

Motion was made by Commissioner Jeremiah Johnson, seconded by Commissioner Rufus Alexander to approve Ordinance 20-026.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

b. Ordinance 20-027 Adopting a Final Budget for Fiscal Year 2021, beginning October 1, 2020 and ending September 30, 2021. SECOND READING

Linda Cox, City Clerk, introduced Ordinance 20-027, read in its entirety on second reading, into the record.

ORDINANCE NO. 20-027 - AN ORDINANCE OF THE CITY OF FORT PIERCE, FLORIDA; **ADOPTING A FINAL BUDGET FOR THE CITY OF FORT PIERCE, FLORIDA, FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2020, AND ENDING SEPTEMBER 30, 2021;** AND PROVIDING FOR AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA:

SECTION 1. The City Commission of Fort Pierce, Florida after having held a public hearing, hereby adopts as its final budget for the operation of the government of said City for the fiscal year beginning October 1, 2020 and ending September 30, 2021, the estimates made by the City Manager of said City presented to the City Commission on September 14, 2020, which detailed amended estimates are now on file with the City Clerk and the Director of Finance.

SECTION 2. That it shall be the duty of the City Manager to set up the aforesaid appropriation of revenues and expenses on the account records of said City, to keep such accounts thereof, as required by the Charter of said City, as may be directed from time to time by the City Commission.

SECTION 3. This ordinance shall be and become effective October 1, 2020.

Mayor Hudson opened the public hearing. Seeing no one, she closed the public hearing.

Motion was made by Commissioner Thomas Perona, seconded by Commissioner Jeremiah Johnson to approve Ordinance 20-027.

AYE: Mayor Linda Hudson, Commissioner Rufus Alexander, Commissioner Jeremiah Johnson, Commissioner Thomas Perona, Commissioner Reginald Sessions

Passed

5. COMMENTS FROM THE PUBLIC

Any person who wishes to comment on any subject may be heard at this time. Please limit your comments to three (3) minutes or less, as directed by the Mayor, as this section of the Agenda is limited to thirty minutes. The City Commission will not be able to take any official actions under Comments from the Public. Speakers will address the Mayor, Commissioners, and the Public with respect. Inappropriate language will not be tolerated.

There were no public comments.

6. ADJOURNMENT

Immediately following adjournment, please move toward the doors and exit the chambers. This allows for the safe and courteous exit of all persons, and those on the dais. Conversations after the meeting should be held outside of chambers, in the foyer or elsewhere, but not in the commission chambers where lights will be out as soon as the chambers are empty.

Mayor Hudson adjourned the meeting at 6:05 p.m.

ATTEST:

_____ _____

CITY CLERK MAYOR COMMISSIONER

City Commission Regular Meeting - 6:00 pm **7. a.**

Meeting Date: 10/05/2020

Re: Email from Phil Schwegler

Submitted For: Nick Mimms, City Manager, City Manager

SUBJECT:

Email from Phil Schwegler expressing his appreciation and gratitude for the City Commission approving an idle speed zone restriction for Jaycee Park.

Attachments

Email from Phil Schwegler

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	09/29/2020 08:39 AM
City Manager	Nick Mimms	09/29/2020 08:39 AM

Form Started By: Jennifer Robinson Started On: 09/23/2020 05:06 PM

Final Approval Date: 09/29/2020

From: prplbull@aol.com <prplbull@aol.com>
Sent: Saturday, September 19, 2020 5:38:21 PM
To: Linda Hudson <LHudson@cityoffortpierce.com>; Rufus Alexander <ralexander@cityoffortpierce.com>; Jeremiah Johnson <jjohnson@cityoffortpierce.com>; Tom Perona <tperona@cityoffortpierce.com>; Reginald Sessions <rsessions@cityoffortpierce.com>
Subject: Jaycee Park

SECURITY WARNING: This email originated outside of the City of Fort Pierce systems. Please use caution when clicking links or opening attachments. For questions or concerns please contact IT immediately. .

Madam Mayor and Commissioners:

Now that the summer is somewhat over I want to thank you for passing the IDLE SPEED ZONE. Jaycee Park was once again a pleasure to go to and our families and friends were constant users this season. The peacefulness reminded us of the way it was10 years ago when we first started using the park. It was very busy this summer but it was a family friendly and safe park vs a water speedway. We cannot thank you enough.

Sincerely,

Phil Schwegler

City Commission Regular Meeting - 6:00 pm **7. b.**

Meeting Date: 10/05/2020

Re: Email from Dan Cushman

Submitted For: Nick Mimms, City Manager, City Manager

SUBJECT:

Email from Dan Cushman thanking Mike Reals, Public Works Director and his staff for their cooperative service-oriented attitude when resolving a small problem with curbside trash pickup at River's Edge.

Attachments

Email from Dan Cushman

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	09/29/2020 08:38 AM
City Manager	Nick Mimms	09/29/2020 08:39 AM

Form Started By: Jennifer Robinson Started On: 09/23/2020 05:05 PM

Final Approval Date: 09/29/2020

Jennifer Robinson

Subject: FW: City Helping Citizens

On Thursday, September 17, 2020, 06:29:40 PM EDT, Dan Cushman <cushmandm@hotmail.com> wrote:

A big a thank you to Mike Reals and his folks. We had a small problem at River's Edge with curbside trash pickup. I explained the situation to Mike. He looked at the issue, used common sense, and did what was right.

Thank you for fostering a cooperative service-oriented attitude amongst our Ciy employees

Dan

Get Outlook for Android

City Commission Regular Meeting - 6:00 pm **11. a.**

Meeting Date: 10/05/2020

Re: 2152 S Jenkins Rd - Payment Schedule Request

Submitted For: Peggy Arraiz, Code Compliance Manager, Code Enforcement

---

SUBJECT:

Approval of payment schedule of three annual payments for paying reduced demolition lien against 2152 S. Jenkins Road, Ft. Pierce, FL, Parcel ID Number 2418-333-0002-000-6 owned by BGDN LLC, 1820 Avenue K, Brooklyn, NY 11230. On August 17, 2020 the City Commission approved the request to reduce the demolition fees in the amount of $38,241.68 to $21,827.00 payable in 30 days.

SUMMARY:

Dennis Murphy on behalf of BGDN LLC is requesting a payment schedule for the $21,827.00 associated with the demolition lien on 2152 S Jenkins Road. Within 30 days of approval, they will pay 1/3 of the overall cost due. On, or before, October 1, 2021 they would pay a second 1/3 payment and on, or before October 21, 2022 they would make the final 1/3 payment.

RECOMMENDATION:

Staff recommends accepting the proposed payment plan as presented.

ALTERNATIVES:

Approve staff's recommendation.
Determine alternative time for reduced fines to be paid.

RESPONSIBLE STAFF:

Colleen Greer, Code Enforcement Clerk.

COORDINATED WITH:

Margaret Arraiz, Code Compliance Manager.
Kathy D'Arton, Accounts Receivable.

Fiscal Impact

Budgeted Y/N: 2020

Fiscal Year: 2020

Amount: 21827.00

OTHER INFORMATION:

$21,827.00 to the general fund.

Attachments

Request

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	09/23/2020 02:47 PM

Form Started By: Colleen Greer
Started On: 09/22/2020 03:45 PM
Final Approval Date: 09/23/2020

Colleen Greer

From: Peggy Arraiz
Sent: Wednesday, September 23, 2020 9:13 AM
To: Colleen Greer
Subject: FW: 19-232_200827_1441_request for payment schedule (jenkins road property)
Attachments: 19-232_200824_from - FTP Code, 000, summary of lein request rejection.pdf

From: Dennis Murphy <dmurphy@ct-eng.com>
Sent: Thursday, August 27, 2020 2:49 PM
To: Peggy Arraiz <parraiz@cityoffortpierce.com>
Cc: Murray Puderbeutel <murray@parkstoneproperties.com>
Subject: 19-232_200827_1441_request for payment schedule (jenkins road property)

SECURITY WARNING: This email originated outside of the City of Fort Pierce systems. Please use caution when clicking links or opening attachments. For questions or concerns please contact IT immediately. .

Dear Ms. Arraiz:

Ms. Arraiz, to follow up on our conversation yesterday, on behalf of BGDN, LLC, (BGDN), the owners of certain property located at 2152 South Jenkins Road, and described under St. Lucie County Parcel ID Number 2418-333-0002-000-6 (see attached Property Tax Card), we would propose the following payment schedule to be provided to the City to address the actions in regards to the outstanding liens on the property. On before October 1, 2020 we will pay 1/3 of the overall cost due of $21,827 associated with the demolition lien on this property. On, or before, October 1, 2021 we will make a second 1/3 payment and on or before, October 21, 2022, we will make our third, and final, payment to address this outstanding line amount. If this is schedule is acceptable to the City, please let me know and we will proceed with processing the first payment.

Thank you for your time and considerations in his matter. I will be happy to meet with you at your convenience to go over this matter further if there are any questions.

Dennis Murphy
Principal Planner
Culpepper and Terpening, Inc.
2980 South 25th Street
Ft. Pierce, FL 34981
Telephone: 772.464.3537 Ext. *301
Cell: 772.216.5056 (cell)
Facsimile: 772.464.9497
dmurphy@ct-eng.com

THE SUNRISE CITY
FORT PIERCE
CITY CLERK'S OFFICE
Florida

August 18, 2020

BGDN, LLC,
1820 Avenue K
Brooklyn, NY 11230

Dennis Murphy
Culpepper & Terpening
2980 S 25th Street
Fort Pierce, FL 34981

Dear Sirs:

At their meeting on August 17, 2020, the City Commission of the City of Fort Pierce approved the request to reduce demolition fees in the amount of $38,241.68 against 2152 S Jenkins Road, Fort Pierce, FL, Parcel ID Number 2418-333-0002-000-6 owned by BGDN, LLC, 1820 Avenue K, Brooklyn, NY 1123, to **$21,827.00 payable in 30 days.**

If you have any questions, please contact the Code Enforcement Department at 772-467-3149.

Very truly yours,

Linda W. Cox

Linda W. Cox
City Clerk

cc: Peggy Arraiz, Code Enforcement
Kathy D'Arton, City Finance

City Commission Regular Meeting - 6:00 pm **11. b.**

Meeting Date: 10/05/2020

Re: Agreement regarding surplus funds

Submitted For: Pete Sweeney, City Attorney, City Attorney

SUBJECT:

Approval of an agreement on the distribution of surplus funds related to the foreclosure sale of a property located at 118 Hialeah Avenue.

SUMMARY:

The property in question was the subject of a foreclosure sale. The City of Fort Pierce and the previous owners both claimed entitlement to post-sale funds being kept in the court registry. The parties would like to submit an agreed order dividing the funds, such that the City will receive $20,000 and the previous owners will receive $14,575.93 and any applicable interest.

RECOMMENDATION:

Approve the agreement as presented.

ALTERNATIVES:

Direct staff to renegotiate the agreement.

RESPONSIBLE STAFF:

Tanya Earley, Assistant City Attorney

COORDINATED WITH:

Peter Sweeney, City Attorney
Margaret Arraiz, Code Compliance Manager

Fiscal Impact

OTHER INFORMATION:

$20,000 to general fund.

Attachments

Proposed Order

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	09/23/2020 02:45 PM

Form Started By: Tanya Earley Started On: 09/16/2020 10:57 AM

Final Approval Date: 09/23/2020

IN THE CIRCUIT COURT OF THE NINETEENTH JUDICIAL CIRCUIT IN AND FOR ST. LUCIE COUNTY, FLORIDA

U.S. Bank Trust, N.A., CASE NO.: 56-2018-CA-000563

Plaintiff,

v.

UNKNOWN HEIRS OR BENEFICIARIES OF THE ESTATE OF BYRON H. BLAKE, et. al.,

Defendants.
_____/

AGREED ORDER ON DEFENDANTS' MOTIONS FOR DISBURSEMENT OF SURPLUS FUNDS

THIS MATTER having come before the undersigned for consideration of Defendants' respective motions for disbursement of surplus funds, and the Court being fully advised in the premises, it is ORDERED AND ADJUDGED:

1. The separate motions filed on behalf of Defendant City of Fort Pierce and on behalf of Defendants Brian Blake and Michelle Blake are GRANTED IN PART.
2. The Clerk shall disburse the surplus funds currently held in the Court Registry as follows:
   a. $20,000.00 to the City of Fort Pierce, c/o Code Enforcement Department, Post Office Box 1480, Fort Pierce, Florida 34954; and
   b. $14,575.93 to Brian Blake and Michelle Blake, c/o The Karyo Law Firm, P.A., 3200 North Federal Highway, Suite 222, Boca Raton, Florida 33431.
3. Any accumulated interest related to the aforementioned surplus funds shall be dispersed to Brian Blake and Michelle Blake at the address above, in accordance with the Clerk's normal procedures.

DONE AND ORDERED in Chambers this _____ day of _____, 2020 in St. Lucie County, Florida.

_____
Honorable Elizabeth Metzger
Circuit Court Judge

SERVICE LIST

Copies provided electronically to:

Tanya M. Earley
Attorney for Defendant, City of Fort Pierce
Post Office Box 1480
Fort Pierce, FL 34954-1480
tearley@cityoffortpierce.com

Max Rafael Karyo, Esq.
Attorney for Defendants Brian Blake and Michelle Blake
The Karyo Law Firm, P.A.
3200 North Federal Highway, Suite 222
Boca Raton, FL 33431
service.karyolaw@gmail.com

Scott Harlow, Esq.
Attorney for Clerk of Court, St. Lucie County
Law Offices of Travis Walker, P.A.
1235 SE Indian Street, Suite 101
Stuart, FL 34997
scott@traviswalkerlaw.com

Heather Griffin, Esq.
Attorney for Plaintiff U.S. Bank Trust, N.A.
Phelan, Hallinan, Diamond & Jones, PLLC
2001 NW 64th Street
Ft. Lauderdale, FL 33039
FL.Service@PhelanHallinan.com

City Commission Regular Meeting - 6:00 pm **11. c.**

Meeting Date: 10/05/2020

Re: Case #19-1505 - 711 S Ocean Drive - Fond de Blanc Inc.

Submitted For: Peggy Arraiz, Code Compliance Manager, Code Enforcement

SUBJECT:

Approval of request to reduce code enforcement fees in the amount of $7,670.00 against 711 S Ocean Drive, Ft. Pierce, FL 34949, Parcel ID Number 2401-503-0079-000-5 owned by Fond De Blanc Inc, Jermaine Leclerc, 275 SW Lost River Road, Stuart, FL 34997. In accordance with previously established policy, staff recomends reducing the fines to $1,200.00 payable in 90 days. If not paid within this time period, the lien will revert to the original amount. However, applicant is requesting a waiver of $7,650.00 leaving a balance due of $20.00 for recording fees which requires a direct vote by Commission.

SUMMARY:

Request by applicant to waive code enforcement fees due in the amount of $7,650.00 contingent upon paying the balance of $20.00 within 30 days.

RECOMMENDATION:

The Special Magistrate, having heard the request of the owner and testimony from staff, recommends reducing the lien to $1,200.00 payable in 90 days. If not paid within this time, the lien will revert to the original amount of $7,670.00.

Hard costs (postage, filing fees, photos)	$ 67.00
Case processing (months open/inspections)	$583.00
Hearing Costs	$300.00
City Commission Hearing	$250.00
TOTAL	$1,200.00

ALTERNATIVES:

Approve Staff's recommendation.
Determine alternative amount.

RESPONSIBLE STAFF:

Colleen Greer, Code Enforcement Clerk.

COORDINATED WITH:

Margaret Arraiz, Code Compliance Manager.

Fiscal Impact

Budgeted Y/N: 2020

Fiscal Year: 2020
Amount: 1200.00
OTHER INFORMATION:
$1,200.00 to the general fund.

Attachments

Request
Tax Card
Breakdown

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	09/23/2020 02:46 PM

Form Started By: Colleen Greer
Started On: 09/21/2020 11:06 AM
Final Approval Date: 09/23/2020

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

REQUEST FOR A REDUCTION OR RESCINDMENT OF CODE ENFORCEMENT FINES / LIENS

Date:	August 31, 2020				
Property address:	711 South Ocean Drive Ft. Pierce, FL 34949				
Owner(s) of record:	Fond De Blanc Inc				
Mailing address:	275 SW Lost River RD Stuart, FL 34997				
Property tax ID #:	2401 503 0079 000/5				
Original purchase date:	2/14/19	Original purchase price:	250,000 ea		
Property is used for:	☐ Single Family	☑ Multi-family	☐ Commercial	☐ Industrial	☐ Vacant Lot
Name of person requesting reduction:	Jermaine Leclerc	Relationship to owner(s)	Owner		
Telephone #:	305 988 5280	Mobile phone #:	305 988 5280		
E-mail:	sunlifereality@gmail.com	Preferred contact method:	Phone		
What are owner(s) intentions for property:	Rental / Vacation Home				
Amount of Lien:		Date Fine Initiated:			
Are there current code violations?	☑ No	☐ Yes	Explain: (please attached notice)		
Is property listed for sale?	☑ No	☐ Yes	If yes, what is listing price?		
Is property under contract for sale?	☑ No	☐ Yes	If yes, what is the sale price?		

AMOUNT OF FINE / LIEN $ 7,650.00

DOLLAR AMOUNT REQUESTING TO BE WAIVED $ 7,650.00

DOLLAR AMOUNT I AGREE TO PAY $ 20.00 Recording Fees

Signature of Owner or Representative Date

Jermaine Leclerc
Printed Name

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

REQUEST FOR REDUCTION OF PENALTY

By completing this form, you are making statements under oath. Failure to be truthful is a violation of Fort Pierce City Code and Florida Statutes pertaining to perjury, which is a felony punishable by up to fifteen (15) years imprisonment.

INSTRUCTIONS:

1. Please fill in blanks completely.
2. Be specific when writing your statement. Use additional pages if necessary.
3. If you are claiming medical or financial hardship, attach supporting documentation (i.e. doctor's statement or proof of income).
4. Complete the appropriate application for lien reduction / rescindment.
5. For lot clearing or demolition liens, contact Kathy D'Arton in the Finance Department (772-467-3076) for cost / fees breakdown.
6. For code enforcement liens (those imposed by a Special Magistrate or Code Enforcement Board), contact Colleen Greer (772-467-3149) for cost / fees breakdown.
7. If you do not have access to a Notary Public, one will be provided to you by the Department at no charge. All forms must be signed in the presence of the Notary to be valid.
8. Return this form, the application and any other pertinent documentation to the Code Enforcement Department.
9. Requests for Reduction / Rescindment of code enforcement liens are governed by Rule 17 of the City's Rules & Regulation for Code Enforcement Board and Special Magistrate.

Property Address: 711 SOUTH OCEAN DRIVE FT PIERCE, FL 34949

Property Owner: FOND DE BLANC INC.

Mailing Address: 275 SW LOST RIVER RD STUART, FL 34997

Telephone #: 3059885280 Cell Phone #: 305 988 5280

E-Mail Address: SUNLIFEREALTY@GMAIL.COM

Is the property in compliance? YES If no, please explain in the narrative of your request.

OWNER / REPRESENTATIVE REQUEST TO PROCESS APPLICATION

Property Address:	711 South Ocean Drive Ft. Pierce, FL 34949

☐ I acknowledge that I have been provided a copy of Rule 17 of the Rules of Procedure for the City of Fort Pierce Code Enforcement Board and Special Magistrates and that I have read the rules and being advised as such make the following request:

☐ I am requesting that my application for lien reduction be processed administratively through the Rules of Procedure Sec. 17(b), I understand the requirements to be met and that I waive my right to a hearing before either the Special Magistrate or Code Enforcement Board.

☐ I am requesting that my application for lien reduction be processed administratively through the Rules of Procedure Sec. 17(d), I understand the requirements to be met and understand that the Special Magistrate will make the final determination.

☑ I am requesting that my application for lien reduction be considered and a determination made by the City Commission of the City of Fort Pierce.

Signature of Owner or Representative	Date	Printed Name
	9-2-2020	Jermaine Leclerc

COFP – APPLICATION PROCESS DETERMINATION

☑ Staff has reviewed the request for lien reduction and agrees to process the application as requested by the signing party.

☐ Staff has reviewed the request for lien reduction and do not agree to process the application as requested by the signing party. The matter will be placed before the City Commission for final determination.

City Representative	Date	Printed Name
Margaret Fahmy		

I, Jermaine Leclerc, do hereby submit this Petition in request for a reduction in the total amount of the penalty imposed and in support offer the following statement:

Date: 8/31/2020

Signed:

Print Name: Jermaine Leclerc

JACQUELINE YOUNG-SMITH
Notary Public - State of Florida
Commission # GG 959156
My Comm. Expires Feb 17, 2024
Bonded through National Notary Assn.

STATE OF FLORIDA

COUNTY OF ST. LUCIE

PERSONALLY APPEARED before me, the undersigned authority Jacqueline Young-Smith who acknowledged before me that the information contained herein is true and correct. He or She is / is not personally known to me and has produced Drivers License as identification.

SWORN TO AND SUBSCRIBED before me this 31st day of August, 2020.

August 31, 2020

RE: 711 South Ocean Drive Fort Pierce, FL 34949

Dear Code Enforcement Special Magistrate.

Thank you for taking the time to consider my request for a reduction and rescindment of fines associated with the above property. I appeared before the Special Magistrate in February of 2020 regarding this property for violations pertaining to building permits. As the property is titled under county record in the name of my corporation: Fond De Blanc Inc. I am dependent on contractors to do any work and pull permits for this property.

I have been through at least 4 different contractors who did not perform their due diligence under contract. Special Magistrate Ross presided over this issue and stopped the fines at the time so that these issues could be resolved. I was completely unaware that when I appeared before the Special Magistrate in February 2020 I was only appearing for permit violations and not violations of code enforcement and subsequently fees ensued and a lien was placed on my property.

As we all know it has been exceedingly difficult to get any work done during the past six months due to the Covid-19 pandemic. The property is now under compliance and I respectfully ask for a rescindment of fines, fees, and liens.

I have enclosed the documents associated with the hearing that was conducted in February of 2020 that were emailed to Mr. Coss to support my endeavors to find adequate assistance to maintain the above property.

Thank you and I look forward to your kind recognition and resolution.

Jermaine Leclerc, President
Fond De Blanc Inc.
275 SW Lost River Road
Stuart, FL 34997

Dear Mr. Coss

RE: 711 South Ocean Drive

Thank you for taking the time to help me remedy the violations at the above referenced property. Please see the timeline of events to help understand my efforts in trying to find help to do this work. I have included all emails and records for supporting evidence as I could not file permits as the owner as discussed with you in July 2019. I believe I have done my due diligence in trying to hire local licensed contractors who did not complete the work I have asked to be completed to help remedy this situation.

1. April 2019 -Entered into agreement with Rick's Home Improvement LLC based in Ft Pierce, FL who started work for me and said they would file permits and did not (however took my money) Entered into agreement with Total Roofing who filed permits and completed roof work.
2. May 2019 - Fired Rick's Home Improvement. Entered into agreement with GSC Remodeling Solutions with Devin Ganesh. 2nd Contractor who did not file permit (however took my money). Fired GSC remodeling solutions
3. July 2019 - Entered into agreement with 3rd Contractor Eamon Walsh who recently filed permits in January of 2020.
4. July 2019 – Spoke to you personally at the building department regarding the contractors that were hired who did not file permits and how work was started and not completed.
5. December 2019 – Spoke with Chad in Code enforcement who called and spoke to you and said he would give me 90 days to get permits to do the work needed for soffit and other repairs as the fines had not yet accrued.

Thank you for taking the time to understand the difficulty of this project.

Jermaine
305-988-5280

RICK'S HOME MAINTENANCE, LLC.

Mike Hall
3251 Oleander Ave
Ft. Pierce Fl. 34982
Office # 772-302-3789
Mike Cell # 772-940-9776
Rick Cell # 772- 321-3708

Licensed & Insured

Name Jermaine LeClerc
Address 711 South Ocean Driv
Ft. Pierce, Fl
Phone 305-988-5280
Appt. date / time 03/18/19
10;30 AM
Email: sunliferealty@gmail.c

Estimate

	KITCHENS: Units 1 & 4 LABOR $1000 ea	**$ 2,000.00**	**KITCHENS 2 & 3 LABOR $1750 ea**
	Remove old cabinets & prep for new	$ 150.00	Remove all old & wing walls, prep walls &
	Install GFI recepticles & refr recepticle	$ 100.00	structure for new install GFI recept's.
	Patch & Paint walls	$ 200.00	refrig. outlets, Patch & paint walls. Install
	Install new cabinets / counter tops (home depot)	$ 300.00	new cabinets & counter tops. Install new
	Install sink & fixtures & appliances	$ 250.00	sink, plumbing & fixtures & appliances
	MATERIAL ESTIMATED COST $1500 EA	**$ 3,000.00**	**MATERIALS ESTIMATED COST $3000 ea**
	Cabinets & counter tops, lights, drywall,		Sink, counter tops, cabinets, paint, caulk
	patches, paint, caulk, water supply lines		plumbing drains, water supply lines
			Lighting, GFI outlets and patch materials.
	BATHROOMS 1,2,3 & 4 LABOR $2000 ea	**$ 8,000.00**	
	Demo old tile & walls, remove sink & toilet	$ 500.00	**ALL UNITS: OTHER ROOMS $400 ea**
	(to be reused), units 2 & 3 remove tub install floor,		Touch up & repair walls throughout units,
	reconstruct wall units 1 & 4 make 36"		adjust doors & lube windows. Closing
	door opening & shower step, install concrete		off the 2 doors & final cleaning
	board / green board. ? Upgrade shower	$ 500.00	
	valve install new, Tile shower floor & walls,	$ 100.00	**ALL UNITS: OTHER ROOMS**
	pain walls & ceiling.	$ 900.00	**MATERIALS ESTIMATED COST $200 ea**
	MATERIALS ESTIMATED COST	**$ 6,000.00**	
	BATHROOMS 1, 2, 3, & 4 $1500 ea		
	Tile, shower controller valve, plumbing		

	LABOR	
	MATERIALS	
	TOTAL	

DESCRIPTION:

Remodel 4 units.

Estimated by_____ Mike

Approved by_____

/e

om

$	**3,500.00**
$	250.00
$	150.00
$	250.00
$	600.00
$	500.00
$	**6,000.00**
$	**1,600.00**
$	**800.00**
$	**15,100.00**
$	**15,800.00**
$	**30,900.00**

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address: 711 S OCEAN DR
Use Type: 0800
Parcel ID: 2401-503-0079-000-5
Jurisdiction: Fort Pierce
Account #: 14977
Map ID: 24/01G
Sec/Town/Range: 01/35S/40E
Zoning: HI Medium

Ownership

Fond De Blanc Inc
275 SW Lost River RD
Stuart, FL 34997

Legal Description

OCEAN VIEW S/D REVISED PLAT HOLLEY AND MORGAN`S S/D BLK 8 LOTS7 AND 10

Current Values

Just/Market:	$199,300	Assessed:	$199,300
Exemptions:	$0	Taxable:	$199,300

Historical Values 3-year

Year	Just/Market	Assessed	Exemptions	Taxable
2020	$199,300	$199,300	$0	$199,300
2019	$222,000	$222,000	$0	$222,000
2018	$216,500	$202,351	$0	$202,351

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
02-12-2019	4234 / 0757	0001	WD	Atkins James W	$250,000
05-30-2018	4139 / 1469	0111	PB	Atkins (EST) Mera	$0
01-04-2002	1510 / 0106	XX01	QC	Spearin Willie T	$100

Primary Building Information

Finished Area of this building: 2,082 SF
Gross Sketched Area: 2,955 SF

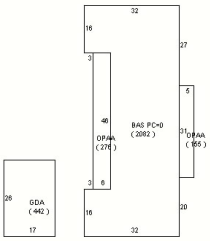
Exterior Data

View:	Roof Cover: Dim Shingle	Roof Structure: Hip	Building Type: MFH
Year Built: 1952	Frame:	Grade: MFAQ	Effective Year: 1952
Primary Wall: CB Stucco	Story Height: 1 Story	No. Units: 2	Secondary Wall:

Interior Data

Bedrooms: 0	A/C %: 100%	Electric: MAXIMUM	Primary Int Wall:
Full Baths: 4	Heated %: 100%	Heat Type: FrcdHotAir	Avg Hgt/Floor: 0
Half Baths: 0	Sprinkled %: 0%	Heat Fuel: ELEC	Primary Floors: Carpet





Total Areas

Finished/Under Air (SF):	2,082
Gross Sketched Area (SF):	2,955
Land Size (acres):	0.32
Land Size (SF):	13,868
Total Building Count:	1

Special Features and Yard Items

Type	Qty	Units	Year Blt

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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MEMORANDUM

TO: The Honorable Mayor and Members of the City Commission

THROUGH: Nick Mimms, City Manager

FROM: Colleen Greer, Code Enforcement Clerk

SUBJECT: **CODE ENFORCEMENT LIEN REDUCTION**
711 S Ocean Drive

DATE: October 5, 2020

The following is a breakdown of the above property:

	Costs (General Fund)	Interest & Penalties	Administrative Fees
CASE # 19-1505	$7,650.00	$.00	$20.00
TOTAL	$7,650.00	$.00	$20.00

CAN BE WAIVED (ALL COSTS) $7,670.00

City Commission Regular Meeting - 6:00 pm **11. d.**

Meeting Date: 10/05/2020

Re:

SUBJECT:

Approve letter of support to St. Lucie County Board of County Commissioners requesting a three (3) way stop sign at the intersection of Savannah Road and Indian River Drive.

SUMMARY:

RECOMMENDATION:

ALTERNATIVES:

RESPONSIBLE STAFF:

COORDINATED WITH:

Attachments

Letter to BOCC Requesting Support
Traffic Calming Feasibility Study

Form Review

Form Started By: Linda Cox Started On: 09/29/2020 09:29 AM
Final Approval Date: 09/29/2020

THE SUNRISE CITY
FORT PIERCE
OFFICE OF THE MAYOR
AND CITY COMMISSION
Florida

October 5, 2020

St. Lucie County
Board of County Commissioners
2300 Virginia Avenue
Fort Pierce, FL 34983

Re: Indian River Drive at Savannah Road Intersection – Multi-Way Stop

Dear Board of County Commissioners:

Please accept this request from the City of Fort Pierce for the evaluation and ultimate installation of a multi-way stop condition at the intersection of Indian River Drive and Savannah Road. As you are aware, Indian River Drive, a county-maintained roadway, and Savannah Road, a city-maintained roadway, intersect along the bank of the Indian River. Current configuration allows for through movement along Indian River Drive with a stop condition on Savannah Road. The City of Fort Pierce is in support and requests a stop condition be implemented for Indian River Drive to provide safety improvements at this intersection. The City is requesting this improvement based on the following factors:

- Limited Sight Distance – Drivers waiting to enter Indian River Drive from Savannah Road are challenged by the lack of a clear line of sight. Both the north and south views are partially obstructed by utility poles and landscape vegetation. This coupled with the change in elevations of Indian River Drive creates a condition that the road user on Savannah Road cannot see on-coming traffic and is not able to safely negotiate the intersection unless cross traffic is also required to stop.
- Speeds Above Posted Limit – As confirmed by the attached Traffic Calming Feasibility Study, prepared by Kimley Horn and Associates in February 2018, the majority of vehicles traveling through this intersection are above the posted speed limit. The report indicates that 85% of the vehicles approaching this intersection are in excess of 6 mph over the posted 35 mph limit.

The City of Fort Pierce respectfully requests St. Lucie County conduct an engineering study to determine warrants for the installation of stop signs on Indian River Drive at the intersection of Savannah Road to improve the safety of the traveling public.

If you have any questions or would like to receive additional information, please contact City Manager Nick Mimms at 772.467.3793 or nmimms@cityoffortpierce.com.

Sincerely,

Linda Hudson, Mayor

Attachment

February 2018

INDIAN RIVER DRIVE

Citrus Avenue to NE County Line Road

TRAFFIC CALMING FEASIBILITY STUDY

©Kimley-Horn and Associates, Inc. 2017
445 24th Street, Suite 200
Vero Beach, FL 32960
772-794-4100
Job Number: 047203091
The entirety of this report, including text and images, is property of Kimley-Horn and Associates, protected under U.S. copyright law.

Kimley»Horn

February 2018

INDIAN RIVER DRIVE

Citrus Avenue to NE County Line Road

TRAFFIC CALMING FEASIBILITY STUDY

Prepared by:
Kimley-Horn and Associates, Inc.
445 24th Street, Suite 200
Vero Beach, Florida 32960

INDIAN RIVER DRIVE
TRAFFIC CALMING FEASIBILITY STUDY

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APPENDICES

APPENDIX A: Exhibit depicting the regulatory speed limit signage and traffic monitoring locations identified within the Study Limits.

APPENDIX B: 85th percentile speeds and 10-mph pace data collected at the traffic monitoring stations located within the Study Limits

APPENDIX C: Conceptual roundabout layouts

APPENDIX D: Conceptual chicane layouts

1.0 STUDY OBJECTIVE:

St. Lucie County has contracted with Kimley-Horn and Associates, Inc. (Kimley-Horn) to develop a Traffic Calming Feasibility Study to identify potential traffic calming strategies and implementation locations along Indian River Drive that would assist in reducing vehicular travel speeds. Traffic calming strategies will consist of visual and physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for all street users. The current posted speeds along the corridor are primarily 35 mph with several locations that have speed advisory postings at 25 mph.

The County is undertaking this Traffic Calming Feasibility Study for the following reasons:

- The County has received complaints/ concerns relative to vehicular travel speeds along Indian River Drive in excess of the regulatory posted speeds.

- A successfully implemented traffic calming strategy will help to induce motorists to operate their vehicles within the designated safe operating speeds.

Traffic calming strategies typically involve one or all of the following elements:

- Physical (geometric) alterations
- Informational feedback to motorists
- Law enforcement action

Addressing chronic excessive vehicular speed through law enforcement alone often leads to temporary compliance at a significant cost. A more permanent way to reinforce the need to reduce speed is to change the look and feel of the road to encourage motorists to operate their vehicles in a safe manner, reducing the need for additional enforcement.

2.0 STUDY LIMITS:

The study limit is to consist of the entirety of Indian River Drive within unincorporated St. Lucie County beginning at Citrus Avenue at the northern end extending approximately 13.7 miles south to NE County Line Road. **Figure 1,** on the following page, graphically depicts the Study Limits relative to Indian River Drive.



K:\VRB_Roadway\047203091 - Indian River Drive Traffic Calming\GIS\MXD\Figure 1 Project Location.mxd

Kimley»Horn

© 2017 Kimley-Horn and Associates, Inc.

445 24th Street, Suite 200, Vero Beach, FL 32960
Phone (772) 794-4100 Fax (561) 863-8175
www.kimley-horn.com

Study Limits Location Map

Indian River Drive
Traffic Calming Feasibility Study
St. Lucie County, Florida

1 inch = 8,333 feet	PROJECT NUMBER: 047203091	OCTOBER 2017	FIGURE 1

2.1 Data Collection

Kimley-Horn collected vehicular speed and volume data associated with Indian River Drive between County Line Road and Citrus Avenue (Study Limits), approximately 13.5 miles. The data collection efforts consisted of collecting 24-hour directional vehicular speed and volume data at twenty-nine (29) traffic monitoring stations located along the corridor over a 5-day period. The data was collected starting at 12 AM on August 10th and ending at 12 PM on August 14th.

The entire corridor presently has a posted speed of 35 mph, with two locations having speed advisory postings at 25 mph. Advisory speeds are used on short sections of the corridor where the physical conditions of the corridor restrict safe operating speed to something lower than the regulatory posted speed. The vehicular speed data collected at each monitoring station is summarized into two statistical measures consisting of the following:

- 85th Percentile Speed
- 10-mph Pace

The 85th percentile speed is commonly utilized to support the regulatory posted speed establishment along a corridor. The 85th percentile speed reflects at or below the speed which 85 percent of motorists drive along the corridor. The 85th percentile speed concept is based upon the theory that the large majority of motorists are reasonable and prudent, do not want to have a crash and desire to reach their destination in the shortest possible time.

The 10-mph Pace is defined as the 10-mph speed range encompassing the greatest percentage of all the measured speeds. Traffic engineers believe corridor safety is enhanced when the 10-mph pace includes a large percentage (approximately 70 percent) of all the free-flowing motorists. Refer to **Appendix A** for an exhibit that depicts the regulatory speed limit signage and traffic monitoring locations identified within the Study Limits.

2.2 Existing Vehicular Speed Analysis

Posted speed limits on municipal or county roadways, or alteration thereof, are set forth in Section 316.189 F.S. Posted speeds are required to be based upon engineering and traffic investigations. A roadway posted speed may be based upon several factors consisting of a roadways environment/ traffic characteristics, observed/ measured vehicular speeds during ideal weather conditions, analysis of vehicular speeds to determine the 85th percentile speed, the roadways crash

history and review of any unusual conditions.

Within the State of Florida, it is common practice to evaluate the 85th percentile speed and the 10-mph Pace when establishing or altering the posted vehicular speed for a particular roadway. It is recommended by the Florida Department of Transportation (FDOT) that a roadway posted speed be rounded to the nearest multiple of 5 mph of the observed 85th percentile speed or upper limit of the 10-mph pace, whichever is less.

Table 1 summarizes the 85th percentile and 10-mph pace speeds quantified during the data collection period within the Study Limits:

Table 1 – Indian River Drive Vehicular Speed Data Summary:

	Data Collection Day of the Week									
SIDE STREET	**Wednesday**		**Thursday**		**Friday**		**Saturday**		**Sunday**	
	85th %, MPH	**10-MPH Pace**	**85th %, MPH**	**10-MPH Pace**	**85th %, MPH**	**10-MPH Pace**	**85th %, MPH**	**10-MPH Pace**	**85th %, MPH**	**10-MPH Pace**
Citrus Avenue										
	41	33 to 42	42	33 to 42	44	33 to 42	44	33 to 42	44	33 to 42
Savannah Road										
	43	33 to 42	42	33 to 42	44	33 to 42	44	33 to 42	45	33 to 42
Midway Road										
	44	33 to 42	43	33 to 42	43	33 to 42	44	33 to 42	44	33 to 42
Walton Road										
	44	33 to 42	43	33 to 42	43	33 to 42	43	33 to 42	43	30 to 39
Spring Hill Drive										
	44	33 to 42	44	30 to 39	42	30 to 39	42	30 to 39	42	30 to 39
County Line Road										

Refer to **Appendix B** for additional information relative to the 85th percentile and 10-mph pace data collected at the traffic monitoring stations located along the corridor over the 5-day period within the Study Limits. The collected data would support a posted speed of 40 mph vs. the present 35 mph posted speed designation.

The posted speed is not recommended to differ from the lower of the 85th percentile or 10-mph pace by more than 3 mph. A speed limit of 4 to 8 mph less than the lower of these two parameters shall be supported by supplemental traffic investigation factors. Factors that would be considered to set the posted speed lower than the measured 85th percentile speed would be:

- Narrow roadway pavement widths
- Horizontal and vertical curves that result in limited sign distances
- Driveways with restricted visibility
- High driveway density
- Rural residential land uses located along corridor
- Narrow shoulder widths

The County has elected to post the corridor at 35 MPH, do to all of the factors identified above are applicable to Indian River Drive, and the following:

- Poor stormwater collection/ conveyance systems
- Numerous clear zone infractions
- Drop off-hazard represented by Indian River Lagoon

3.0 TRAFFIC CALMING STRATEGIES EVALUATION:

As the observed vehicular speeds along the corridor are approximately 5 mph above what has been identified by the County as the safe vehicular operating speed, a Traffic Calming Feasibility Study is being performed to identify and evaluate traffic calming strategies that may be considered to encourage motorists to operate their vehicles within the vehicular operating speeds designated by the County.

Traffic calming strategies utilize one or a combination of vertical pavement deflection, horizontal pavement deflection, travel lane narrowing or access restrictions. The traffic calming strategies will focus on the methods that best serve to induce slower vehicular speed (speed control). It has been previously discussed with the County that access restrictions are not a practical application

for Indian River Drive, due to the lack of alternative available routes and as such will not be considered.

Traffic calming elements are utilized to make motorists feel uncomfortable traveling over, through or around these elements at higher than desired vehicular speeds. Each of the following traffic calming strategies will be discussed relative to its advantages and disadvantages and a graphical depiction of each will be provided. Those methods consist of the following:

- Speed Humps
- Speed Tables
- Raised Crosswalks
- Raised Intersections
- Textured Pavement
- Roundabouts
- Chicanes
- Center Island Narrowing
- Chokers

In addition to traffic calming strategies, the following enhanced traffic control devices will be discussed:

- Raised Audible Pavement Markings
- Speed Reduction Markings
- Electronic Speed Feedback Signs

3.1 Speed Humps

Speed humps are rounded raised areas, typically 4 to 6 inches in height by 12 feet in length parallel to direction of travel, placed across a road. Speed humps encourage slower vehicular speeds by inducing motorist to slow down as they traverse the vertical pavement deflection. Comfortable traversing speed is between 15 to 20 mph. To be effective over longer stretches of roadway, speed hump spacing is recommended to be between 300 to 600 feet apart. The following image provides a speed hump visual depiction:

Exhibit 3.1 - Typical Speed Hump Application:



Advantages:

- Low construction cost
- Effective in reducing vehicular speeds (typically 5 to 10 mph)
- Bicycle friendly

Disadvantages:

- Poor aesthetic quality
- Not recommended on collector roads
- High speed impact can result in loss of vehicular control

3.2 Speed Table

Speed tables are like speed humps with the difference being the top of the hump being flat, typically 4 to 6 inches in height by 22 feet in length parallel to direction of travel, placed across a road. Speed tables encourage slower vehicular speeds by inducing motorist to slow down as they traverse the vertical pavement deflection. Comfortable traversing speed is between 25 to 30 mph. To be effective over longer stretches of roadway, speed table spacing is recommended to be between 300 to 600 feet apart. The following image provides a speed table visual depiction:

Exhibit 3.2 - Typical Speed Table Application:



Advantages:

- Low construction cost
- Can be integrated into pedestrian crosswalk to provide additional pedestrian crossing emphasis
- Less jarring than speed hump
- Less impactive on emergency response vehicles
- Bicycle friendly

Disadvantages:

- Vehicular speed reductions are not typically as great as speed humps
- High speed impact can result in loss of vehicular control

3.3 Raised Intersection

Raised intersections are like speed tables/ raised crosswalks with the difference being the top of the hump spans the entire length of an intersection, typically 6 inches in height by intersection width. Raised intersections encourage slower vehicular speeds by inducing motorist to slow down as they traverse the vertical pavement deflection. The following image provides a raised intersection crosswalk visual depiction:

Exhibit 3.3 - Typical Speed Hump Application:



Advantages:

- Additional pedestrian crossing emphasis
- Less jarring than speed hump
- Less impactive on emergency response vehicles
- Comfortable traversing speed of 25 to 30 mph
- Bicycle friendly

Disadvantages:

- Higher construction cost
- Typically, only applicable in dense urban areas

3.4 Textured Pavement

Textured pavement is a change in roadway surface resulting in a color contrast and potentially small changes in vertical alignment. Textured pavement is typically constructed using concrete pavers, clay brick pavers, granite cobble stone pavers or stamped asphalt. Textured pavement encourages slower vehicular speeds by contrasting roadway pavement and the small changes in vertical alignment. The following image provides a textured pavement visual depiction:

Exhibit 3.4 - Typical Textured Pavement Application: (clay brick pavers shown)



Advantages:

- Can have a positive aesthetic value
- When applied to intersection, can calm both streets
- Less jarring than other methods of vertical pavement deflection
- Less impactive on emergency response times
- Bicycle friendly

Disadvantages:

- Higher construction cost
- Greater traffic calming characteristics with higher variable surface, can create adverse conditions for pedestrians and bicyclists
- Can have higher maintenance needs

3.5 Roundabouts

Roundabouts require vehicular traffic to travel counterclockwise around a center island. Roundabouts typically have raised splitter islands on approach roadways that are designed to induce operating speeds between 15 and 25 mph within the roundabout. Yield signs typically control entry into the roundabout. Roundabouts encourage slower vehicular speeds by inducing motorists to slow down as they traverse the horizontal travel way deflection associated with the splitter island approach, as well as the circular roadway. The following image provides a roundabout visual depiction:

Exhibit 3.5 - Typical Roundabout Application:



Advantages:

- Can have a positive aesthetic value
- When applied to intersection, can calm both streets
- Less expensive to operate than a traffic signal
- Can be designed to accommodate a range of design vehicles

Disadvantages:

- Higher construction cost
- Can require additional right-of-way

Conceptual roundabouts have been developed for the Savannah Road, Midway Road and Walton Road intersections. Refer to **Appendix C** for these conceptual layouts.

3.6 Chicane

A chicane consists of alternating curb extensions resulting in motorists to horizontally deflect through the curb extensions typically in an S-shaped curve pattern. Chicanes encourage slower vehicular speeds by inducing motorists to slow down as they traverse the horizontal travel way deflections. The following image provides a chicane visual depiction:

Exhibit 3.6 – Typical Chicane Application:



Advantages:

- Slows traffic by utilizing horizontal deflection, as such it will be less jarring than measures that depend upon vertical deflection to elicit slower vehicle speeds
- Can be designed as to not impact bicyclists
- Less impactive on emergency response vehicles

Disadvantages:

- Can be impediments to roadway drainage
- Moderate construction cost
- Not recommended on high volume roadways or roadways with higher truck volumes
- Typically requires urban roadway section to be effective

Conceptual chicanes have been developed for the Savannah Road, Midway Road and Walton Road intersections. Refer to Appendix D for these conceptual layouts.

3.7 Center Island Narrowing

Center island narrowing consist of introducing a raised or striped island between opposing travel lanes that reduces or constricts the available travel lane width. Typically, other elements such as landscaping, street furniture, etc. are incorporated in conjunction with travel lane narrowing to further constrict the corridor by utilizing vertical elements immediately adjacent to the travel lane.

By constricting the corridor, drivers are made to feel less comfortable traveling through the constricted section at high speeds, thereby inducing motorists to slow down. The following image provides a center island narrowing visual depiction:

Exhibit 3.7 - Typical Center Island Narrowing Application:



Advantages:

- Raised center island can be opportunity for landscape amenity
- Can be integrated into pedestrian crossing, creating a pedestrian refuge
- Less impactive on emergency response vehicles

Disadvantages:

- Not as effective as vertical pavement deflection methods
- Bicycle facilities adjacent to travel lane will have the effect of negating traffic calming influence

3.8 Choker/ Pinch Point

Choker or pinch point is very similar to center island narrowing in the fact that they achieve traffic calming influences through reducing or constricting travel lane width by introducing curb projections along the outside of the travel lane. Typically, other elements such as landscaping, street furniture, etc. are incorporated in conjunction with them to further constrict the corridor by utilizing vertical elements immediately adjacent to the travel lane.

By constricting the corridor, drivers are made to feel less comfortable traveling through the constricted section at high speeds, thereby inducing motorists to slow down. The following image provides a choker or pinch point depiction:

Exhibit 3.8 - Typical Mid-Block Choker Application:



Advantages:

- Curb projections can be opportunity for landscape amenity
- Can be integrated into pedestrian crossing to reduce pedestrian crossing distance
- Less impactive on emergency response vehicles

Disadvantages:

- Not as effective as vertical pavement deflection methods
- Bicycle facilities adjacent to travel lane will have the effect of negating traffic calming influence

4.0 ENHANCED TRAFFIC CONTROL MEASURES:

While not typically thought of as traffic calming strategies, there are several enhanced traffic control measures that can result in effecting slower vehicular speeds. Many of the traffic calming strategies, previously discussed, are more applicable to urban roadways due to the curbed nature of those corridors. As Indian River Drive is a rural roadway (no curb and gutter), enhanced traffic control measures have been demonstrated to be effective tools in inducing slower vehicular speeds along rural roadways.

Enhanced traffic control measures are utilized to make motorist feel uncomfortable traveling over, through or around these elements in higher than desired vehicular speeds. Each of the following traffic calming strategies will be discussed relative to their advantages and disadvantages and a graphical depiction of each will be provided. The following enhanced traffic control measure will be discussed:

- Raised Audible Pavement Markings
- Speed Reduction Markings
- Electronic Speed Feedback Signs

4.1 Raised Audible Pavement Markings

Raised audible pavement markings are a profiled thermoplastic pavement marking material with raised thermoplastic bumps creating a raised profile marking. Raised audible pavement markings are used as edge and centerline striping on two-way roadways. The intent of using this advance pavement marking is to alert an inattentive drive through vibration and sound that their vehicle has diverged from their travel lane.

The Florida Department of Transportation has specified that the flat base line to have a thickness of 0.10 to 0.15 inches (100 to 150 mils), exclusive of the bumps. The raised bumps are specified to be raised another 0.30 inches (300 mils) above the flat base line, resulting in an overall height of approximately 0.45 inches. The thermoplastic bump is specified to be a minimum 2.5 inches in both the traverse and longitudinal direction, with the longitudinal distance between bumps being approximately 30 inches. The following image provides a raised audible pavement marking visual depiction:

Exhibit 4.1 – Raised Audible Pavement Marking:



Advantages:

- Low construction cost
- Equally effective in alerting a driver that they have diverged from their travel lane in day, night and adverse weather conditions
- Efficient way to reduce motorist's lane departure crashes

Disadvantages:

- Has potential to adversely affect bicycle operations in the corridor
- Can result in undesirable noise within nearby residences due to vehicular strikes
- Should not be utilized on small projects with limited installation lengths

4.2 Speed Reduction Markings

Speed reduction markings consisted of a series of parallel bars on the inside edges of the travel lane. The spacing between bars decreased approaching a specific location. The series of markings are intended to create the perception that the vehicle's speed is increasing to trigger driver awareness of the need to slow down. This may also induce slower vehicular speeds by warning or alerting drivers to an upcoming situation.

The transverse markings are recommended to be 12 inches wide (parallel to roadway edge) by 18 inches long. The length of each series and distance between bars vary based upon each speed transition and location within the series. The following image provides a speed reduction markings visual depiction:

Exhibit 4.2 - Typical Traverse Marking Application:



Advantages:

- Low construction cost
- Can also serve to notify motorists of changing geometric conditions, such as sharp horizontal curves or intersections

Disadvantages:

- Not recommended to be utilized on long tangent roadway sections
- Tends to be more effective during the day light hours as compared to night time hours

4.3 Radar Speed Feedback Signs

Radar speed feedback signs provide real-time digital feedback to motorists alerting them of their vehicular speed. The radar speed feedback sign collects traffic data of a passing vehicle, if the motorists is speeding the sign provides an electronic message which flashes indicating the motorists speed making them aware that they are speeding. Radar speed feedback signs typically operate as follows:

- A blank display is shown when no vehicles are approaching the sign
- An approaching vehicle's speed is displayed as a solid numeral (non-flashing numeral) if the approach speed is at or below the posted speed limit
- The approach speed is shown as a flashing numeral if the approach speed exceeds the posted speed limit by 3 mph or more

Studies have shown that radar speed feedback signs are effective in encouraging speeding motorists to reduce their vehicular speeds by providing real-time feedback. By using this real-time vehicle specific feedback, motorists are reminded of the posted operating speed. The following image provides a radar speed feedback sign visual depiction:

Exhibit 4.3 – Radar Speed Feedback Sign:



Advantages:

- Moderate construction cost
- Effective during the day light and night time hours
- Typical speed reductions of 5 to 10 mph

Disadvantages:

- Will require periodic maintenance
- Some manufacturer versions are not directly supported by the FHWA MUTCD

5.0 RECOMMENDATIONS:

The Indian River Drive corridor, within the Study Limits, has a very consistent physical context consisting of the following:

- Limited roadway right-of-way width (typically 30-ft)
- Rural roadway section with limited paved shoulders (0 to 1-ft)
- Narrow vehicular travel lanes (approx. 10-ft wide)
- No stop control conditions (e.g. signals or stop signs)
- Large spacing between bisecting collector or arterial roadways
- Large segments with consistent horizontal or vertical geometry
- Primarily moderate to dense single-family residential homes along the corridor's west side
- Steep grade change along the corridor's east side associated with the Indian River Lagoon
- On average 4,000 to 5,000 vehicles per day (approx. capacity of 6,500 vehicles per day to maintain LOS C)

Based upon the speed data collected within the Study Limits and to be consistent with the relationships recommended by the FDOT between posted speed, the 85th percentile speed and the 10-mph Pace; vehicular traffic speeds along the corridor would need to be reduced approximately 5 mph. To achieve this traffic calming goal, the above identified traffic calming strategies and enhanced traffic control measures were evaluated based upon the following criteria:

- Ability to implement quickly
- Cost benefit evaluation
- Application limits
- Ability to accommodate waste management vehicles, school buses and tractor & trailers (WB-50)
- Compatibility with the rural setting and driver expectations

Based upon these criteria, the following constitutes our recommended traffic calming applications:

Phase IA – Install raised audible pavement markings as edge and centerline striping within the Project Limits as depicted within ***Figure 2***. This improvement will give motorists the perception of lane narrowing by providing a vibratory and auditory response when driven upon inducing slower vehicular speeds. It will induce motorists to stay within their travel lanes, in low vehicular volume conditions, when entering the horizontal curves along the corridor inducing slower vehicular speeds. It will also constitute a safety improvement alerting motorists of unrealized lane departures.

The estimated cost of implementing this strategy within the Study Limits is $350,000.

Phase IB – Install traverse pavement markings with transverse rumble strips in the vicinity of the three-existing adverse horizontal alignments as indicated within ***Figure 2.*** This improvement will give motorists the perception that their vehicle's speed is increasing to trigger driver awareness of the need to slow down.

Transverse lateral rumble strips are placed across the full width of the travel lane, and their primary purpose is to provide motorists an audible and tactile warning of approaching adverse horizontal curves. While transverse rumble strips are not identified as a traffic calming strategy, they are identified as a safety enhancement and are intended to emphasize the speed reduction postings in these three locations.

The estimated cost of implementing this strategy within the Study Limits is $15,000.

Phase IC – Replace 18 of the posted speed limit signs with radar speed feedback signs within the Project Limits as depicted within ***Figure 2***. Radar speed feedback signs have been shown to be effective in encouraging speeding motorists to reduce their vehicular speeds by providing real-time feedback.

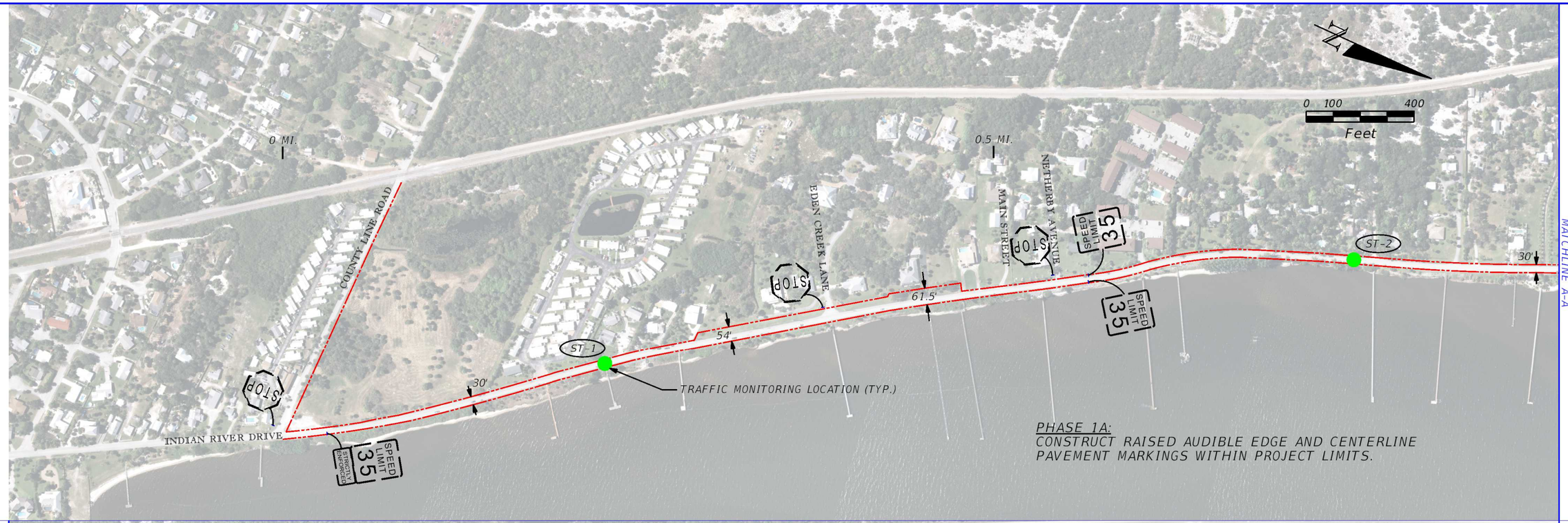
The estimated cost of implementing this strategy within the Study Limits is $150,000.

Following implementation of the identified Phase I traffic calming strategies, it is recommended that updated vehicular speed data be collected coincidentally with the identified Traffic Monitoring Locations within the Study Limits approximately 6 to 9 months following Phase I completion to measure the effectiveness of the implemented traffic calming strategies. If the desired vehicular speed reductions within the Study Limits are not achieved, additional traffic calming measures should be considered

The traffic calming strategies recommended to be implemented in Phase I, were identified as a result of possessing the following attributes:

- Low construction cost
- Ability to quickly implement
- Can be implemented within the existing limited roadway right-of-way
- Does not require horizontal or vertical roadway alterations
- Phase IA & IC can be applied throughout the Study Limits

Please refer to **Figure 2**, on the following pages, which depicts the recommended implementation locations associated with each traffic calming strategy within the Study Limits.



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RECOMMENDED TRAFFIC CALMING STRATEGIES

FIGURE 2

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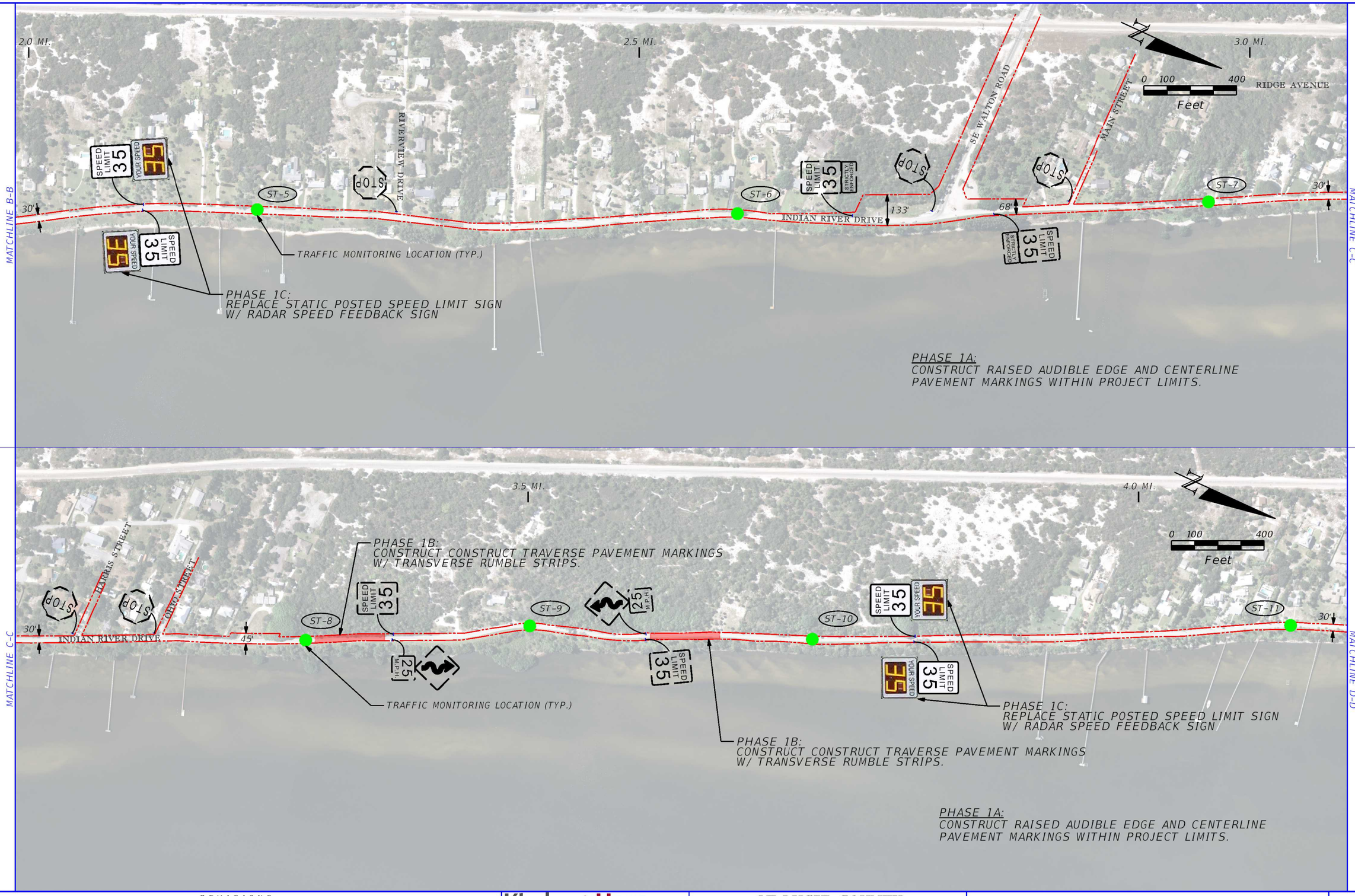

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RECOMMENDED TRAFFIC CALMING STRATEGIES

FIGURE 2

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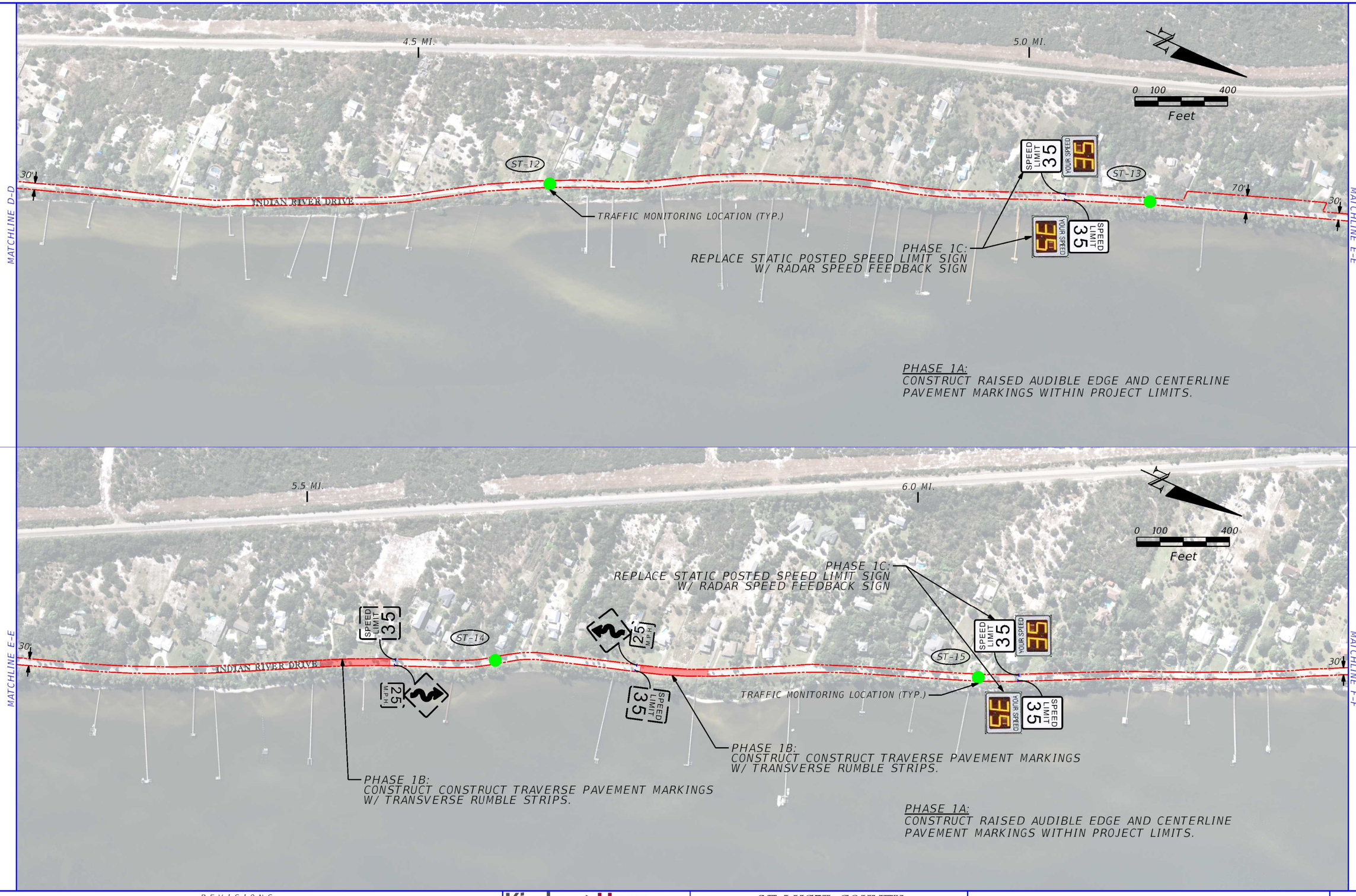

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RECOMMENDED TRAFFIC CALMING STRATEGIES

FIGURE 2

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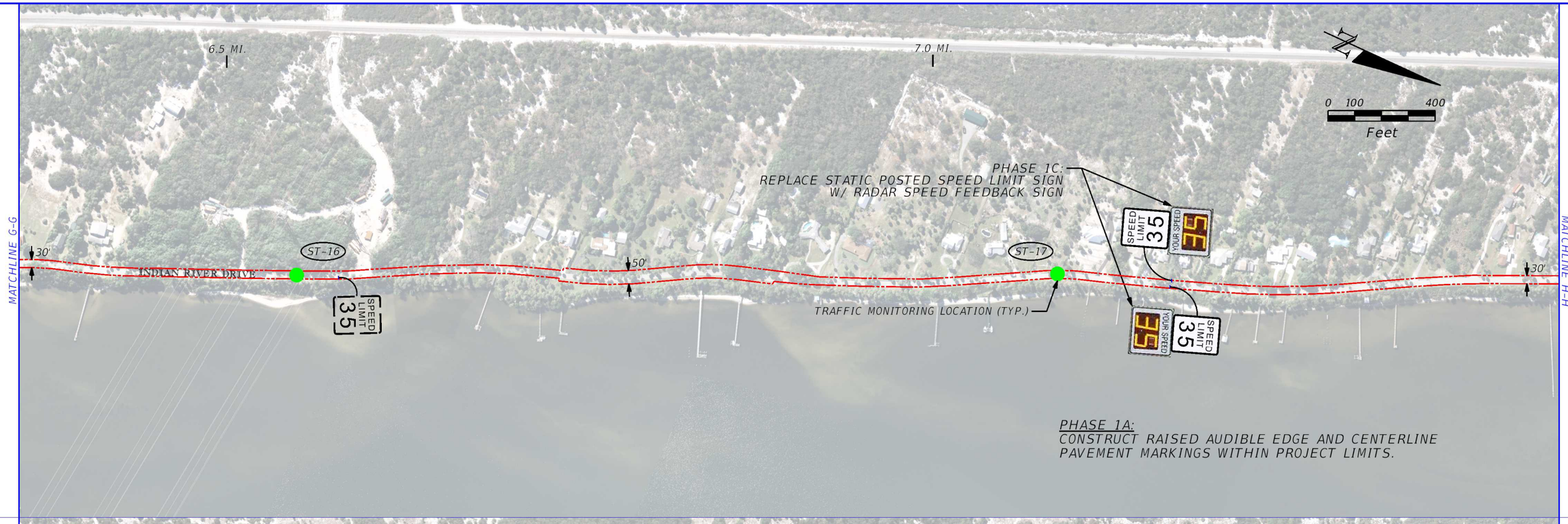

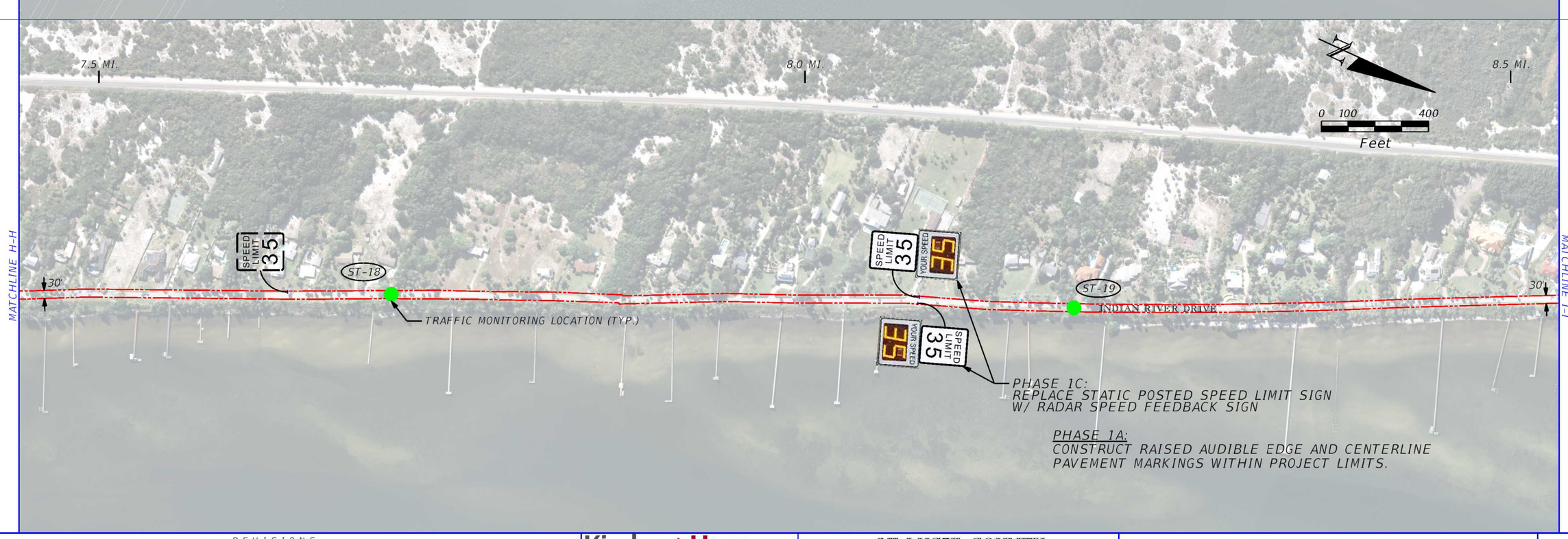

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RECOMMENDED TRAFFIC CALMING STRATEGIES

FIGURE 2



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RECOMMENDED TRAFFIC CALMING STRATEGIES

FIGURE 2

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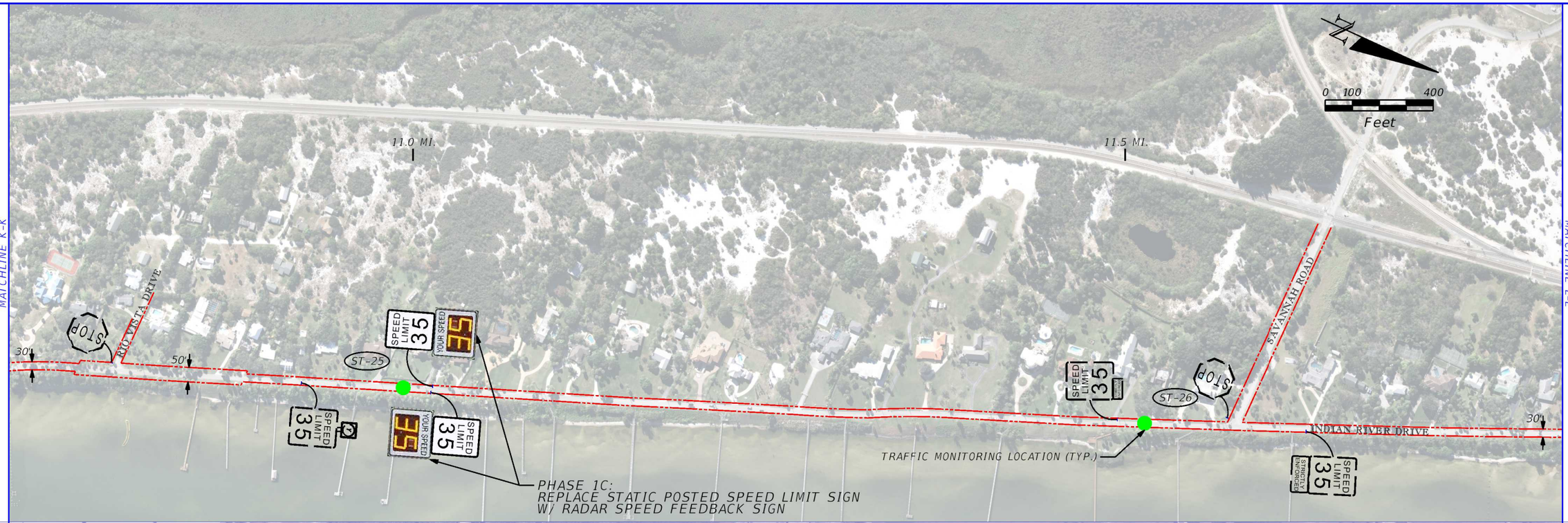

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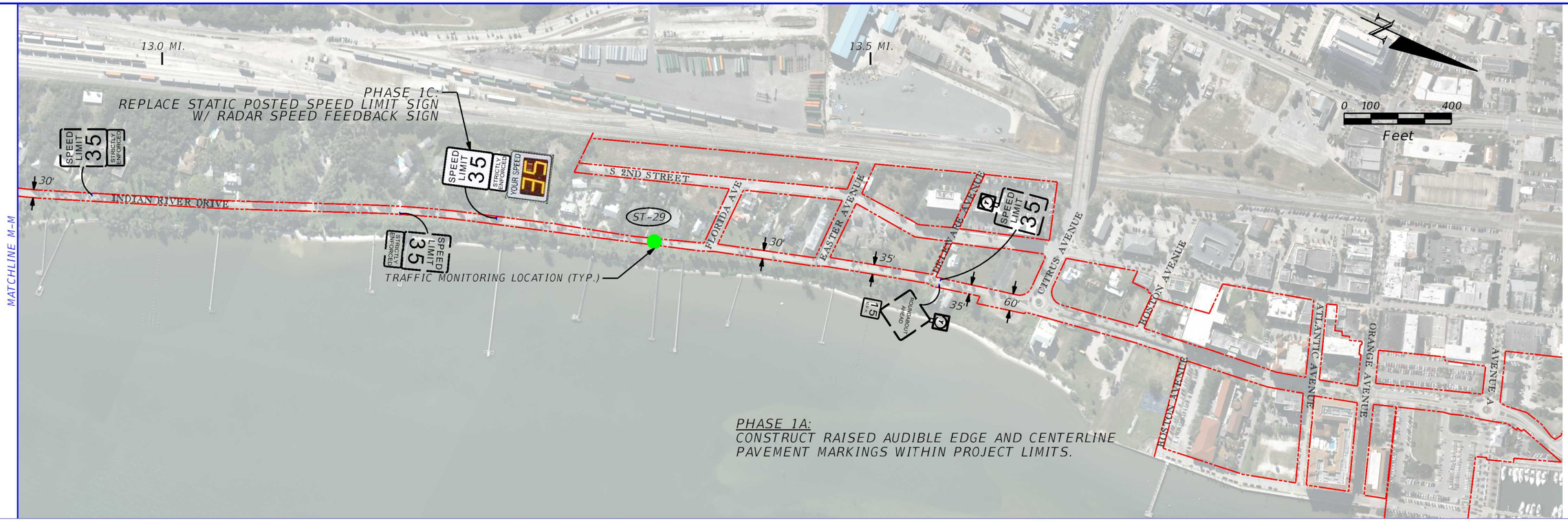
RECOMMENDED TRAFFIC CALMING STRATEGIES

FIGURE 2



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RECOMMENDED TRAFFIC CALMING STRATEGIES

FIGURE 2

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APPENDIX A:

Exhibit depicting the regulatory speed limit signage and traffic monitoring locations identified within the Study Limits.



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TRAFFIC CALMING STUDY

TRAFFIC MONITORING & CORRIDOR CHARACTERISTICS EXHIBIT

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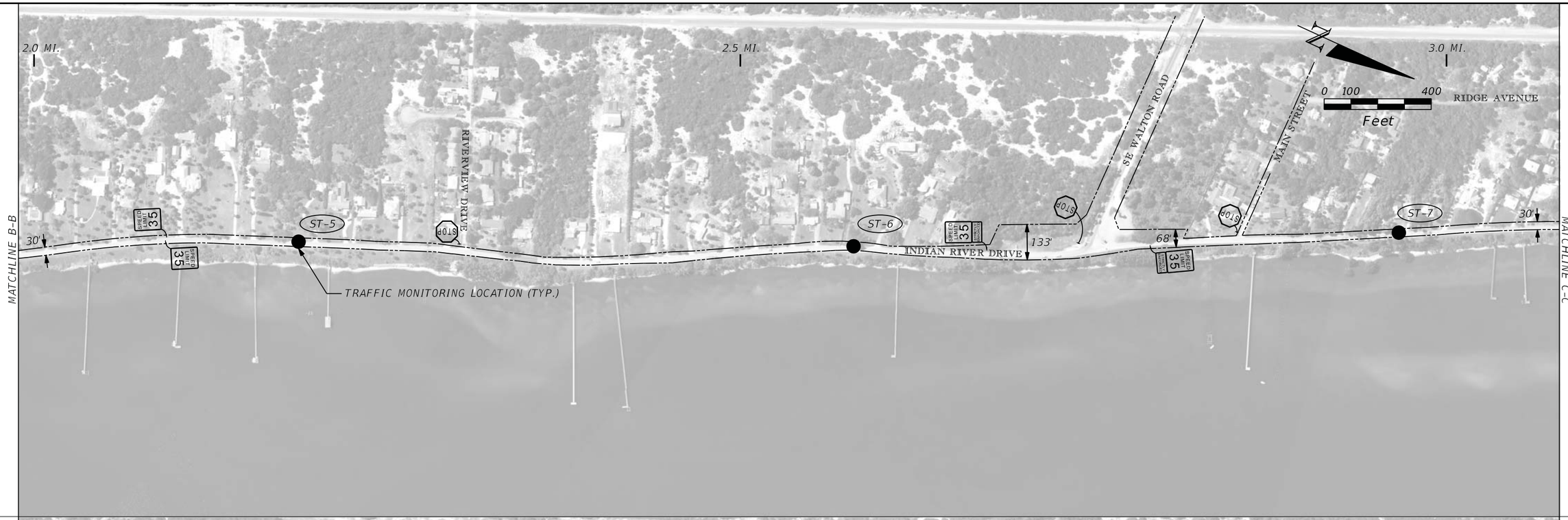



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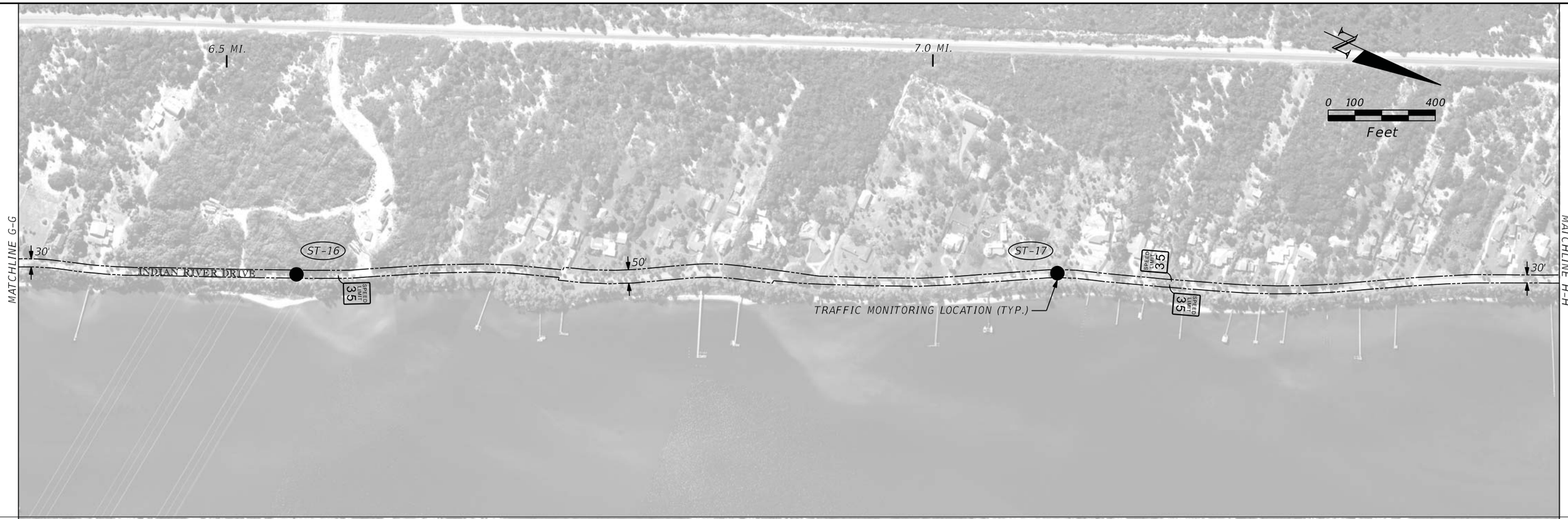



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

Kimley»Horn
BRIAN A. GOOD, P.E.
P.E. LICENSE NUMBER 56939
445 24th STREET, SUITE 200
VERO BEACH, FL 32960
(772) 794-4100
CERTIFICATE OF AUTHORIZATION: 00000696

ST LUCIE COUNTY
BOARD OF COUNTY COMISSIONERS
INDIAN RIVER DRIVE
TRAFFIC CALMING STUDY

TRAFFIC MONITORING & CORRIDOR CHARACTERISTICS EXHIBIT

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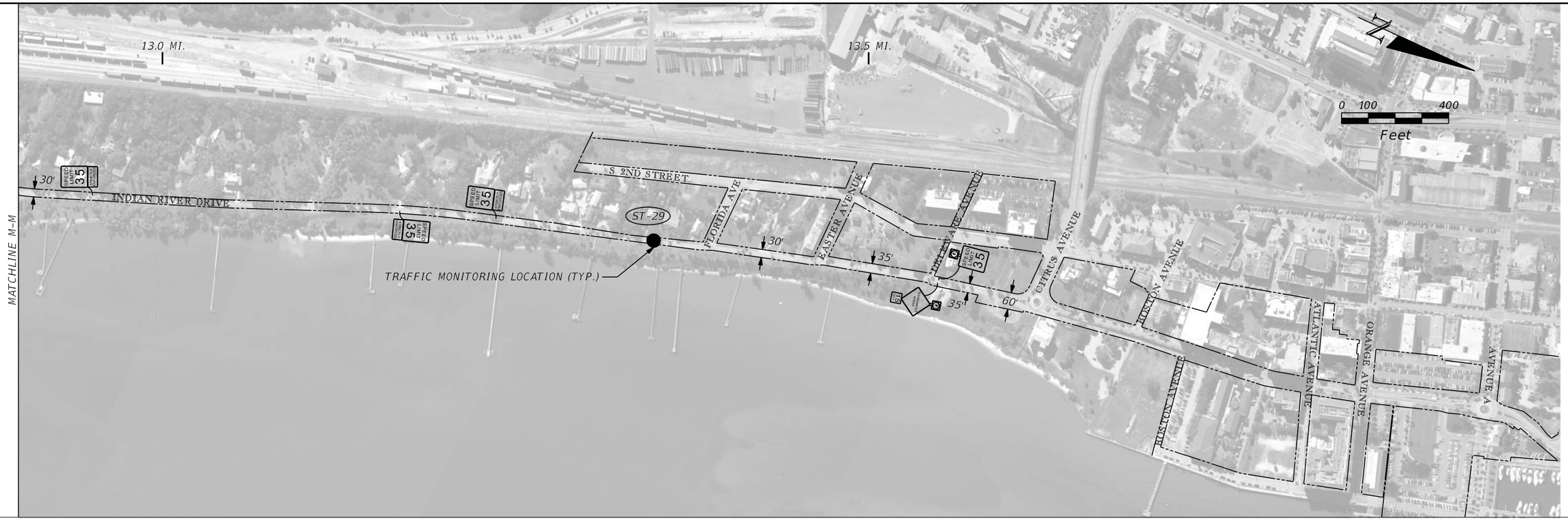

REVISIONS					
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SHEET NO.

APPENDIX B:

85th percentile speeds and 10-mph pace data collected at the traffic monitoring stations located within the Study Limits

PROJECT: INDIAN RIVER DRIVE SPEED STUDY
COLLECTION DATE: WEDNESDAY, AUGUST 10, 2016
POSTED SPEED: 35 MPH

Kimley»Horn

SIDE STREET	STATION NUMBER	SOUTHBOUND VEHICLE VOLUME	SOUTHBOUND 85% MPH	SOUTHBOUND 95% MPH	SOUTHBOUND PACE SPEED	NORTHBOUND VEHICLE VOLUME	NORTHBOUND 85% MPH	NORTHBOUND 95% MPH	NORTHBOUND PACE SPEED	TOTAL VEHICLE VOLUME	TOTAL 85% MPH	TOTAL 95% MPH	TOTAL PACE SPEED
County Line Road													
1.7 Miles	**ST-1**	2778	**45.0**	47.8	**36 to 45 MPH, 54.8%**	2946	44.2	47.5	33 to 42 MPH, 51.7%	5724	44.6	47.7	**36 to 45 MPH, 51.1%**
	ST-2	2630	44.2	47.0	33 to 42 MPH, 52.7%	2829	43.4	46.9	33 to 42 MPH, 51.7%	5459	43.8	46.9	33 to 42 MPH, 52.2%
	ST-3	2614	44.7	47.4	**36 to 45 MPH, 54.0%**	2789	44.1	47.8	33 to 42 MPH, 55.8%	5403	44.4	47.6	33 to 42 MPH, 53.4%
	Avg.		**44.6**	47.4	**36 to 45 MPH**		**43.9**	47.4	**33 to 42 MPH**		**44.3**	47.4	**33 to 42 MPH**
Spring Hill Drive													
1.0 Miles	**ST-4**	2558	**45.2**	47.6	**36 to 45 MPH, 53.2%**	2755	43.6	46.8	33 to 42 MPH, 55.5%	5313	44.8	47.7	**36 to 45 MPH, 51.2%**
	ST-5	2555	44.6	47.7	**36 to 45 MPH, 52.5%**	2733	43.9	47.3	33 to 42 MPH, 56.2%	5288	44.3	47.5	33 to 42 MPH, 52.8%
	ST-6	2585	44.3	47.3	33 to 42 MPH, 51.6%	2774	41.7	44.4	33 to 42 MPH, 55.1%	5359	43.3	46.5	33 to 42 MPH, 53.4%
	Avg.		**44.7**	47.5			**43.1**	46.2			**44.1**	47.2	**33 to 42 MPH**
Walton Road													
6.2 Miles	**ST-7**	1999	42.0	45.0	33 to 42 MPH, 60.2%	2007	44.3	47.7	33 to 42 MPH, 51.5%	4006	43.4	46.8	33 to 42 MPH, 55.8%
	ST-8	1980	43.4	46.3	33 to 42 MPH, 59.9%	1961	44.6	48.3	**36 to 45 MPH, 54.2%**	3941	44.4	47.7	33 to 42 MPH, 55.6%
	ST-9	1973	42.0	44.5	33 to 42 MPH, 62.0%	1953	41.9	44.7	30 to 39 MPH, 56.1%	3926	42.0	44.6	33 to 42 MPH, 58.8%
	ST-10	1979	44.9	47.7	**36 to 45 MPH, 58.7%**	1943	44.7	47.8	33 to 42 MPH, 52.6%	3922	44.8	47.0	**36 to 45 MPH, 55.3%**
	ST-11	1953	43.4	46.0	33 to 42 MPH, 58.5%	1916	44.2	48.9	**36 to 45 MPH, 52.2%**	3869	44.3	47.7	33 to 42 MPH, 54.8%
	ST-12	1936	43.3	46.4	33 to 42 MPH, 58.1%	1899	44.2	47.6	33 to 42 MPH, 56.9%	3835	43.8	47.1	33 to 42 MPH, 57.5%
	ST-13	1899	43.5	46.6	33 to 42 MPH, 58.4%	1885	44.2	48.0	33 to 42 MPH, 58.1%	3784	43.9	47.3	33 to 42 MPH, 58.2%
	ST-14	1899	41.5	44.0	30 to 39 MPH, 58.6%	1871	41.3	44.1	30 to 39 MPH, 62.6%	3770	41.4	44.0	30 to 39 MPH, 60.6%
	ST-15	1858	43.5	46.1	33 to 42 MPH, 58.0%	1863	42.9	46.6	33 to 42 MPH, 60.5%	3721	43.3	46.3	33 to 42 MPH, 59.3%
	ST-16	1888	44.1	48.0	**36 to 45 MPH, 54.3%**	1877	42.6	45.7	33 to 42 MPH, 61.2%	3765	44.1	47.4	33 to 42 MPH, 56.0%
	ST-17	1906	43.2	46.0	33 to 42 MPH, 57.6%	1890	42.6	45.4	33 to 42 MPH, 61.6%	3796	42.9	45.7	33 to 42 MPH, 59.6%
	ST-18	1936	**45.0**	48.7	**36 to 45 MPH, 53.8%**	1916	43.5	47.8	33 to 42 MPH, 60.1%	3852	44.7	48.1	33 to 42 MPH, 54.0%
	ST-19	2000	44.7	47.0	**36 to 45 MPH, 51.3%**	1960	44.3	47.4	33 to 42 MPH, 57.6%	3960	44.5	47.2	33 to 42 MPH, 54.2%
	ST-20**	-	-	-	-	-	-	-	-	-	-	-	-
	Avg.		**43.4**	46.3			**43.5**	46.9			**43.7**	46.7	**33 to 42 mph**
Midway Road													
2.6 Miles	**ST-21****	-	-	-	-	-	-	-	-	-	-	-	-
	ST-22**	-	-	-	-	-	-	-	-	-	-	-	-
	ST-23	2179	40.5	42.5	30 to 39 MPH, 66.0%	1898	41.8	44.7	30 to 39 MPH, 55.7%	4077	41.1	43.8	30 to 39 MPH, 61.2%
	ST-24	2185	44.0	46.7	33 to 42 MPH, 53.6%	1916	44.3	47.8	**36 to 45 MPH, 55.5%**	4101	44.1	47.2	33 to 42 MPH, 54.3%
	ST-25	2213	44.3	47.2	33 to 42 MPH, 54.1%	1957	43.0	45.6	33 to 42 MPH, 60.8%	4170	43.8	46.7	33 to 42 MPH, 57.2%
	Avg.		**42.9**	45.5			**43.0**	46.0			**43.0**	45.9	**33 to 42 MPH**
Savannah Road													
2.0 Miles	**ST-26**	2254	42.0	44.7	33 to 42 MPH, 50.9%	1990	41.4	44.7	33 to 42 MPH, 52.7%	4244	41.1	45.0	33 to 42 MPH, 51.7%
	ST-27	2056	41.2	44.8	33 to 42 MPH, 40.1%	1863	41.9	45	33 to 42 MPH, 43.4%	3919	41.5	44.3	33 to 42 MPH, 41.7%
	ST-28	-	-	-	-	-	-	-	-	-	-	-	-
	ST-29	2117	41.4	44.4	30 to 39 MPH, 57.8%	1881	41.1	45	**33 to 42 MPH, 55.6%**	3998	41.7	44.7	30 to 39 MPH, 55.1%
	Avg.		**41.5**	44.6			**41.5**	44.9			**41.4**	44.7	**33 to 42 mph**
Citrus Avenue													

***Note: Data not collecctd at these station on this day*

PROJECT: INDIAN RIVER DRIVE SPEED STUDY
COLLECTION DATE: THURSDAY, AUGUST 11, 2016
POSTED SPEED: 35 MPH

Kimley»Horn

SIDE STREET	STATION NUMBER	SOUTHBOUND				NORTHBOUND				TOTAL			
		VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED	VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED	VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED
County Line Road													
1.7 Miles	**ST-1**	2832	44.3	47.3	**36 to 45 MPH, 55.9%**	3047	43.8	46.9	33 to 42 MPH, 52.11%	5879	44.0	47.1	33 to 42 MPH, 53.7%
	ST-2	2700	44.0	47.1	33 to 42 MPH, 57.8%	2933	42.7	46.0	33 to 42 MPH, 52.6%	5633	43.4	46.6	33 to 42 MPH, 55.1%
	ST-3	2685	44.5	47.5	**36 to 45 MPH, 55.2%**	2874	43.6	47.4	33 to 42 MPH, 53.4%	5559	44.1	47.5	33 to 42 MPH, 53.7%
	Avg.		**44.3**	47.3			**43.4**	46.8			**43.8**	47.1	**33 to 42 MPH**
Spring Hill Drive													
1.0 Miles	**ST-4**	2591	44.7	48	**36 to 45 MPH, 56.8%**	2818	43.4	46.6	33 to 42 MPH, 54.3%	5409	44.5	47.7	33 to 42 MPH, 51.3%
	ST-5	2595	44.2	47.5	33 to 42 MPH, 52.4%	2805	43.5	46.4	33 to 42 MPH, 55.8%	5400	43.9	47	33 to 42 MPH, 54.2%
	ST-6	2627	43.9	47	33 to 42 MPH, 54.9%	2799	41.9	44.6	33 to 42 MPH, 55.4%	5426	42.7	45.7	33 to 42 MPH, 55.2%
	Avg.		**44.3**	47.5			**42.9**	45.9			**43.7**	46.8	**33 to 42 MPH**
Walton Road													
6.2 Miles	**ST-7**	2025	41.6	44.7	33 to 42 MPH, 60.3%	2031	43.7	47.1	33 to 42 MPH, 53.2%	4056	42.8	45.7	33 to 42 MPH, 56.7%
	ST-8	1983	43.3	45.8	33 to 42 MPH, 59.3%	1985	44.1	47.5	**36 to 45 MPH, 55.5%**	3968	44.2	47.4	33 to 42 MPH, 54.8%
	ST-9	1969	41.9	44.2	33 to 42 MPH, 64.1%	1985	41.6	44.4	30 to 39 MPH, 57.4%	3954	41.8	44.3	33 to 42 MPH, 59.7%
	ST-10	2007	44.5	47.4	**36 to 45 MPH, 59.0%**	1976	44.3	47.3	33 to 42 MPH, 53.0%	3983	44.4	47.4	33 to 42 MPH, 55.5%
	ST-11	1957	43.2	45.7	33 to 42 MPH, 60.6%	1874	44.6	47.2	**36 to 45 MPH, 57.3%**	3831	44	47.1	33 to 42 MPH, 56.4%
	ST-12	1954	43	45.6	33 to 42 MPH, 59.5%	1895	43.8	46.7	33 to 42 MPH, 58.0%	3849	43.4	46.2	33 to 42 MPH, 58.8%
	ST-13	1911	43.6	46.4	33 to 42 MPH, 59.0%	1892	44	47.4	33 to 42 MPH, 57.3%	3803	43.8	46.9	33 to 42 MPH, 58.2%
	ST-14	1908	41.5	43.9	33 to 42 MPH, 58.3%	1867	41.1	43.7	30 to 39 MPH, 62.5%	3775	41.3	43.9	30 to 39 MPH, 58.8%
	ST-15	1880	43.4	46.1	33 to 42 MPH, 59.6%	1871	43.1	46	33 to 42 MPH, 57.6%	3751	43.2	46.1	33 to 42 MPH, 58.6%
	ST-16	1889	**45**	47.1	**36 to 45 MPH, 58.1%**	1861	42.8	45.1	33 to 42 MPH, 60.7%	3750	44.1	47.1	33 to 42 MPH, 55.5%
	ST-17	1900	43.2	46	33 to 42 MPH, 57.8%	1861	42.9	45.2	33 to 42 MPH, 61.2%	3761	43	45.7	33 to 42 MPH, 59.5%
	ST-18	1927	**45.1**	48.2	**36 to 45 MPH, 54.2%**	1884	43.4	47.2	33 to 42 MPH, 60.4%	3811	44.7	47.2	33 to 42 MPH, 54.8%
	ST-19	1987	44.3	47.3	33 to 42 MPH, 52.4%	1944	43.8	47.2	33 to 42 MPH, 57.5%	3931	44.1	47.3	33 to 42 MPH, 54.9%
	ST-20*	2085	44.9	47.9	**36 to 45 MPH, 53.9%**	2163	43.7	46.8	33 to 42 MPH, 55.8%	4248	44.4	47.5	33 to 42 MPH, 52.5%
	Avg.		**43.4**	46.0			**43.3**	46.3			**43.4**	46.3	**33 to 42 mph**
Midway Road													
2.6 Miles	**ST-21***	2220	41.1	44	33 to 42 MPH, 56.7%	2080	44.9	47	**36 to 45 MPH, 53.7%**	4300	43.7	47	33 to 42 MPH, 53.3%
	ST-22*	2213	44.5	47.4	**36 to 45 MPH, 55.3%**	2054	44.5	47.4	**36 to 45 MPH, 57.1%**	4267	44.9	47.8	**36 to 45 MPH, 56.2%**
	ST-23	2110	40.5	42.9	30 to 39 MPH, 65.4%	1870	41.4	44.1	30 to 39 MPH, 59.2%	3980	40.9	43.6	30 to 39 MPH, 62.5%
	ST-24	2100	44.5	47.8	33 to 42 MPH, 54.4%	1875	44.2	47.3	33 to 42 MPH, 55.8%	3975	44.4	47.6	33 to 42 MPH, 55.1%
	ST-25	2111	44.4	47.6	33 to 42 MPH, 51.6%	1892	42.9	46.2	33 to 42 MPH, 58.9%	4003	43.8	47	33 to 42 MPH, 55.0%
	Avg.		**43.1**	46.1			**42.8**	45.9			**43.0**	46.1	**33 to 42 MPH**
Savannah Road													
2.0 Miles	**ST-26**	2155	41.9	44.6	30 to 39 MPH, 52.2%	1930	41.7	44.7	30 to 39 MPH, 56.2%	4085	41.8	44.6	30 to 39 MPH, 54.1%
	ST-27	1944	43.6	47	33 to 42 MPH, 52.6%	1808	43.5	46.9	33 to 42 MPH, 55.4%	3752	43.5	46.9	33 to 42 MPH, 53.9%
	ST-28	1954	42.3	45.6	33 to 42 MPH, 53.9%	1799	43.0	45.6	33 to 42 MPH, 55.6%	3753	42.7	45.6	33 to 42 MPH, 54.8%
	ST-29	1979	41.4	44.6	30 to 39 MPH, 56.3%	1834	41.7	44.5	30 to 39 MPH, 54.3%	3813	41.6	44.6	30 to 39 MPH, 55.4%
	Avg.		**42.3**	45.5			**42.5**	45.4			**42.4**	45.4	**30 to 39 mph**
Citrus Avenue													

Note: Data for ST-20, ST-21 and ST-22 had collection date of 09/08/2016

PROJECT: INDIAN RIVER DRIVE SPEED STUDY
COLLECTION DATE: FRIDAY, AUGUST 12, 2016
POSTED SPEED: 35 MPH

Kimley»Horn

SIDE STREET	STATION NUMBER	SOUTHBOUND				NORTHBOUND				TOTAL			
		VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED	VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED	VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED
County Line Road													
1.7 Miles	**ST-1**	2949	44.4	47.3	**36 to 45 MPH, 55.5%**	3211	44.0	47.3	33 to 42 MPH, 51.9%	6160	44.2	47.3	**36 to 45 MPH, 52.2%**
	ST-2	2798	43.9	46.9	33 to 42 MPH, 54.9%	3072	43.2	46.2	33 to 42 MPH, 53.4%	5870	43.5	46.6	33 to 42 MPH, 54.1%
	ST-3	2762	44.2	47.2	33 to 42 MPH, 54.5%	3007	43.6	46.5	33 to 42 MPH, 56.1%	5769	43.9	46.9	33 to 42 MPH, 55.3%
	Avg.		**44.2**	47.1			**43.6**	46.7			**43.9**	46.9	**33 to 42 MPH**
Spring Hill Drive													
1.0 Miles	**ST-4**	2664	44.5	47.1	**36 to 45 MPH, 56.7%**	2948	43.5	46.3	33 to 42 MPH, 55.3%	5612	44.5	47.4	**36 to 45 MPH, 52.5%**
	ST-5	2692	44.2	47.6	33 to 42 MPH, 52.3%	2967	43.6	46.4	33 to 42 MPH, 56.2%	5659	43.9	47.0	33 to 42 MPH, 54.3%
	ST-6	2682	43.9	47.2	33 to 42 MPH, 50.6%	2888	41.8	44.6	30 to 39 MPH, 55.3%	5570	42.6	45.8	33 to 42 MPH, 52.1%
	Avg.		**44.2**	47.3			**43.0**	45.8			**43.7**	46.7	**33 to 42 MPH**
Walton Road													
6.2 Miles	**ST-7**	2111	41.5	44.9	33 to 42 MPH, 60.3%	2194	43.9	46.9	33 to 42 MPH, 51.0%	4305	42.9	46.0	33 to 42 MPH, 55.5%
	ST-8	2069	43.4	46.1	33 to 42 MPH, 59.3%	2145	44.6	47.9	**36 to 45 MPH, 53.7%**	4214	44.5	47.6	33 to 42 MPH, 54.3%
	ST-9	2065	41.0	44.5	33 to 42 MPH, 60.3%	2145	41.8	44.6	30 to 39 MPH, 57.8%	4210	41.9	44.5	30 to 39 MPH, 56.3%
	ST-10	2074	44.6	47.9	**36 to 45 MPH, 58.6%**	2118	44.7	47.7	33 to 42 MPH, 49.4%	4192	44.7	47.8	**36 to 45 MPH, 53.6%**
	ST-11	2016	43.3	45.6	33 to 42 MPH, 57.8%	2007	44.6	47.9	**36 to 45 MPH, 54.7%**	4023	44	47.0	33 to 42 MPH, 55.0%
	ST-12	2010	43.1	45.6	33 to 42 MPH, 57.7%	2069	44.1	46.8	33 to 42 MPH, 53.6%	4079	43.6	46.4	33 to 42 MPH, 55.6%
	ST-13	2000	43.7	47	33 to 42 MPH, 58.1%	2052	43.9	47.3	33 to 42 MPH, 57.2%	4052	43.8	47.2	33 to 42 MPH, 57.7%
	ST-14	1988	41.3	44	30 to 39 MPH, 60.2%	2032	41.1	43.9	30 to 39 MPH, 61.6%	4020	41.2	44.0	30 to 39 MPH, 60.9%
	ST-15	1969	43.3	46.4	33 to 42 MPH, 57.4%	2032	43.0	46.1	33 to 42 MPH, 56.5%	4001	43.2	46.2	33 to 42 MPH, 57.0%
	ST-16	1962	43.7	47.4	**36 to 45 MPH, 34.3%**	1984	41.2	44.8	33 to 42 MPH, 40.7%	3946	42.6	46.1	33 to 42 MPH, 36.7%
	ST-17	2007	43.3	46.2	33 to 42 MPH, 54.5%	2070	42.2	44.9	33 to 42 MPH, 58.0%	4077	42.8	45.2	33 to 42 MPH, 56.3%
	ST-18	2060	**45.0**	48.6	**36 to 45 MPH, 53.3%**	2082	43.2	46.5	33 to 42 MPH, 57.5%	4142	44.6	47.9	33 to 42 MPH, 51.1%
	ST-19	2109	44.5	47.8	**36 to 45 MPH, 51.2%**	2151	44.0	47.4	33 to 42 MPH, 55.6%	4260	44.3	47.6	33 to 42 MPH, 53.1%
	ST-20*	2209	44.7	47.1	**36 to 45 MPH, 55.0%**	2183	44.1	47.3	33 to 42 MPH, 54.8%	4392	44.4	47.7	**36 to 45 MPH, 54.5%**
	Avg.		**43.2**	46.3			**43.3**	46.4			**43.4**	46.4	**33 to 42 mph**
Midway Road													
2.6 Miles	**ST-21***	2343	41.5	44.8	33 to 42 MPH, 56.5%	2199	44.4	47.5	**36 to 45 MPH, 57.8%**	4542	44.0	47.1	33 to 42 MPH, 52.5%
	ST-22*	2332	44.9	47.7	**36 to 45 MPH, 58.4%**	2172	44.5	47.7	**36 to 45 MPH, 60.4%**	4504	44.1	48.0	**36 to 45 MPH, 59.4%**
	ST-23	2331	40.3	42.4	30 to 39 MPH, 67.2%	2105	41.4	44.0	30 to 39 MPH, 58.7%	4436	40.8	43.3	30 to 39 MPH, 63.2%
	ST-24	2344	44.1	46.8	33 to 42 MPH, 51.3%	2141	44.1	46.9	33 to 42 MPH, 54.9%	4485	44.1	46.9	33 to 42 MPH, 53.0%
	ST-25	2382	44.2	47.1	33 to 42 MPH, 51.8%	2170	42.6	44.8	33 to 42 MPH, 60.5%	4552	43.5	46.4	33 to 42 MPH, 55.9%
	Avg.		**42.9**	45.4			**42.7**	45.2			**42.8**	45.5	**33 to 42 MPH**
Savannah Road													
2.0 Miles	**ST-26**	2390	41.7	44.6	30 to 39 MPH, 52.3%	2185	41.6	44.6	30 to 39 MPH, 56.2%	4575	41.6	44.6	30 to 39 MPH, 54.2%
	ST-27	2180	42.9	45.5	33 to 42 MPH, 53.0%	2074	42.6	45.8	33 to 42 MPH, 58.8%	4254	42.8	45.7	33 to 42 MPH, 55.8%
	ST-28	2194	42.1	44.4	33 to 42 MPH, 54.5%	2056	43.1	45.8	33 to 42 MPH, 57.7%	4250	42.6	45.2	33 to 42 MPH, 56.0%
	ST-29	2220	41.0	43.8	30 to 39 MPH, 59.9%	2110	41.5	44.1	30 to 39 MPH, 57.8%	4330	41.3	44.0	30 to 39 MPH, 58.9%
	Avg.		**41.9**	44.6			**42.2**	45.1			**42.1**	44.9	**30 to 39 mph**
Citrus Avenue													

Note: Data for ST-20, ST-21 and ST-22 had collection date of 09/09/2016

PROJECT: INDIAN RIVER DRIVE SPEED STUDY
COLLECTION DATE: SATURDAY, AUGUST 13, 2016
POSTED SPEED: 35 MPH

Kimley»Horn

SIDE STREET	STATION NUMBER	SOUTHBOUND				NORTHBOUND				TOTAL			
		VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED	VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED	VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED
County Line Road													
1.7 Miles	**ST-1**	2735	44.6	47.6	**36 to 45 MPH, 55.6%**	2976	43.8	47.1	33 to 42 MPH, 54.4%	5711	44.2	47.4	33 to 42 MPH, 54.4%
	ST-2	2591	44.0	47.1	33 to 42 MPH, 57.0%	2860	43.1	46.4	33 to 42 MPH, 53.5%	5451	43.6	46.8	33 to 42 MPH, 55.2%
	ST-3	2575	44.2	47.3	33 to 42 MPH, 53.4%	2817	43.4	46.5	33 to 42 MPH, 58.1%	5392	43.8	47	33 to 42 MPH, 55.9%
	Avg.		**44.3**	47.3			**43.4**	46.7			**43.9**	47.1	**33 to 42 MPH**
Spring Hill Drive													
1.0 Miles	**ST-4**	2434	44.8	48.1	**36 to 45 MPH, 56.5%**	2753	43.5	46.9	33 to 42 MPH, 56.3%	5187	44.6	47.9	33 to 42 MPH, 52.5%
	ST-5	2480	44.3	47.4	33 to 42 MPH, 52.1%	2766	43.6	47	33 to 42 MPH, 58.4%	5246	44	47.2	33 to 42 MPH, 55.4%
	ST-6**	-	-	-	-	-	-	-	-	-	-	-	-
	Avg.		**44.6**	47.8			**43.6**	47.0			**44.3**	47.6	**33 to 42 MPH**
Walton Road													
6.2 Miles	**ST-7**	1729	41.5	44.9	33 to 42 MPH, 55.2%	1813	43.5	46.9	33 to 42 MPH, 50.9%	3542	42.6	45.9	33 to 42 MPH, 53.0%
	ST-8	1713	43.3	46.2	33 to 42 MPH, 57.2%	1775	44.4	47.5	**36 to 45 MPH, 52.0%**	3488	44.4	47.5	33 to 42 MPH, 53.9%
	ST-9	1698	41.8	44.6	33 to 42 MPH, 60.3%	1765	41.7	44.6	30 to 39 MPH, 58.1%	3463	41.8	44.6	30 to 39 MPH, 55.7%
	ST-10	1703	44.8	47.2	**36 to 45 MPH, 57.4%**	1740	44.8	47.2	33 to 42 MPH, 52.5%	3443	44.8	47.2	**36 to 45 MPH, 53.9%**
	ST-11	1641	43.2	46.4	33 to 42 MPH, 58.4%	1671	44.8	47.4	33 to 42 MPH, 53.5%	3312	44	47.5	33 to 42 MPH, 55.9%
	ST-12	1649	43.2	46.3	33 to 42 MPH, 57.8%	1698	44.3	47.8	33 to 42 MPH, 55.7%	3347	43.8	47.2	33 to 42 MPH, 56.7%
	ST-13	1637	43.3	46.4	33 to 42 MPH, 57.7%	1677	44.3	47.9	33 to 42 MPH, 53.8%	3314	43.8	47.3	33 to 42 MPH, 55.7%
	ST-14	1648	41.3	43.7	30 to 39 MPH, 60.0%	1693	41	44.3	30 to 39 MPH, 64.3%	3341	41.2	43.9	30 to 39 MPH, 62.2%
	ST-15	1592	43.4	46.6	33 to 42 MPH, 56.5%	1685	43.1	46.9	33 to 42 MPH, 55.6%	3277	43.3	46.8	33 to 42 MPH, 56.1%
	ST-16	1637	44.7	47.4	33 to 42 MPH, 51.3%	1687	42.9	46.4	33 to 42 MPH, 58.0%	3324	44	47.5	33 to 42 MPH, 54.7%
	ST-17	1673	42.6	46.2	33 to 42 MPH, 54.2%	1715	42.3	46	33 to 42 MPH, 58.0%	3388	42.5	46.1	33 to 42 MPH, 56.1%
	ST-18	1668	**45.4**	49.7	**36 to 45 MPH, 51.2%**	1736	43.6	47.4	33 to 42 MPH, 58.3%	3404	44.8	48.5	33 to 42 MPH, 53.4%
	ST-19	1756	44.6	47.5	33 to 42 MPH, 49.5%	1785	44.4	47.9	33 to 42 MPH, 56.0%	3541	44.5	47.2	33 to 42 MPH, 52.8%
	ST-20*	1745	44.8	47.1	33 to 42 MPH, 51.6%	1783	44.2	47.8	33 to 42 MPH, 55.4%	3528	44.5	48.0	33 to 42 MPH, 53.5%
	Avg.		**43.3**	46.4			**43.5**	46.8			**43.5**	46.7	**33 to 42 mph**
Midway Road													
2.6 Miles	**ST-21***	1938	41.9	44.7	30 to 39 MPH, 56.3%	1904	44.0	47.6	**36 to 45 MPH, 50.8%**	3842	43.6	47.1	33 to 42 MPH, 50.7%
	ST-22*	1945	44.5	47.8	**36 to 45 MPH, 54.6%**	1910	**45.0**	48.0	**36 to 45 MPH, 56.4%**	3855	44.8	47.3	**36 to 45 MPH, 55.5%**
	ST-23	1990	40.0	42.4	30 to 39 MPH, 67.9%	1907	41.0	43.9	30 to 39 MPH, 62.6%	3897	40.5	43.3	30 to 39 MPH, 65.3%
	ST-24	1950	43.8	47.2	33 to 42 MPH, 53.2%	1958	44.0	47.0	33 to 42 MPH, 53.3%	3908	43.9	47.1	33 to 42 MPH, 53.3%
	ST-25	1899	43.8	47.4	33 to 42 MPH, 51.9%	1969	42.4	45.6	33 to 42 MPH, 56.6%	3868	43.2	46.7	33 to 42 MPH, 54.3%
	Avg.		**42.5**	45.7			**42.5**	45.5			**42.5**	45.7	**33 to 42 MPH**
Savannah Road													
2.0 Miles	**ST-26**	2018	41.8	44.8	30 to 39 MPH, 56.7%	2009	41.8	44.9	30 to 39 MPH, 58.6%	4027	41.8	44.9	30 to 39 MPH, 57.7%
	ST-27	1878	42.8	46.4	33 to 42 MPH, 50.6%	1928	42.4	45.4	33 to 42 MPH, 56.6%	3806	42.6	46.0	33 to 42 MPH, 53.7%
	ST-28	1890	41.1	44.7	30 to 39 MPH, 56.5%	1923	42.7	45.5	33 to 42 MPH, 56.3%	3813	42.1	45.2	33 to 42 MPH, 52.3%
	ST-29	1878	40.8	43.9	30 to 39 MPH, 59.3%	1959	41.1	44.0	30 to 39 MPH, 61.6%	3837	41.0	44.0	30 to 39 MPH, 60.5%
	Avg.		**41.6**	45.0			**42.0**	45.0			**41.9**	45.0	**30 to 39 mph**
Citrus Avenue													

Note: Data for ST-20, ST-21 and ST-22 had collection date of 09/10/2016
****Note: No data collected for this day at this station.***

PROJECT: INDIAN RIVER DRIVE SPEED STUDY
COLLECTION DATE: SUNDAY, AUGUST 14, 2016
POSTED SPEED: 35 MPH

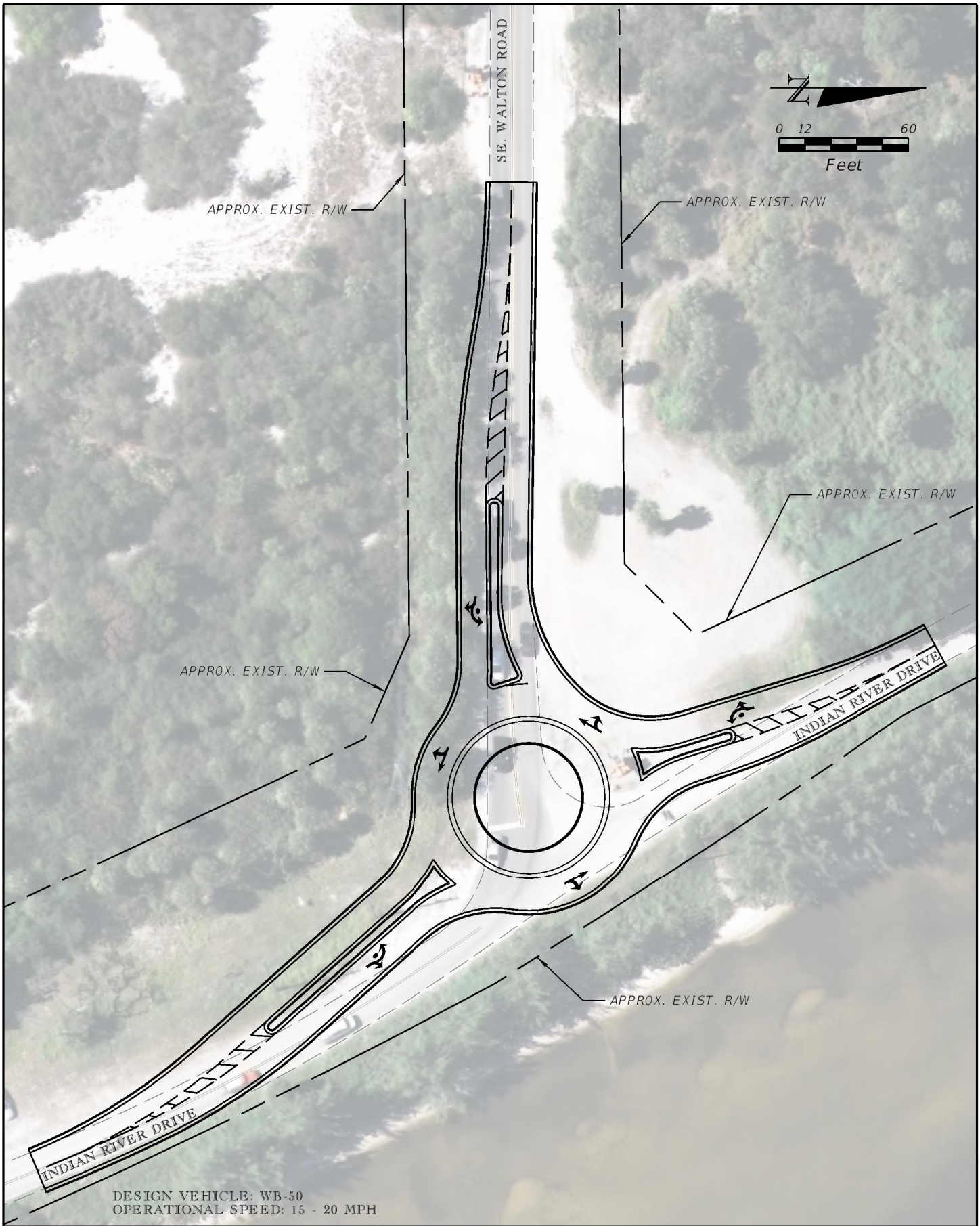
Kimley»Horn

SIDE STREET	STATION NUMBER	SOUTHBOUND				NORTHBOUND				TOTAL			
		VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED	VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED	VEHICLE VOLUME	85% MPH	95% MPH	PACE SPEED
County Line Road													
1.7 Miles	**ST-1**	2107	44.2	48	33 to 42 MPH, 51.8%	2321	44.0	47.3	33 to 42 MPH, 51.4%	4428	44.6	47.9	33 to 42 MPH, 51.6%
	ST-2	1990	44.4	48	33 to 42 MPH, 53.2%	2249	43.4	46.9	33 to 42 MPH, 51.7%	4239	43.9	47.5	33 to 42 MPH, 52.4%
	ST-3	1962	44.9	47.9	33 to 42 MPH, 50.4%	2207	43.5	46.8	33 to 42 MPH, 56.3%	4169	44.2	47.5	33 to 42 MPH, 53.5%
	Avg.		**44.5**	48.0			**43.6**	47.0			**44.2**	47.6	**33 to 42 MPH**
Spring Hill Drive													
1.0 Miles	**ST-4**	1884	**45.3**	48.6	**36 to 45 MPH, 53.0%**	2160	43.5	46.8	33 to 42 MPH, 52.8%	4044	44.7	48	33 to 42 MPH, 49.5%
	ST-5	1882	44.2	47.7	33 to 42 MPH, 49.1%	2135	44.2	47.4	33 to 42 MPH, 54.6%	4017	44.6	47.9	33 to 42 MPH, 52.0%
	ST-6**	-	-	-	-	-	-	-	-	-	-	-	-
	Avg.		**44.8**	48.2			**43.9**	47.1			**44.7**	48.0	**33 to 42 MPH**
Walton Road													
6.2 Miles	**ST-7**	1332	42.3	45.1	33 to 42 MPH, 54.8%	1357	43.2	46.6	33 to 42 MPH, 51.8%	2689	42.8	46.0	33 to 42 MPH, 53.3%
	ST-8	1300	43.8	47	33 to 42 MPH, 56.5%	1329	44.7	47.8	**36 to 45 MPH, 53.7%**	2629	44.3	47.5	33 to 42 MPH, 54.1%
	ST-9	1291	41.6	44.9	33 to 42 MPH, 57.6%	1322	41.7	44.9	30 to 39 MPH, 59.8%	2613	41.1	44.9	30 to 39 MPH, 56.5%
	ST-10	1295	44.3	47.4	**36 to 45 MPH, 53.4%**	1314	44.7	47.4	33 to 42 MPH, 50.6%	2609	44.9	47.4	33 to 42 MPH, 51.7%
	ST-11	1242	43.8	46.9	33 to 42 MPH, 54.6%	1220	44.8	47.4	**36 to 45 MPH, 53.0%**	2462	44.4	47.6	33 to 42 MPH, 52.6%
	ST-12	1248	43.3	46.4	33 to 42 MPH, 55.5%	1269	44.3	47.5	33 to 42 MPH, 54.9%	2517	43.8	47.0	33 to 42 MPH, 55.2%
	ST-13	1233	43.7	47	33 to 42 MPH, 56.3%	1258	44.2	47.8	33 to 42 MPH, 56.0%	2491	43.9	47.5	33 to 42 MPH, 56.2%
	ST-14	1232	41.5	44.2	30 to 39 MPH, 60.2%	1253	41.1	44.0	30 to 39 MPH, 62.5%	2485	41.3	44.1	30 to 39 MPH, 61.4%
	ST-15	1192	43.7	47.1	33 to 42 MPH, 57.2%	1239	43.3	46.7	33 to 42 MPH, 56.7%	2431	43.5	46.9	33 to 42 MPH, 56.9%
	ST-16	1214	44.1	48.5	33 to 42 MPH, 50.7%	1239	42.7	45.9	33 to 42 MPH, 56.7%	2453	44.1	47.7	33 to 42 MPH, 53.7%
	ST-17	1209	43.3	46.7	33 to 42 MPH, 53.2%	1231	42.8	46.0	33 to 42 MPH, 57.7%	2440	43.0	46.4	33 to 42 MPH, 55.5%
	ST-18	1204	**45.2**	49.6	**36 to 45 MPH, 53.3%**	1230	43.6	47.0	33 to 42 MPH, 59.3%	2434	44.9	48.7	33 to 42 MPH, 54.2%
	ST-19	1236	44.7	47.6	33 to 42 MPH, 49.8%	1265	44.6	48.4	33 to 42 MPH, 53.7%	2501	44.7	48.0	33 to 42 MPH, 51.7%
	ST-20**	-	-	-	-	-	-	-	-	-	-	-	-
	Avg.		**43.5**	46.8			**43.5**	46.7			**43.6**	46.9	**33 to 42 mph**
Midway Road													
2.6 Miles	**ST-21****	-	-	-	-	-	-	-	-	-	-	-	-
	ST-22**	-	-	-	-	-	-	-	-	-	-	-	-
	ST-23	1430	40.6	43.2	30 to 39 MPH, 65.4%	1381	41.5	44.7	30 to 39 MPH, 57.6%	2811	41.1	44.0	30 to 39 MPH, 61.5%
	ST-24	1427	44.2	47.5	33 to 42 MPH, 52.3%	1402	44.0	47.4	33 to 42 MPH, 52.6%	2829	44.1	47.5	33 to 42 MPH, 52.5%
	ST-25**	-	-	-	-	-	-	-	-	-	-	-	-
	Avg.		**42.4**	45.4			**42.8**	46.1			**42.6**	45.8	**30 to 39 MPH**
Savannah Road													
2.0 Miles	**ST-26**	1479	41.9	44.3	30 to 39 MPH, 52.9%	1440	41.4	44.8	30 to 39 MPH, 54.6%	2919	41.1	44.6	30 to 39 MPH, 53.7%
	ST-27	1384	43.0	46.4	33 to 42 MPH, 51.1%	1353	42.8	45.9	33 to 42 MPH, 55.7%	2737	42.9	46.2	33 to 42 MPH, 53.3%
	ST-28	1390	41.9	44.2	30 to 39 MPH, 54.2%	1351	42.9	45.8	33 to 42 MPH, 55.9%	2741	42.1	45.2	33 to 42 MPH, 54.3%
	ST-29	1400	40.6	43.4	30 to 39 MPH, 57.6%	1384	41.3	44.1	30 to 39 MPH, 59.1%	2784	41.0	43.8	30 to 39 MPH, 58.3%
	Avg.		**41.9**	44.6			**42.1**	45.2			**41.8**	45.0	**30 to 39 mph**
Citrus Avenue													

***Note: No data collected on this day at these stations.*

APPENDIX C:

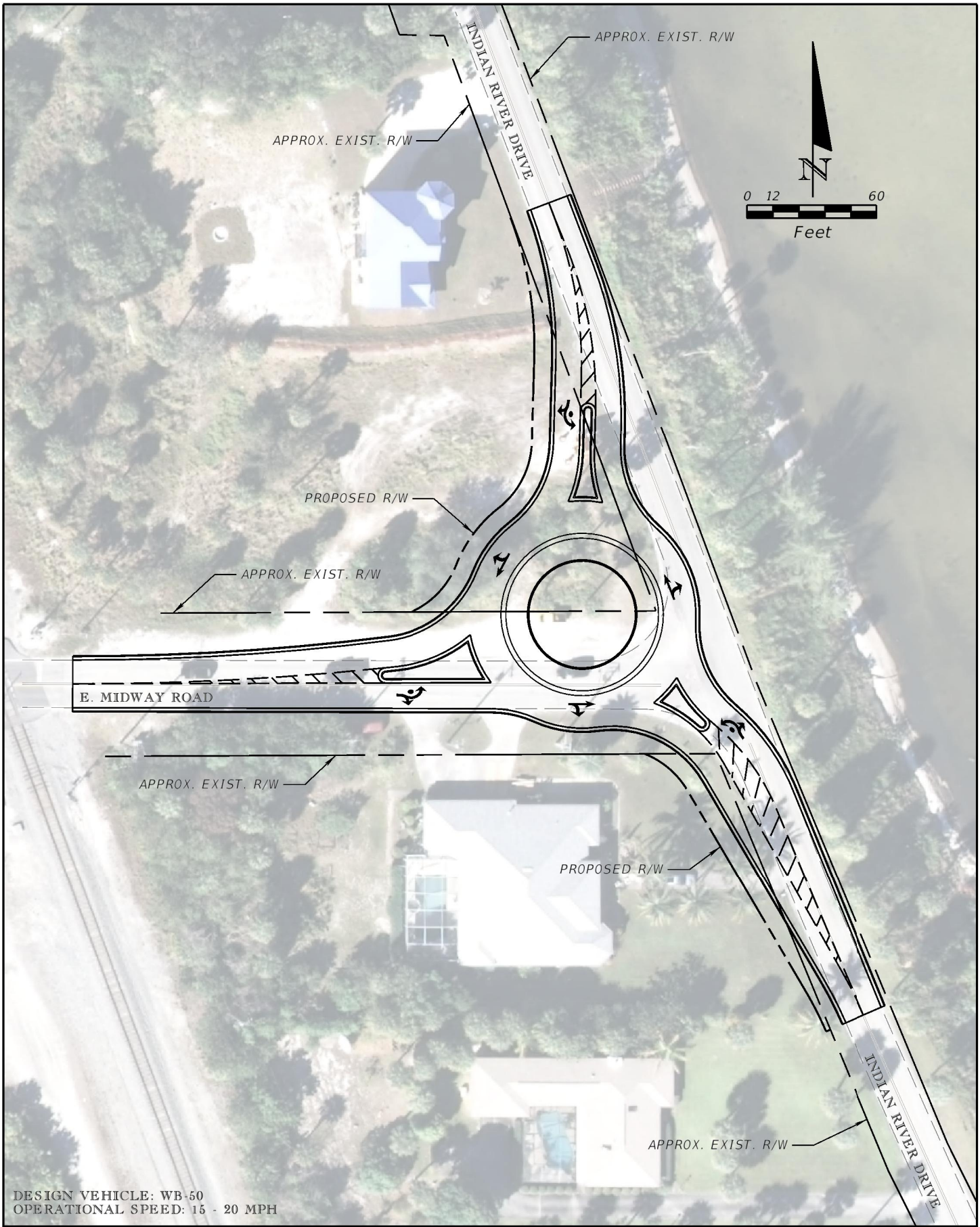
Conceptual roundabout layouts



Kimley»Horn
445 24th STREET, SUITE 200
VERO BEACH, FL 32960
(772) 794-4100
CERTIFICATE OF AUTHORIZATION: 00000696

SE. WALTON ROAD & INDIAN RIVER DRIVE
CONCEPTUAL ROUNDABOUT EXHIBIT

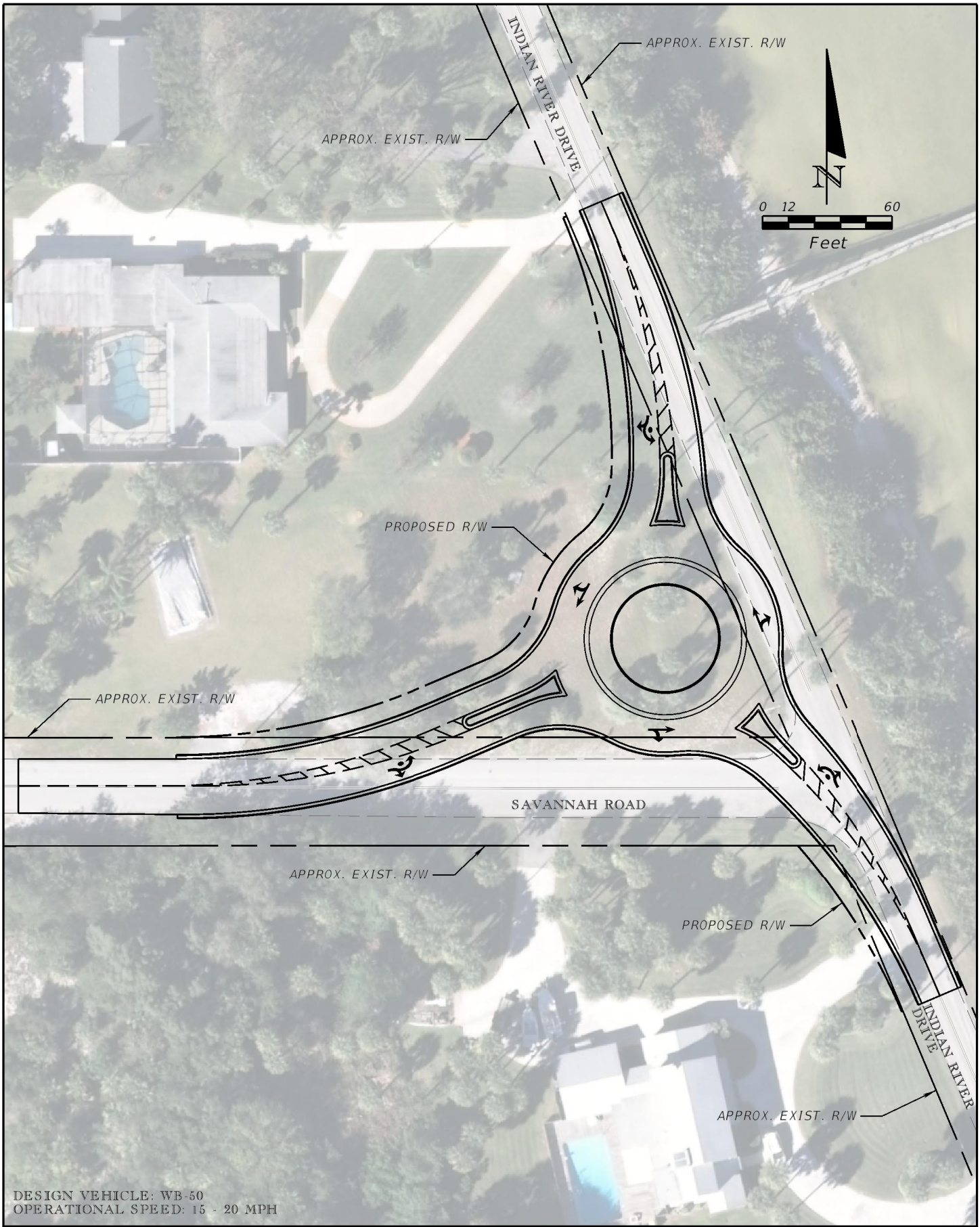
Eric.Kleier 10/27/2017 10:21:30 AM K:\VRB_Roadway\047203091 - Indian River Drive Traffic Calming\CADD\RDWY\EXHIBIT03.dgn



DESIGN VEHICLE: WB-50
OPERATIONAL SPEED: 15 - 20 MPH

Kimley»Horn
445 24th STREET, SUITE 200
VERO BEACH, FL 32960
(772) 794-4100
CERTIFICATE OF AUTHORIZATION: 00000696

E. MIDWAY ROAD & INDIAN RIVER DRIVE
CONCEPTUAL ROUNDABOUT EXHIBIT



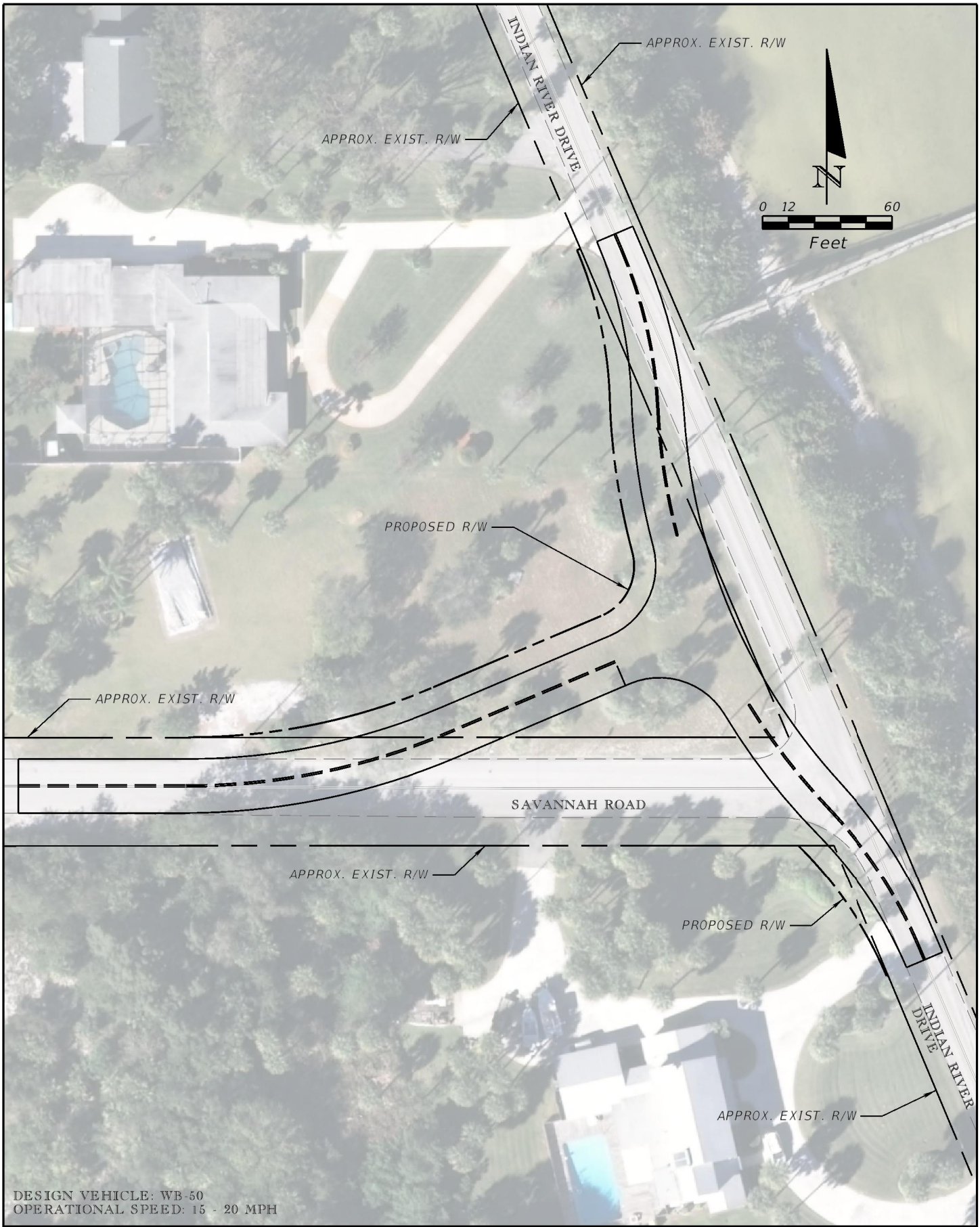
DESIGN VEHICLE: WB-50
OPERATIONAL SPEED: 15 - 20 MPH

Kimley»Horn
445 24th STREET, SUITE 200
VERO BEACH, FL 32960
(772) 794-4100
CERTIFICATE OF AUTHORIZATION: 00000696

SAVANNAH ROAD & INDIAN RIVER DRIVE
CONCEPTUAL ROUNDABOUT EXHIBIT

APPENDIX D:

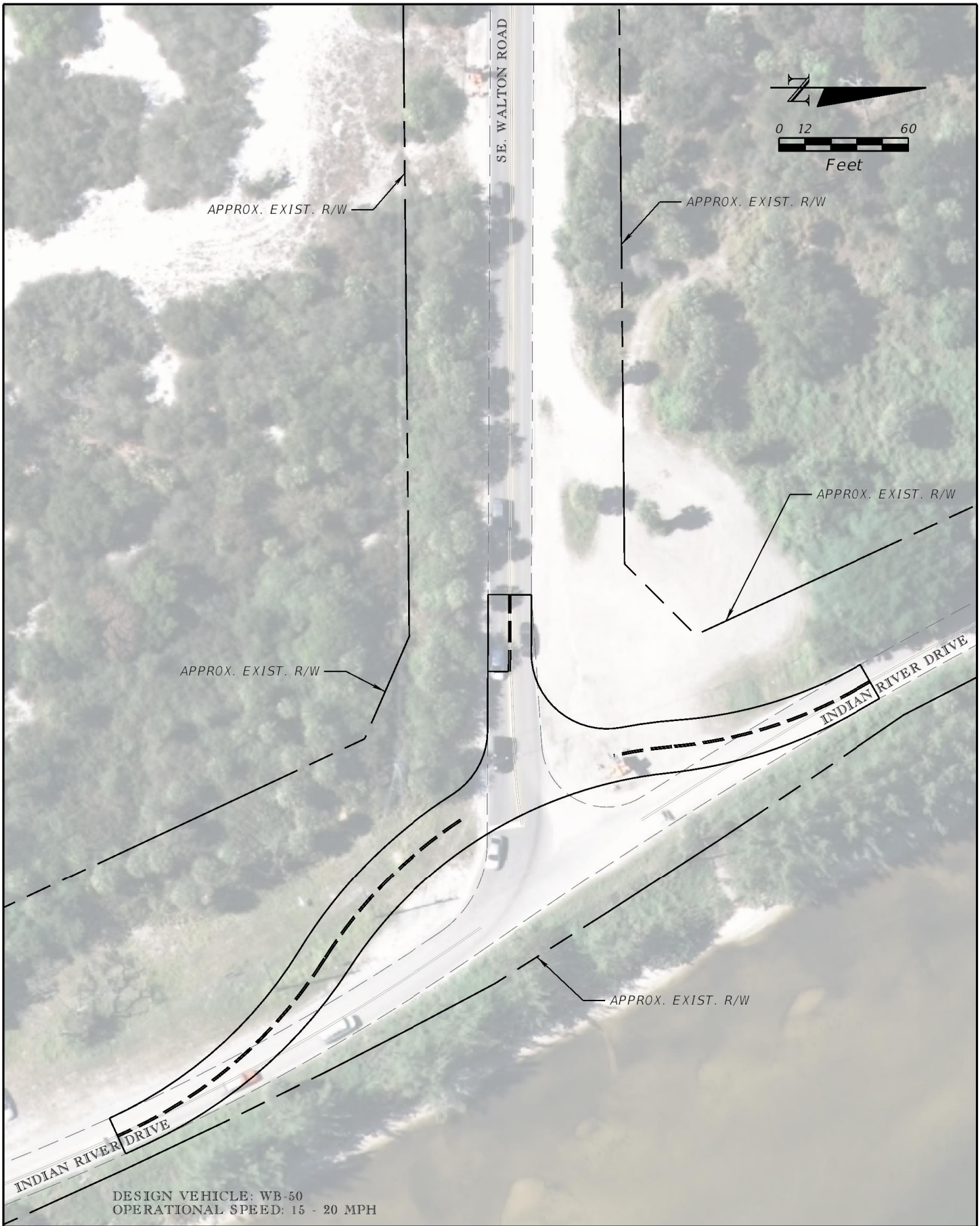
Conceptual chicane layouts



DESIGN VEHICLE: WB-50
OPERATIONAL SPEED: 15 - 20 MPH

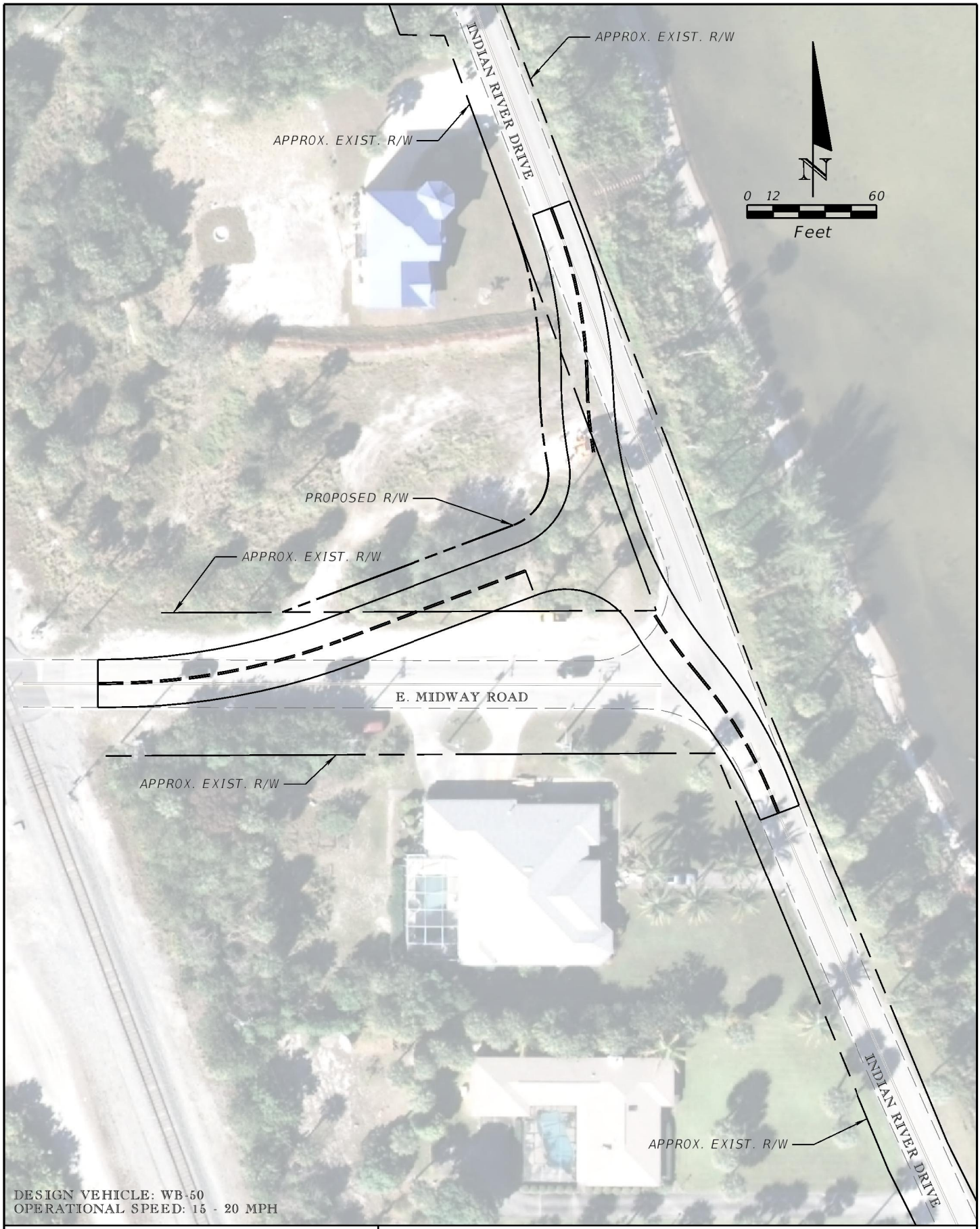
Kimley»Horn
445 24th STREET, SUITE 200
VERO BEACH, FL 32960
(772) 794-4100
CERTIFICATE OF AUTHORIZATION: 00000696

SAVANNAH ROAD & INDIAN RIVER DRIVE
CONCEPTUAL CHICANE EXHIBIT



Kimley»Horn
445 24th STREET, SUITE 200
VERO BEACH, FL 32960
(772) 794-4100
CERTIFICATE OF AUTHORIZATION: 00000696

SE. WALTON ROAD & INDIAN RIVER DRIVE
CONCEPTUAL CHICANE EXHIBIT



DESIGN VEHICLE: WB-50
OPERATIONAL SPEED: 15 - 20 MPH

Kimley»Horn
445 24th STREET, SUITE 200
VERO BEACH, FL 32960
(772) 794-4100
CERTIFICATE OF AUTHORIZATION: 00000696

E. MIDWAY ROAD & INDIAN RIVER DRIVE
CONCEPTUAL CHICANE EXHIBIT

City Commission Regular Meeting - 6:00 pm **11. e.**

Meeting Date: 10/05/2020

Re: Way to Grow, Lincoln Park! Grant - JC Salon and Boutique LLC, 914 Avenue D

SUBJECT:

Approval of Way to Grow Lincoln Park Grant Award to JC Salon and Boutique LLC, 914 Avenue D, in the amount of $3,000.00.

SUMMARY:

Way to Grow Lincoln Park Grant application, Jaykelia Weston, plans to open new Salon and Boutique at Avenue D, as part of the Way to Grow Lincoln Park Grant Program. She has signed a lease for the property at 914 Avenue D, of which the grant will pay for first, last, security, 2 additional months of rent and minor interior renovations, supplies and inventory for salon and boutique.

RECOMMENDATION:

Approve grant.

ALTERNATIVES:

Deny grant.

RESPONSIBLE STAFF:

Caleta Scott, Manager, Grants Administration Division

COORDINATED WITH:

Caleta Scott, Manager, Grants Administration Division

Fiscal Impact

Budgeted Y/N:	Y
Fiscal Year:	2019
Account:	10390025548410
Amount:	3000.00

OTHER INFORMATION:

This expenditure will be reimbursed by 2019-2020 CDBG funds.

Attachments

Memo and Application Docs

Grant Contract

Form Review

Inbox	Reviewed By	Date
Finance Department	Johnna Morris	09/29/2020 01:47 PM
City Manager	Nick Mimms	09/29/2020 02:34 PM

Form Started By: Caleta Scott
Started On: 09/29/2020 11:21 AM
Final Approval Date: 09/29/2020

THE SUNRISE CITY
FORT PIERCE
GRANTS ADMINISTRATION DIVISION
Florida

To: Nick Mimms, P.E., City Manager

From: Caleta Scott, Manager, Grants Administration

Thru: Johnna Morris, Director of Finance

RE: WAY TO GROW, Lincoln Park! – JC Salon and Boutique LLC
FINAL GRANT REVIEW

Date: August 28, 2020

Please review JC Salon and Boutique LLC grant application and initial memo prior to submission on the Monday, ~~September 21~~ 10/5/2020 City Commission Consent Agenda. An invoice is attached for your reference.

This payment is covered under the 2018 CDBG allocation for "Technical Assistance for Small Business" and Allegany Franciscan Ministries Way to Grow, Lincoln Park! (Private Source) grant.

Funding Source	**Account**	**Amount**
CDBG	103-9002-554.84-10	$3000.00
ALLEGANY (Private)	103-0000-336.00-00	$7000.00
GRANT AWARD(S):		**$10,0000**

GRANT RECIPIENT: **JAYKELIA WESTON, JC SALON AND BOUTIQUE LLC**

If approved, this memo will accompany the request to Finance Department for processing.

Thank you.

THE SUNRISE CITY
FORT PIERCE
GRANTS ADMINISTRATION DIVISION
Florida

EXHIBIT "A"

WAY TO GROW, Lincoln Park!
Historic Avenue D Business District
Small Business Startup/Relocation Grant Program

INVOICE

GRANT RECIPIENT: **JAYKELIA WESTON, JC SALON AND BOUTIQUE LLC**

GRANT AWARD(S):
Amount: **$3195**
Description: Rental Deposit Reimbursement – First & Last & Security
MAKE CHECK PAYABLE TO: H. Alan Welles Commercial Real Estate

Amount: **$2130**
Description: Rent payment reimbursement – 2 months @ $1000.00+taxes
MAKE CHECK PAYABLE TO: H. Alan Welles Commercial Real Estate

Amount: **$400**
Description: Utility Connection Reimbursement/QUOTE
MAKE CHECK PAYABLE TO: Jaykelia Weston, JC Salon and Boutique

Amount: **$2800**
Description: Office / Salon Inventory and Supplies/QUOTE, City BTR/State Licensure QUOTE
MAKE CHECK PAYABLE TO: Jaykelia Weston, JC Salon and Boutique

Amount: Up to **$1000**
Description: Inventory for boutique items
MAKE CHECK PAYABLE TO: To be determined *Quotes in Progress*

Amount: Up to **$475**
Description: Signage
MAKE CHECK PAYABLE TO: To Be Determined *Quotes in Progress*

TOTAL AMOUNT DUE: $10,000
MAKE CHECK PAYABLE TO: JAYKELIA WESTON, JC SALON & BOUTIQUE

FINANCE DEPARTMENT:
PLEASE HOLD CHECK FOR GRANT RECIPIENT PICK UP

Thank you,

Caleta Scott
Manager, Grants Administration Division

Received

Date application received (to be filled out by City): JUL 17 2020

Grants Administration

City of Fort Pierce
Historic Avenue D Business District
Small Business Startup/Relocation Grant Program

Application

1. Name of Business: "JC Salon & Boutique"
2. Type of Business: Hair Salon and Clothing Boutique.
3. Business Owner:
   Name: Jaykelia Azellia Weston
   Address: 2703 Essex Court Ft. Pierce, FL 34946
   Phone (Best Contact #): (786) 217-3841
4. Business Relocation Information (for **EXISTING** businesses **RELOCATING** to Target Area)
   Business Previous Address: _____
   How Long Have You Been in Business? _____
   Identify all anticipated relocation expenses:

Rent Differential:	$ _____
Moving Cost:	$ _____
Initiation & Hook-up of Utilities:	$ _____
Equipment Setup Costs:	$ _____
Interior Remodeling:	$ _____
Signage:	$ _____
Fees (permits, deposits, etc.):	$ _____
Other (list at right):	$ _____
Total Anticipated Expenses:	$ _____

Note: Provide written estimates (with contact info for each estimate) for each expense listed above)

5. Business Startup Information (for **NEW** businesses **OPENING** in Target Area)
   Identify all anticipated expenses:

Rent:	$ ~~$750~~ 1000/month / ~~$2,250~~ 3195 (First, Last, and Security.
Initiation & Hook-up of Utilities:	$ $400
Equipment Setup Costs:	$ $1,500
Interior Remodeling:	$ ~~$2,000~~
Signage:	$ 350
Fees (permits, deposits, etc.):	$ $600
Other (list at right):	$ 2500 (clothing for Boutique, salon items) Furniture, 1 TV for shop, bathroom, etc
Total Anticipated Expenses:	$ 9600

FPUA –

Note: Provide written estimates (with contact info for each estimate) for each expense listed above)

*Estimates.

① Rent - rent for this particular property is $750/monthly. First, Last & Security is required to move in which totaled up to $2,250.

② Initiation & hook-up of utilities - FPUA is the utility carrier for this property, I called the customer service line and was informed that the deposit total is $400. Monthly utilities include: Electric, water, garbage, and sewer.

③ Equipment Setup costs - Being that I'll have a salon/boutique, I have to make sure that I have the proper shelfing, cabinets, lighting, electric wiring, proper supplies to bring this all together. I've gone to Home Depot a total of 3 times with my parents and came up with $1,500.

④ Interior Remodeling - to bring my vision to life of the layout of my salon, I'd have to make sure everything is in tip top shape. Painting, tiling, Backsplash, Bathroom, Cleaning supplies, etc. the total I came up with was $2,000.

⑤ Signage - making sure that I have the right advertisment to draw my customers in, is very important. Ave D. is historical true enough, But it's still a part of areas of crimes so I want to make sure my business is protected. I'll be

getting my shop windows tinted, I'll have an advertisement board outside as well. my business name will be on my windows as well so my total came up to $350.

(6) Fees (permits, deposits, etc.) - I've had to pay for several different types of licensure for example: Braiding course, LLC, BTR, FIN, etc. those have totaled up to about $1,000.

(7) Other - salon/ boutique items don't come cheap, hair care products, clothing to start, TV, furniture, decor, etc. I've added everything up for a total of about $2,500.

* Total anticipated expenses:

$9,600.00

H. Alan Welles

COMMERCIAL REAL ESTATE

Proposal To Lease

Date: 7-20-20

Lessor: MaCaw Holdings

Lessee: JC Salon + Boutique, LLC

Premises: 914 Avenue "D" Unit "A"

Use: Salon + Boutique

Lease Term: 2yr + 2 yr option

Rate: $1000 + sales tax @ 6½%

Commencement Date: September 1st

Initial Deposit: $1st + 2 Security w/sales tax $3,195.00

Lessor's Expenses: Renovation of Unit

Lessee's Expense: Utilities, A/C Maint contract,

Tenant Improvements: Interior Business Supplies + Equipment

Commission: N/A

Contingency: Unit is under renovation should be completed within 3 months

5659 Whirlaway Rd, Palm Beach Gardens, FL 33418

Tel: 561-744-8900 Email: alan@hawre.com

H. Alan Welles

COMMERCIAL REAL ESTATE

The submission of this proposal is for examination and/or acceptance by lessee, and does not constitute a reservation of, or option for the premises for the benefit of the lessee.

Acknowledged and Agreed:

Lessor:

X Property Mgr. D Stonestreet X 7/20/20

Signature Date

Lessee:

Signature Date 7/20/20

THE CONTENTS OF THIS LETTER ARE NOT AN OFFER TO LEASE NOR A COMMITMENT TO ENTER INTO A LEASE. THE REFFERENCED PROPERTY WILL REMAIN AVAILABLE TO OTHERS UNTIL SUCH TIME A LEASE IS EXECUTED BY BOTH LANDLORD AND TENANT.

5659 Whirlaway Rd, Palm Beach Gardens, FL 33418

Tel: 561.744.8900 Email: alan@h

DIVISION OF CORPORATIONS

Sunbiz.org DIVISION of CORPORATIONS an official State of Florida website

Detail by Entity Name

Florida Limited Liability Company
JC SALON & BOUTIQUE LLC

Filing Information

Document Number	L20000240555
FEI/EIN Number	NONE
Date Filed	08/10/2020
Effective Date	09/01/2020
State	FL
Status	ACTIVE

Principal Address

914 AVE D
FORT PIERCE, FL 34950

Mailing Address

2703 ESSEX COURT
FORT PIERCE, FL 34946

Registered Agent Name & Address

WESTON, JAYKELIA A
2703 ESSEX COURT
FORT PIERCE, FL 34946

Authorized Person(s) Detail

Name & Address

Title MGR

WESTON, JAYKELIA A
2703 ESSEX COURT
FORT PIERCE, FL 34946

Annual Reports

No Annual Reports Filed

Document Images

08/10/2020 -- Florida Limited Liability View image in PDF format

Caleta Scott

From: Jaykelia Weston <jaykeliaweston@gmail.com>
Sent: Monday, August 17, 2020 5:38 PM
To: Caleta Scott
Subject: Fwd: Email Marketing Webinar Followup
Attachments: KeystoMarketingSuccessScore_SG.pdf

SECURITY WARNING: This email originated outside of the City of Fort Pierce systems. Please use caution when clicking links or opening attachments. For questions or concerns please contact IT immediately. .

---------- Forwarded message ----------
From: **Sheena Graham** <sheena.graham@scorevolunteer.org>
Date: Friday, August 14, 2020
Subject: Email Marketing Webinar Followup
To: Gary Mastro <gary.mastro@scorevolunteer.org>, howard kostoris <howardkostoris@gmail.com>, nereyda@rainforesttours.com, mnob@yahoo.com, 21stcenturyrelief@gmail.com, arturo@rainforesttours.com, thecraftedchen@gmail.com, g1mastro@gmail.com, g1mastro@earthlink.net, lmkmastro@gmail.com, bobvago@hotmail.com, ryan.d.blankenship@outlook.com, nicole@createeventdesign.com, jaykeliaweston@gmail.com, dawnhutchinsons@aol.com, janeacollins@earthlink.net, tim.fitch@scorevolunteer.org, Ken Koziol <ken.koziol@scorevolunteer.org>

Hello Everyone,
Thank you so much for joining the webinar on Wednesday. Here the webinar recording and slide as promised. Please reach out to the Treasure Coast Score for mentoring and additional webinars.

Please let me know if you have any questions

Have a Great Day,
Sheena Graham

Topic: Marketing Strategies That Convert To Sales
Start Time : Aug 12, 2020 10:01 AM

Meeting Recording:
https://score.zoom.us/rec/share/38pzM473yjpIbaPM2niBeI0LOKT0X6a803AXqfBbmkf0bt2PTYPo-TxljRbRrX-D

Access Password: N0qi%D2f

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"JC SALON & BOUTIQUE."

~~*1808 Avenue*~~ *D. Ft. Pierce, Fla.*

914 Ave D

A Business Plan Prepared By: Jaykelia Azellia Weston

"JC Salon & Boutique."

A business plan written predicted and strategized by Jaykelia Azellia Weston.

My name is Jaykelia Weston. I'm a 33 year old single mother born in Fort Pierce Florida and raised in Miami Florida. I've been doing hair for roughly around 16 years and I've been a fashionista for my entire life! My mother Mrs. Patricia Mitchner has always been a fashionista, she's my inspiration! She loves to dress she always looks so nice she gets so many compliments, I've honestly learned so much about fashion watching her over the years. "JC Salon and Boutique" (which stands for Journee' Carter after my 21 month old daughter Journee' Elizabeth Carter) she's the inspiration behind my entire wanting to open a business. I graduated nursing school in 2017 as a LPN but owning my own business has always been my dream. I'll forever be a part of the nursing field but with the Scare of COVID-19 and me having a 1 year old daughter I have to be a little bit more cautious and with doing hair being my passion I feel like it's time for me to take a leap out in faith and open up my own business.

"JC Salon and Boutique" will be a business that supplies multiple needs for the many black women in our community. Providing weaving hair care as well as Boutique Fashion that will range from sizes Small – Large (to start) adding a different type of flare and style to all of my fashionistas in the community. I've been doing hair for around 15/16 years, growing up in Miami I was exposed to it on every scene so it's always been a dream of mine to own my very own Salon. Fashion just came naturally, I developed this eye for fashion and over the years around the community I've become very popular and well-known for it. I think I'll be bringing the perfect business to our community. I'm looking to price clothing from 25.00-60.00, keeping things affordable for the community yet profitable for me. As for my Salon, the hairstyles will range from 25.00-140.00 from the simplest ponytail to the more upscale sew ins. I will have business insurance from my own personal USAA account. Long term goals for my business are to make sure that I leave a mark on the community, and with my sense of fashion to be able to help and continue to inspire all the women in the community and young ladies who've inquired fashion tips from me over the years. Planting my own roots of business would be a dream come true to me, to one day leave a legacy here for my daughter Journee'. Short term goals for my business will be to advertise and build my clientele back up to make sure my Boutique is extremely successful. Opening up on Avenue D is a huge advantage because, it's in the heart of the city, I only live 5 minutes away! It'll also be convenient to all old/future clientele. Avenue D is historical and very busy, with new and exciting things coming up every day. So many black owned businesses, including the one that I'll be located directly across the street from "Bo's Crab Shack" which is owned by some of our close family friends The Robinsons, and then my uncle has a restaurant on the corner of Avenue D and 25th street, so this will be perfect for me!

Marketing Analysis:

"JC Salon and Boutique" will target more of a younger crowd, ages 18- mid 30's, people who are still going out enjoying the nightlife, or may just need something for a date night out. I will advertise my business via Social Media (Facebook, Instagram, Snapchat, etc.) I will also have flyers and business cards made that I will distribute throughout the community to help with my exposure. I'll also

be asking two local radio stations 104.5 and 91.1 to also help me with my Grand Opening. Word of mouth is extremely important, and with my already having a name for being very fashionable in the community from Hair to Dressing, I know for a fact that I'll be bringing a new type of "local flavor" to Fort Pierce and surrounding communities with my Boutique. The area that "JC Salon & Boutique" is located in is directly off Ave D and 18th, the heart of the city. The location is very convenient and beneficial for all customers coming from either North Indian River Co. or South Martin Co. being that the most popular nightlife clubs are located within minutes from the shop. People can stop by on their way to a friend's house to get dressed for going out and grab a nice outfit or get a hair due and accessories all in one, extremely convenient.

My role as the business owner is to do just that, OWN MY BUSINESS! I'm going to work extremely hard to make sure that everything runs in tip top shape. Making sure that all products are always completely stocked in order, labeled properly, and not out of date. I will have my parents whom I trust with my life help me with all filing. Their roles will be making sure that all papers and documents are deemed "Important/Confidential" are kept safe and locked away from the public eye. As business owner, it's going to also be my job to make sure that my shop is kept cleaned inside and out, so that it's attractive and welcoming to all customers. My Father will sit at the shop with me most days for security purposes, my door will remain locked even during hours of operations for safety of myself and my customers. By no means will loitering be allowed outside my shop, no unwanted traffic (customers no being serviced) A shop manager will eventually be hired to help me make sure the shop is kept thoroughly cleaned, so my customers feel welcomed and comfortable inside and outside my shop. "JC Salon & Boutique" is located at 1806 Avenue D, between 17th and 18th street, which is an area known for drugs and crime. This is why it's important for me to make sure that I keep my Salon safe and secured, and also to make my customers feel like their stepping into their own comfortable homes each time they visit. Though this area is known for crime and drugs, it's still home to some of the BEST known Businesses in the community. To be known as of the best and to add a different type of "Flare" to our community is going to be a complete honor. Starting off my business I won't be requiring much help as far as employment goes. As my shop begins to get busier, I'll then seek employment help and start to allow other girls with Cosmetology talents to work for me. I'll also be acquiring a security/ surveillance system inside and outside My Business for security and insurance purposes.

From a financial standpoint the type of business that I'll be opening, I'm for certain that I have the potential to gross at least 20k annually to start. This is considering that I'll get my advertising and marketing to the highest potential so that I'll be able to meet my financial goal expectations. My cheapest hairstyle has always ranged from 30-40 dollars, and the highest being 140.00 over the years I've made on a good month 2,000.00 times 12 months that's 24,000.00 (Before taxes). With the current Economic Crisis it's hard to make predictions on financial gains with the economy possibly shutting back down. Ove the course of the first 2 years my projected sales should be close to 35-40 k if I can get my Marketing up the way I envision it, so that my initial equity capital will continue to rise as my exposure grows.

CASH FLOW PROJECTIONS:

Balance Sheet-

Salon: *Hair Products: Sprays, Glues, Needles, Thread, etc. Monthly ($200).

Maintenance: * Utilities, Wi-Fi, Cleaning, etc. Monthly ($300).

Boutique: *Clothing, accessories, etc. (Bi Monthly $ 1500).

Breakeven Point: Owning and starting up a new business is never easy, oftentimes business owners put out more money than they make for the first couple months. Like I previously stated, I know with the current Economic Crisis businesses aren't opening to their fullest potential making business for small businesses like myself challenging. Though I know it'll be tough I'll still keep the faith! I want to have affordable items in my Boutique, but also be able to make a profit worth double of what I paid so that I may in fact reach my 'Breakeven Point'. I won't be able to afford my very own personal CPA in the beginning, so therefore I'll leave all accounting records to my mother Patricia. File cabinets will be bought as well as a safe that I will store personal records in, leaving what is only "Business Necessary" at home, and taking the very important papers home out of public reach. If I so happen to encounter unforeseen future problems, I may have to think about adding more resources to the shop to help me reach my profits and 'Breakeven Points'. Meaning, hiring other stylists and collecting booth rent from them, or allowing talented vendors to sale their items in my shop so that we both make a profit. Contracts and percentage agreements will be made and notarized if these "What If" measures do come about, I'll be well prepared.

In conclusion, if granted this loan "JC Salon & Boutique" will be a well sought investment, and huge beneficial addition to the Ave D community. This is my lifelong dream to become a Business owner and I'd be extremely grateful to be given the opportunity to be able to do so. Our Ft. Pierce community is growing each and every day! People are looking for new things to do and new places to go, new clothing to wear, new styles, new ideas and I want to be part of that contribution. My Business will be profitable, and I'm going to make it my #1 goal that I succeed in bringing the new heat if not every, every other month! Also one of my goals will be to make sure that I continue to perfect my craft of doing hair, no matter how long I've been in this game, new styles are created every day and I want to make sure that I'm on top of that to keep Profits rising, and keep my customers smiling! Thank You So Much to the City of Fort Pierce for this amazing opportunity.

Certificate of Completion

Awarded

JAYKELIA WESTON

For Successful Completion of the Program Requirements for the

Braided Bliss'

16 Hour Hair Braiding Course

Issued this 1st day of July 2020

April Boston

Instructor

Braided Bliss License Number NPD209

Certificate of Completion

Awarded

JAYKELIA WESTON

For Successful Completion of the Program Requirements for the

Braided Bliss'

4 Hour Initial HIV/AIDS

Issued this 1st day of July 2020

April Boston

Instructor

Braided Bliss License Number NPD209J

wayfair

Find anything home...

Furniture Outdoor Bed & Bath Rugs Décor & Pillows Storage Lighting Kitc

My Cart (4 Items)

$1,188.73

This order qualifies for free shipping!

Proceed to Checkout



Kalman Executive Chair

by Upper Square™

$154.99

~~$255.71~~

484

Quantity 1

Upholstery Color: White

Get it by Tue, Jul 28 - FREE Ground

Remove Save for Later

6 in Stock



Salon Massage Chair

by Inbox Zero

$339.99

~~$359.99~~

1

Quantity 1

Upholstery Color: White

Get it by Tue, Jul 28 - FREE Ground

Remove Save for Later



Brynn Desk
by Dotted Line™
$105.99
~~$159.00~~

2066

Quantity 1

Color: White

Get it by Wed, Aug 5 - FREE Ground

Remove Save for Later

Pasillas 61.75" Flared Arm Loveseat
by House of Hampton®
$509.99

1163

Quantity 1

Upholstery Color: Blackberry

Get it in 3-4 weeks - FREE Ground

Remove Save for Later

Order Summary (4 Items)

Item Subtotal:	$1,110.96
Ship To: 34953 - Port Saint Lucie	FREE
Estimated Tax:	$77.77

Total: **$1,188.73**

You Save: $173.73

Proceed to Checkout

PayPal

Add Gift Card/Promo Code

COVID-19 Update: Delivery & call times may be impacted – get order status + support & store safety info

To provide additional flexibility during this time, store pickup orders at Store #277 can now be picked up either curbside or in the store. Learn More

Pay $212 per Month* When You Use Your Card

$212 per month* suggested payments with 6 months financing on this $1271.35 purchase. View Details

Don't have a card?

Apply Now

Your Cart (20)

Share

FREE Shipping on eligible items. See Details

Checkout

Item	How To Get It	Qty	Item Total
9 in. Metal Paint Roller Tray Model #RM400	**Store Pickup** **49** in stock at **Ft Pierce** 34947 **FREE** **Ship To Home** Order within **5 hrs 3 mins** get it by **Tue, Jul 28** **FREE** **Schedule Delivery** Starting at **$8.99** for delivery How It Works	1 $3.24/Item	$3.24
	Save for Later | Save to Favorites | Remove		
3M ScotchBlue 0.70 in. x 60 yds. Origin... Model #2090-18EC	**Ship To Store** Jul. 31–Aug. 05 **Ft Pierce** 34947 | **Change** **FREE** **Ship To Home** Free with $45 order **Schedule Delivery** Starting at **$8.99** for delivery How It Works	1 $3.50/Item	$3.50
	Save for Later | Save to Favorites | Remove		
Ring Indoor Standard Security... Model #8SN1S9-WEN0	**Store Pickup** **1** in stock at **Ft Pierce** 34947 | **Change** **FREE** Ship To Home **Schedule Delivery** Starting at **$8.99** for delivery How It Works	1 $59.99/Item	$59.99
	Save for Later | Save to Favorites | Remove		
LET'S PROTECT THIS. Include a 2-year Home Depot Protection Plan for $12.00 /each If we can't repair it, we'll replace it! Learn More		Add Plan	
UTILITY 2 in. Flat Cut, 3 in. Flat Cut... Model #A227	**Store Pickup** **25** in stock at **Ship To Home** **Schedule Delivery**	1	$9.57



Ft Pierce
34947 | Change
FREE

Free with $45 order

Starting at **$8.99** for delivery
How It Works

$9.57/Item

Save for Later | Save to Favorites | Remove



3M ScotchBlue 1.88 in. x 60 yds. Origin...
Model #2090-48CP

Store Pickup
375 in stock at
Ft Pierce
34947 | Change
FREE

Ship To Home
Free with $45 order

Schedule Delivery
Starting at **$8.99** for delivery
How It Works

2
$6.58/Item

$13.16

Save for Later | Save to Favorites | Remove



BEHR MARQUEE 1 gal. #M100-3 Svelt...
Model #745401

Store Pickup
0 in stock at
Ft Pierce
34947
FREE

Ship To Home
Estimated Arrival:
Tue, Jul 28
FREE

Schedule Delivery
Not Available for this item

1
$44.98/Item

$44.98

Save for Later | Save to Favorites | Remove

PRO REFERRAL Request a painter through Pro Referral
What to expect

Request



BEHR MARQUEE 1 qt. Ultra Pure Whit...
Model #145004

Store Pickup

Ship To Home

Schedule Delivery
34947 | Change
$14.99/order

1
$19.98/Item

$19.98

Save for Later | Save to Favorites | Remove

PRO REFERRAL Request a painter through Pro Referral
What to expect

Request



Hampton Bay Shaker...
Model #KW3030-SSW

Ship To Store
Jul. 28–Jul. 31
Ft Pierce
34947 | Change
FREE

Ship To Home

Schedule Delivery
Not Available for this item

2
$136.00/Item

$272.00

Save for Later | Save to Favorites | Remove

BEHR ULTRA 1 gal.

$35.98



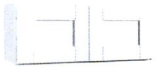
#P110-6 Wild Berr...
Model #775301

Store Pickup	Ship To Home	Schedule Delivery	Qty	
0 in stock at **Ft Pierce** 34947 **FREE**	Estimated Arrival: Tue, Jul 28 **FREE**	Not Available for this item	1	$35.98/Item

Save for Later | Save to Favorites | Remove

PRO REFERRAL Request a painter through Pro Referral
What to expect

Request



Hampton Bay Shaker...
Model #KW3012-SSW

Ship To Store	Ship To Home	Schedule Delivery	Qty		
Ft Pierce 34947 **FREE**	Estimated Arrival: Thu, Jul 30 **$49.50**	Not Available for this item	1	$98.00/Item	$98.00

Save for Later | Save to Favorites | Remove



Hampton Bay Shaker...
Model #KW3030-SSW

Ship To Store	Ship To Home	Schedule Delivery	Qty		
Ft Pierce 34947 **FREE**	Estimated Arrival: Thu, Jul 30 **$49.50**	Not Available for this item	1	$136.00/Item	$136.00

Save for Later | Save to Favorites | Remove



smart tiles Milano Carrera Grey 11.55...
Model #SM1060-1

Ship To Store	Ship To Home	Schedule Delivery	Qty		
Ft Pierce 34947 **FREE**	Estimated Arrival: Tue, Jul 28 **FREE**	Starting at **$8.99** for delivery How It Works	4	$10.99/Item	$43.96

Save for Later | Save to Favorites | Remove



Home Decorators Collection Saynsb...
Model #4411-NDM

Store Pickup	Ship To Home	Schedule Delivery	Qty		
7 in stock at **Ft Pierce** 34947 **FREE**		34947 | **Change** **$14.99**/order	3	$139.00/Item	$417.00

Save for Later | Save to Favorites | Remove

LET'S PROTECT THIS. Include a 2-year Home Depot Protection Plan for $18.00 /each
If we can't repair it, we'll replace it! Learn More

Add Plan

Need Help?
See our online FAQs or phone us:
Online Customer Support:1-800-430-3376

Subtotal	**$1,157.36**
Estimated Shipping*	$99.00
Pick Up In Store	FREE

Major Appliances:1-877-946-9843

Custom Blinds:1-800-658-7320

Call 7 days a week - 6 a.m. to 2 a.m. EST

Estimated Scheduled Delivery*	$14.99
Sales Tax (determined in later step)	---
Total	**$1,271.35**

✔ **Free Shipping on Most Orders | Applied**

See Details

Have a promo code?

* Shipping and delivery charges are calculated at the lowest rate available. Other methods will be viewable on the next page.

Checkout

— or —

Check out with PayPal

Get up to $100 off◊

Get a Home Depot Credit Card and receive **$25** off your purchase of $25+ , **$50** off purchases $300+, or **$100** off orders over $1,000

Apply Now

Item Total	$1,271.35
Savings	-$100.00
New Total	$1,171.35

Customers Also Purchased...

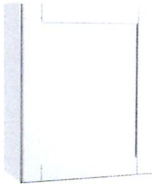


Hampton Bay
Shaker Assembled 36x34.5x24 in.

(350)

$158.00

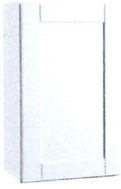
Add To Cart



Hampton Bay
Shaker Assembled 24x30x12 in. Wall

~~$190.00~~
$110.00

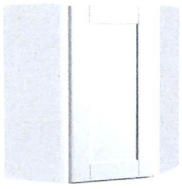
Add To Cart



Hampton Bay
Shaker Assembled 18x30x12 in. Wall

~~$168.00~~
$96.00

Add To Cart

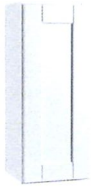


Hampton Bay
Shaker Assembled 24x30x12 in.

(176)

$172.00

Add To Cart



Hampton Bay
Shaker Assembled 12x30x12 in. Wall

~~$187.00~~
$84.00

Add To Cart



Hampton Bay
Shaker Assembled 28.5x34.5x16.5 in.

(53)

$230.00

Add To Cart



Hampto
Shake
18x34.

$218

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Est. total **$722.18**

Check out (6)

Congrats — you get **free delivery**!



Refurbished TCL 50" Class 4K Ultra HD (2160P) Roku Smart LED TV (50S421)

~~$270.00~~

$219.99

Delivery

Pickup

Add-on services (0 selected) View

Protection Plans Expert Help

Qty: 1

Remove | Save for later



VIZIO 40" Class FHD LED Smart TV D-Series D40f-G9

~~$218.00~~

$196.00

Delivery

Pickup

Add-on services (0 selected) View

Protection Plans Expert Help

Qty: 1

Remove | Save for later



onn. Full-Motion Mount Kit for 23-55" TVs, Low-Profile Extend & Tilt (with Built-in-Levele

~~$69.9~~ $19.98 ea

~~$39.96~~

Delivery

Add-on services (0 selected) View

Expert Help

Qty: 1

Feedback

Remove | Save for later



Crystal Tufted Floor Mirror Beige 63" x 22" by Naomi Home

Actual Color: Beige

Sold & shipped by OJCommerce

List ~~$199.99~~ $109.49 ea

$218.98

Delivery

Add-on services (0 selected) View

Protection Plans Expert Help

Qty: 2

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Saved for later

You have no saved items right now.

Customers also bought these products



Hisense 32" Class 720P HD LED Roku Smart TV 32H4030F1

652

$115.00

2-day delivery

Add to cart



Roku Express HD Streaming Media Player 2019

1082

$24.00 List ~~$29.99~~

Add to cart



SAMSUNG 43" Class 4K UHD 2160p LED Smart TV with HDR

2710

$268.00 ~~$499.99~~

Add to cart

SPECIAL BUY



onn. Full-Motion Wall Mount for 10"- 50" TVs with Tilt and Swivel

8579

$17.96 ~~$79.00~~

Add to cart



SAMSUNG 2160p LED

$328.00

2-day deliv

Add

Enter email for weekly newsletter. Sign up

Mobile apps

A G R E E M E N T

THIS AGREEMENT made and entered into this __ day of _____ **2020**, by and between the **CITY OF FORT PIERCE**, a Municipal Corporation having its territorial limits within St. Lucie County, Florida, hereinafter referred to as **GRANTOR** and **JC SALON & BOUTIQUE LLC,** a Florida for-profit corporation, hereinafter referred to as the **SUBRECIPIENT**.

W I T N E S S E T H

WHEREAS, the City of Fort Pierce has been awarded a Federal Community Development Block Grant (CDBG) under Title 1 of the Housing and Community Development Act of 1974, as amended (42 USC 5301 et seq.) (the Act); and

WHEREAS, the Fort Pierce City Commission, on July 20, 2015 approved the 2016-2020 5 Year Consolidated Plan which allocates funding for Micro Enterprise Assistance for small businesses to receive educational information and small grants to purchase items to increase their capacity and sustainability; and

WHEREAS, the **City of Fort Pierce has** determined that a valid public purpose will be served, and it is in the best interest of Fort Pierce to support the purchases described in the recipients' mini-grant application;

NOW, THEREFORE, the parties do hereby agree as follows:

1. The specific project to be provided, including intended uses for the Grant funds by **Recipient** are set forth in **Exhibit "A"** to this Agreement.

2. This Agreement shall take effect on the date executed by the **Grantor.**

3. **Grantor** agrees to pay invoices for approved expenditures, as specified in the Agreement and Exhibits thereto, of **Recipient,** up to the agreed amount of **$10,000.00 (Ten Thousand Dollars and No Cents).** The Grantor shall be notified in writing of all authorized persons, with their addresses, who are empowered to file requests for payment pursuant to this Agreement. Reimbursement shall not be sought pursuant to this Agreement for any expenses or costs which are to be paid from another source of revenue.

4. All funds from **Grantor** to **Recipient** being donated under the terms of this Agreement shall be used solely for the purpose of those specified in Attachment/Exhibit A. The project and any use of the Grant funds must comply with the City of Fort Pierce 2018-2019 Community Development Block Grant Action Plan. **Recipient** shall not use Grant funds provided herein for political activities, sectarian or religious activities, or lobbying activities.

5. Publications, press releases, media productions and exhibit graphics produced by the **Recipient** shall include the following statement:

Sponsored in part by the City of Fort Pierce's/Way to Grow Lincoln Park Start Up or Relocate Grant Program

6. Recipient agrees to submit to **Grantor, through the Grants Administration Division,** a written Final Completion Report, with photographs of purchased items as well as other monthly Project Status Reports as may be reasonably requested by **Grantor**, including, but not limited to such reports which provide a detailed and itemized list of all expenditures for the project, including proofs of payment.

7. Term of Contract: This Agreement shall take effect on the day the Grantor executes the agreement and terminate on **September 30, 2021.**

8. In every case, payment will be made subject to receipt of a requisition for payment from the Subrecipient specifying and certifying that such expenses have been incurred and expended in conformance with this Contract and that the Subrecipient is entitled to receive the amount requisitioned under the terms of this Contract.

The Subrecipient shall not claim reimbursement from the Grantor for that portion of its obligations which have been paid by another source of revenue.

The Subrecipient shall notify the Grantor in writing of all authorized personnel who shall be empowered to file requests for payment pursuant to this Agreement.

9. Use of Funds: Use of funds received pursuant to this Agreement shall be in accordance with the requirements of the Housing and Community Development Act of 1974 (as amended), 24 CFR Part 570 and other regulations governing the Community Development Block Grant program, and any amendments or policy revisions thereto which shall become effective during the term of this Agreement.

A copy of said regulations is incorporated by reference. In addition, the Subrecipient agrees to comply with other applicable laws, including the National Environmental Policy Act of 1969 (and the implementing regulations at 24 CFR 58), the National Historic Preservation Act of 1966 as amended (16 USC 470), Section 504 of the Rehabilitation Act of 1973 (29 USC 794)(and the implementing regulations at 24 CFR 8), the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975 (42 USC 6101)(and the implementing regulations at 24 CFR 146), the prohibition against using debarred contractors at 24 CFR 570.609, and Executive orders 11063, 11246, 11375, 12086, and 12259.

The Subrecipient agrees to comply with the uniform administrative requirements specified at 24 CFR 570.502 and 24 CFR 570.610, including: If the Subrecipient is a government agency, OBM Circular A-87, "Principles for Determining Costs Applicable to Grants and Contracts with State, Local and Federally Recognized Indian Tribal Governments;" OMB Circular A-128, "Audits of State and Local Governments" (implemented at 24 CFR 44); and the sections of 24 CFR 85, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments," specified at 24 CFR 570.502(a). If the Operating Agency is not a government agency, OMB Circular A-122, "Cost Principles for Non-Profit Organizations," or OMB Circular A-21, "Cost Principles for Educational Institutions," as applicable; and Attachments A,B,C,F,H,N, and O to OMB Circular A-110, as specified at 24 CFR 570.502(b).

Any equipment purchases over $5,000 (five thousand dollars) must be maintained, and available for on-site monitoring, if requested, for a minimum of five (5) years. Property Management Standards - 24 CFR 84.30 through 84.37 Summary requires recipients to follow uniform standards for using and disposing of real property and equipment. Equipment is defined as having a useful life of one year and a per unit value of $5,000 or more.

When equipment is no longer needed in the same project and it cannot be used in any other Federally-assisted project of the recipient, and the value of the property in question is less than $5,000, the recipient may dispose of the equipment and retain the proceeds as miscellaneous revenue. When equipment is no longer needed in the same project, cannot be used in any other Federally-assisted project of the recipient, and the value of the property in question is $5,000 or more, disposition instructions should be requested from HUD.

The Subrecipient is prohibited from using funds provided herein for political activities, sectarian or religious activities, or lobbying activities.

10. Assignment: Without written consent of the Grantor, this Agreement is not assignable by the Subrecipient, either in whole or in part.

11. Alteration: No alteration or variation in the terms of this Agreement shall be valid unless made in writing and signed by the parties hereto.

12. General Terms and Conditions:

A. The Subrecipient agrees to submit project status reports to the Grantor on a monthly basis and other reports, as may be required, until project is completed. A standard reporting form will be provided by the Grantor.

B. The Subrecipient agrees to keep all necessary books and records, including property, personnel and financial records, in connection with the operations and services performed under this Agreement, and shall document all transactions so that all expenditures may be properly audited. Non-federal entities that expend $300,000 or more in a year in Federal awards shall have a single or program-specific audit conducted for that year in accordance with the provisions

of 24 CFR Part 84, Subpart B. A Subrecipient is exempt from Federal audit requirements if it receives less than $300,000 in combined Federal assistance during its fiscal year, but records must be available for review or audit by appropriate officials of the Federal agency, pass-through entity, and General Accounting Office.

C. The Subrecipient agrees that the Grantor or any authorized representative has access to and the right to examine all records, books, papers or documents related to the project.

D. The Subrecipient hereby severally warrants that all project records, books, papers and documents will be retained for a period of not less than five (5) years after the project terminates and grants the Grantor the option of retention of the project records, books, papers and documents.

E. The Subrecipient agrees to obtain all necessary permits for intended improvements or activities.

F. The Subrecipient agrees to purchase necessary flood insurance if its project is located in a flood hazard area and the nature of the project requires such insurance.

G. The Subrecipient, if its program involves housing, agrees to affirmatively further fair housing.

H. The Subrecipient hereby severally warrants that it will establish and adopt safeguards to prohibit members, officers, and employees from using positions for a purpose that is or gives the appearance of being motivated by a desire to private gain for themselves or others, particularly those with whom they have family, business, or other ties. Further, no member, officer, or employee of the Subrecipient who exercises any functions or responsibility with respect to the program during his or her tenure or for one year thereafter, shall have any financial interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, either for themselves or those with whom they have family or business ties, for work to be performed in connection with the program assisted under this Agreement.

I. The undersigned person signing as an officer on behalf of the Subrecipient, a party to this Agreement, hereby severally warrants and represents that said person has authority to enter into this agreement on behalf of said Subrecipient and to bind the same to this Agreement, and, further that said Subrecipient has authority to enter into this Agreement and that there are no restrictions or prohibitions contained in any article of incorporation or bylaw against entering into this Agreement.

J. The Grantor shall not be responsible or liable for any debts, actions, obligations, negligence, or liabilities committed or incurred by the Subrecipient, its staff or clientele; and the Subrecipient hereby agrees to defend, hold harmless and indemnify the Grantor from and against any and all liabilities for debts, obligations, and negligence. No payment, however, final or otherwise, shall operate to release the Subrecipient from any obligations under this Contract.

K. The Subrecipient hereby certifies that, in the implementation of projects funded by this Agreement and in all of its other operations, it will comply with all requirements of Section 504 of the Rehabilitation Act of 1973 (29 USC 794) (and the implementing regulations at 24 CFR 8), the Americans with Disabilities Act of 1990 (PL 101-336), and all state and local laws requiring physical and program accessibility to people with disabilities, and agrees to defend, hold harmless, and indemnify the Grantor from and against any and all liability for any noncompliance on the part of the Subrecipient.

L. Nothing contained in this Agreement is intended to, or shall be construed in any manner to, create or establish an employer-employee relationship between the parties, nor shall any

employee of the Subrecipient by virtue of this Contract be an employee of the Grantor for any purpose whatsoever, nor shall any employee of the Subrecipient be entitled to any of the rights, privileges, or benefits of Grantor's employees. The Subrecipient shall be deemed at all times an independent contractor and shall be wholly responsible for the manner in which it performs the services required of it by the terms of this contract. The Subrecipient assumes exclusively the responsibility for the acts of its employees as they relate to the services to be provided during the course and scope of their employment.

M. The Subrecipient agrees to participate in training to become informed about the regulations governing the Community Development Block Grant Program, especially with regard to changes in the regulations, provisions requiring nondiscrimination on the basis of disability, and provisions regarding relocation.

13. Special Terms and Conditions

A. It is expressly understood and agreed that either party shall have the right to terminate this Agreement or reduce the compensation amount upon 15 days written notice to the other party. However, the Subrecipient may not terminate its obligations under Section 5 (Program Income) and may not terminate an Assignment of Proceeds and Grant of Lien without written consent from the Grantor. All reports or accounting provided for herein shall be rendered whether or not falling due within the contract period.

B. Further, the Grantor reserves the right to terminate this contract upon written notification to the Subrecipient under any of the following conditions:

1) Notification by HUD to the Grantor that said project is ineligible because of project location, services provided, or any other reason cited by HUD;

2) Notification by HUD to the Grantor that said project is deficient and that continued support of the project is not providing an adequate level of services to low income and minority people; or

3) Written notification from HUD to the Grantor that the program funds made available to the Grantor are being curtailed, withdrawn, or otherwise restricted.

C. The Grantor also reserves the right to terminate this Contract or to reduce the contract compensation amount if the Subrecipient:

1) Fails to file required reports or to meet project progress or completion deadlines;

2) Materially fails to comply with any provision of this Agreement (which may result in suspension or termination in accordance with 24 CFR 85.43 or OMB Circular A-110, Attachment L);

3) Expends funds under this Agreement for ineligible activities, services or items;

4) Implements the project prior to the notification from the Grantor that the federal environmental review process has been completed;

5) Violates Labor Standards requirements, or

6) Fails to comply with written notice from the Grantor of substandard performance under the terms of this Agreement.

14. Other Provisions

A. Equal Employment Opportunity

During the performance of this contract, the Subrecipient agrees as follows:

1) The Subrecipient shall not discriminate against any employee or applicant for employment because of race, color, creed, religion, sex, age, handicap, disability, sexual orientation, ancestry, national origin, marital status, familial status, or any other basis prohibited by applicable law. The Subrecipient shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, creed, religion, sex, age, handicap, disability, sexual orientation, ancestry, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms or compensation, and selection for training including apprenticeship. The Subrecipient agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2) The Subrecipient will, in all solicitations of advertisements for employees placed by on or behalf of the Subrecipient, state that all qualified applicants will receive consideration for employment without regard to race, color, creed, religion, sex, age, handicap, disability, sexual orientation, ancestry, national origin, marital status, or any other basis prohibited by applicable law.

3) The Subrecipient will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advertising the said labor union or workers' representatives of the Subrecipient's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4) The Subrecipient will comply with all provisions of Executive Order 11246, Equal Employment Opportunity, of September 24, 1965, as amended by Executive Orders 11375 and 12086, copies of which are on file and available at the Grantor's office, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5) The Subrecipient will furnish all information and reports required by Executive Order 11246 of September 24, 1965, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by HUD and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6) In the event of the Subrecipient's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Subrecipient may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, as amended, or as otherwise provided by law.

7) The Subrecipient will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor, issued pursuant to Section 204 of Executive order 11246 of September 24, 1965, as amended, so that such provisions will

be binding upon each subcontractor or vendor. The Subrecipient will take such action with respect to any subcontract or purchase order as HUD may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event a Subrecipient becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by HUD, the Subrecipient may request the United States to enter into such litigation to protect the interest of the United States.

B. Equal Opportunity in Participation

Under the terms of Section 109 of the Housing and Community Development Act of 1974, and in conformance with Grantor's policy and all requirements imposed by or pursuant to the Regulation of HUD (24 CFR Part 570.601 and 570.602) issued pursuant to Section 109, no person in the United States shall on the ground of race, color, creed, religion, sex, age, handicap, disability, ancestry, national origin, marital status, familial status, or any other basis prohibited by applicable law be excluded from participation in, be denied the benefits of, or be subjected to discrimination under, any program or activity funded in whole or in part with Community Development Block Grant Program funds.

Specific (not exclusive) Discriminatory Actions Prohibited:

The Subrecipient may not directly or through contractual or other arrangements, on the ground of race color, creed, religion, sex, ancestry, national origin, marital status, familial status, or any other basis prohibited by applicable law:

1) Deny any facilities, services, financial aid, or other benefits provided under the program or activity.
2) Provide any facilities, services, financial aid, or other benefits which are different, or are provided in a different form from that provided to others under the program or activity.
3) Subject to segregated or separate treatment in any facility, or in any matter or process related to receipt of any service or benefit under the program or activity.
4) Restrict in any way access to, or the enjoyment of any advantage or privilege enjoyed by others in connection with facilities, services, financial aid or other benefits under the program or activity.
5) Treat an individual differently from others in determining whether the individual satisfies an admission, enrollment, eligibility, membership, or other requirement or condition which the individual must meet in order to be provided any facilities, services, or other benefit provided under the program or activity.
6) Deny any person with the legal right to work an opportunity to participate in a program or activity as an employee.

C. Business and Employment Opportunities for Lower Income Residents, Women-Owned Business Enterprises, and Minority-Owned Business Enterprises.

1) The Subrecipient will conform with the rules and regulations set forth under Section 3 of the Housing and Urban Development Act of 1968, (12 USC 1701u), as amended, and the HUD regulations issued pursuant thereto at 24 CFR Part 135. This Act requires that, to the greatest extent feasible, opportunities for training and employment be given to lower income residents of the project area, and contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by, persons residing in the area of

the project. In all solicitations for bids, the contractor must, before signing the contract, provide a preliminary statement of the work force needs and plans for possible training and employment of lower income persons. When a Subrecipient utilizes the bidding procedures to let a bid, the invitation or solicitation for bids shall advise prospective contractors of the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, and the clause shall be inserted as a component part of any contract or subcontract.

2) If a Subrecipient solicits or requests an invitation for bids, every effort feasible will be made to contact minority-owned and women-owned business enterprises for a response to the solicitation or invitation for bidders.

D. Nondiscrimination in Federally-Assisted Programs.

The Subrecipient will comply with Title VI of the Civil Rights Act of 1964 (PL 88-352, 42 USC 2000d et seq.) and the Fair Housing Act (42 USC 3601-20). In accordance with City policy and Title VI of the Civil Rights Act of 1964 (PL 88-352), in the sale, lease or other transfer of land acquired, leased or improved with assistance provided under this Agreement, the deed or lease for such transfer shall contain a covenant prohibiting discrimination upon the basis of race, color, creed, religion, sex, handicap, disability, ancestry, national origin, material status, or familial status, in the sale, lease or rental, or in the use or occupancy of such land or any improvements erected or to be erected thereon. The Subrecipient will comply with Title VIII of the Civil Rights Act of 1968 (PL 90-284) as amended and will administer all programs and activities related to housing and community development in a manner to affirmatively further fair housing.

E. Labor Standards.

The Subrecipient and all subcontractors engaged in contracts in excess of $2,000 to which the United States is a party for the construction, completion, rehabilitation, alteration, and/or repair, including painting and decorating, of public buildings or public works, financed in whole or in part with assistance provided under this Agreement are subject to the federal labor standards provisions which govern the payment of wages and the ratio of apprentices and trainees to journey workers. Under the terms of the Davis-Bacon Act, as amended, the Subrecipient is required to pay all laborers and mechanics employed on construction work wages at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor, and shall pay overtime compensation in accordance with the subject to the provisions of the Contract Work Hours and Safety Standards Act (40 USC 327-332), and the Subrecipient shall comply with all regulations issued pursuant to these Acts and with other applicable Federal laws and regulations pertaining to labor standards, including the Copeland "Anti-Kickback" Act. Provided, that if wage rates higher than those required under the regulations are imposed by State or local laws, nothing hereunder is intended to relieve the Subrecipient of its obligation, if any, to require payment of the higher rates.

F. Flood Disaster Protection.

This Agreement is subject to the requirements of the Flood Disaster Protection Act of 1973 (PL 93-235). Use of any assistance provided under this Agreement for acquisition or construction in an area identified as having special flood hazards shall be subject to the mandatory purchase of flood insurance in accordance with the requirements of Section 102(a) of said Act.

G. Clean Air Act and Federal Water Pollution Control Act (Applicable to Contracts and Subcontracts Which Exceed $100,000).

The Subrecipient shall comply with and require each subcontractor to comply with all applicable standards of the Clean Air Act of 1970 (42 USC 1857 et seq.), as amended, the Clean Air Act of 1990, the Federal Water Pollution Control Act (33 USC 1251 et seq.), as amended, and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR Part 15, as amended from time to time.

H. Provision of the Hatch Act.

Neither the Subrecipient program nor the funds provided therefore, nor the personnel employed in the administration of the program shall be in any way or to any extent engaged in the conduct of political activities in contravention of Chapter 15 of Title 5, United States Code.

I. Lead-Based Paint.

Any grants or loans made by the Subrecipient for the rehabilitation of residential structures with assistance provided under this Agreement shall be made subject to the provisions for the elimination of lead-based paint hazards under 24 CFR Part 35. The Subrecipient will comply with the requirements of 24 CFR 570.608 for notification, inspection, testing, and abatement procedures concerning lead-based paint. Such regulations require that all owners, prospective owners, and tenants of properties constructed prior to 1978 be properly notified that such properties may contain lead-based paint. Such notification shall point out the hazards of lead-based paint and explain the symptoms, treatment, and precautions that should be taken when dealing with lead-based paint poisoning.

J. Special Assessments.

The Subrecipient will not attempt to recover any capital costs of public improvements assisted in whole or in part with funds provided under Section 106 of the Act or with amounts resulting from a guarantee under Section 108 of the Act by assessing any amount against properties owned and occupied by persons of low and moderate income, including any fee charged or assessment made as a condition of obtaining access to such public improvements, unless: (1) funds received under Section 106 of the Act are used to pay the proportion of such fee or assessment that relates to the capital costs of such public improvements that are financed from revenue sources other than under Title 1 of the Act; or (2) for purposes of assessing any amount against properties owned and occupied by persons of moderate income, the grantee certifies to the Secretary of HUD that it lacks sufficient funds received under Section 106 of the Act to comply with the requirements of subparagraph (1).

K. Acquisition, Rehabilitation, and Demolition of Real Property and Displacement of Persons and Businesses.

The Subrecipient will comply with the "City of Fort Pierce Community Development Block Grant Program Plan for Minimizing the Displacement of Persons as a result of Community Development Block Grant Funded Activities". The Subrecipient will conduct any acquisition, rehabilitation, or demolition of real property, and any negotiations for acquisition, rehabilitation, or demolition of real property in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Section 104(d) of the Act, and the implementing regulations at 49 CFR 24 and 24 CFR 570.606. Unless specifically permitted in Appendix B or Appendix C, the Subrecipient will not cause either temporary or permanent involuntary displacement of persons or businesses. If the Subrecipient causes the involuntary temporary or permanent displacement of any person or business as a result of Community Development Block Grant activities, it shall comply with

the Grantor's "Plan to Assist Persons Actually Displaced By Community Development Block Grant Activities," and the Subrecipient shall provide all notices, advisory assistance, relocation benefits, and replacement dwelling units as required by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Section 104(d) of the Act, and the implementing regulations at 49 CFR 24 and 24 CFR 570.606. The Subrecipient hereby agrees to defend, to pay, and to indemnify the City from and against, any and all claims and liabilities for relocation benefits or the provision of replacement dwelling units required by federal statutes and regulations in connection with activities undertaken pursuant to this Agreement.

L. Reversion of Assets.
Upon expiration of this Agreement, the Subrecipient shall transfer to the Grantor or its designee any CDBG funds on hand at the time of expiration.

M. Lobbying Restrictions.

1) No Federal appropriated funds have been paid or will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement;

2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress, in connection with this Federal contract, grant, loan, or cooperative agreement, it will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions; and

3) It will require that the language of this paragraph L be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, and United States Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

N. Provisions Required by Law Deemed Inserted.

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party this Contract shall forthwith be physically amended to make such insertion or correction.

IN WITNESS THEREOF, the Grantor and the Subrecipient have executed this Agreement as of the date first above written.

GRANTOR:
ATTEST: CITY OF FORT PIERCE

_____ _____
Linda Cox, City Clerk Linda Hudson, Mayor

APPROVED AS TO FORM CORRECTNESS:

By: _____
Pete Sweeney, City Attorney

SUBRECIPIENT: **JC SALON & BOUTIQUE LLC**

By: _____
Jaykelia Weston

Print: _____

Title: **Owner**

Today's Date: _____

City Commission Regular Meeting - 6:00 pm **12. a.**

Meeting Date: 10/05/2020

Re: Zoning Atlas Amendment - Willow Lakes - 10050 W. Midway Road

Submitted For: Jennifer Hofmeister, Planning Director, Planning & Zoning

---

SUBJECT:

Legislative Hearing - Ordinance 20-025 REZONING THE PROPERTY GENERALLY LOCATED AT OR NEAR 10050 WEST MIDWAY ROAD, FROM AG-2.5, AGRICULTURAL, 1 DU/2.5 AC (SAINT LUCIE COUNTY ZONING) TO PLANNED DEVELOPMENT (PD); PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT HEREWITH; AND PROVIDING FOR AN EFFECTIVE DATE. SECOND READING

SUMMARY:

- The subject petition is a request for a Zoning Atlas Map Amendment from AG-2.5, Agricultural, 1 du/2.5 ac {Saint Lucie County (SLC) Zoning} to Planned Development (PD) in order to provide for a zoning category that is compatible with the Future Land Use designation of the subject property as the current zoning classification of SLC AG-2.5 is inconsistent with the MXD Future Land Use designation. In addition, the requested Zoning Atlas amendment will further the applicant's proposed vision of a Mixed-Use Urban Resort Village for the subject site.

- The existing Mixed-Use Development (MXD) Future Land Use Category, as defined in the Future Land Use Element of the City's Comprehensive Plan, is intended to promote intensification, redevelopment, and revitalization targeted for live/work environments. The subject area is characterized by development that promotes the creation of a well-planned center designed to integrate a variety of complementary residential and commercial uses.

RECOMMENDATION:

The requested Application for Zoning Atlas Map Amendment meets the criteria specified in Section 125-136 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience and general welfare. Therefore, Staff recommends **APPROVAL** of the proposed Rezoning from AG-2.5, Agricultural, 1 du/2.5 ac (Saint Lucie County Zoning) to Planned Development, PD.

ALTERNATIVES:

Denial

RESPONSIBLE STAFF:

Vennis Gilmore, Planner

COORDINATED WITH:

Technical Review Committee

Fiscal Impact

OTHER INFORMATION:

Potential Increase in Ad Valorem Tax Revenue.

Attachments

Ordinance 20-025
staff presentation
Staff Report & Supporting Documents
Application Packet & Supporting Documents
Affidavit of Mailing & Public Notice Certification

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	09/11/2020 12:08 PM

Form Started By: Vennis Gilmore
Started On: 09/09/2020 04:50 PM
Final Approval Date: 09/22/2020

ORDINANCE NO. 20-025

AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA; **REZONING** THE PROPERTY GENERALLY LOCATED AT OR NEAR **10050 WEST MIDWAY ROAD**, FROM AG-2.5, AGRICULTURAL, 1 DU/2.5 AC (SAINT LUCIE COUNTY ZONING) TO PLANNED DEVELOPMENT (PD); PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT HEREWITH; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the subject property is generally located at or near 10050 West Midway Road within the City of Fort Pierce, Florida, representing approximately 200.3 acres of land; and

WHEREAS, Willow Lakes, LLC, has applied for rezoning of the subject property generally located at or near 100500 West Midway Road from AG-2.5, Agricultural, 1 du/2.5 ac (Saint Lucie County Zoning) to Planned Development, PD; and

WHEREAS, the proposed zoning atlas map amendment (rezoning) is consistent with the comprehensive plan, will not have an adverse effect on the ability of the city to satisfy land and water use needs; and meet transportation demands and provide community facilities and services, and will promote and protect the public health, safety and general welfare as required by City Code 125-136; and

WHEREAS, the City of Fort Pierce Planning Board, at their August 11, 2020 meeting, voted to recommend approval of the request; and

NOW, THEREFORE BE IT ORDAINED by the City Commission of the City of Fort Pierce, Florida as follows:

SECTION 1. From and after the effective date hereof, the following described property is hereby rezoned as follows:

Parcel ID: 3302-212-0001-000-4

From and after the effective date hereof, the following property legally described as:

A PARCEL OF LAND LYING IN SECTIONS 2 AND 3, TOWNSHIP 36 SOUTH, RANGE 39 EAST IN ST. LUCIE COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 3, THENCE N89°46'35"W ALONG THE NORTH LINE OF SAID SECTION 3 A DISTANCE OF 2622.04 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF N.S.L.R.W.C.D. CANAL NO. 93 (A 78 FEET WIDE RIGHT-OF-WAY); THENCE S00°02'49"W ALONG THE EAST RIGHT-OF -WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93 A DISTANCE OF 52.50 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF A 200 FEET WIDE FP&L EASEMENT AS RECORDED IN OR 377, PG. 2069-2076 AND BEING THE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED PARCEL; THENCE S89°46'35"E ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID 200 FEET WIDE FP&L EASEMENT AND BEING PARALLEL TO THE NORTH LINE OF SAID SECTION 3 A DISTANCE OF 1,026.62 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF A 60 FEET WIDE FP&L EASEMENT AS RECORDED IN OR 119, PG. 404; THENCE S32°18'17"E ALONG THE EAST RIGHT-OF-WAY LINE OF SAID 60 FEET WIDE FP&L EASEMENT A DISTANCE OF 1,746.02 FEET; THENCE N61°15'41"E A DISTANCE OF 335.12 FEET; THENCE N31°56'28"E A DISTANCE OF 78.35 FEET; THENCE N02°37'14"E A

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CONTAINING 197.90 ACRES, MORE OR LESS

TOGETHER WITH;

THE WEST 1/2 OF THE WEST 1/2 OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 2, TOWNSHIP 36 SOUTH, RANGE 39 EAST, LESS AND EXCEPT THAT PORTION OF THE PROPERTY WHICH WAS TAKEN FOR 1-95, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

CONTAINING 2.33 ACRES, MORE OR LESS.

SURVEYED PARCEL CONTAINS A NET AREA OF 200.23 ACRES, MORE OR LESS.

Said property being generally located at or near 10050 West Midway Road in Fort Pierce, Florida shall be and the Zoning Designation is hereby changed from AG-2.5, Agricultural, 1 du/2.5 ac (Saint Lucie County Zoning) to Planned Development, PD, as depicted on Exhibit “A” and Exhibit “B,” attached hereto and incorporated herein.

SECTION 2. The provisions of this Ordinance are declared to be severable and if any section, sentence, clause, or phrase of this Ordinance shall, for any reason, be held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining sections,

sentences, clauses, and phrases of this Ordinance but shall remain in effect, it being the legislative intent that this Ordinance shall stand notwithstanding the invalidity of any part.

SECTION 3. The Site Plan is conceptual in nature and depicted on Exhibit "C" is hereby approved with this Ordinance. Site Plans for phases of this Planned Development require Development Review and Design Review for conformance with Section 125-212(c)(2) shall be submitted for final approval by the City Commission.

SECTION 4. All ordinances or parts thereof that may be determined to be in conflict herewith are hereby repealed.

SECTION 5. This Ordinance shall be and become effective immediately upon final passage.

APPROVED AS TO FORM & CORRECTNESS:

_____
Peter J. Sweeney
City Attorney

STATE OF FLORIDA

COUNTY OF ST. LUCIE

WE, THE UNDERSIGNED, Mayor Commissioner and the City Clerk of the City of Fort Pierce, Florida, do hereby certify that the foregoing and above Ordinance No. 20-025 was duly advertised by title only in the St. Lucie News Tribune on Sunday, September 6th, 2020; copy of said Ordinance was made available at the office of the City Clerk to the public upon request; said Ordinance was duly introduced, read by title only, and passed on first reading by the City Commission of the City of Fort Pierce, Florida, on September 21st, 2020; and was duly introduced, read by title only, and passed on second and final reading October 5th, 2020, by the City Commission of the City of Fort Pierce, Florida.

IN WITNESS HEREWITH, we hereunto set our hands and affix the Official Seal of the City of Fort Pierce, Florida, this 6th day of October 2020.

_____
Linda Hudson
Mayor Commissioner

ATTEST:

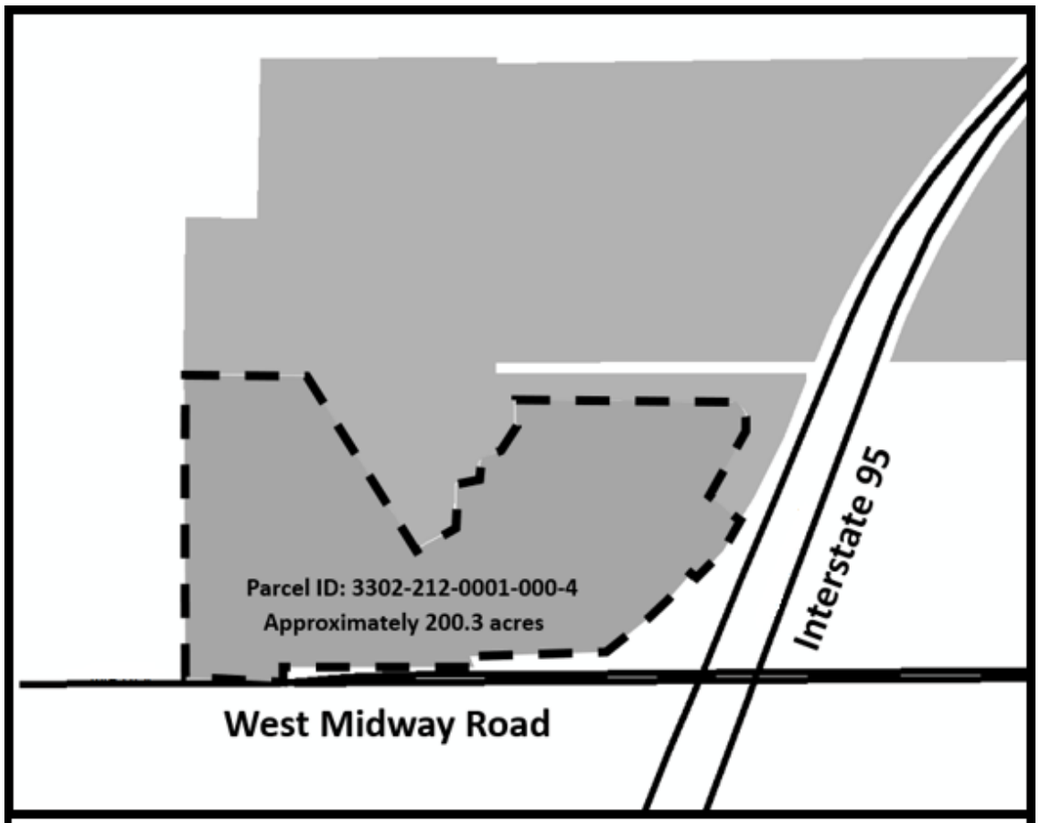
_____
Linda W. Cox
City Clerk

(CITY SEAL)

EXHIBIT A

Proposed Zoning Atlas Map Amendment

AG-2.5, Agricultural, 1 du/2.5 ac (Saint Lucie County Zoning) to Planned Development, PD



Parcel ID: 3302-212-0001-000-4

AG-2.5, Agricultural, 1 du/2.5 ac (Saint Lucie County Zoning) to Planned Development, PD

Exhibit B
Sketch and Legend Description

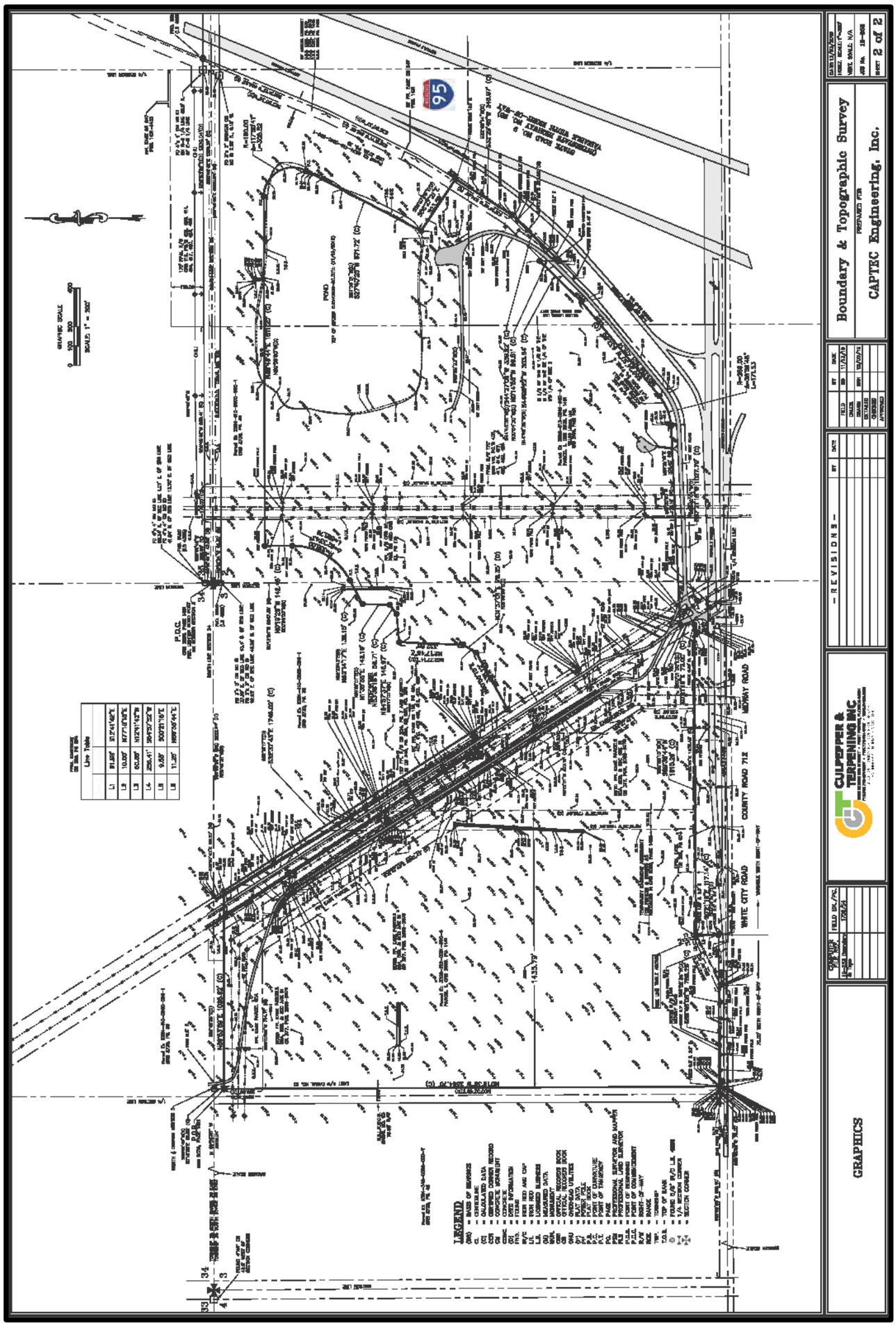


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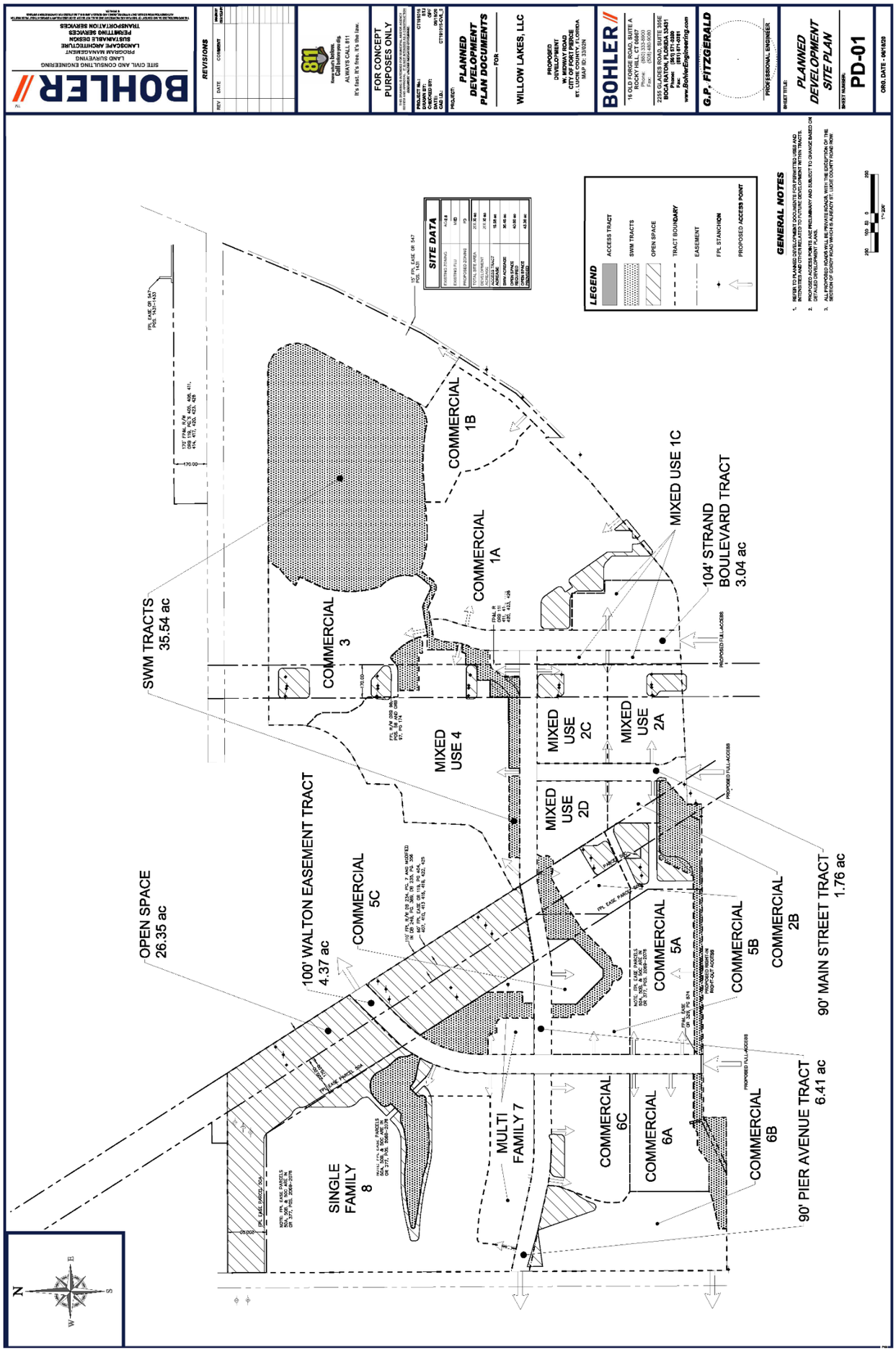
Exhibit C
Conceptual Site Plan & Project Phasing



II. PROJECT PHASING

As proposed, initial infrastructure improvements will be constructed by the developer, which include excavation of the storm water management floways and ponds within the Storm Water Management Tracts; clearing and rough grading development tracts; construction of certain roads or segments thereof, and placement of structural fill where deemed necessary or desirable. Installation of common utilities such as water and wastewater lines, fiber optics and telecom among other general infrastructure improvements is yet to be determined. To provide for as much flexibility as possible in accommodating potential end-users, the developer reserves the right to implement construction on any one (1) or more phases at any such time it is deemed appropriate; i.e. based on market demand or other metrics utilized by the developer.

The Phase Schedule below provides for a general outline of the Phases of infrastructure construction. Please note that the timelines provided are estimates only and are subject to market conditions and approval timelines. It is anticipated that a Phase 1 submittal will be made within a year.

PHASE SCHEDULE

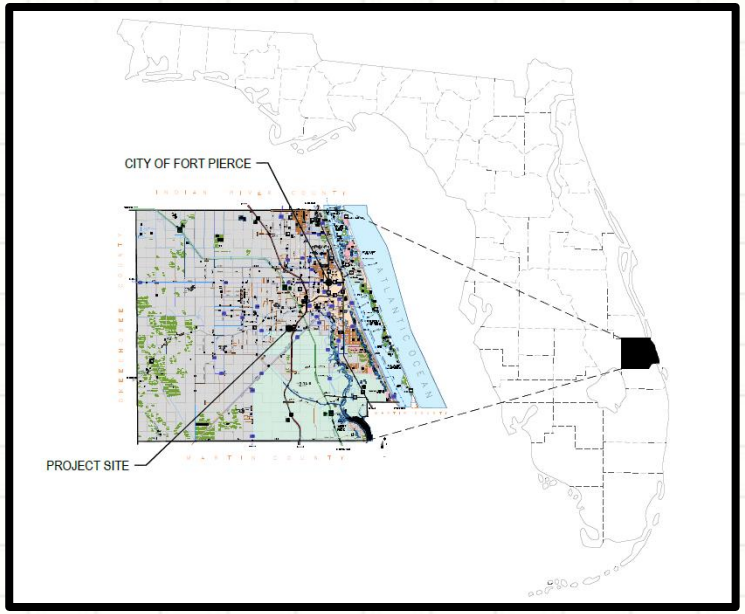
Estimated Duration of Construction of Phase	General Description of Improvements
Phase 1A (18 months)*	• Roadwork consisting of a full access signalized intersection at Midway Road and Gordy Road, Gordy Road Improvements, including roundabout at new Main Street. • Construction of pavement and landscaped median for Strand Boulevard Tract, and Main Street Tract from Gordy Road north to the intersection of Pier Avenue Tract. • Drainage associated with roadwork. • Construction of potable water and wastewater service mains and stub-outs for future phases; • Electric and telecom services and stub outs for future phases; • Construction of Pier Avenue subgrade for use as on-site construction haul road. • Rough site grading and excavation of Storm Water Management floways and ponds. • Placement of fill and preparation of subgrade on Wavegarden Surf Park parcel 1A. • Construction of Wavegarden Surf Park and associated commercial buildings, parking, drives, facilities, walks, landscaping and amenities. • Sidewalks and Street lighting along upper Strand Boulevard.
Phase 1B (8 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 1B commercial development.

	• Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities.
Phase 1C (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 1C commercial development. • Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Strand Boulevard. • Street Trees and Lighting along Strand Boulevard
Phase 2A (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 2A commercial development. • Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Frontage of Phase 2A
Phase 2B (18 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 2B commercial development. • Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Frontage of Phase 2B
Phase 2C (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 2C mixed-use development. • Construction of mixed-use development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Frontage of Phase 2C

Phase 2D (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for Phase 2D mixed-use development. • Construction of mixed-use development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Frontage of Phase 2D
Phase 3 (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for Phase 3 commercial development. • Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Improvements along lakefront and shoreline, and completion of eastern floway system. • Completion of Phase 3 and Phase 4 private roads and drives.
Phase 4 (12 months)*	• Construction of Multifamily Residential development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities.
Future Phases TBD*	• Roadwork consisting of a full access signalized intersection at Midway Road and Walton Easement Road, and remaining Pier Avenue Improvements to western limits of Willow Lakes property. • Construction of pavement and landscaped median for Walton Easement Tract, and Pier Avenue Tract. • Completion of western side floway system. • Drainage associated with roadwork. • Construction of potable water and wastewater service mains and stub-outs for future phases; • Electric and telecom services and stub outs for future phases; • Construction of commercial tracts in Phase 5 and 6, and residential tracts in Phases 7 and 8. See PD Conceptual Site Plan.

* Subject to market conditions

Zoning Atlas Map Amendment
1 Parcel

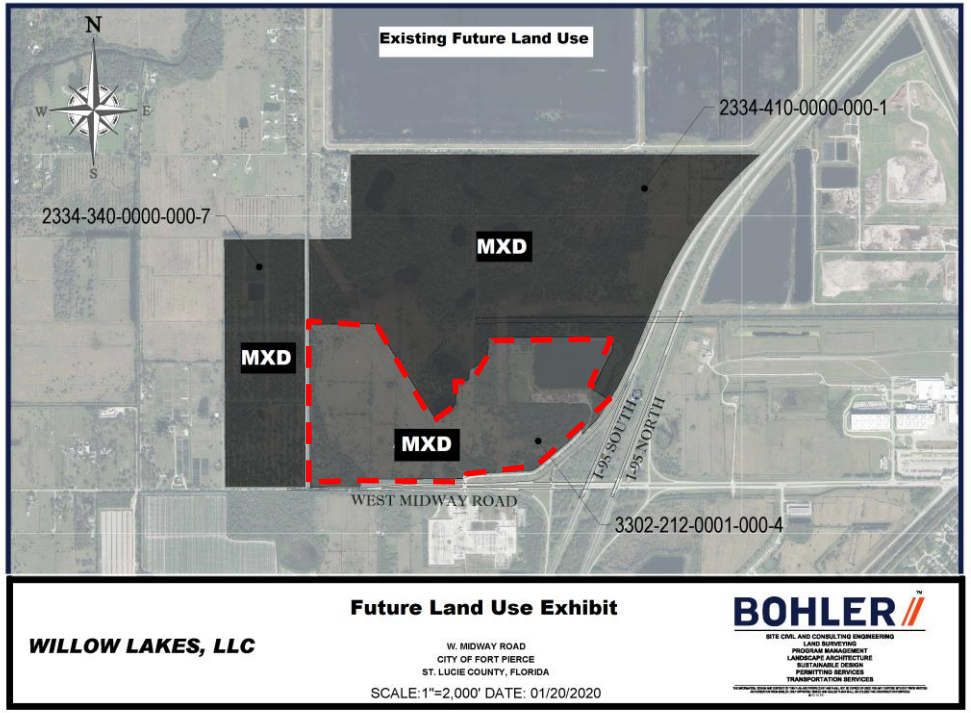


10050 W. Midway Road

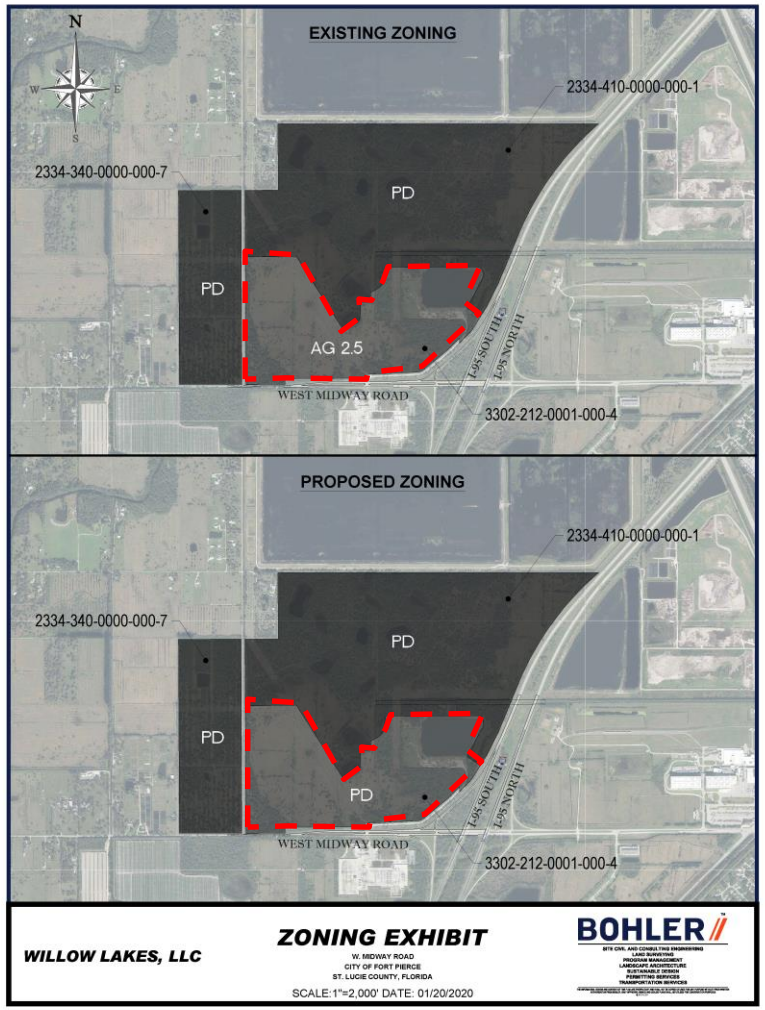
Site Map


PROJECT SITE
WEST MIDWAY ROAD
I-95 SOUTH
I-95 NORTH
WILLOW LAKES, LLC
LOCATION EXHIBIT
W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA
SCALE:1"=80,000' & 1,000'
DATE: 01/20/2020
BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

Future Land Use Map



Zoning Maps


N
EXISTING ZONING
2334-410-0000-000-1
2334-340-0000-000-7
PD
PD
AG 2.5
I-95 SOUTH
I-95 NORTH
WEST MIDWAY ROAD
3302-212-0001-000-4
PROPOSED ZONING
2334-410-0000-000-1
2334-340-0000-000-7
PD
PD
PD
I-95 SOUTH
I-95 NORTH
WEST MIDWAY ROAD
3302-212-0001-000-4
WILLOW LAKES, LLC
ZONING EXHIBIT
W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA
SCALE:1"=2,000' DATE: 01/20/2020
BOHLER

Staff Recommendation

Zoning Atlas Map Amendment, change for one (1) parcel from AG-2.5, Agricultural, 1 du/2.5 ac (Saint Lucie County Zoning) to Planned Development, PD.

- Staff recommends **Approval** of the request
  - ❑ Consistent with surrounding Zoning
  - ❑ Consistent with Section 125-136 of City Code & the Comprehensive Plan
  - ❑ Does not adversely affect the public health, safety, convenience and general welfare

Planning Board Recommendation

At the Planning Board August 11, 2020 meeting,
recommended 6-0 **Approval** of the Zoning Atlas Map Amendment.

CC Actions

Possible actions of the City Commission:

- **APPROVAL** of the proposed Rezoning, with no changes
    - Staff recommends approval of the request
- **APPROVAL** of the proposed Rezoning, with changes.
- **DISAPPROVAL** of the proposed Rezoning

Zoning Atlas Map Amendment

10050 W. Midway Road

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO:	Nick C. Mimms, P.E., ICMA-CM, City Manager
THROUGH:	Jennifer Hofmeister, AICP, LCAM, Planning Director
FROM:	Vennis Gilmore, Planner
RE:	**Application for Zoning Atlas Map Amendment** **Willow Lakes Planned Development**
BOARD DATE:	September 21, 2020

STAFF REPORT

Property Owner:	Willow Lakes, LLC 433 S. Main St., Suite 300 West Hartford, CT 06110
Applicant:	Dean, Mead, Minton, & Zwemer 1901 S. 25th Street, Suite 200 Fort Pierce, FL 34947
Requested Action:	Approval to Rezone one (1) parcel from AG-2.5, Agricultural, 1 du/2.5 ac (Saint Lucie County Zoning) to Planned Development, PD.
Site Location:	At or near the northwestern interchange of West Midway Road and Interstate 95.
Parcel IDs:	3302-212-0001-000-4
Existing Use:	Vacant/Agricultural
Parcel Size:	200.3 +/- Acres
Current Future Land Use:	Mixed Use Development (MXD)
Current Zoning:	AG-2.5, Agricultural, 1 du/2.5 ac (St. Lucie County Zoning)
Proposed Zoning:	Planned Development (PD)

	North	East	South	West
Surrounding FLU:	Mixed Use Development (MXD)	Industrial (SLC Future Land Use)	ROI/CG/CS/SLC MXD/SLC TU (PSL Future Land Use)	Mixed Use Development (MXD)
Surrounding Zoning:	Planned Development (PD)	Industrial Light (SLC Zoning)	Planned Unit Development (PSL Zoning)	Planned Development (PD)

Staff Analysis

Request

The subject petition is a request for a Zoning Atlas Map Amendment from AG-2.5, Agricultural, 1 du/2.5 ac {Saint Lucie County (SLC) Zoning} to Planned Development (PD) in order to provide for a zoning category that is compatible with the Future Land Use designation of the subject property as the current zoning classification of SLC AG-2.5 is inconsistent with the MXD Future Land Use designation. In addition, the requested Zoning Atlas amendment will further the applicant's proposed vision of a Mixed-Use Urban Resort Village for the subject site.

The existing Mixed-Use Development (MXD) Future Land Use Category, as defined in the Future Land Use Element of the City's Comprehensive Plan, is intended to promote intensification, redevelopment, and revitalization targeted for live/work environments. The subject area is characterized by development that promotes the creation of a well-planned center designed to integrate a variety of complementary residential and commercial uses.

The MXD Future Land Use designation allows a maximum density of 15 dwelling units per acre and a maximum FAR of 1.5. Pursuant to the City Comprehensive Plan, all MXD designated areas shall contain a minimum of three (3) of the following general land uses:

- Residential (single-family and/or multi-family)
- Commercial – General and/or Neighborhood
- Commercial – Town Center
- Hotel (minimum 100 units)
- Office Uses – Professional and/or medical
- Industrial
- Institutional

Additionally, within the MXD, residential uses must comprise a minimum of 40% of the total floor area of a Mixed-Use Development project.

Background

The subject application involves only the request for a Zoning Atlas amendment. Subsequent to this application, the petitioner will be submitting an application for a phased development to develop a mixed use live, work, play and learn community referred to as Willow Lakes Resort Village and Community.

To provide some perspective, the Willow Lakes Resort Village and Community is envisioned as a vibrant, mixed-use urban village at the crossroads of Florida's Turnpike, Interstate 95, and the City of Fort Pierce. Situated on 200.23 acres of land lying immediately north of Midway Road and west of I-95 within the City of Fort Pierce, Willow Lakes will be an east coast destination that will bring together local residents and regional, national and international visitors in a lively, pedestrian-oriented, and healthy environment of inviting public spaces, walkable streets, and authentic neighborhoods with a destination recreational amenity for seasoned and novice surfers.

The vision proposed by the applicant is that Willow Lakes will be designed as a community that celebrates outdoor activity and a healthy lifestyle. The envisioned community will be a place where residential, retail, and commercial uses will be combined to provide a critical mass of activity that will bring year-round life to the proposed community. The applicant is seeking to create a "village" that will be one of a kind in Florida built around a state-of-the-art and largest world-class surf park in the country. As stated in the application:

> "The Wavegarden at Willow Lakes will deliver high quality waves and authentic surfing experiences year-round for new and existing surfers of all ages, experience and ability. Beyond the Wavegarden, the Village will be comprised of several distinct neighborhoods, knit together by a network of walkable, pedestrian-oriented streets, and navigable flow-ways designed for maximum environmental and recreational purposes. The result will be an inclusive environment where visitors, residents, and professionals have fun, keep fit and feel part of a community that shares their passion and respect for surfing, the ocean, others and the planet."

The submitted Planned Development Site Plan is conceptual in nature. Site Plans for the proposed ten phases of this Planned Development will require Development Review and Design Review for conformance with Section 125-212(c)(2) shall be submitted for final approval by the City Commission.

Future Land Use and Zoning Designation Comparison

The subject property currently has a Future Land Use of Mixed-Use Development, (MXD) and Zoning designation that is AG-2.5, Agricultural, 1 du/2.5 ac (St. Lucie County Zoning). This is an inappropriate zoning designation because the vacant site abuts the major corridor of West Midway Road, intersects with Federal Interstate 95 and the applicant is proposing a Mixed-Use Development. Mixed-Use Land Uses are intended for parcels suitable for Commercial

development and to promote intensification, redevelopment, and revitalization of the areas targeted for live/work environments in the City of Fort Pierce. Uses allowed within this Mixed-Use Development, (MXD) designation include residential (single-family/multi-family), commercial (general/neighborhood), commercial (town center), hotel (minimum 100 units), office uses (professional/medical), industrial, and institutional. This land use designation allows for a maximum density of 15 dwelling units per acre and a maximum FAR of 1.5. Development shall include a minimum of three (3) of the allowed general land uses. Residential uses shall comprise a minimum of 40% of the total floor area of the Mixed-Use Development FLU designation.

As the development of the subject parcel is a vital component to the development pattern envisioned throughout the City of Fort Pierce, the appropriate Zoning is Planned Development, (PD) with the compatible Future Land Use classification of Mixed-Use Development (MXD).

Standards for Review

Pursuant to Article IX, City Code of Ordinances, a proposed change of district or text may be initiated by the city commission, the city planning board or by petition of one or more of the property owners or affected residents within the area proposed to be changed or affected by a change in the district map or text.

The following standards must be satisfied per Section 125-136 of the City Code prior to the approval of the requested amendment:

(1) The amendment is consistent with the Comprehensive Plan.

(2) The amendment will not have an adverse effect on the ability of the City to:

a. Satisfy land and water use needs; and

b. Meet transportation demands and provide community facilities and services.

(3) The amendment will promote and protect the public health, safety, and general welfare.

The proposed amendment is consistent with and furthers the Goals, Objectives, and Policies of the City's Comprehensive Plan. The Zoning Atlas Map Amendment promotes and protects the public health, safety, and general welfare as the request as proposed is in character and similar with the surrounding area, land uses and zoning designations.

Technical Review Committee (TRC)

All affected City and County Departments have reviewed the proposed Future Land Use Map and Zoning Atlas Map Amendments and there were no comments from the TRC.

Property Owner Response Summary

A total of 7 notifications of the Zoning Atlas Amendment proposal were mailed to the owners of property located within 500 feet of the subject property. An update will be provided to the City Commission at the public hearing.

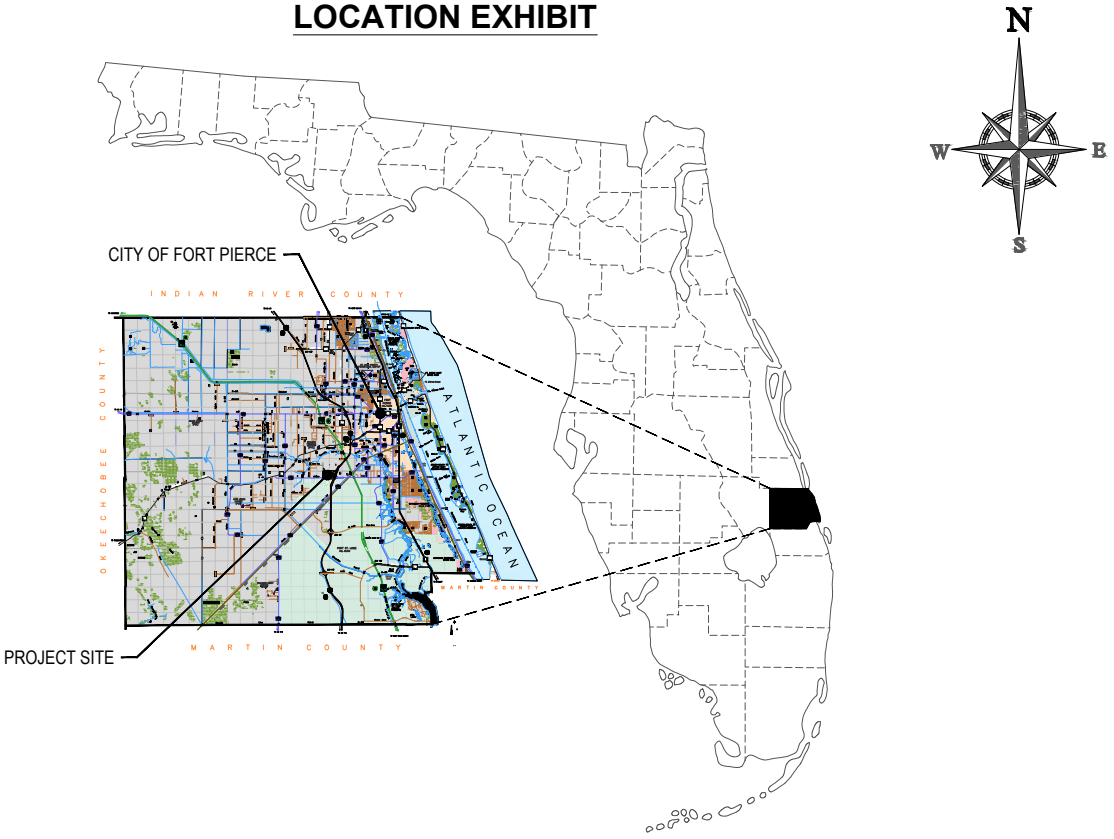
Planning Board Recommendation

The Planning Board, at their August 11th, 2020 meeting, voted unanimously to recommend **Approval** of the request.

Staff Recommendation Zoning Atlas Map Amendment

The requested Application for Zoning Atlas Map Amendment meets the criteria specified in Section 125-136 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience and general welfare. Therefore, Staff recommends **APPROVAL** of the proposed Rezoning from AG-2.5, Agricultural, 1 du/2.5 ac (Saint Lucie County Zoning) to Planned Development, PD.

LOCATION EXHIBIT





WILLOW LAKES, LLC

LOCATION EXHIBIT

W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA

SCALE:1"=80,000' & 1,000' DATE: 01/20/2020

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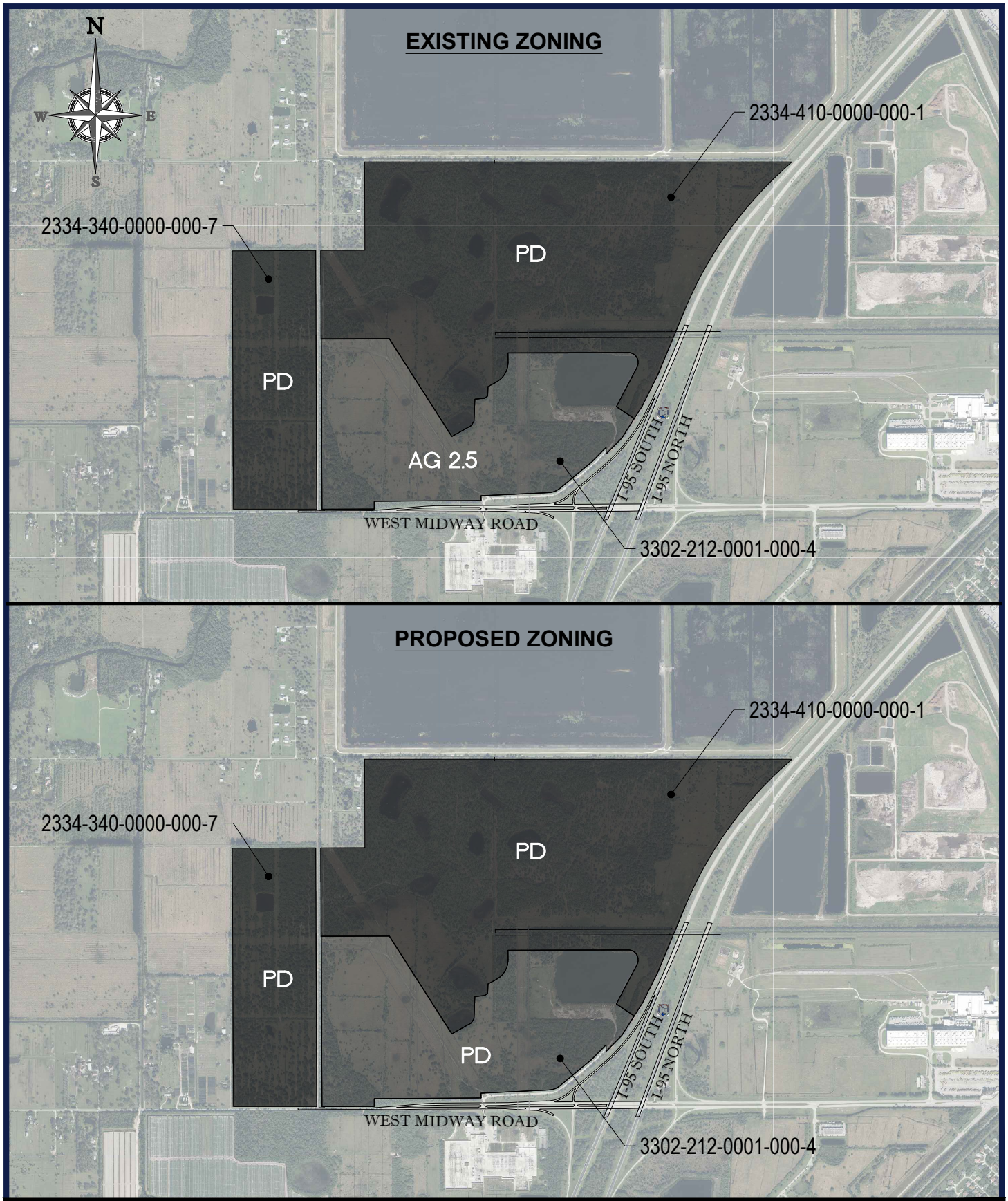

WILLOW LAKES, LLC

ZONING EXHIBIT

W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA

SCALE:1"=2,000' DATE: 01/20/2020

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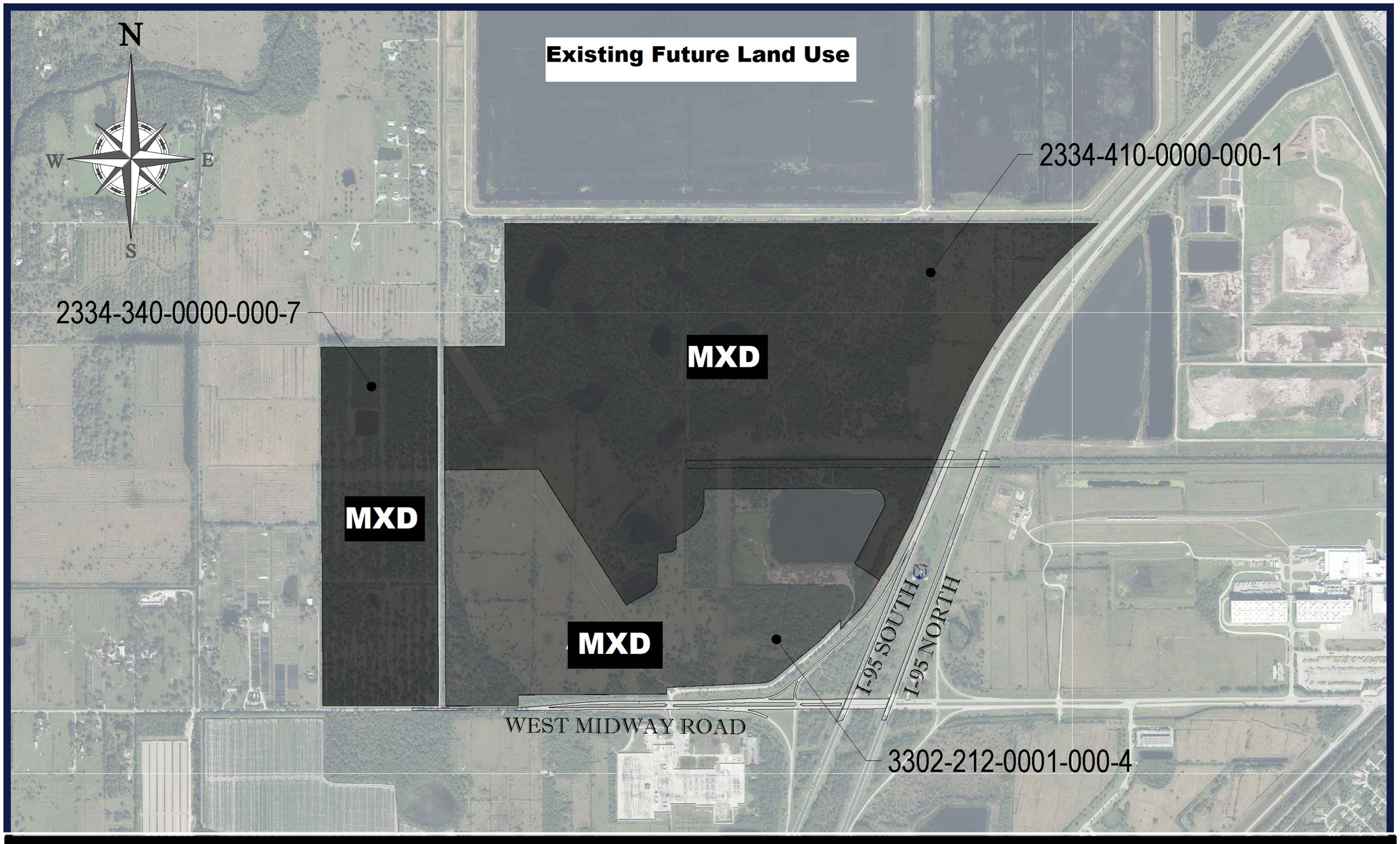

WILLOW LAKES, LLC

Future Land Use Exhibit

W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA

SCALE:1"=2,000' DATE: 01/20/2020

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THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

May 21, 2020

Willow Lakes, LLC c/o Dean, Mead, Minton & Zwemer
1903 S. 25th Street, Suite 200
Fort Pierce, FL 34947

Subject: Willow Lakes – NW corner of W. Midway Rd. & I-95 – Technical Review Committee Comments for May 21, 2020 conference call

Dear Dean, Mead, Minton & Zwemer,

Below please find received comments from the City of Fort Pierce and applicable entities:

Fort Pierce Planning Department

1. The subject application is limited to the rezoning of the property from AG-2.5 to PD. As a PD requires a plan, Planning staff will be attaching the conceptual master plan to the approving Ordinance. With that said, the master plan shall include the proposed uses, maximum densities, intensities, height, lot coverage, impervious areas, and a general location where these uses are proposed on the master plan. A note shall be provided on the master plan that states that the plan is conceptual in nature.
2. Specific
3. A master sign program will be required.
4. Elaborate on the "future phasing" and include a more detail phasing.
5. Include a projected timeline for each phase.
6. Will the roadways be Public ROWs or Private Roads?
7. Please provide a sheet that superimposes the "The Village at Midway" project to the north to determine compatibility with uses.
8. Under the Allowed Uses section - Townhomes should only be called "Townhomes", not Single-Family Homes.
9. In Table 1.2, please divide Single-Family Medium Density Zone into "Single-Family Attached" and "Single-Family Detached".
10. Please include
11. Page 72, please remove sections: Conditional Use, Agricultural Use, & Commercial.
12. Page 72, please scale down your permitted uses to what you are

proposing. Your permitted uses should be compatible with City Code Section 22-22.

13. Our landscape code is currently under review. Your future submitted landscape plan will have to be consistent with the City's Landscape Code. Please meet with Planning staff and the City's Tree Arborist prior to preparing your landscape plan(s).
14. Correct Page 78 (g), it states "three (12) months after planting".
15. The proposed cross sections are being reviewed with the NACTO and FDOT complete streets standards. Comments will be provided in a separate letter.
16. Further comments may be forthcoming.
17. Each phase of development will require the following:

Master Sign Plan
Development and Design Review
Elevations
Color Boards (proposed colors & architectural elements)
Landscape Plan and tree list
Tree Mitigation Plan
Lighting Plan

Fort Pierce Engineering Department

1. This approval pertains to the Rezoning and FLU request only and not to any proposed site improvements. Site review will be conducted when detailed plans are submitted for review and approval.

2. There are numerous recorded FPL Right-of-Ways and FPL Easement parcels located throughout the site. The applicant shall provide proof of FPL approval for improvements within the limits of the rights-of-way and easements at the time of Planned Development site plan submittal.

Fort Pierce Utility Authority

- FPUA W/WW Engineering: Outside FPUA W/WW service area
- FPUA Electric & Gas Engineering: Outside FPUA Electric service area

Fort Pierce Building Department

1. Building Official or his representative has no comment at the time of this meeting, but reserves submission of comments upon completion of the official plan review.

St. Lucie County Engineering/PW

No Comments

St. Lucie County Planning

• The applicant is proposing an alternative Tree Mitigation Plan, in the form of " excellence in urban village, pedestrian-oriented tree-lined streetscapes, in lieu of the mitigation requirements set forth in the City Code". o St. Lucie County provides for Alternative Mitigation Compliance Methods for development within its jurisdiction. One option, per SLC LDC Section 6.00.05 D. 3. b. 1. provides "If a site is consistent with the following minimum standards (subsections a.h.) , twenty-five percent (25%) of the existing native upland habitat can be preserved on site to take the place of all tree mitigation requirements."

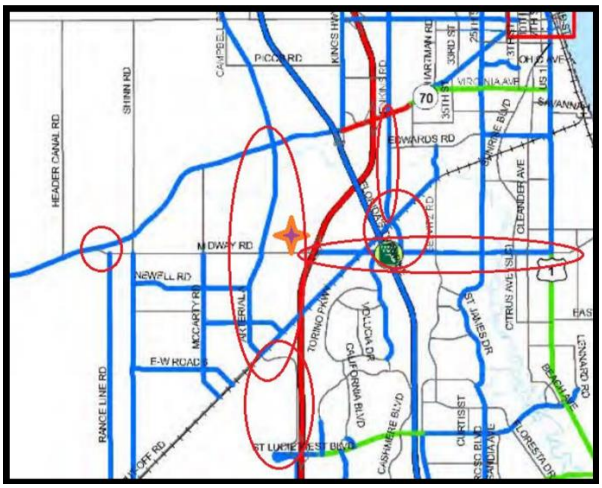
• The applicant is encouraged to preserve and provide buffering of existing wetlands where quality and feasibility exist.

• The City is encouraged to evaluate established height standards adjacent to I-95 interchanges throughout St. Lucie County in considering the 100ft. height standard proposed. (i.e. SR 70, Orange Avenue, Tradition, The Reserve, St. Lucie West, etc. A St. Lucie County Agricultural District exists (further) to the west of the project site.

• The applicant is encouraged to consider multi-modal links between the subject site and adjacent corridors (Midway, SR 70, etc.), further evaluating and providing Greenways & Trails connections where possible.

• Traffic Impact Report (Provided 5/13/2020) Review is underway. Staff may provide additional comments upon review completion. The eastern project entrance should be evaluated based upon current and future I-95 interchange conditions.

• The TPO's GO2040 Plan should be evaluated as it relates to projected roadway needs and considered links, accounting for vested trips and roadway assignment. Pedestrian connectivity and street lighting adjacent to the project should be considered.



• The applicant is encouraged to hold neighborhood meetings, if not already conducted. St. Lucie County has low density residential and agricultural/residential areas in proximity to the subject site(s).

• St. Lucie County owns and operates the St. Lucie County Landfill to the northeast at 6120 Glades Cut Off Rd. The applicant is encouraged to evaluate the long-term management plans for the landfill. The Tropicana – Fort Pierce processing plant is also situated to the east.

• The applicant should be advised of the applicability of both St. Lucie County & City of Fort Pierce Impact Fees – active.

St. Lucie County Fire District

No Comments

D R A F T

CITY OF FORT PIERCE

PLANNING BOARD

Planning Board Minutes

OF THE REGULAR MEETING OF THE FORT PIERCE CITY PLANNING BOARD HELD ON TUESDAY, SEPTEMBER 8, 2020, IN FORT PIERCE CITY HALL, COMMISSION CHAMBERS, 100 NORTH US HIGHWAY 1, FORT PIERCE, FLORIDA.

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Chairman Creyaufmiller welcomed new Planning Board member, Marsha Baker.

Present: **Marcia Baker**; **Bob Burdge**; **Gloria Johnson-Scott**; **Michael Broderick**; **Solomon Lee**; **Patricia Diaz**; **Frank Creyaufmiller**, **Chairman**

Staff Present: **Jennifer Hofmeister**, **Planning Director**
Tanya Earley, **Assistant City Attorney**
Vennis Gilmore, **Planner**
Brandon Creagan, **Planner**
Alicia Rosenthal, **Executive Assistant**

4. CONSIDERATION OF ABSENCES

All Planning Board members were in attendance.

5. APPROVAL OF MINUTES

a. Minutes from the August 11, 2020 meeting

Motion was made by Michael Broderick, and seconded by Bob Burdge to approve the minutes from the August 11, 2020 meeting.

AYE: **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Chairman Frank Creyaufmiller**

Passed

6. NEW BUSINESS

a. Conditional Use - Barsotti Dwelling Rental - 1040 Windward Drive, Unit 3402

Mr. Gilmore gave an overview of the application.

Mr. Broderick asked if the updated recommendations to the dwelling rental conditions, that will heard at the September 14, 2020 Conference Agenda, should be included.

Ms. Hofmeister stated it may be premature and best to hold off until the City Commission approves the modifications to the conditions.

Ms. Baker suggested adding a condition that business liability insurance is required.

Board discussion ensued on the benefits of adding liability insurance as a condition to dwelling rentals.

Ms. Hofmeister suggested adding the condition to the updated recommendations being presented at the Conference Agenda.

Ms. Johnson Scott noted that adding an additional fee may limit some people from renting out their property which in turn could hurt the city.

No one spoke for or against the application.

Motion was made by Bob Burdge, **and seconded by Marcia Baker to recommend approval with the following six (6) conditions:**

1. **The property manager for the dwelling rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.**
2. **Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.**
3. **The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.**
4. **There shall be a limitation of no more than no two (2) vehicles per unit.**
5. **The City of Fort Pierce Business Tax License number shall be included on all advertising.**
6. **Third-party liability insurance is required.**

AYE: **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Chairman Frank Creyaufmiller**

NAY: **Gloria Johnson-Scott**

Passed

b. Conditional Use - Ballantyne Dwelling Rental - 715 S. Ocean Drive, Unit B

Ms. Hofmeister gave an overview of the application and answered questions from the Board on guest parking spaces and the number of Conditional Use approvals for the building. Ms. Hofmeister stated since the application triggers the state requirement for a change of use and fire sprinklers, she does not foresee any more rentals at the building due to being cost prohibitive.

No one spoke for or against the application.

Motion was made by Bob Burdge, and seconded by Michael Broderick to recommend approval with the following six (6) conditions:

1. **The property manager for the vacation rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.**
2. **Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.**
3. **The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.**
4. **There shall be a limitation of no more than no two (2) vehicles per unit.**
5. **The City of Fort Pierce Business Tax License number shall be included on all advertising.**
6. **Third-party liability insurance is required.**

AYE: **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Chairman Frank Creyaufmiller**

Passed

c. **Conditional Use - Danaluk Dwelling Rental - 715 S. Ocean Drive, Unit L**

Ms. Hofmeister gave an overview of the application and answered questions from the Board. Ms Hofmeister explained the 2-story duplex is a separate building located on the parcel and the building does not trigger the states 25% requirements because it is only two units.

No one spoke for or against the application.

Motion was made by Bob Burdge, and seconded by Patricia Diaz to approve with the following six (6) conditions:

1. **The property manager for the vacation rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.**
2. **Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.**
3. **The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.**
4. **There shall be a limitation of no more than no two (2) vehicles per unit.**
5. **The City of Fort Pierce Business Tax License number shall be included on all advertising.**
6. **Third-party liability insurance is required.**

AYE: **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Chairman Frank Creyaufmiller**

Passed

d. **Annexation - Jetson - 504 Tumblin Kling Road**

Mr. Creagan gave an overview of the application and answered questions from the Board on the residential area. Mr. Creagan explained that the property is zoned commercial in St. Lucie County and the city is not allowed to down zone the property.

Mr. Burdge noted that a barrier would be required between the commercial development and residential property.

Ms. Hofmeister stated the Planning department will put the elements in the review process for Jetson's expansion and the site plan will come before the Planning Board.

Motion was made by Bob Burdge, **and seconded by Michael Broderick to recommend approval of the proposed annexation Future Land Use designation of GC and the Zoning designation of C-3.**

AYE: **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Chairman Frank Creyaufmiller**

Passed

7. **ELECTION OF CHAIR AND VICE-CHAIR**

Mr. Broderick nominated the current Chair, Mr. Creyaufmiler, for Chairman.

Mr. Burdge nominated Mr. Broderick as Chair but Mr. Broderick stated he would be more effective in the Vice-Chair position and Mr. Creyaufmiller would be better suited as Chairman.

Motion was made by Michael Broderick, **and seconded by Patricia Diaz to elect Mr. Creyaufmiller as Chairman.**

AYE: **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Chairman Frank Creyaufmiller**

Passed

Motion was made by Patricia Diaz, **and seconded by Marcia Baker to elect Mr. Broderick as Vice-Chair.**

AYE: **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Chairman Frank Creyaufmiller**

Passed

8. **COMMENTS FROM THE PUBLIC**

Any person who wishes to comment on any subject may be heard at this time. Please limit your comments to three (3) minutes or less, as directed by the Chair, as this section of the Agenda is limited to thirty minutes. The Planning Board will not be able to take any official actions under Comments from the Public. Speakers will address the Board and the Public with respect. Inappropriate language will not be tolerated.

There were no comments from the public.

9. **DIRECTOR'S REPORT**

Ms. Hofmeister reminded the Board that Mr. Broderick will be presenting the proposed dwelling rental conditions to the City Commission at the Conference Agenda on Monday, September 14, 2020 at 9:00 AM.

10. BOARD COMMENTS

Ms. Baker suggested the dwelling rental insurance condition be limited to third-party liability insurance, so the owner is spending the least amount of money on insurance to protect the general public and adjoining neighbors.

Chairman Creyaufmiller reminded the Board of the upcoming CeeCee Ross Lyles 9/11 Virtual Memorial Ceremony.

Motion was made by Michael Broderick, and seconded by Bob Burdge to add the condition that third-party liability insurance be required on all dwelling rentals.

AYE: **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Chairman Frank Creyaufmiller**

Passed

11. ADJOURNMENT

DEAN MEAD
ATTORNEYS AT LAW

City of Fort Pierce
Development Review Application

for

WILLOW LAKES, LLC

W. Midway Road
Fort Pierce, FL
St. Lucie County

Prepared By:
W. Lee Dobbins, Esq.
Dean, Mead, Minton & Zwemer
1903 South 25th Street, Suite 200
Fort Pierce, FL 34947
772-464-7700

DeanMead.com
Orlando | Fort Pierce/Stuart | Tallahassee | Viera/Melbourne

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THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

DEVELOPMENT REVIEW

Property address or Location TBD - General Location: Lying northwesterly of the interchange of W. Midway Road and I-95 (Section 02 and 03, Township 36S, Range 39E)

Parcel ID #(s) 3302-212-0001-000-4

Project description Resort village and community with residential, retail and commercial uses

Willow Lakes, LLC	Willow Lakes, LLC c/o Dean, Mead, Minton & Zwemer
Property Owner(s)	**Applicant/Representative, Title, Company**
433 S. Main St. Ste 300	1903 S 25th Street Suite 200
Street Address	Street Address
West Hartford CT 06110	Fort Pierce FL 34947
City State Zip	City State Zip
561-827-5742	772-464-7700
Phone Number	Phone Number
clabonte@eaglebridgecapital.com	ldobbins@deanmead.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

MANAGER

Property Owner(s) Signature(s)

STATE OF ~~FLORIDA~~ CT COUNTY Fairfield

The foregoing instrument was acknowledged before me this 31 day of March, 2020, by Chad P Labonte who is personally known to me or has produced CT Drivers License as identification.

Signature of Notary 156897 (seal)

DELOIS LENNON
Notary Public, State of Connecticut
My Commission Expires July 31, 2020

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____
Intake Planner_____
Planner Assigned_____
Approved By_____ Date _____
Comments_____

Fees_____ Control #_____ B. Permit #_____

Intake Date Stamp

❑ DEVELOPMENT REVIEW

General Information

- ❑ Incomplete application packets cannot be accepted.
- ❑ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
❑ Site Plan	❑ Conditional Use with New Const.	❑ Major Amendment
❑ Conceptual Development Plan		❑ Minor Amendment

Site Information:

Non-Residential: Proposed Sq. Ft.: 650,000 + 700 hotel rooms Residential: Proposed Units: 1,000

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ❑ Complete notarized application
- ❑ Warranty Deed
- ❑ SLC Property Record Card
- ❑ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ❑ General location map (see Section 22-58.d.2)
- ❑ Survey (see Section 22-58.d.3)
- ❑ Site Plan (see Section 22-58.d.4)
- ❑ Landscaping Plan (see Section 22-187)
- ❑ Storm Drainage Plan (see Section 22-58.d.6)
- ❑ Environmental Impact Report
- ❑ Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ❑ Lighting Plan (see Section 22-58.d.8)
- ❑ Design Review submittals (see Design Review application)
- ❑ Traffic Impact Report
- ❑ Concurrency Review submittals (see Concurrency Review application)

JOANNE HOLMAN, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
File Number: 2454543 OR BOOK 2035 PAGE 1421
Recorded:08/04/04 14:05

This instrument prepared by:
DOUGLAS E. GONANO, ESQUIRE
Gonano & Harrell, Chartered
1600 S. Federal Highway, Suite 200
Fort Pierce, FL 34950-5178
(772) 464-1032

Parcel I.D. No: _____

Grantee(s) S.S. #(s): _____

* Doc Assump:	$	0.00
* ~~Doc~~ Tax	: $	30,333.80
* Int Tax	: $	0.00

SPECIAL WARRANTY DEED

THIS SPECIAL WARRANTY DEED made this 30th day of July, 2004, by **HYMAN B. HENDLER and ALVIN D. SCHWARTZ, ,: (a) individually and as Co-Trustees under the provisions of an unrecorded Trust Agreement known as The Restated and Amended Revocable Land Trust Agreement for HHHP Associates, dated January 2, 1995, and (b) individually and as Co-Trustees under the provisions of an unrecorded Trust Agreement known as The Restated and Amended Revocable Land Trust Agreement for HHHP Properties, dated January 2, 1995, as their respective interests may appear** whose post office address is 900 N.E. Spanish River Boulevard, Unit 4-W, Boca Raton, Florida 33431, hereinafter called the Grantor, to **WILLOW LAKES, LLC, a Florida limited liability company,** whose post office address is 222 South US Highway One, #209, Tequesta, Florida 33469, hereinafter called the Grantee:

[Wherever used herein, the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations.]

WITNESSETH: That the Grantor, for and in consideration of the sum of $10.00, and other valuable consideration, receipt of which is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys, and confirms unto the Grantee, all that certain land situate in St. Lucie County, Florida, which is more particularly described on Exhibit "A" as attached hereto and incorporated herein by reference.

THE ABOVE DESCRIBED PROPERTY IS NOT THE HOMESTEAD OF THE GRANTOR. GRANTOR FURTHER WARRANTS THAT THE ABOVE DESCRIBED PROPERTY DOES NOT NOW AND NEVER HAS CONSTITUTED GRANTOR'S HOMESTEAD; IS NOT NOW AND NEVER HAS BEEN CONTIGUOUS TO GRANTOR'S HOMESTEAD.

TOGETHER, with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining and subject to: (a) all rights of way for public roads and drainage canals, if any, (b) utility easements of record, (c all other covenants, restrictions, easements, limitations and reservations provided this reference shall not operate to reimpose the same, (d) and taxes accruing subsequent to December 31, 2003, and (e) zoning and governmental regulations.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND the Grantor hereby covenants that the premises are free from all encumbrances made by Grantor and Grantor does hereby bind Grantor and Grantor's heirs, successors, and assigns to warrant and forever defend the title to the property to the Grantee above named and Grantee's heirs, successors, and assigns, against every person lawfully claiming the property, or any part thereof, by, through, or under the Grantor, but not otherwise.

mail - Hale Shaw & Pfaffenberger

IN WITNESS WHEREOF, the said Grantor has signed and sealed these presents the day and year first above-written.

Signed, sealed, and delivered
in our presence:

Print Name: Douglas E Conard

Print Name:

Print Name: Douglas E Conard

Print Name: Lawrence C. Griffin

x HB Hendler TTEE

HYMAN B. HENDLER, individually and as Co-Trustee under the provisions of the unrecorded Trusts referenced above

x Alvin D. Schwartz

ALVIN D. SCHWARTZ, individually and as Co-Trustee under the provisions of the unrecorded Trusts referenced above

STATE OF Florida
COUNTY OF Palm Beach

The foregoing instrument was acknowledged before me this 30th day of July, 2004, by **HYMAN B. HENDLER, individually and as Co-Trustee under the unrecorded Trusts referenced above,** who is:
___ personally known to me, or
_X_ who has produced a drivers license as identification
and who __did/_X_ did not take an oath.

[Notary Seal]

JULIE N. KRAUSS
Commission # DD0028324
Expires 6/3/2005
Bonded through
(800-432-4254) Florida Notary Assn., Inc.

Julie N Krauss
Notary Public, State of
Printed Name:
My Commission Expires:

STATE OF Florida
COUNTY OF Palm Beach

The foregoing instrument was acknowledged before me this 30th day of July, 2004, by **ALVIN D. SCHWARTZ, individually and as Co-Trustee under the unrecorded Trusts referenced above,** who is:
___ personally known to me, or
_X_ who has produced a drivers license as identification
and who __did/_X_ did not take an oath.

[Notary Seal]

JULIE N. KRAUSS
Commission # DD0028324
Expires 6/3/2005
Bonded through
(800-432-4254) Florida Notary Assn., Inc.

Julie N Krauss
Notary Public, State of
Printed Name:
My Commission Expires:

WILLOW LAKES PARCEL

EXHIBIT "A"

Parcel 1

A PARCEL OF LAND LYING IN SECTIONS 2 AND 3, TOWNSHIP 36 SOUTH, RANGE 39 EAST IN ST. LUCIE COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 3, THENCE N89°46'35"W ALONG THE NORTH LINE OF SAID SECTION 3 A DISTANCE OF 2622.04 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF N.S.L.R.W.C.D. CANAL NO. 93 (A 78 FEET WIDE RIGHT-OF-WAY); THENCE S00°02'49"W ALONG THE EAST RIGHT-OF-WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93 A DISTANCE OF 52.50 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF A 200 FEET WIDE FP&L EASEMENT AS RECORDED IN OR 377, PG. 2069-2076 AND BEING THE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED PARCEL; THENCE S89°46'35"E ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID 200 FEET WIDE FP&L EASEMENT AND BEING PARALLEL TO THE NORTH LINE OF SAID SECTION 3 A DISTANCE OF 1,026.62 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF A 60 FEET WIDE FP&L EASEMENT AS RECORDED IN OR 119, PG. 404; THENCE S32°18'17"E ALONG THE EAST RIGHT-OF-WAY LINE OF SAID 60 FEET WIDE FP&L EASEMENT A DISTANCE OF 1,746.02 FEET; THENCE N61°15'41"E A DISTANCE OF 335.12 FEET; THENCE N31°56'28"E A DISTANCE OF 78.35 FEET; THENCE N02°37'14"E A DISTANCE OF 332.85 FEET; THENCE N85°17'03"E A DISTANCE OF 146.97 FEET; THENCE N53°57'44"E A DISTANCE OF 58.71 FEET; THENCE N01°56'01"E A DISTANCE OF 142.19 FEET; THENCE N62°33'43"E A DISTANCE OF 139.15 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 335.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 365.79 FEET THROUGH A CENTRAL ANGLE OF 62°33'43"; THENCE N00°00'00"W A DISTANCE OF 142.46 FEET; THENCE S89°50'50"E A DISTANCE OF 1,811.20 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 150.00 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 308.52 FEET THROUGH A CENTRAL ANGLE OF 117°50'41"; THENCE S27°59'51"W A DISTANCE OF 671.72 FEET; THENCE S56°07'55"E A DISTANCE OF 323.59 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF STATE ROAD NO. 9 (INTERSTATE HIGHWAY NO. 95) (WIDTH VARIES); THENCE S32°49'14"W ALONG THE WEST RIGHT-OF-WAY OF SAID STATE ROAD NO. 9 A DISTANCE OF 346.97 FEET; THENCE S44°46'35"W ALONG THE WEST RIGHT-OF-WAY LINE OF SAID STATE ROAD NO. 9 A DISTANCE OF 339.92 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF A ACCESS ROAD NO. 1 AS RECORDED IN PB 24, PG. 4J&K; THENCE N00°04'30"E A DISTANCE OF 99.51 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1; THENCE S44°46'35"W ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1 A DISTANCE OF 236.51 FEET; THENCE DEPARTING SAID ACCESS ROAD NO. 1 N00°04'43"E A DISTANCE OF 535.11 FEET; THENCE S89°59'23"W A DISTANCE OF 166.33 FEET; THENCE S00°04'55"W A DISTANCE OF 680.33 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1; THENCE S50°43'56"W ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1 A DISTANCE OF 478.34 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTH HAVING A RADIUS OF 266.00 FEET; THENCE WESTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 171.53 FEET THROUGH A CENTRAL ANGLE OF 36°56'48"; THENCE S87°40'44"W ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1 A DISTANCE OF 1,027.79 FEET; THENCE S00°01'50"E A DISTANCE OF 72.00 FEET; THENCE S89°58'10"W A DISTANCE OF 1,610.26 FEET; THENCE S00°01'50"E A DISTANCE OF 117.14 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY

OR BOOK 2035 PAGE 1423

LINE OF WHITE CITY ROAD (COUNTY ROAD 712) (A 70 FEET WIDE RIGHT-OF-WAY); THENCE N89°52'26"W ALONG THE NORTH RIGHT-OF-WAY OF SAID WHITE CITY ROAD (COUNTY ROAD 712) A DISTANCE OF 786.28 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93; THENCE N00°02'49"E ALONG THE EAST RIGHT-OF-WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93 A DISTANCE OF 2,564.70 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SAID 200 FEET WIDE FP&L EASEMENT AND BEING THE POINT OF BEGINNING.

CONTAINING 197.90 ACRES, MORE OR LESS

Parcel 2

A PARCEL OF LAND 60.00 FEET IN WIDTH LYING IN THE NE ¼ OF SECTION 35, TOWNSHIP 35 SOUTH, RANGE 39 EAST AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PORTION OF THE NE ¼ OF SAID SECTION 35 LYING 60.00 FEET WEST OF (AS MEASURED AT RIGHT ANGLES) THE WEST RIGHT-OF-WAY LINE OF THE NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT CANAL NO. 96 AS RECORDED IN OFFICIAL RECORDS BOOK 396, PAGE 2511, LYING WEST OF THE WEST RIGHT-OF-WAY LINE OF INTERSTATE 95 (STATE ROAD 9)

Parcel 3

A PARCEL OF LAND 60.00 FEET IN WIDTH LYING IN THE NW ¼ OF SECTION 36 TOWNSHIP 35 SOUTH, RANGE 39 EAST AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF SAID SECTION 36, TOWNSHIP 35 SOUTH, RANGE 39 EAST, THENCE N89°45'07"E, ALONG THE NORTH LINE OF SAID SECTION 36, A DISTANCE OF 824.95 FEET; THENCE S00°12'26"W A DISTANCE OF 662.15 FEET TO THE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED PARCEL:

THENCE S47°45'46'E A DISTANCE OF 60.00 FEET THE NORTHWESTERLY RIGHT-OF-WAY LINE OF STATE ROAD 9 (INTERSTATE ROAD 95); THENCE ALONG SAID NORTHWESTERLY RIGHT-OF-WAY LINE THE FOLLOWING THREE COURSES AND DISTANCES; S42°14'14"W A DISTANCE OF 83.45 FEET; THENCE S37°39'48"W A DISTANCE OF 200.64 FEET; THENCE S42°14'14"W A DISTANCE OF 955.24 FEET TO THE EAST RIGHT-OF-WAY LINE OF CANAL NO. 96; THENCE N00°08'06"E ALONG SAID EAST RIGHT-OF-WAY LINE A DISTANCE OF 89.49 FEET; TO A POINT 60.00 FEET NORTHWESTERLY OF (AS MEASURED AT RIGHT ANGLES) THE NORTHWESTERLY RIGHT-OF-WAY LINE OF INTERSTATE-95; THENCE N42°14'14"E PARALLEL WITH SAID NW RIGHT-OF-WAY LINE A DISTANCE OF 886.45 FEET; THENCE N37°39'48"E A DISTANCE OF 200.54 FEET; THENCE N42°14'14"E A DISTANCE OF 85.85 FEET TO THE POINT OF BEGINNING.

Parcel 4

A PARCEL OF LAND 80.00 FEET IN WIDTH LYING IN SW ¼ OF SECTION 25, TOWNSHIP 35 SOUTH, RANGE 39 EAST AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SECTION 25, TOWNSHIP 35 SOUTH, RANGE 39 EAST, THENCE NORTH 89°45'07"EAST, ALONG THE SOUTH LINE OF SAID

SECTION 25, A DISTANCE OF 824.95 FEET; THENCE N00°12'26"E A DISTANCE OF 871.61 FEET TO THE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED PARCEL:

THENCE CONTINUE N00°12'26"E A DISTANCE OF 197.52 FEET TO THE WESTERLY RIGHT-OF-WAY LINE OF THE SUNSHINE STATE PARKWAY; THENCE N23°41'09"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE A DISTANCE OF 320.73 FEET TO THE NORTH LINE OF THE SW ¼ OF THE SW ¼ OF SAID SECTION 25; THENCE N89°51'53"W ALONG SAID NORTH LINE A DISTANCE OF 650.74 FEET TO THE EAST RIGHT-OF-WAY LINE OF NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT CANAL NO. 96; THENCE S00°11'53"W ALONG SAID EAST RIGHT-OF-WAY LINE A DISTANCE OF 80.00 FEET; THENCE S89°51'53"E PARALLEL WITH SAID NORTH LINE A DISTANCE OF 598.70 FEET TO A POINT 80.00 FEET (AS MEASURED AT RIGHT ANGLES) SOUTHWEST OF THE WESTERLY RIGHT-OF-WAY OF THE SUNSHINE STATE PARKWAY; THENCE S23°41'09"E PARALLEL WITH SAID WESTERLY RIGHT-OF-WAY LINE A DISTANCE OF 449.19 FEET TO THE POINT OF BEGINNING.

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OR BOOK 2035 PAGE 1425

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address:	TBD
Parcel ID:	3302-212-0001-000-4
Account #:	156019
Map ID:	33/02N
Use Type:	6000
Zoning:	
City/County:	Fort Pierce

Ownership

Willow Lakes LLC

433 S Main ST Ste 300
West Hartford, CT 06110

Legal Description

2/3 36 39 FROM NW COR OF SEC 3-36-39 RUN N 89 46 35 W ALG N LI OF SEC 3 2622 FT TO E R/W LI OF NSLRWCD CANAL NO. 93, TH S 00 02 49 W ALG E R/W LI 52.50 FT TO N R/W LI OF 200 FT FP&L ESMT AND POB,TH S 89 46 35 ALG N R/W LI 1026.62 FT TO E R/W LI OF 60 FT FP&L ESMT,TH S 32 18 17 E ALG E R/W LI 1746.02 FT,TH N 61 15 41 E 335.12 FT,TH N 31 56 28 E 78.35 FT,TH N 02 37 14 E 332.85 FT,TH N 85 17 03 E 146.97 FT,TH N 53 57 44 E 58.71 FT,TH N 01 56 01 E 142.19 FT,TH N 62 33 43 E 139.15 FT TO CURVE CONC NW,R OF 335 FT,TH NELY ALG ARC 365.79 FT,TH N 00 00 00 W 142.46 FT,TH S 89 50 50 E 1811.20 FT TO CURVE CONC SW,R OF 150 FT,TH SELY ALG ARC 308.52 FT,TH S 27 59 51 W 671.72 FT,TH S 56 07 55 E 323.59 FT TO W R/W LI OF I-95,TH S 32 49 14 W ALG W R/W LI 346.97 FT,TH S 44 46 35 W 339.92 FT,TH N 00 04 30 E 99.51 FT,TH S 44 46 35 W 303.05 FT, TH S 50 43 56 W 631.70 FT TO CURVE CONC N,R OF 266 FT,TH WLY ALG ARC 171.53 FT,TH S 87 40 44 W 1027.79 FT,TH S 00 01 50 E 72 FT,TH S 89 58 10 W 1610.26 FT,TH S 00 01 50 E 117.14 FT TO N R/W LI OF MIDWAY RD,TH N 89 52 26 W ALG N R/W LI 786.26 FT TO E R/W LI OF NSLRWCD CANAL NO. 93,TH N 00 02 49 E ALG E R/W LI 2564.70 FT TO N R/W LI OF FP&L ESMT AND POB-(200.30 AC - 8,725,068 SF) (OR 2658-2617: 2035-1421)



Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	200.3
Land Size (SF):	8,725,068

Current Values

Just/Market Value:	$1,509,043
Assessed Value:	$55,083
Exemptions:	$0
Taxable Value:	$55,083

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office

Download TRIM for this parcel: Download PDF

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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STATEMENT OF OWNERSHIP AND CONTROL

The land which is the subject of this application is 100% owned and controlled by Willow Lakes, LLC (see Special Warranty Deed included in this submittal). Attached hereto is a copy of the printout from the Florida Secretary of State (Sunbiz) and the Articles of Organization of Willow Lakes, LLC, showing that it is a manager-managed limited liability company, and the current Managers are Roland G. Labonte and Chad Labonte.

The character and intended use of the project are described in detail in the Project Narrative, set forth in the Planned Development Guidelines.



Detail by Entity Name

Florida Limited Liability Company
WILLOW LAKES, LLC

Filing Information

Document Number	L03000007328
FEI/EIN Number	54-2099867
Date Filed	02/27/2003
State	FL
Status	ACTIVE
Last Event	LC AMENDMENT
Event Date Filed	10/30/2019
Event Effective Date	NONE

Principal Address

c/o DEI Property Management LLC
433 South Main Street
218
West Hartford, CT 06110

Changed: 02/15/2016

Mailing Address

c/o DEI Property Management LLC
433 South Main Street
218
West Hartford, CT 06110

Changed: 02/15/2016

Registered Agent Name & Address

LABONTE, Roland G
376 Eagle Drive
Jupiter, FL 33477

Name Changed: 02/15/2016

Address Changed: 02/15/2016

Authorized Person(s) Detail

Name & Address

Title MGR

LABONTE, ROLAND G
376 Eagle Drive
JUPITER, FL 33477

Title MGR

LABONTE, CHAD
298 S BENSON RD
FAIRFIELD, CT 06824

Annual Reports

Report Year	Filed Date
2018	01/17/2018
2019	01/29/2019
2020	01/17/2020

Document Images

01/17/2020 -- ANNUAL REPORT	View image in PDF format
10/30/2019 -- LC Amendment	View image in PDF format
01/29/2019 -- ANNUAL REPORT	View image in PDF format
01/17/2018 -- ANNUAL REPORT	View image in PDF format
04/19/2017 -- ANNUAL REPORT	View image in PDF format
02/15/2016 -- ANNUAL REPORT	View image in PDF format
02/11/2015 -- ANNUAL REPORT	View image in PDF format
03/19/2014 -- ANNUAL REPORT	View image in PDF format
02/07/2013 -- ANNUAL REPORT	View image in PDF format
01/04/2012 -- ANNUAL REPORT	View image in PDF format
02/21/2011 -- ANNUAL REPORT	View image in PDF format
01/15/2010 -- ANNUAL REPORT	View image in PDF format
03/19/2009 -- ANNUAL REPORT	View image in PDF format
04/15/2008 -- ANNUAL REPORT	View image in PDF format
12/18/2007 -- LC Amendment	View image in PDF format
01/31/2007 -- ANNUAL REPORT	View image in PDF format
04/13/2006 -- ANNUAL REPORT	View image in PDF format
04/13/2005 -- ANNUAL REPORT	View image in PDF format
06/14/2004 -- ANNUAL REPORT	View image in PDF format
01/06/2004 -- Reg. Agent Change	View image in PDF format
02/27/2003 -- Florida Limited Liabilites	View image in PDF format

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FILED
03 FEB 27 PM 8:20
SECRETARY OF STATE
TALLAHASSEE, FLORIDA

ARTICLES OF ORGANIZATION

OF

WILLOW LAKES, LLC

The undersigned authorized representative of a member, for the purpose of forming a limited liability company under the Florida Limited Liability Act, Florida Statutes Chapter 608 (the "Act"), hereby makes, acknowledges and files the following Articles of Organization:

ARTICLE I – NAME

The name of the limited liability company shall be WILLOW LAKES, LLC (the "Company").

ARTICLE II - ADDRESS

The mailing address and street address of the principal office of the Company is 433 South Main Street, Suite 300, West Hartford, CT 06110.

ARTICLE III - REGISTERED AGENT

The name of the registered agent of the Company in the State of Florida is WL Enterprises, LLC, a Florida limited liability company, and its address is 222 South U.S. Highway #1, Suite 209, Tequesta, Florida 33469.

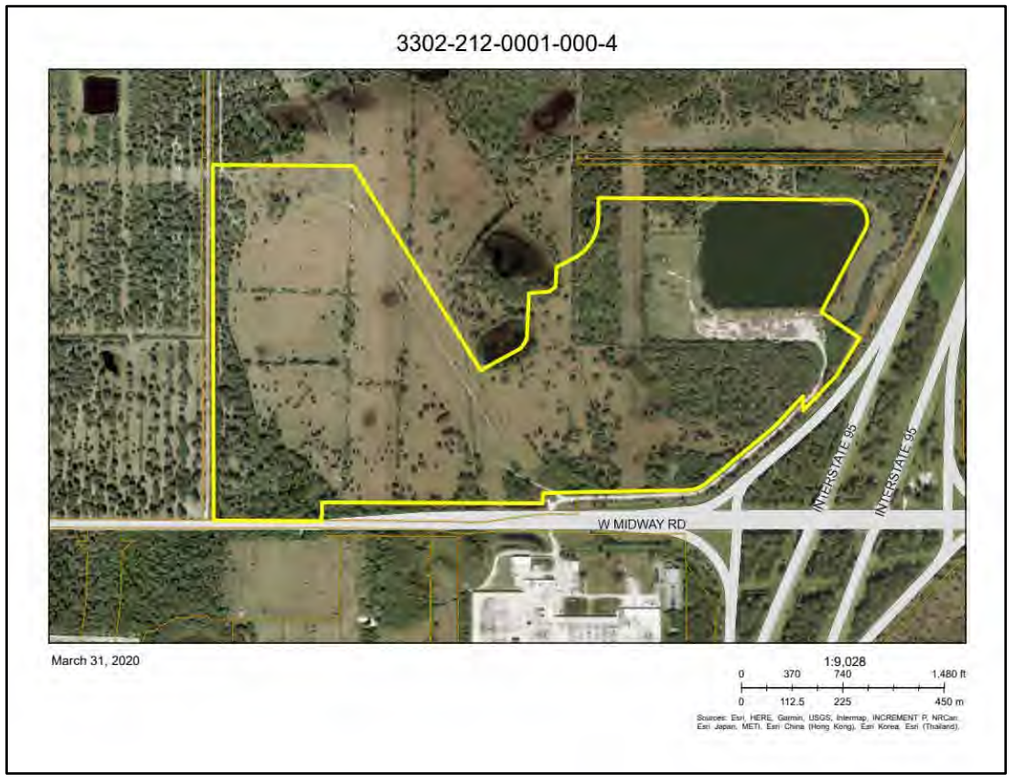
ARTICLE IV – MANAGEMENT BY MANAGERS

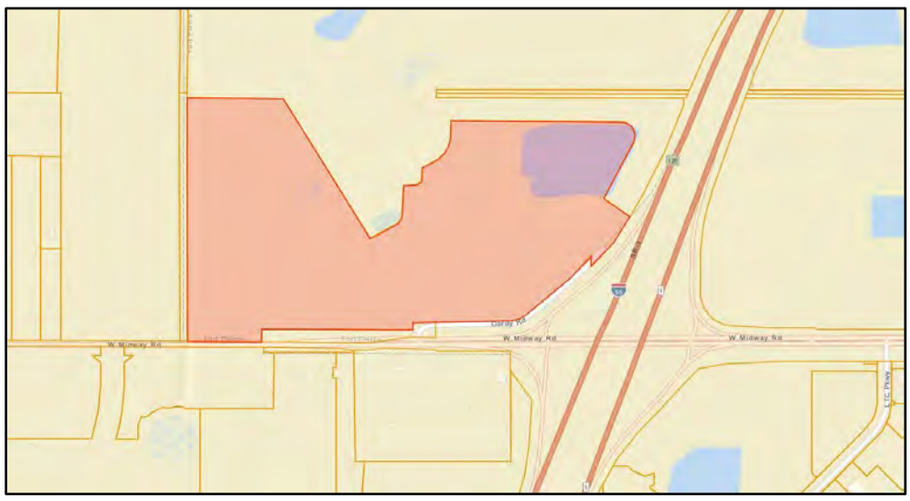
The Company is to be a manager-managed limited liability company.

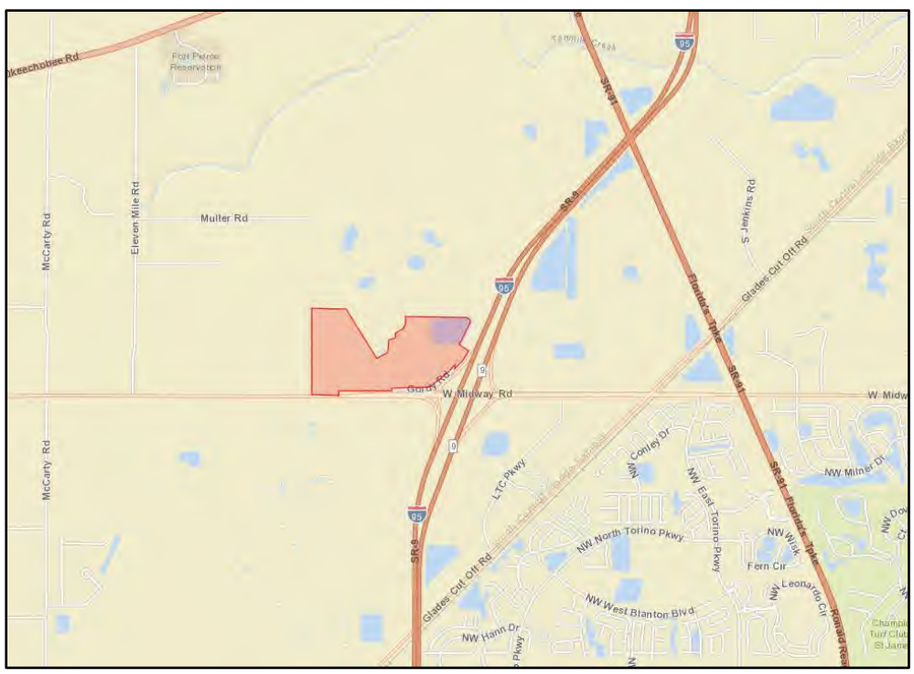
IN WITNESS WHEREOF, the undersigned has made, subscribed and affirmed these Articles of Organization under the penalties of perjury as the duly authorized representative of a Member of the Company at North Palm Beach, Florida, this 27th day of February, 2003.

James H. Schnare II
as Authorized Representative

GENERAL LOCATION MAPS
WILLOW LAKES, LLC







BOUNDARY & TOPOGRAPHIC SURVEY

PREPARED FOR

CAPTEC Engineering, Inc.

SITUATED IN

SECTIONS 2 AND 3
TOWNSHIP 36 SOUTH, RANGE 39 EAST
ST. LUCIE COUNTY, FLORIDA

LEGAL DESCRIPTION:

A PARCEL OF LAND LYING IN SECTIONS 2 AND 3, TOWNSHIP 36 SOUTH, RANGE 39 EAST IN ST. LUCIE COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 3, THENCE N89°46'35"W ALONG THE NORTH LINE OF SAID SECTION 3 A DISTANCE OF 2622.04 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF N.S.L.R.W.C.D. CANAL NO. 93 (A 78 FEET WIDE RIGHT-OF-WAY); THENCE S00°02'49"W ALONG THE EAST RIGHT-OF -WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93 A DISTANCE OF 52.50 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF A 200 FEET WIDE FP&L EASEMENT AS RECORDED IN OR 377, PG. 2069-2076 AND BEING THE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED PARCEL; THENCE S89°46'35"E ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID 200 FEET WIDE FP&L EASEMENT AND BEING PARALLEL TO THE NORTH LINE OF SAID SECTION 3 A DISTANCE OF 1,026.62 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF A 60 FEET WIDE FP&L EASEMENT AS RECORDED IN OR 119, PG. 404; THENCE S32°18'17"E ALONG THE EAST RIGHT-OF-WAY LINE OF SAID 60 FEET WIDE FP&L EASEMENT A DISTANCE OF 1,746.02 FEET; THENCE N61°15'41"E A DISTANCE OF 335.12 FEET; THENCE N31°56'28"E A DISTANCE OF 78.35 FEET; THENCE N02°37'14"E A DISTANCE OF 332.85 FEET; THENCE N85°17'03"E A DISTANCE OF 146.97 FEET; THENCE N53°57'44"E A DISTANCE OF 58.71 FEET; THENCE N01°56'01"E A DISTANCE OF 142.19 FEET; THENCE N62°33'43"E A DISTANCE OF 139.15 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 335.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 365.79 FEET THROUGH A CENTRAL ANGLE OF 62°33'43"; THENCE N00°00'00"W A DISTANCE OF 142.46 FEET; THENCE S89°50'50"E A DISTANCE OF 1,811.20 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 150.00 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 308.52 FEET THROUGH A CENTRAL ANGLE OF 11°750'41"; THENCE S27°59'51"W A DISTANCE OF 671.72 FEET; THENCE S56°07'55"E A DISTANCE OF 323.59 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF STATE ROAD NO. 9 (INTERSTATE HIGHWAY NO. 95) (WIDTH VARIES); THENCE S32°49'14"W ALONG THE WEST RIGHT-OF-WAY OF SAID STATE ROAD NO. 9 A DISTANCE OF 346.97 FEET; THENCE S44°46'35"W ALONG THE WEST RIGHT-OF WAY LINE OF SAID STATE ROAD NO. 9 A DISTANCE OF 339.92 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF A ACCESS ROAD NO. 1 AS RECORDED IN PB 24, PG. 4 J&K; THENCE N00°04'30"E A DISTANCE OF 99.51 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1; THENCE S44°46'35"W ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1 A DISTANCE OF 236.51 FEET; THENCE DEPARTING SAID ACCESS ROAD NO. 1 N00°04'43"E A DISTANCE OF 535.11 FEET; THENCE S89°59'23"W A DISTANCE OF 166.33 FEET; THENCE S00°04'55"W A DISTANCE OF 680.33 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1; THENCE S50°43'56"W ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1 A DISTANCE OF 478.34 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTH HAVING A RADIUS OF 266.00 FEET; THENCE WESTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 171.53 FEET THROUGH A CENTRAL ANGLE OF 36°56'48"; THENCE S87°40'44"W ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO I A DISTANCE OF 1,027.79 FEET; THENCE S00°01'50"E A DISTANCE OF 72.00 FEET; THENCE S89°58'10"W A DISTANCE OF 1,610.26 FEET; THENCE S00°01'50"E A DISTANCE OF 117.14 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF WHITE CITY ROAD (COUNTY ROAD 712) (A 70 FEET WIDE RIGHT-OF-WAY) ; THENCE N89°52'26"W ALONG THE NORTH RIGHT -OF-WAY OF SAID WHITE CITY ROAD (COUNTY ROAD 712) A DISTANCE OF 786.28 FEET TO A POINT ON THE EAST RIGHT-OF WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93; THENCE N00°02'49"E ALONG THE EAST RIGHT-OF-WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93 A DISTANCE OF 2,564.70 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SAID 200 FEET WIDE FP&L EASEMENT AND BEING THE POINT OF BEGINNING.

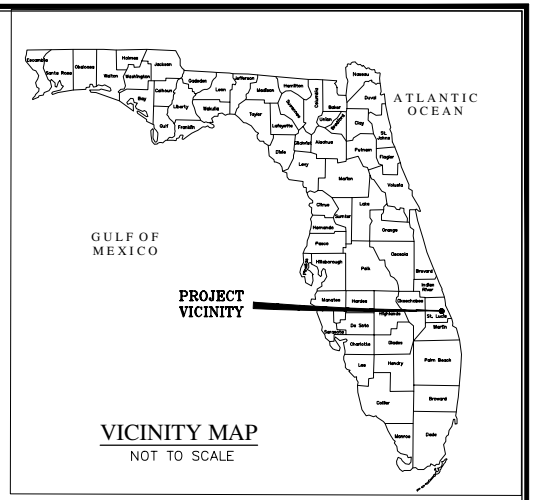
CONTAINING 197.90 ACRES, MORE OR LESS

TOGETHER WITH;

THE WEST 1/2 OF THE WEST 1/2 OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 2, TOWNSHIP 36 SOUTH, RANGE 39 EAST, LESS AND EXCEPT THAT PORTION OF THE PROPERTY WHICH WAS TAKEN FOR I-95, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

CONTAINING 2.33 ACRES, MORE OR LESS.

SURVEYED PARCEL CONTAINS A NET AREA OF 200.23 ACRES, MORE OR LESS.



VICINITY MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

GENERAL NOTES:

1) Not valid without the original signature and the raised seal of a Florida Licensed Surveyor and Mapper.
2) Description shown hereon provided by the client and/or their agent.
3) The last date of field work was 11/13/2019.
4) Overall parcel contains 200.23 Acres, more or less.
5) Bearings shown hereon are relative to the North line of Section 3, Township 36 South, Range 39 East, which bears S89°53'59"W and all other bearings are relative thereto.
6) Underground utilities, utility services, foundations and improvements were not located as a part of this survey.
7) The property shown hereon is located within areas having Flood Zone Designations of "X" as shown on Flood Rate Maps No. 12111C0170 J and 12111C0260 J effective dates February 12, 2012, St. Lucie County County, State of Florida, which is the current Flood Insurance Rate Maps for the community in which said premises is situated.
8) Additions or deletions to survey maps or reports by other than the signing party or parties is prohibited without written consent of the signing party or parties.
9) All interior improvements were located and are shown hereon.
10) No Jurisdictional or Wetlands were determined or located as part of this survey.
11) Bearings and distances shown hereon are the same as deed unless otherwise stated.
12) Additions Or Deletions To Survey Maps Or Reports By Other Than The Signing Party Or Parties Is Prohibited Without Written Consent Of The Signing Party Or Parties.
13) The horizontal datum for this survey is referenced to Florida State Plane, East Zone, NAD 83(2011) adjustment, as established by Florida Department Of Transportation FPRN.
14) The features shown hereon were acquired using RTK GPS and Trigonometric methods and were verified through a redundancy of measurements for an expected horizontal accuracy of 0.10'.
15) Elevations shown hereon are based on the National Geodetic Vertical Datum of 1929 (NGVD 29). The project benchmark used to establish said elevations is an aluminum disk stamped SLC Vertical Control "Gulfstream" having a published elevation of 21.248' relative to the NAVD 88 datum. A factor of +1.467 was used to convert this to elevation 22.72 relative to NGVD 29 datum.

Digitally signed by Thomas P Kiernan
Date: 2020.04.02 14:33:02 -04'00'

THOMAS P. KIERNAN — DATE
Professional Surveyor & Mapper
Florida Certificate No. 6199

VICINITY MAP, LOCATION MAP, GENERAL NOTES, LEGAL DESCRIPTIONS & CERTIFICATION

COMPUTER FILE REF.	FIELD BK./PG.
19-253 Boundary & Topo	1706/54

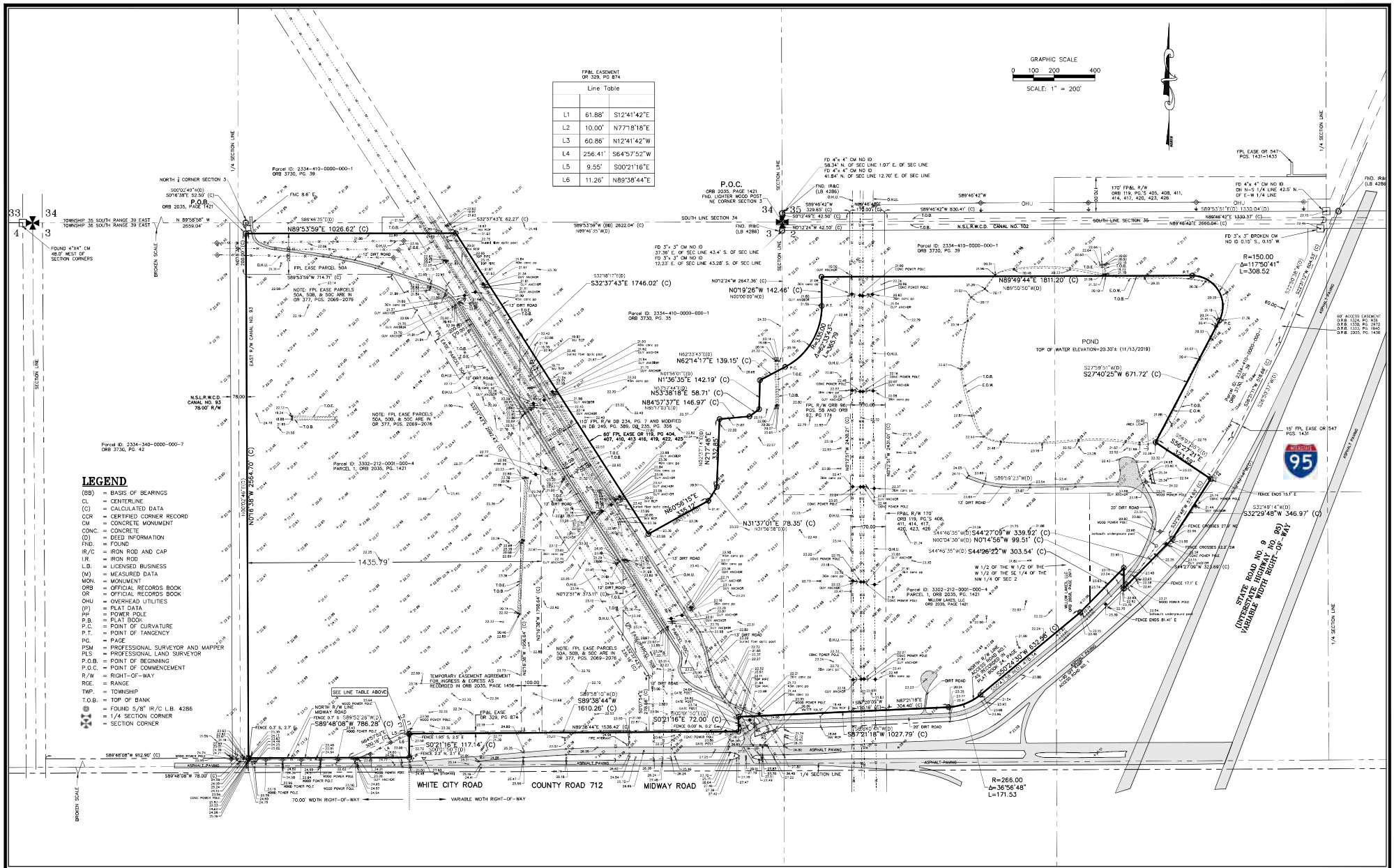
CULPEPPER & TERPENING INC
2960 SOUTH 25th STREET • FORT PIERCE, FLORIDA 34981
PHONE 772-464-3537 • FAX 772-465-9497 • www.ctt-eng.com
STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

– REVISIONS –	BY	DATE

	BY	DATE
FIELD	SG	11/13/19
CALCS.		
DRAWN	BKH	12/03/19
DETAILED		
CHECKED		
APPROVED		

Boundary & Topographic Survey
PREPARED FOR
CAPTEC Engineering, Inc.

DATE: 12/03/2019
HORIZ. SCALE: 1"=200'
VERT. SCALE: N/A
JOB No. 19-253
SHEET 1 of 2



LEGEND

(BB)	= BASIS OF BEARINGS
CL	= CENTERLINE
(C)	= CALCULATED DATA
CCR	= CERTIFIED CORNER RECORD
CM	= CONCRETE MONUMENT
CONC.	= CONCRETE
(D)	= DEED INFORMATION
FND.	= FOUND
IR/C	= IRON ROD AND CAP
I.R.	= IRON ROD
L.B.	= LICENSED BUSINESS
(M)	= MEASURED DATA
MON.	= MONUMENT
ORB	= OFFICIAL RECORDS BOOK
OR	= OFFICIAL RECORDS BOOK
OHU	= OVERHEAD UTILITIES
(P)	= PLAT DATA
PP	= POWER POLE
P.B.	= PLAT BOOK
P.C.	= POINT OF CURVATURE
P.T.	= POINT OF TANGENCY
PG.	= PAGE
PSM	= PROFESSIONAL SURVEYOR AND MAPPER
PLS	= PROFESSIONAL LAND SURVEYOR
P.O.B.	= POINT OF BEGINNING
P.O.C.	= POINT OF COMMENCEMENT
R/W	= RIGHT-OF-WAY
RGE.	= RANGE
TWP.	= TOWNSHIP
T.O.B.	= TOP OF BANK
⊙	= FOUND 5/8" IR/C L.B. 4286
✠	= 1/4 SECTION CORNER
✠	= SECTION CORNER

GRAPHICS

COMPUTER FILE REF.	FIELD BK./PG.
19-253 Boundary & Topo	1706/54

CULPEPPER & TERPENING INC
2980 SOUTH 25th STREET ■ FORT PIERCE, FLORIDA 34981
PHONE 772-464-3537 ■ FAX 772-464-3497 ■ www.ctt-eng.com
STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

– REVISIONS –	BY	DATE

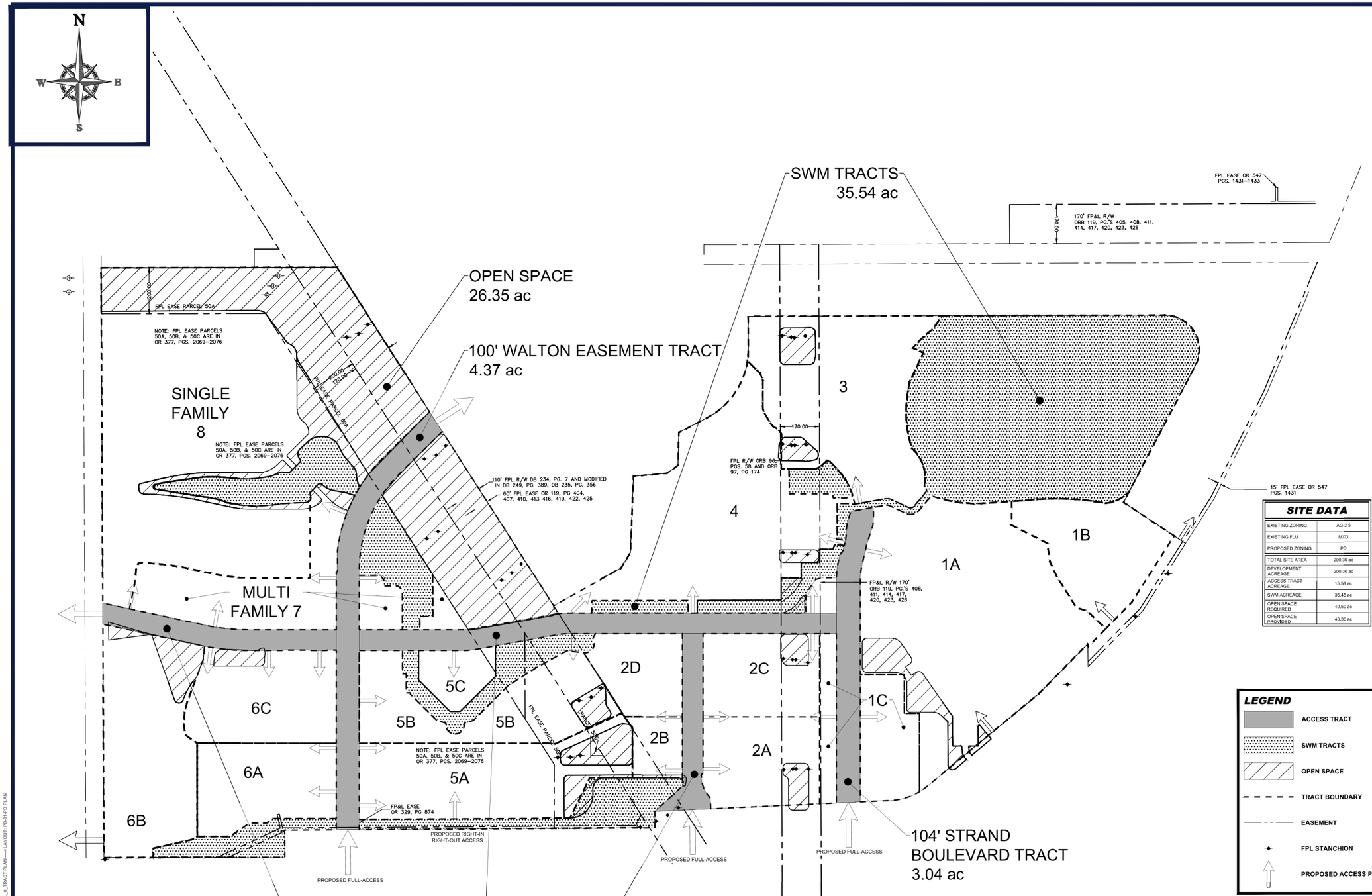
	BY	DATE
FIELD	SG	11/13/19
CALCS.		
DRAWN	BKH	12/03/19
DETAILED		
CHECKED		
APPROVED		

Boundary & Topographic Survey

PREPARED FOR

CAPTEC Engineering, Inc.

DATE: 12/03/2019
HORIZ. SCALE: 1" = 200'
VERT. SCALE: N/A
JOB No. 19-253
SHEET 2 of 2



SITE DATA

EXISTING ZONING	AG-2.5
EXISTING FLU	MXD
PROPOSED ZONING	PD
TOTAL SITE AREA	200.30 ac
DEVELOPMENT ACREAGE	200.30 ac
ACCESS TRACT ACREAGE	15.58 ac
SWM ACREAGE	35.45 ac
OPEN SPACE REQUIRED	40.60 ac
OPEN SPACE PROVIDED	43.36 ac

LEGEND

- ACCESS TRACT
- SWM TRACTS
- OPEN SPACE
- TRACT BOUNDARY
- EASEMENT
- FPL STANCHION
- PROPOSED ACCESS POINT

GENERAL NOTES

1. REFER TO PLANNED DEVELOPMENT DOCUMENTS FOR PERMITTED USES AND INTENSITIES AND OTHER RELATED TO FUTURE DEVELOPMENT WITHIN TRACTS.
2. PROPOSED ACCESS POINTS ARE PRELIMINARY AND SUBJECT TO CHANGE BASED ON DETAILED DEVELOPMENT PLANS.

200 100 50 0 200
1"= 200'

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROJECT MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

811 Know what's below. Call before you dig. ALWAYS CALL 811 It's fast. It's free. It's the law.

FOR CONCEPT PURPOSES ONLY

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	CT191015
DRAWN BY:	BTJ
CHECKED BY:	GPF
DATE:	03/23/20
CAD I.D.:	CT191015-CVL_0

PROJECT:

PLANNED DEVELOPMENT PLAN DOCUMENTS

FOR

WILLOW LAKES, LLC

PROPOSED DEVELOPMENT
W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA
MAP ID: 33/02N

BOHLER
16 OLD FORGE ROAD, SUITE A
ROCKY HILL, CT 06067
Phone: (860) 333-8900
Fax: (508) 480-9080
2255 GLADES ROAD, SUITE 305E
BOCA RATON, FLORIDA 33431
Phone: (561) 571-0280
Fax: (561) 571-0281
www.BohlerEngineering.com

G.P. FITZGERALD
PROFESSIONAL ENGINEER

SHEET TITLE:

PLANNED DEVELOPMENT SITE PLAN

SHEET NUMBER:

PD-01

ORG. DATE - 03/23/20

P:\PROJECTS\191015\DRAWINGS\SITE\BTJ\ROAD TRACT PLAN\CT191015-CVL_0_TRACT PLAN.dwg — LAYOUT: PD-01 (PD PLAN)
BTJ

LANDSCAPING PLAN - N/A

WILLOW LAKES, LLC

PROJECT NO. 1888

CONCEPTUAL STORMWATER MASTER PLAN

PREPARED FOR:

CITY OF FORT PIERCE

PREPARED BY:

CAPTEC Engineering, Inc.
Civil Engineering Professionals
Engineering Business # EB-0007657

Joseph W. Capra, P.E.
Florida P.E. License # 37638

CAPTEC Engineering, Inc.
301 NW Flagler Avenue
Stuart, Florida 34994
(772) 692-4344

JOSEPH W. CAPRA LICENSE No. 37638 STATE OF FLORIDA PROFESSIONAL ENGINEER

April 2, 2020

WILLOW LAKES, LLC
FORT PIERCE, FLORIDA

CONCEPTUAL STORMWATER MASTER PLAN

The purpose of this Report is to present the Conceptual Stormwater Master Plan design for the proposed ~200.30-acre project. The site is located on the northwest corner of the intersection of Midway Road (CR 712) and Interstate 95 in Sections 2 & 3, Township 36 South, Range 39 East, in the St Lucie County, Florida. The latitude of the project site is 27° 22' 36" North and the longitude is 80° 25' 00" West.

This Report is prepared to support the rezoning of the project site to the Planned Development (PD) zoning. The project will consist of residential, commercial, retail, restaurant, office, hotel, entertainment, and recreational uses, and will include buildings, recreational facilities, roadway, parking, walkways, preserve areas, and associated stormwater management, drainage, paving, grading, and utility improvements in accordance with Ft. Pierce land development regulations.

SECTION I: PRE – DEVELOPMENT CONDITIONS

The site is undeveloped and was previously used for cattle and agriculture; and contains existing drainage ditches, drainage canals, wetlands and natural vegetation. The site contains a large ~ 35.54-acre lake adjacent to Interstate I-95 that was excavated as a soil borrow area. The drainage ditches generally drain the site from the west to east and the site ranges in elevation from approximately 21 ft NAVD (in portions of the ditches) to approximately 24 ft NAVD (in the ridge areas). The average elevation of the site is predominately 22 ft NAVD. The on-site wetlands outfall through the site via the existing drainage ditches.

The project site is located in the North St. Lucie River Water Control District (NSLRWCD). Two (2) NSLRWCD Canals drain the site: Canal No. 93 borders the western boundary; and Canal 102 borders the northeast boundary.

The site was previously permitted with the Walton property to the north as The Provences under SFWMD Conceptual Environmental Resource Permit (ERP) No. 56-02538-P. This permit provided for discharge into the NSLRWCD Canals noted above. The allowable discharge into NSLRWCD Canals is the volumetric equivalent of 2 inches per acre per day for the 10-year 3-day storm event. Please refer to the Conceptual Stormwater Master Plan (**Exhibit 1**) showing the discharge rate calculation and direction of flow for the project site.

SECTION II: POST – DEVELOPMENT CONDITIONS

Exhibit 1 depicts the proposed Stormwater Management (SWM) System layout which includes multiple wet detention ponds, canals, and lakes that will outfall into the existing lake adjacent to Interstate I-95. The conceptual SWM System plan design depicts the proposed basin boundaries, flow directions, and control elevation of the existing lake, and includes over 20% of the project site area for lakes, canals, and flow ways.

1. All storm drainage facilities shall conform to Chapters 17 and 18 of the Fort Pierce Code of Ordinances and the “Standard Specifications” adopted by the City Commission on February 13, 1973, as amended.

2. The proposed SWM System will be designed as a Flow Way to convey stormwater drainage runoff into the existing lake. The existing lake will be modified with littoral plantings and will outfall into the NSLRWCD Canal 102.

3. The SWM Flow Way will consist of stormwater piping, canals, ponds, and lakes that will be designed to provide an earthwork fill source for the development areas, and to minimize storm sewer piping and inlets.

4. The Flow Way and existing lake system will be designed to meet NSLRWCD flow capacity requirements and may be modified as part of the SWM System.

5. The Flow Way and existing lake will provide water quality treatment, nutrient reduction, and peak discharge attenuation for the proposed development using littoral plantings and deep cell areas in accordance with South Florida Water Management District (SFWMD) and NSLRWCD regulatory criteria and design requirements, prior to outfall into NSLRWCD Canal 102.

6. The SWM System will consist of storm sewer systems and canals in the developed areas to conduct the site runoff to the wet detention lakes and Flow Way System.

7. It is important to note that the Wavegarden Cove Surf Park will not be part of the stormwater management system. The Surf Park design contains its own water treatment system that will reuse and recirculate the surf lagoon water.

SECTION III: STORMWATER MANAGEMENT DESIGN FOR THE DEVELOPED AREAS

1. The SWM System for the developed areas will consist of a combination of storm sewer systems, canals, lakes and the Flow Way System to provide required water quality treatment, detention storage, conveyance and discharge attenuation in accordance with City of Fort Pierce, NSLRWCD and SFWMD development requirements and regulatory criteria.

2. Planted Stormwater Treatment Areas (STAs), littoral zones, meandering canals, and wet detention systems will be incorporated into the SWM System as part of the required water quality treatment, storage, conveyance and discharge attention system.

3. Treated stormwater will be used to maintain recommended wetland hydro-periods for all wetland areas to remain.

4. Normal water/control elevations, design storm peak stages (10 yr/25 yr/100 yr), and allowable discharge rates and volumes for the SWM System will be determined by detailed hydraulic and hydrologic modelling, based on City of Fort Pierce, NSLRWCD and SFWMD regulatory criteria.

5. Minimum Finished Floor elevations will be set by the 100 yr/3-day peak stage, perimeter berms and canal conveyance minimum elevations will be set by the 25 yr/3-day design stage, and minimum road grades and minimum parking area elevations will be set by the 10 yr/1-day peak stage.

SECTION IV: PERMITTING

The project will require stormwater management system construction permit approvals from:

- City of Ft. Pierce
- Army Corps of Engineers (ACOE)
- NSLRWCD
- SFWMD

Several Pre-Application Meetings were held with the City, NSLRWCD, and SFWMD. The project will require multiple SFWMD Environmental Resource Permits (ERP) depending on the project phasing:

- A Conceptual SFWMD Individual ERP is required for the total site development;
- A Construction SFWMD General ERP is required for the Phase 1 project development;
- Additional SFWMD General ERPs will be required for future development phases.

An ACOE master ERP will be required for the project and SFWMD construction dewatering and irrigation water use permits will also be required for each phase of development.

END OF CONCEPTUAL SURFACE WATER MASTER PLAN

LEGEND

C.E. = CONTROL ELEVATION
CS = CONTROL STRUCTURE
= DRAINAGE FLOW DIRECTION
= BASIN BOUNDARY
= DRAINAGE STRUCTURES AND PIPING
= PROPOSED FLOW WAY / LAKE

SITE DATA	
EXISTING ZONING	AG-2.5
EXISTING FLU	MXD
PROPOSED ZONING	PD
TOTAL SITE AREA	200.30 ac
DEVELOPMENT ACREAGE	200.30 ac
ACCESS TRACT ACREAGE	15.58 ac
SWMB ACREAGE	35.45 ac
OPEN SPACE REQUIRED	40.60 ac
OPEN SPACE PROVIDED	43.36 ac

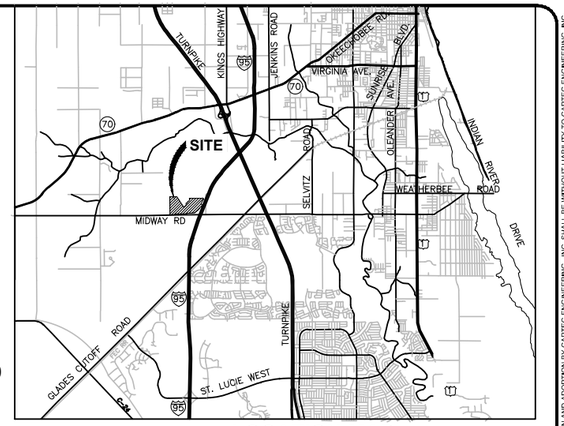
NOTES:

1. ALL STORM DRAINAGE FACILITIES SHALL CONFROM TO CHAPTERS 17 AND 18 OF THE FORT PIERCE CODE OF ORDINANCES AND THE "STANDARD SPECIFICATIONS" ADOPTED BY THE CITY COMMISSION ON FEBRUARY 13, 1973, AS AMENDED.
2. ALL ELEVATIONS SHOWN ARE IN N.A.V.D.

NORTH

200 0 200 400

SCALE: 1" =400'



LOCATION MAP

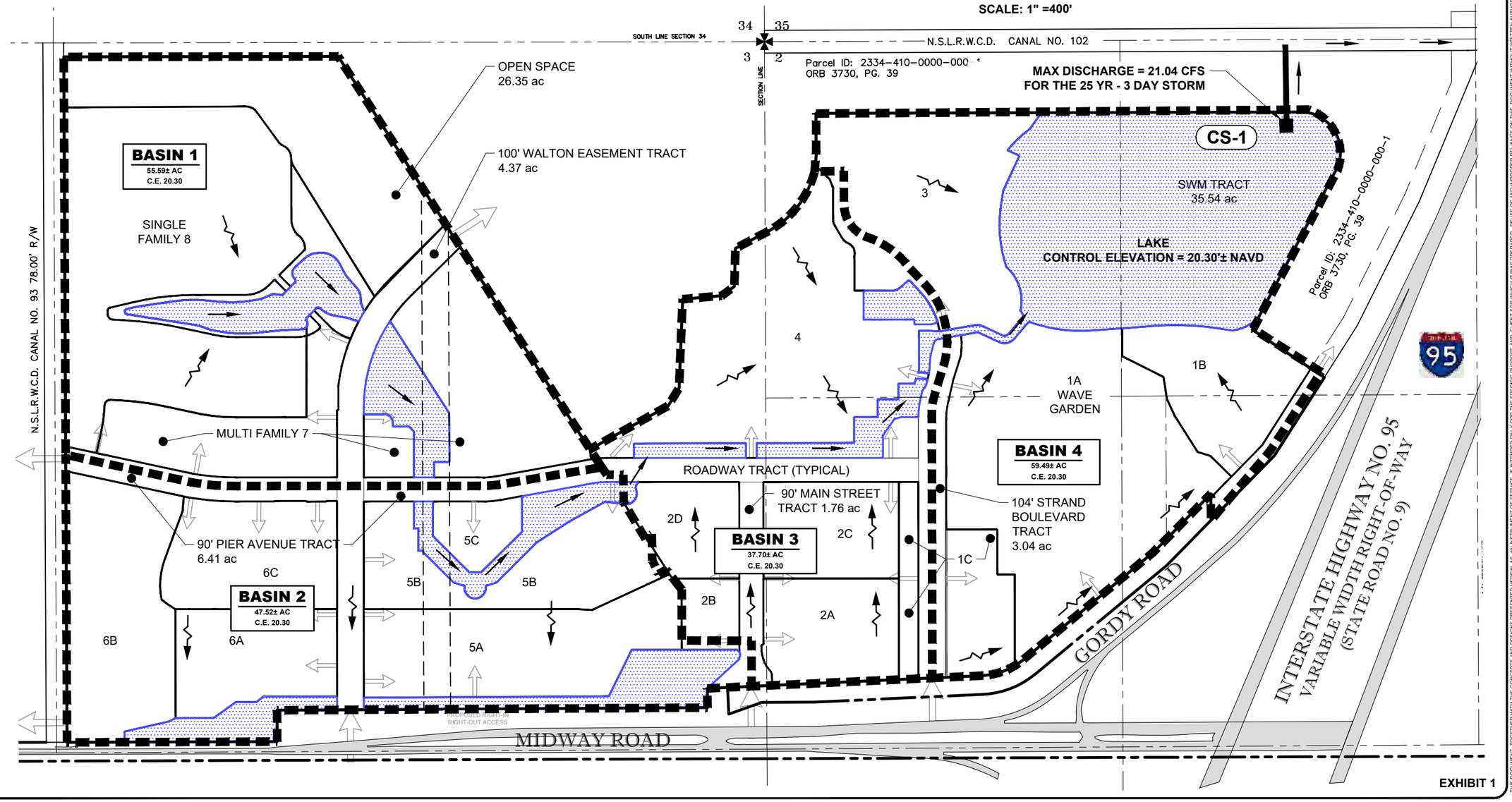


EXHIBIT 1

CAPTEC Engineering, Inc.
Civil Engineering Professionals
• 301 NW Flagler Ave
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
Engineering Business No. EB-0007657

DATE: 03/27/20
DRAWN BY: MDB
DESIGNED BY: SPM
CHECKED BY: JWC
PROJECT No.: 1888
HORZ. SCALE: 1" = 400'
VERT. SCALE: N/A
CADD FILE:

NO.	DATE	BY	REVISIONS

SCALE VERIFICATION
0 1
SOLID BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING. ADJUST ALL SCALED DIMENSIONS ACCORDINGLY

WILLOW LAKES, LLC
CITY OF FT. PIERCE, FLORIDA
CONCEPTUAL STORMWATER MASTER PLAN

JOSEPH W. CAPRA
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638

Printed Date:

JOB No.: 1806
SHEET 1 OF 1

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY CAPTEC ENGINEERING, INC. SHALL BE WITHOUT LIABILITY TO CAPTEC ENGINEERING, INC.

EW Consultants, Inc.
Natural Resource Management, Wetland, and Environmental Permitting Services

ENVIRONMENTAL ASSESSMENT

WILLOW LAKES

FORT PIERCE, FLORIDA

Prepared for:

Willow Lakes, LLC

Prepared by:

EW Consultants, Inc.

March 2020

© 2020 EW Consultants, Inc.

1000 SE Monterey Commons, Suite 208 • Stuart, FL 34996 • 772-287-8771 • Fax 772-287-2988

www.ewconsultants.com

I. INTRODUCTION –

This Environmental Assessment documents and summarizes the various natural resources and man-made alterations present on the property referred to as the Willow Lakes site. The project site, as shown on Figure 1, in Appendix A is ± 200.3 acres and is located at the northwest corner of I-95 and Midway Road (S.R. 709). The property lies within Sections 2 & 3, Township 36 South, Range 39 East in the City of Fort Pierce, St. Lucie County, Florida (see Figure 2, USGS Quadrangle Map in Appendix A).

II. GENERAL PROPERTY DESCRIPTION –

The property is bounded to the north and west by undeveloped lands, to the east by undeveloped land and the Gordy Road, and to the south by Midway Road (please refer to Figure 3, Aerial Photograph, in Appendix A for existing surrounding conditions). The property is undeveloped and is comprised of a combination of open and wooded pastures, areas dominated by exotic vegetation, man-made surface waters, and freshwater wetlands. Electrical transmission lines are present on the site, as well; one set in a south-to-north orientation and one in a southeast-to-northwest orientation. Detailed discussions of land cover types are described in subsequent sections of this report.

III. SOIL TYPES -

A Soils Report generated by the United States Department of Agriculture/Natural Resources Conservation Service is provided in Appendix B of this report. The soils report identifies mainly sand-based soils and open water throughout the project site.

IV. EXISTING LAND COVER TYPES –

The following is a summary of the land cover types and vegetative communities found on the subject site. Land cover and vegetation community classifications are mapped based on the Florida Land Use, Cover and Forms Classification System (FLUCFCS) developed by the Florida Department of Transportation. Field reconnaissance and aerial photograph interpretation were employed in the mapping of the vegetative communities on the subject property.

There are several different FLUCFCS classifications present on the site based on fieldwork conducted by EW Consultants, Inc. in February, 2020. They include Improved Pastures (211); Woodland Pastures (213); Pine Flatwoods (411); Brazilian Pepper (422); Reservoirs larger than 10 acres but less than 100 acres (533); and Freshwater Marshes (641). The Electrical Transmission Lines on-site (832) contain Improved Pasture (211), Woodland Pasture (213), and Freshwater Marsh (641) within their alignments. A graphic of the observed land cover types is included as Figure 4 in Appendix A of this report. The land cover types on the property are described as follows:

211 Improved Pastures

This is a sub-category of the FLUCFCS Agriculture classification and includes areas that contain a sparse tree canopy or no tree canopy at all. Dominant vegetation includes a variety of non-native grass species that have been introduced to the property as forage for livestock as well as naturally-occurring ruderal grasses and weeds. These species are typical of pasture lands in the region and includes, but is not limited to, smut grass, Bahia grass, torpedo grass, Caesar-weed, beggars ticks, and ragweed. Native canopy trees that are present within this land cover type include slash pine, cabbage palm, laurel oak, and live oak. Other native species were also observed in areas where native trees occur and include saw palmetto, gallberry, grape vine, smilax vine, poison ivy, and swamp fern.

213 Woodland Pastures

This classification and includes areas where woodlands are used for cattle grazing. While the vegetative understory layer has been cleared, native canopy trees remain and native grasses have partially regenerated. For the 213 areas on the subject site, the tree canopy is dominated by slash pine (*Pinus elliottii*), and can be found generally within the far western and far eastern edges of the site (small patches occur in the south-central portion of the site), typically surrounded by improved pasture. These areas have been impacted by years of cattle grazing activities. Slash pine and various broomsedge and bluestem grasses are the dominant plants species within this land cover category.

411 Pine Flatwoods

This is a sub-category of the FLUCFCS Upland Forests classification and includes areas where the tree canopy is dominated by slash pine (*Pinus elliottii*). The soil is typically poorly to moderately well-drained with occasional organic layers associated with the sandy layers. The native areas of pine flatwoods are generally found in the north-central portion of the site. While most of this habitat appears to be in good ecological condition, lack of regular land management activities such as burning and roller-chopping have allowed the understory plants to dominate thus restricting native grasses from spreading. Slash pine (*Pinus elliottii*), saw palmetto (*Serenoa repens*), and gallberry (*Ilex glabra*) are the dominant plants species within this land cover category.

422 Brazilian Pepper

These areas on-site are dominated by the exotic Brazilian pepper tree. This tree tends to dominate a landscape once present, shading out the forest floor and prohibiting desirable native species from establishing. Therefore, these areas provide very little wildlife habitat potential.

533 Reservoirs Larger Than 10 Acres/Less Than 100 Acres

A man-made reservoir exists within the northeastern portion of the site just west of I-95/Gordy Road. It is generally rectangular in shape, and its banks consist of cattails, Carolina willow, primrose willow, torpedo grass, and other weedy species.

641 Freshwater Marshes

This is a sub-category of the FLUCFCS wetlands classification and includes long-hydroperiod aquatic vegetation generally associated with depressional wetlands. These wetlands may contain water throughout the year, or go completely dry during prolonged drought periods. Such habitats provide a variety of wildlife with foraging and nesting opportunities. The marsh wetlands occur throughout the site within the pasture areas (both improved and woodland), and are generally in poor to fair ecological condition due to the historic agricultural use of the site as well as the routine maintenance of the powerline easements. The vegetation in these marshes predominantly includes the following species: chestnut sedge (*Fimbristylis spadicea*), seedbox (*Ludwigia alternifolia*), St. John's wort (*Hypericum brachyphyllum*), pickerelweed (*Pontederia cordata*), bladderwort (*Utricularia* spp.), maidencane (*Panicum hemitomon*), Tracy's beakrush (*Rhynchospora tracy*), spatterdock (*Nuphar* spp.), corkwood (*Stillingia aquatica*), and duck potato (*Sagittaria graminea*).

832 Electrical Transmission Lines

There are two sets of electrical transmission lines that are present within the project site; one aligned south-to-north within the eastern portion of the property and one aligned southeast-to-northwest located in the central and northwest portions of the project site. The land cover underneath the powerlines (and therefore within the easements of the powerlines) include Improved Pasture (211), woodland pasture (213), and Freshwater Marsh (641) as described above.

V. LISTED SPECIES DISCUSSION –

Because of the various types of land cover found on the property, the project site provides potential foraging and nesting habitat for a variety of state and federally listed wildlife species. In particular, the on-site water resources (wetlands and reservoir) could provide habitat for several listed species, including a myriad of wading birds such as wood stork, roseate spoonbill, sandhill cranes, as well as various ibis and herons. Protected avian species observed foraging on-site at the time of the site visits included the state threatened sandhill crane.

Listed species which may nest or forage within upland habitats on-site include the federally and state endangered red-cockaded woodpecker and the federally and state threatened crested caracara. The likely presence of the woodpecker is minimal due to its habitat preference for old longleaf pine trees with soft cores, which is lacking on-site. Caracara prefer open pasture with scattered and isolated cabbage palms, which does exist on the project site. However, recent caracara surveys performed on adjacent sites along Midway Road just west of I-95 revealed no nesting pairs in the area.

Upland areas, in particular the pine flatwoods and woodland pastures, serve as potential burrowing and foraging habitat for the state threatened gopher tortoise. During the recent site visits, several potentially occupied burrows of this species were observed within the project site's upland areas. A systematic gopher tortoise survey will be required within the entire development footprint's upland area of the site prior to new construction activities, and tortoises will have to be relocated to a state-approved receiver site per Florida Fish & Wildlife Conservation Commission (FFWCC) guidelines.

A search of the FFWCC water bird colonies database is shown on Figure 5 in Appendix A. The data reveal that numerous colonies within 20 miles of the project site have been documented, mainly along major waterways and wetland systems in the region. Since the foraging range of a wood stork is generally recognized as 18.6 miles from its colony, the project site is located within a wood stork foraging area. Therefore, aquatic features within the boundaries of the project site may be used as foraging areas by the wood stork as well as other wading birds.

Although the bald eagle has been removed from the Endangered Species Act list, it remains protected under the Bald and Golden Eagle Protection Act. The subject property contains mature slash pines that could provide potential nesting opportunities for bald eagles and is located within a few miles of major foraging areas, such as the St. Lucie River and Indian River Lagoon, and numerous regional and local waterways and lakes. Bald eagles have recently been observed in-flight in the immediate area. However, no bald eagle nests were observed on-site during the 2020 site visits. The closest recorded nests are located to the southwest (SL009) along S.R. 609 and northeast (SL006) along just east of I-95 at 10-Mile Creek. A map showing Florida Fish and Wildlife Conservation Commission documented bald eagle nests is attached as Figure 6 in Appendix A.

Non-listed species observed on-site during the recent site visits include: red-shouldered hawk, mourning dove, blue jay, mocking bird, gray cat-bird, pileated woodpecker, raccoon, wild turkey, feral hogs (tracks and scat), white-tailed deer (tracks), coyote (scat), among others.

APPENDIX A

Figure 1 – Location Map

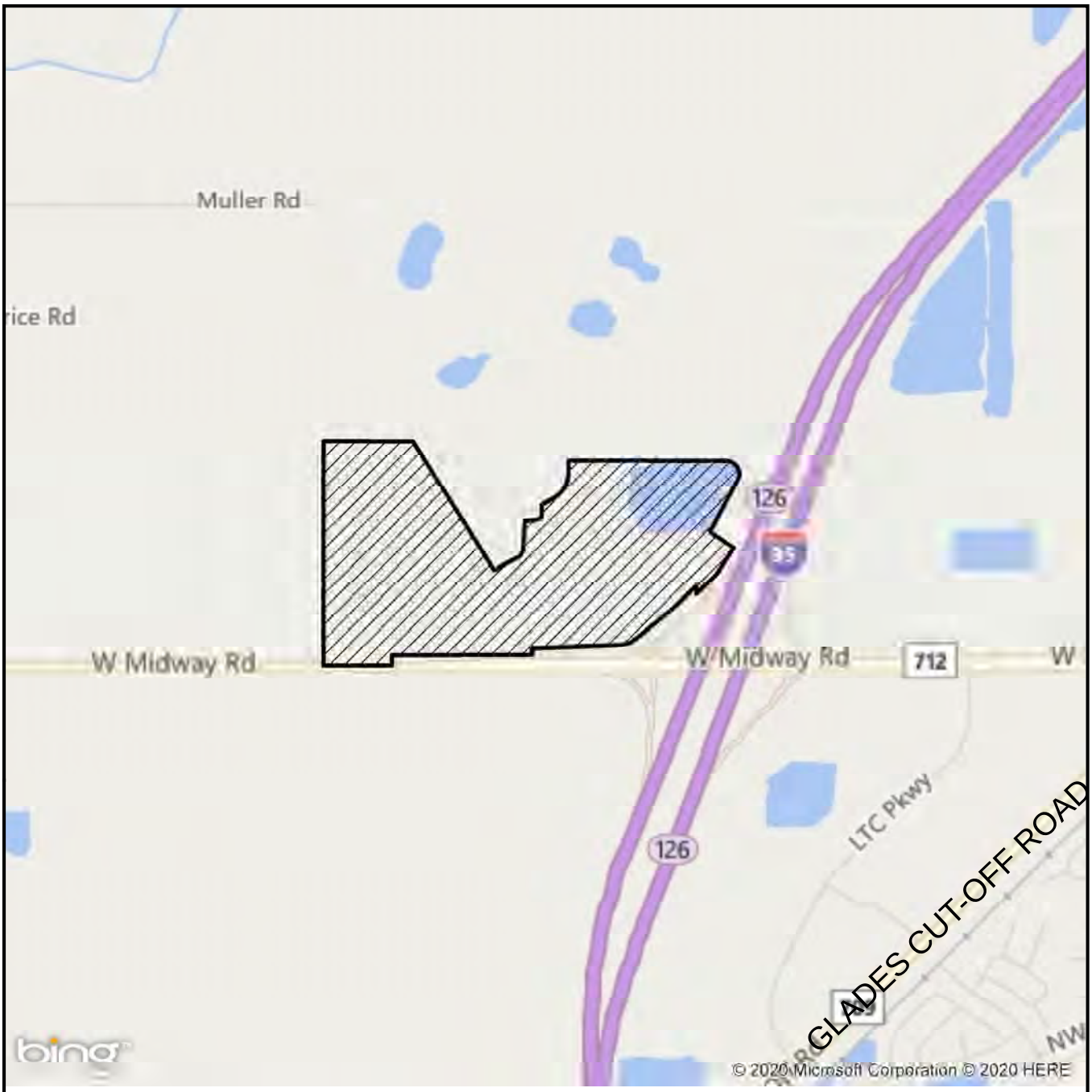
Figure 2 – USGS Quadrangle Map

Figure 3 – 2018 Aerial Photograph

Figure 4 – FLUCFCS/Land Cover Map

Figures 5 – FFWCC Wading Bird Colonies

Figure 6 – FFWCC Eagle Nest Locations



LEGEND

▨ - SITE (200.2+/- AC)

0 2,000 Feet

N

WILLOW LAKES
LOCATION MAP

EW CONSULTANTS, INC.

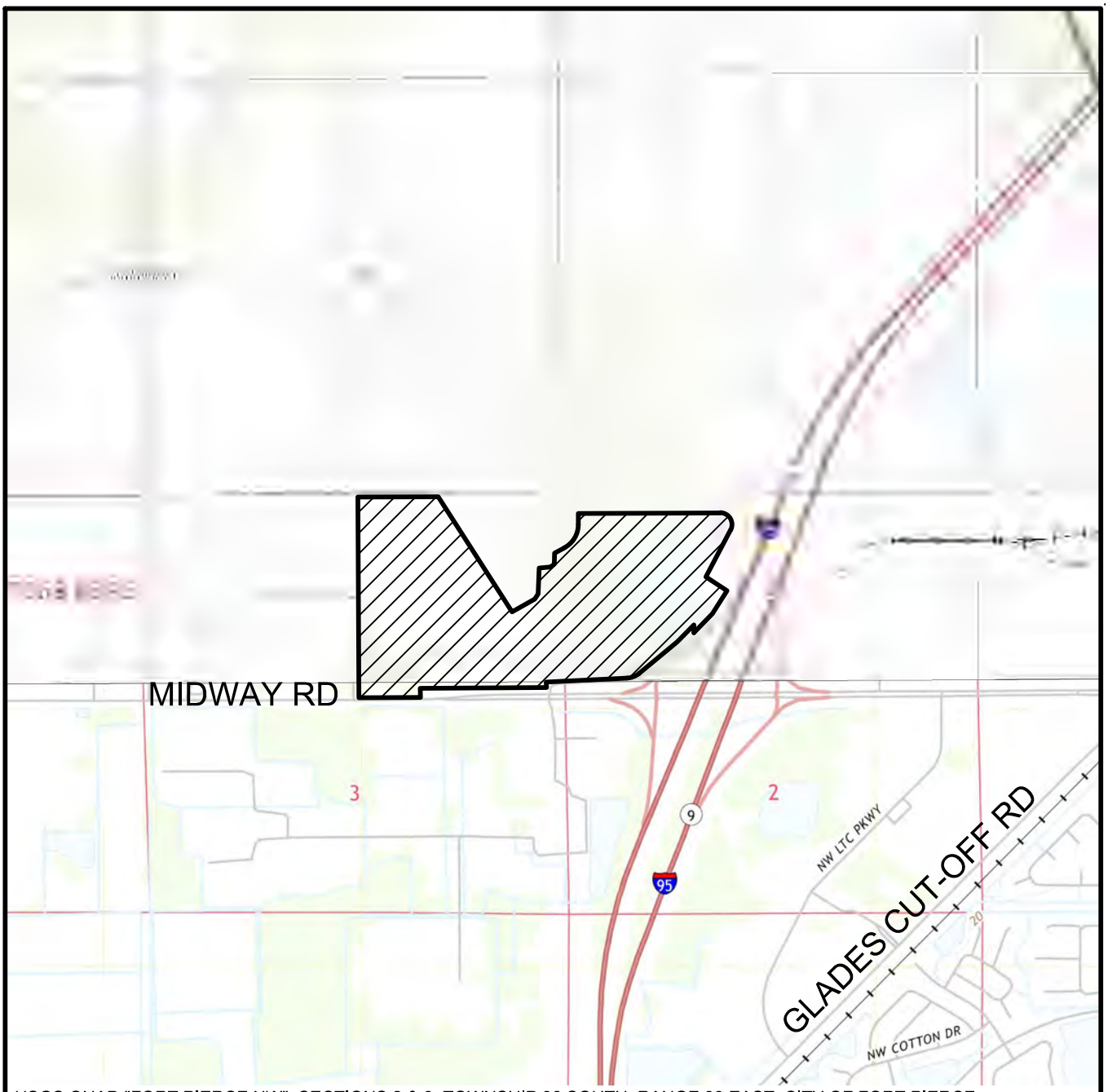
EW Consultants, Inc.

1000 SE Monterey Commons Blvd., Suite 208
Stuart, FL 34996
772-287-8771 Fax 772-287-2988
www.ewconsultants.com

MAR 2020

FIGURE

1



USGS QUAD "FORT PIERCE NW", SECTIONS 2 & 3, TOWNSHIP 36 SOUTH, RANGE 39 EAST, CITY OF FORT PIERCE, ST LUCIE COUNTY, FLORIDA, LATITUDE 27°22'35" LONGITUDE -80°25'04"

LEGEND

- SITE (200.2± AC)

0 2000

SCALE IN FEET

WILLOW LAKES

QUAD

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STUART, FL 34996
772-287-8771 FAX 772-287-2988
WWW.EWCONSULTANTS.COM

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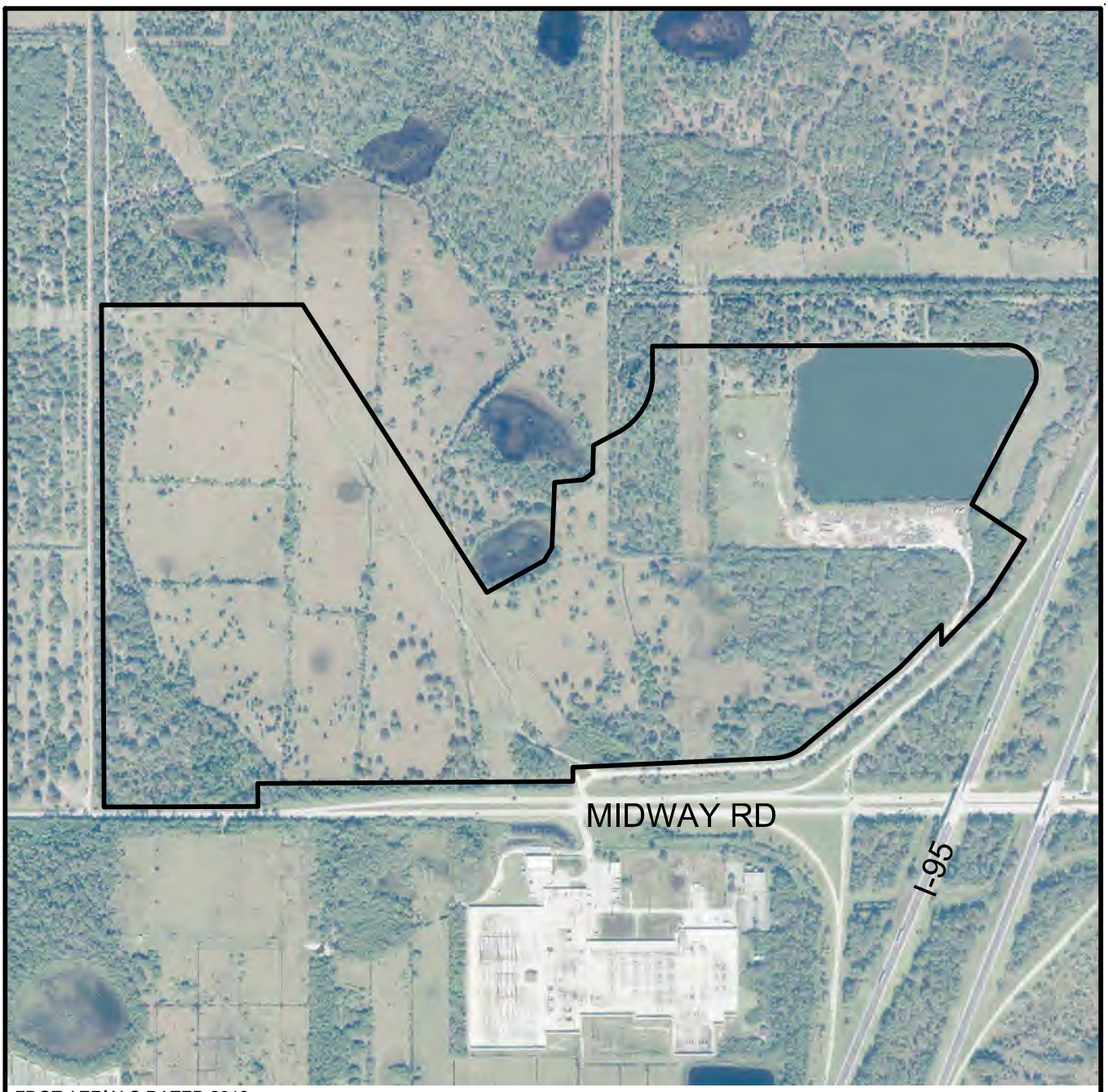
FIGURE

2

Willow Lakes.dwg QUAD



FDOT AERIALS DATED 2018

0 800
SCALE IN FEET

WILLOW LAKES
AERIAL

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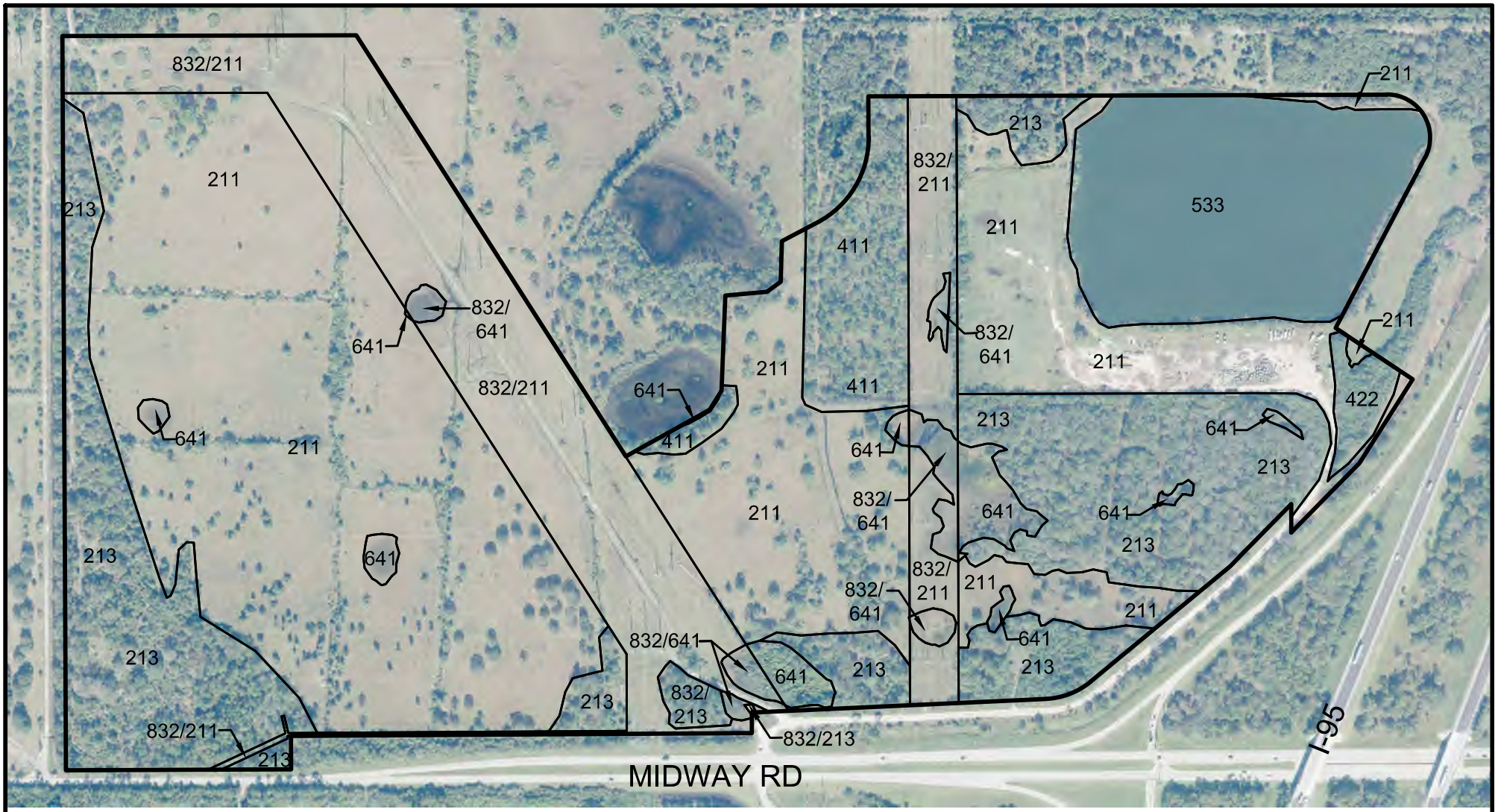
MAR 2020

FIGURE
3

Willow Lakes.dwg AERIAL



FDOT AERIALS DATED 2018

LEGEND

211 - IMPROVED PASTURE (91.4± AC)
213 - WOODLAND PASTURES (39.6± AC)
411 - PINE FLATWOODS (7.9± AC)
422 - BRAZILIAN PEPPER (1.5± AC)
533 - RESERVOIRS MORE THAN 10ACS (19.6± AC)
641 - FRESHWATER MARSHES (3.7± AC)
832/211 - ELECTRICAL POWER TRANSMISSION LINE/IMPROVED PASTURE (33.1± AC)
832/213 - ELECTRICAL POWER TRANSMISSION LINE/WOODLAND PASTURES (0.8± AC)
832/641 - ELECTRICAL POWER TRANSMISSION LINE/FRESHWATER MARSHES (2.6± AC)
TOTAL SITE (200.2± AC)

0 500
SCALE IN FEET

WILLOW LAKES FLUCCS

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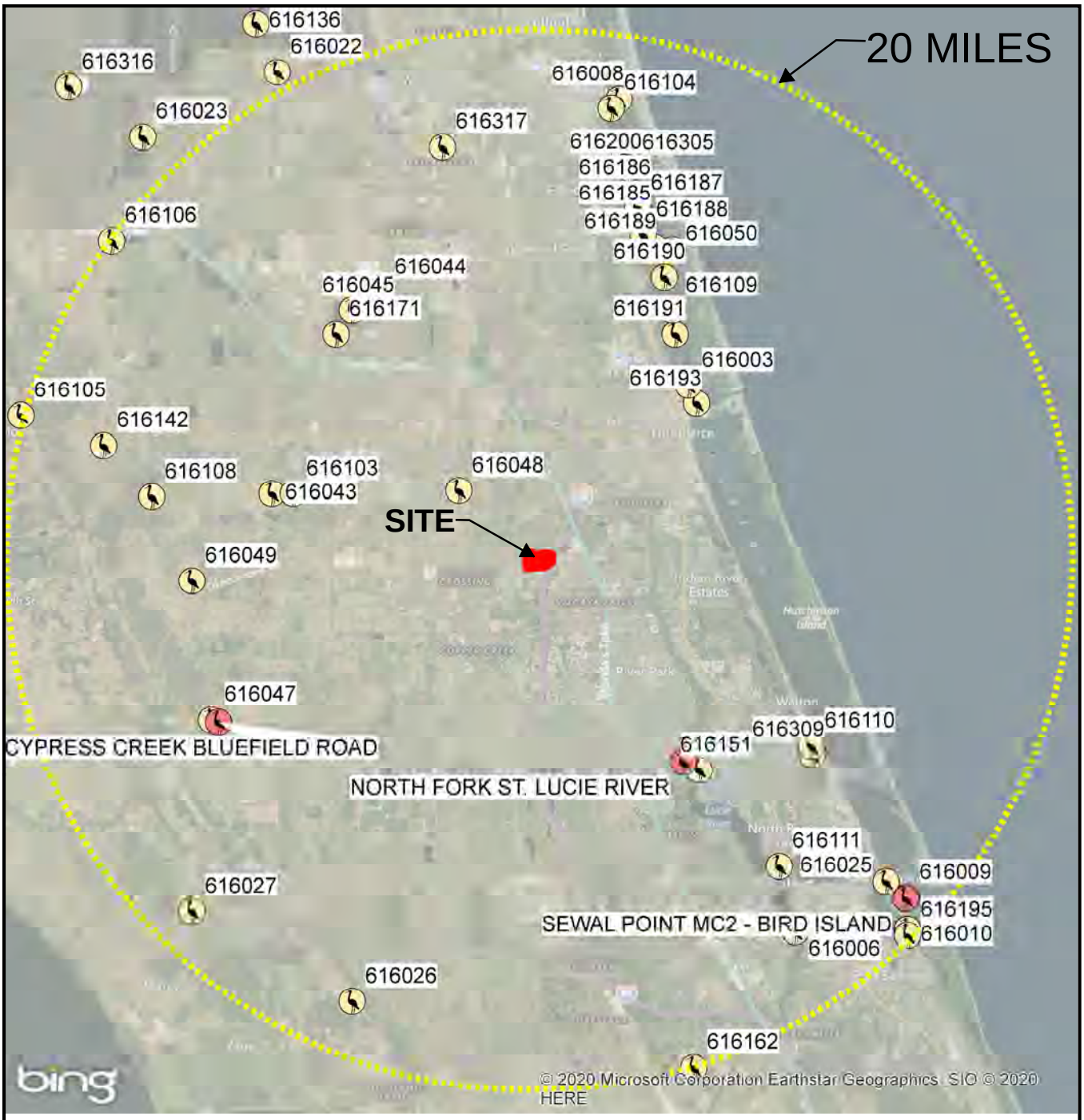
FIGURE 4

Willow Lakes.dwg FLUCCS



LEGEND

0 7 Miles

- USFWS WOST ACTIVE COLONIES 2009-2018
- FWC WADING BIRD ROOKERIES 1999

N

WILLOW LAKES

FFWCC WADING BIRD COLONIES DATABASE

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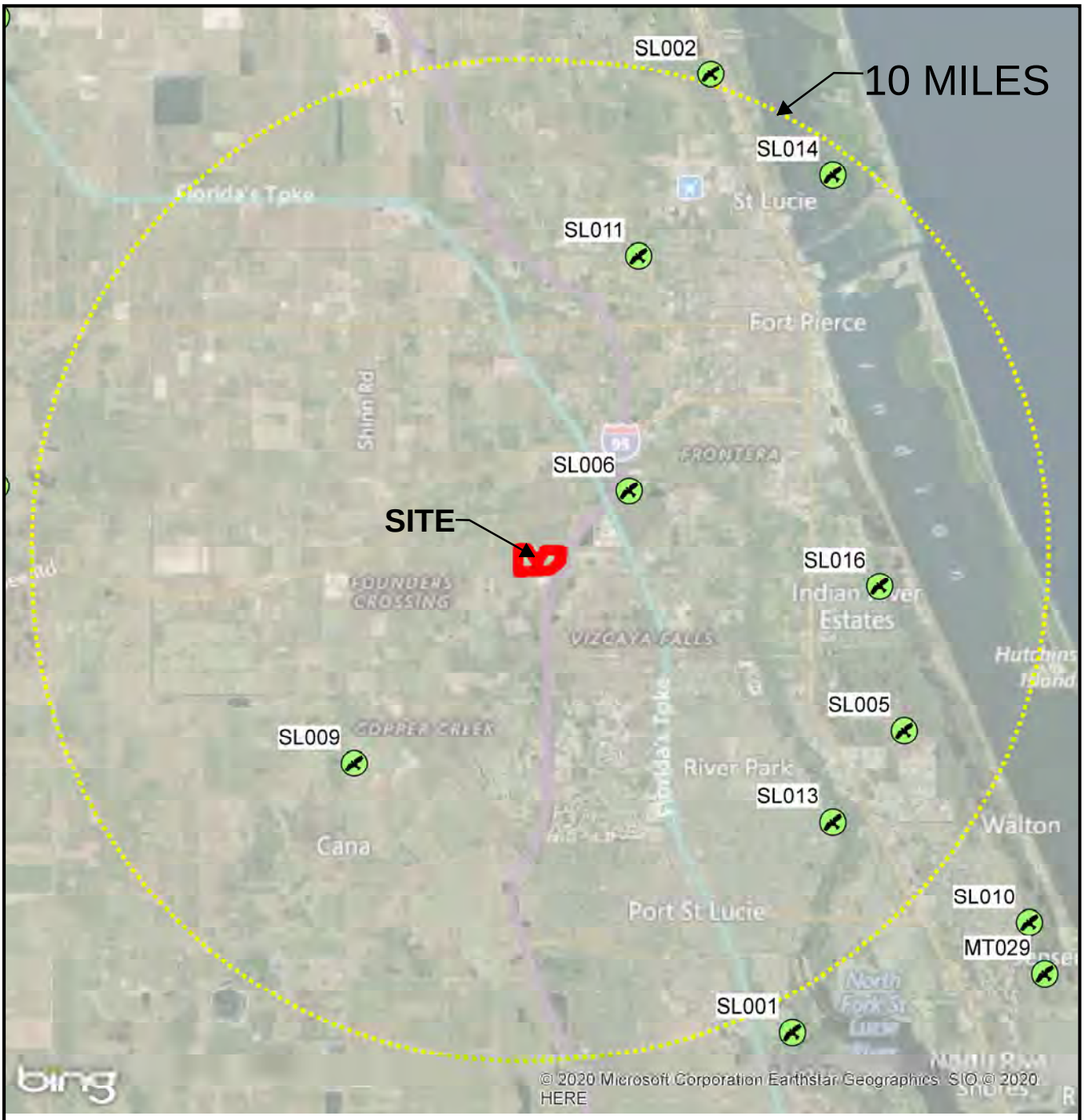
FIGURE

5



0 3 Miles

LEGEND

FWC EAGLE NESTING 2016 DATA

WILLOW LAKES
FFWCC EAGLE NESTS

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MAR 2020

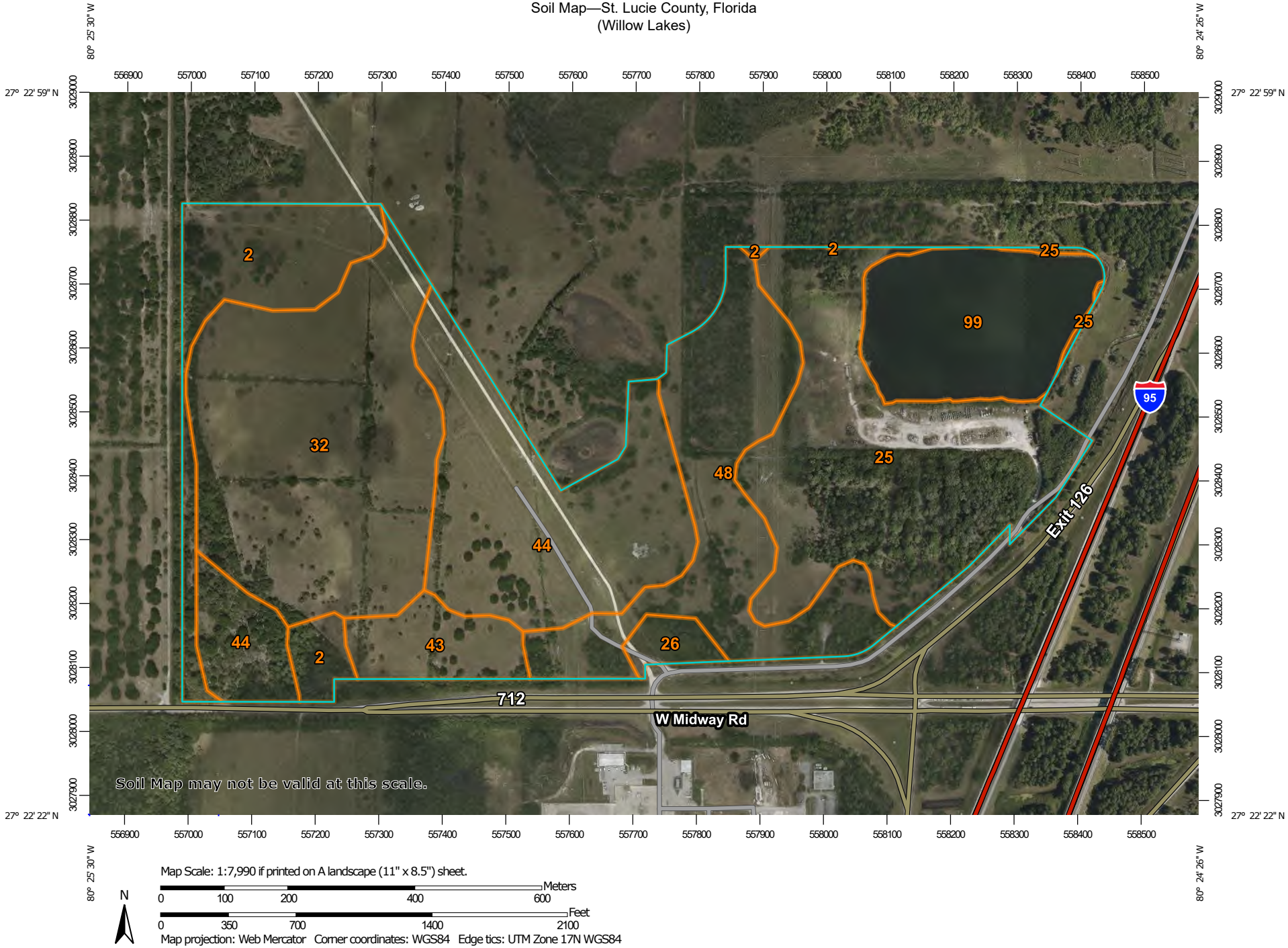
FIGURE

6

APPENDIX B

USDA/NRCS Soils Report

Soil Map—St. Lucie County, Florida
(Willow Lakes)



Map Scale: 1:7,990 if printed on A landscape (11" x 8.5") sheet.

N

0 100 200 400 600 Meters

0 350 700 1400 2100 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 13, Feb 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 6, 2019—Mar 23, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ankona and Farmton sands	17.6	8.8%
25	Nettles and Oldsmar sands	41.7	20.8%
26	Oldsmar sand, depressional	2.4	1.2%
32	Pineda sand, 0 to 2 percent slopes	45.6	22.8%
43	Susanna and Wauchula sands	7.2	3.6%
44	Tantile and Pomona sands	37.6	18.8%
48	Wabasso sand, 0 to 2 percent slopes	29.0	14.5%
99	Water	19.2	9.6%
Totals for Area of Interest		**200.2**	**100.0%**

BEACH/DUNE SYSTEM PROTECTION PLAN - N/A

LIGHTING PLAN - N/A

DESIGN REVIEW SUBMITTALS - N/A

TRAFFIC IMPACT REPORT - PENDING

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Vacant/Walton	MXD	PD
South	Vacant/LTC Ranch, FPL	CG/CH/ROI/CS (City of PSL) MXD and T/U (SL County)	TBD (City of PSL approved DRI) & PUD
East	Tropicana Mfg.	INST/IND	IL
West	Vacant/Walton	MXD	PD

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	MXD	Agriculture - 2.5 (AG2.5)	80 du's/1,306,800 s.f. (4,356,000 s.f. aquaculture)	200.3	X
****Proposed**	MXD	Planned Development (PD)	1,000 du's / 675,000 s.f. / 700 hotel rooms	200.3	N/A

II. Public Facilities Information:

A. Potable Water: SEE ATTACHMENT	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day
**Proposed Zoning/FLU	Total gallons per day
**Change in Demand	Total gallons per day

B. Wastewater: SEE ATTACHMENT	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day
**Proposed Zoning/FLU	Total gallons per day
**Change in Demand	Total gallons per day

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	888.7 ac.	936.54	+47.84
Urban District	5 acres per 1,000 people	222.18 ac.	234.14	+11.96
Community	2.5 acres per 1,000 people	111.09 ac.	117.07	+5.98
Neighborhood	1.36 acres per 1,000 people	60.43 ac.	63.68	+3.25

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

CURRENT
Single Family (SF) = 80du
Multi-family (MF) = N/A

PROPOSED
Single Family (SF) = 300du
Multi-family (MF) = 700du

	K-8	High
School Name	Samuel Gaines Academy	Fort Pierce Central
City	Fort Pierce	Fort Pierce
Distance	5 miles	5 miles
Current Zoning/FLU Enrollment Demand	80du x 0.405 = students x 0.7 = 23	80du x 0.405 = students x 0.3 = 10
****Proposed Zoning/FLU Enrollment Demand**	SF = 300du x 0.405 = students x 0.7 = 85 MF = 700du x 0.207 = students x 0.7 = 101	SF = 300du x 0.405 = students x 0.3 = 36 MF = 700du x 0.207 = students x 0.3 = 44
****Change in Demand**	+163	+70

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)	
Demand Analysis	Maximum
Current Zoning/FLU	80 units = 11 yards (8 yards/60 units = 0.133 yards x 80 units = 11 yards)
****Proposed Zoning/FLU**	1000 units = 133 yards (8 yards/60 units = 0.133 yards x 1000 units = 133 yards)
***Change in Demand**	+122 yards

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	**See Exhibit 1 to Conceptual Stormwater Master Plan addressing allowable discharge**

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		**PENDING TRANSPORTATION IMPACT REPORT**
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU		
****Proposed Zoning/FLU**		
***Change in Demand**	Trips	Trips
Impact to Capacity		

IV. Project Description

PHASING
Is this project (phase) part of a larger project? ☐ Yes ☒ No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: Single Family: Multifamily:
Non-residential (square footage):
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached	8	150			
Single-family, attached	8	150			
Multi-family	7	700			
Other (specify)					

NON-RESIDENTIAL DATA See Table 1.1 in the Planned Development Guidelines					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. ☐ Yes ☒ No

B. 1. Does this application involve demolition or re-use of any structure(s)? ☐ Yes ☒ No
If yes, what is the size of the structure(s) to be demolished or re-used? _____

2. What is the current use of the structure to be demolished or re-used? _____

3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? ☐ Yes ☒ No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

A. POTABLE WATER

Current Zoning:

80 du x 2.6 x 100 gpd	= 20,800	gpd
4,356,000 x 0.125	= 544,500	gpd
	565,300	gpd

Proposed Zoning:

1000 du x 2.6 x 100 gpd	= 260,000	gpd
675,000* s.f. x 0.125	= 84,375	gpd
700 hotel rooms x 100** gpd	= 70,000	gpd
	414,375	gpd

Change in Demand: -150,925 gpd

*650,000 s.f. + 25,000 s.f. for Surf Pool and Outdoor Entertainment ancillary facilities

** Florida Administrative Code Section 64E-6.008 Table #1

B. WASTEWATER

Current Zoning:

80 du x 2.6 x 100 gpd	=	20,800 gpd
4,356,000 x 0.1	=	435,600 gpd
		456,400 gpd

Proposed Zoning:

1000 du x 2.6 x 100 gpd	=	260,000 gpd
675,000* s.f. x 0.1	=	67,500 gpd
700 hotel rooms x 100** gpd	=	70,000 gpd
		397,500 gpd

Change in Demand: -58,900 gpd

*650,000 s.f. + 25,000 s.f. for Surf Pool and Outdoor Entertainment ancillary facilities

** Florida Administrative Code Section 64E-6.008 Table #1

RECEIVED
CARTER & BURGESS

FLORIDA DEPARTMENT OF STATE
Sue M. Cobb
Secretary of State
DIVISION OF HISTORICAL RESOURCES

April 19, 2006

Mr. Rob Robbins
South Florida Water Management District
P.O. Box 24680
West Palm Beach, Florida 33416-4680

Re: DHR No. 2006-2552B / Received by DHR: March 31, 2006
Application No.: 060323-13
Applicant: Midway Properties, LLC, Willow Lakes, LLC, & Res River, LLC
Project: Provences
St. Lucie County

Dear Mr. Robbins:

Our office received and reviewed the referenced project in accordance with Chapters 267 and 373, *Florida Statutes*, Florida's Coastal Management Program, and implementing state regulations, for possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places* (NRHP), or otherwise of historical, architectural or archaeological value. The State Historic Preservation Officer is to advise and assist state and federal agencies when identifying historic properties, assessing effects upon them, and considering alternatives to avoid or minimize adverse effects.

Our review of the Florida Master Site File indicates that no significant archaeological or historical resources are recorded within the project area. This office is rescinding its previous letter dated April 11, 2006 and is no longer requesting a survey be conducted. It was brought to our attention, by Kim Mayer of Carter & Burgess, Inc., that the area has been subjected to a professional cultural resource assessment survey Furthermore, due to the location and/or nature of the project it is unlikely that any such site will be affected.

If there are any questions concerning our comments or recommendations, please contact Scott Sorset, Historic Preservationist, by phone at (850)245-6333, or by electronic mail at srsorset@dos.state.fl.us. We appreciate your continued interest in protecting Florida's historic properties.

Sincerely,

Frederick P. Gaske

Frederick P. Gaske, Director, and
State Historic Preservation Officer

Xc: Pamela Miller, Carter and Burgess, Inc.

500 S. Bronough Street • Tallahassee, FL 32399-0250 • http://www.flheritage.com

☐ Director's Office (850) 245-6300 • FAX: 245-6435
☐ Archaeological Research (850) 245-6444 • FAX: 245-6452
☑ Historic Preservation (850) 245-6333 • FAX: 245-6437
☐ Historical Museums (850) 245-6400 • FAX: 245-6433
☐ Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476
☐ St. Augustine Regional Office (904) 825-5045 • FAX: 825-5044
☐ Tampa Regional Office (813) 272-3843 • FAX: 272-2340

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Application for Zoning Atlas Map Amendment

Application submission shall include the following:

●**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

●**Planning Board**: One (1) original and (16) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

●**City Commission**: One (1) original and (11) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

In addition to a complete application, packets shall include:

- ☐ Warranty Deed & Legal Description
- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ N/A 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: TBD - General Location: Lying northwesterly of the interchange of W. Midway Road and I-95 (Section 02 and 03, Township 36S, Range 39E)
2. Property Tax ID(s): 3302-212-0001-000-4
3. Total Acreage: 200.3 acres
4. Existing Future Land Use Designation: MXD
5. Existing Zoning Classification: AG 2.5
6. Proposed Zoning Classification: PD
7. Other applications being submitted concurrent with this application, if any: Development Review Application and Concurrency Capacity Analysis

8. Describe the existing uses, improvements and structures on the amendment lands: Vacant land under cattle lease

9. Are there any identified or possible historical structures on the amendment lands? No

10. The reason for making this request: Applicant intends to develop the property as a mixed-use project, as more specifically set forth in the Planned Development Guidelines submitted herewith.

11. CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Vacant/Walton	MXD	PD
South	Vacant/LTC Ranch, FPL	CG/CH/ROI/CS (City of PSL) MXD and T/U (SL County)	TBD (City of PSL approved DRI) & PUD
East	Tropicana Mfg.	INST/IND	IL
West	Vacant/Walton	MXD	PD

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	MXD	Agriculture - 2.5 (AG2.5)	80 du's/1,306,800 s.f. (4,356,000 s.f. aquaculture)	200.3	X
Proposed	MXD	Planned Development (PD)	1,000 du's / 675,000 s.f. / 700 hotel rooms	200.3	N/A

II. Public Facilities Information:

A. Potable Water: SEE ATTACHMENT	
Average Use	Residential: 100 gallons per day per person (du x 2.6 = persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day
Proposed Zoning	Total gallons per day
Change in Demand	**Total gallons per day**

B. Wastewater: SEE ATTACHMENT	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day
Proposed Zoning	Total gallons per day
Change in Demand	**Total gallons per day**

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	888.7 ac.	936.54	+47.84
Urban District	5 acres per 1,000 people	222.18 ac.	234.14	+11.96
Community	2.5 acres per 1,000 people	111.09 ac.	117.07	+5.98
Neighborhood	1.36 acres per 1,000 people	60.43 ac.	63.68	+3.25

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

CURRENT
Single Family (SF) = 80du
Multi-family (MF) = N/A

PROPOSED
Single Family (SF) = 300du
Multi-Family (MF) = 700du

	K-8	High
School Name	Samuel Gaines Academy	Fort Pierce Central
City	Fort Pierce	Fort Pierce
Distance	5 miles	5 miles
Current Zoning Enrollment Demand	80du x 0.405 = students x 0.7 = 23	80du x 0.405 = students x 0.3 = 10
Proposed Zoning Enrollment Demand	SF = 300du x 0.405 = students x 0.7 = 85 MF = 700du x 0.207 = students x 0.7 = 101	SF = 300du x 0.405 = students x 0.3 = 36 MF = 700 du x 0.207 = students x 0.3 = 44
Change in Demand	+163	+70

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	80 units = 11 yards (8 yards/60 units = 0.133 yards x 80 units = 11 yards)
Proposed Zoning	1000 units = 133 yards (8 yards/60units = 0.133 yards x 1000 units = 133 yards)
Change in Demand	+122 yards

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	See Exhibit 1 to Conceptual Stormwater Master Plan addressing allowable discharge

III. Transportation Analysis PENDING TRANSPORTATION IMPACT REPORT

G. Traffic Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning		
Proposed Zoning		
Change in Demand	Trips	Trips
Impact to Capacity		

12. Name of Owner(s): Willow Lakes, LLC
Mailing Address: 433 S. Main St. Ste 300
City West Hartford State CT Zip 06110
Phone # 561-827-5742
E-mail: clabonte@eaglebridgecapital.com

13. Name of Applicant: Willow Lakes, LLC
Mailing Address: 433 S. Main St. Ste 300
City West Hartford State CT Zip 06110
Phone # 561-827-5742 Fax #
E-mail: clabonte@eaglebridgecapital.com

14. Name of Representative: Dean, Mead, Minton & Zwemer, Attorney W. Lee Dobbins
Mailing Address: 1903 S. 25th Street, Ste 200
City Ft. Pierce State FL Zip 34947
Phone # 772-464-7700 Fax # 772-464-7877
E-mail: ldobbins@deanmead.com

15. Applicant Acknowledgements (Owner's signature must be notarized)

I certify that: (Check One)

☑ I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

☐ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

Applicant's Signature 4/3/20 Date

Address State Zip

Phone Fax E-mail Address

16. Property Owners Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application for a change in zoning classification. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Agent to act in his/her behalf for the purposes of seeking this change to the City' Land Development Regulations for the property described herein.

Willow Lakes, LLC 561-827-5742

Property Owner's Name (Please Print) Phone

433 S. Main St. Ste 300 West Hartford, CT 06110

Address State Zip

Property Owner's Signature 4/3/20 Date

(AS) ~~State of FLORIDA~~ State of Connecticut

~~ST LUCIE COUNTY~~)

(AS) Fairfield county

The foregoing instrument was acknowledged before me this 3 day of April, 2020, by Chad Patric LaBonte who is personally known to me or has produced Driver license as ident

Signature of Notary (seal)

OFFICE USE:

DATE RECEIVED:_____ Signed:_____

File Number:_____ Check No: _____ Receipt No: _____

TRC Review:_____ Planning Board Review: _____ City Commission: _____

Ordinance No:_____ Date Approved: _____

ALAN M. SILVERIO NOTARY PUBLIC My Commission Expires 07-31-2023 CONNECTICUT

STATEMENT OF NEED AND COMPATIBILITY

The applicant proposes to develop a mixed-use urban village, including residential, retail, restaurants, and other commercial uses, with a beach community theme, anchored by a world-class surf park. There is a need for the requested zoning atlas map amendment, changing the zoning of the property from the County Agricultural 2.5 (AG 2.5) zoning to the City Planned Development (PD) zoning, in order to execute this vision. The property has retained the County's AG 2.5 zoning designation from prior to the property's 2010 annexation into the City, and this zoning is both incompatible with the City Code and with any future development of the property. The PD zoning is the appropriate zoning category for the development of a mixed use project, because the PD zoning category is "intended to promote flexibility of design and permit planned diversification and integration of uses and structures, while at the same time granting the city commission the absolute authority to establish such limitations and regulations as it deems necessary . . ." (Section 22-40 of the City Code).

The proposed zoning amendment will result in an orderly and logical development pattern by insuring a well-designed and master-planned community, with uses that are compatible with each other and with the surrounding area. Furthermore, the project located adjacent to the subject property to both the north and west, and which will utilize shared access to Midway Road, is also zoned PD (The Village at Midway Planned Development). The subject property is bounded by Midway Road on the south, and on the south side of Midway Road is the west side of the LTC Ranch DRI, which is also approved for a mix of residential and commercial development. The subject property is bounded by I-95 on the east, and on the east side of I-95 is the Tropicana plant, which includes a large undeveloped parcel adjacent to I-95. The proposed Planned Development on the subject property has been designed to be compatible with these neighboring properties, and the applicant has had several meetings and conversations with the owners and developers of both The Village at Midway PD and the LTC Ranch DRI.

The proposed zoning amendment is consistent with the Goals, Objectives and Policies of the City's Comprehensive Plan. Objective 1.1 of the Future Land Use Element of the City's Comprehensive Plan states, "*The City shall adopt and implement the Future Land Use Map to designate future land uses that regulate uses, densities and intensities that enhance its neighborhoods and districts, stimulate tourism and the local economy, and are compatible with its small-town character.*" The proposed zoning change will achieve this goal by providing for the development of a master-planned residential and commercial development, with a walkable beach-town theme, anchored by a surf park, which will be a major tourist draw to the area, with the goal of providing a mix of complementary uses that feed off of that tourism.

The proposed zoning amendment is also consistent with Policy 1.1.4 of the Future Land Use Element of the City's Comprehensive Plan, which describes the purpose of the Mixed Use Development (MXD) future land use designation, as follows (in part): "*The MXD designation is intended to promote intensification, redevelopment, and revitalization of the areas targeted for live/work environments. This area is characterized by development that promotes the creation of well-planned centers designed to integrate a variety of complementary uses."* The proposed zoning amendment and related Planned Development Guidelines and Master Plan will achieve the goals of the MXD future land use. The proposed Planned Development is also in compliance will all of the use, density and intensity requirements for MXD as set forth in the Comprehensive Plan.

DEAN MEAD
ATTORNEYS AT LAW

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LDobbins@deanmead.com

July 15, 2020

VIA EMAIL
Jennifer Hofmeister
Planning Director
City of Fort Pierce
100 N U.S. Highway 1
Fort Pierce, FL 34950

Re: Willow Lakes, LLC / Planned Development Rezoning

Dear Ms. Hofmeister:

On behalf of Willow Lakes, LLC, I am submitting the following items, which are attached hereto:

1. Revised Planned Development Guidelines; and
2. Supporting Documentation.

The attached Planned Development Guidelines and Supporting Documentation have been revised in order to address comments provided in the letter dated June 30, 2020, from Vennis Gilmore. Please see the following responses to the comments from Mr. Gilmore's letter in bold below:

1. Staff recommends dividing the subject document into a PD development regulations and other as supporting documentation to supplement the application.

   Done. Documents have been divided into PD Regulations and Supporting Documentation as requested.

2. Page 11 states the surf park is 8 acres and the traffic study states the size as 9.5 acres. Please clarify.

   The language in the PD Guidelines has been revised to reflect that the wave pool will be 9.5 acres, consistent with the traffic report. We anticipate that

the 9.5 acres will include the wave lagoon, perimeter deck and associated pools.

3. Please consider adding Vacation Rentals to the list of uses to avoid the need to go through the Conditional Use process.

   Vacation rentals have been added to the list of permitted uses under Medium Density Residential and Residential-High Density/Mixed Use.

4. Please specify what agricultural uses are proposed before each tract of land is developed.

   Description of permitted agricultural uses has been added.

5. If not proposing design review guidelines that exceed current City Code requirements, than City Code Section 22-59 shall apply.

   Noted. References to City Code Section 22-59 have been deleted. Language has been added on page 11 providing for the submission of proposed design standards to the City with a later phase of the project.

6. Please consider removing the dates of construction phases and just have projected length of anticipated time necessary for each phase.

   Done.

7. When is the anticipated time for Phase 1 submittal?

   We anticipate filing the application for Phase 1 approximately six months after obtaining final approval of the Planned Development zoning.

Thank you again for the assistance from you and your staff in moving this project forward.

Best regards,

W. Lee Dobbins

WLD:sh
Enclosures
cc: Vennis Gilmore (via email)
Chad LaBonte (via email)
Roland LaBonte (via email)
Geoff Fitzgerald (via email)
Susan O'Rourke (via email)

Planned Development Guidelines

For

Willow Lakes

A PROPOSED

Resort Village and Community

W. Midway Road
Fort Pierce, Florida
St. Lucie County

Master Developer:
WILLOW LAKES, LLC

Prepared by:

BOHLER
16 Old Forge Road, Suite A
Rocky Hill, CT 06067
(860) 333-8900 TEL.

2255 Glades Road Suite 305E
Boca Raton, FL 33431
561-571-0280

July 14, 2020
#CT191015

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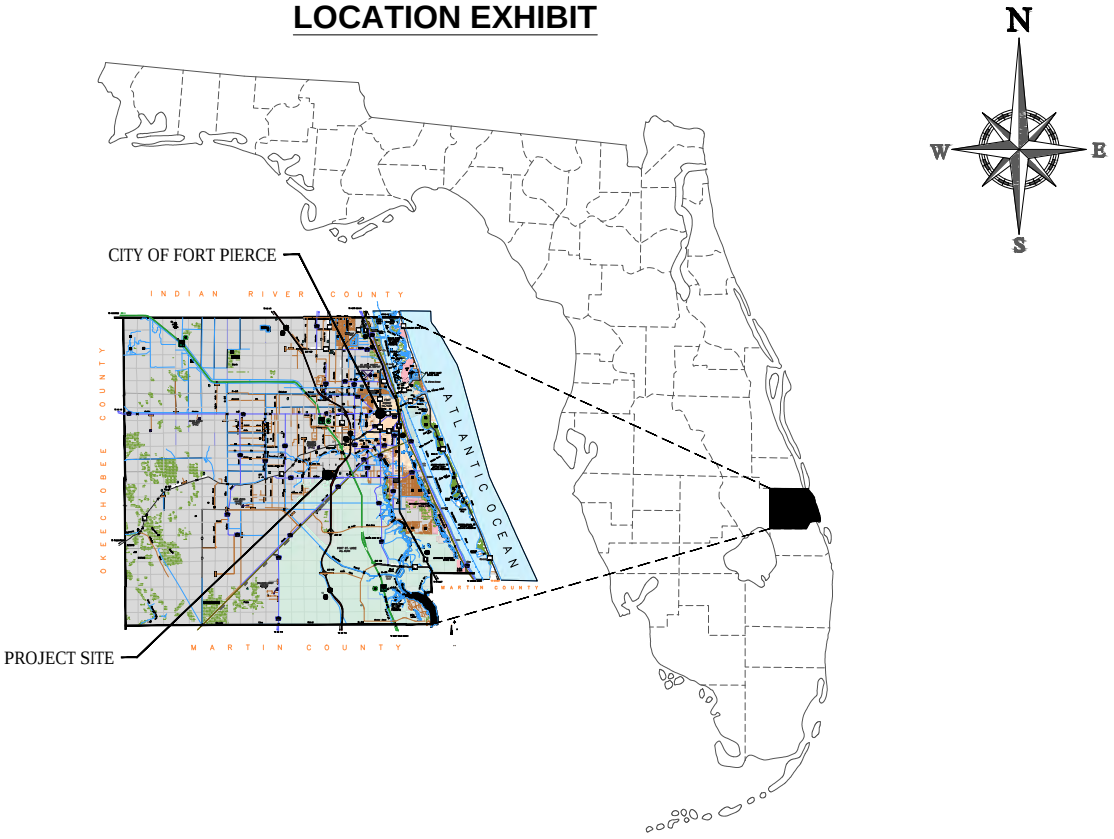
I. LOCATION EXHIBIT

LOCATION EXHIBIT





WILLOW LAKES, LLC

LOCATION EXHIBIT

W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA

SCALE:1"=80,000' & 1,000' DATE: 01/20/2020

BOHLER™
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

II. LEGAL DESCRIPTION

A PARCEL OF LAND LYING IN SECTIONS 2 AND 3, TOWNSHIP 36 SOUTH, RANGE 39 EAST IN ST. LUCIE COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 3, THENCE N89°46'35"W ALONG THE NORTH LINE OF SAID SECTION 3 A DISTANCE OF 2622.04 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF N.S.L.R.W.C.D. CANAL NO. 93 (A 78 FEET WIDE RIGHT-OF-WAY); THENCE S00°02'49"W ALONG THE EAST RIGHT-OF -WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93 A DISTANCE OF 52.50 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF A 200 FEET WIDE FP&L EASEMENT AS RECORDED IN OR 377, PG. 2069-2076 AND BEING THE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED PARCEL; THENCE S89°46'35"E ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID 200 FEET WIDE FP&L EASEMENT AND BEING PARALLEL TO THE NORTH LINE OF SAID SECTION 3 A DISTANCE OF 1,026.62 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF A 60 FEET WIDE FP&L EASEMENT AS RECORDED IN OR 119, PG. 404; THENCE S32°18'17"E ALONG THE EAST RIGHT-OF-WAY LINE OF SAID 60 FEET WIDE FP&L EASEMENT A DISTANCE OF 1,746.02 FEET; THENCE N61°15'41"E A DISTANCE OF 335.12 FEET; THENCE N31°56'28"E A DISTANCE OF 78.35 FEET; THENCE N02°37'14"E A DISTANCE OF 332.85 FEET; THENCE N85°17'03"E A DISTANCE OF 146.97 FEET; THENCE N53°57'44"E A DISTANCE OF 58.71 FEET; THENCE N01°56'01"E A DISTANCE OF 142.19 FEET; THENCE N62°33'43"E A DISTANCE OF 139.15 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 335.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 365.79 FEET THROUGH A CENTRAL ANGLE OF 62°33'43"; THENCE N00°00'00"W A DISTANCE OF 142.46 FEET; THENCE S89°50'50"E A DISTANCE OF 1,811.20 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 150.00 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 308.52 FEET THROUGH A CENTRAL ANGLE OF 117°50'41"; THENCE S27°59'51"W A DISTANCE OF 671.72 FEET; THENCE S56°07'55"E A DISTANCE OF 323.59 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF STATE ROAD NO. 9 (INTERSTATE HIGHWAY NO. 95) (WIDTH VARIES); THENCE S32°49'14"W ALONG THE WEST RIGHT-OF-WAY OF SAID STATE ROAD NO. 9 A DISTANCE OF 346.97 FEET; THENCE S44°46'35"W ALONG THE WEST RIGHT-OF- WAY LINE OF SAID STATE ROAD NO. 9 A DISTANCE OF 339.92 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF A ACCESS ROAD NO. 1 AS RECORDED IN PB 24, PG. 4 J&K; THENCE N00°04'30"E A DISTANCE OF 99.51 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1; THENCE S44°46'35"W ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1 A DISTANCE OF 236.51 FEET; THENCE DEPARTING SAID ACCESS ROAD NO. 1 N00°04'43"E A

DISTANCE OF 535.11 FEET; THENCE S89°59'23"W A DISTANCE OF 166.33 FEET; THENCE S00°04'55"W A DISTANCE OF 680.33 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1; THENCE S50°43'56"W ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO. 1 A DISTANCE OF 478.34 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTH HAVING A RADIUS OF 266.00 FEET; THENCE WESTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 171.53 FEET THROUGH A CENTRAL ANGLE OF 36°56'48"; THENCE S87°40'44"W ALONG THE NORTH RIGHT-OF-WAY LINE OF SAID ACCESS ROAD NO I A DISTANCE OF 1,027.79 FEET; THENCE S00°01'50"E A DISTANCE OF 72.00 FEET; THENCE S89°58'10"W A DISTANCE OF 1,610.26 FEET; THENCE S00°01'50"E A DISTANCE OF 117.14 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF WHITE CITY ROAD (COUNTY ROAD 712) (A 70 FEET WIDE RIGHT-OF-WAY) ; THENCE N89°52'26"W ALONG THE NORTH RIGHT -OF-WAY OF SAID WHITE CITY ROAD (COUNTY ROAD 712) A DISTANCE OF 786.28 FEET TO A POINT ON THE EAST RIGHT-OF- WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93; THENCE N00°02'49"E ALONG THE EAST RIGHT-OF-WAY LINE OF SAID N.S.L.R.W.C.D. CANAL NO. 93 A DISTANCE OF 2,564.70 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SAID 200 FEET WIDE FP&L EASEMENT AND BEING THE POINT OF BEGINNING.

CONTAINING 197.90 ACRES, MORE OR LESS

TOGETHER WITH;

THE WEST 1/2 OF THE WEST 1/2 OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 2, TOWNSHIP 36 SOUTH, RANGE 39 EAST, LESS AND EXCEPT THAT PORTION OF THE PROPERTY WHICH WAS TAKEN FOR 1-95, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

CONTAINING 2.33 ACRES, MORE OR LESS.

SURVEYED PARCEL CONTAINS A NET AREA OF 200.23 ACRES, MORE OR LESS.

III. GENERAL SITE DATA

Parcel ID Numbers: 3302-212-0001-000-4

General Location: Northwesterly of the interchange of W. Midway Rd. and I-95 lying in Section 02 and 03, Town 36S, Range 39E.

Overall Site Area: 200.3 acres

Existing Zoning: Agriculture – 2.5 (AG2.5)

Proposed Zoning: Planned Development (PD)

Future Land Use: Mixed Use (MXD)

Maximum Allowable Residential Density: 15 Dwelling Units per Acre Gross PD Area

Maximum Allowable Floor Area Ratio: 1.5 FAR

Surrounding Zoning, Future Land Use and Existing Use:

	Zoning	Future Land Use	Existing Use
North	PD	MXD	Vacant/Walton
South	TBD(City of PSL approved DRI) & PUD	CG/CH/ROI/CS (City of PSL) MXD & T/U (SL County)	Vacant/LTC Ranch/FPL
East	IL	INST/IND	Tropicana Mfg.
West	PD	MXD	Vacant/Walton

Table 1.0 – Surrounding Zoning, Future Land Use and Existing Use

IV. QUANTITATIVE DEVELOPMENT DATA

Development Data:

See attached Planned Development Conceptual Master Plan for development data relating to site area calculations.

Proposed Uses and Intensity Allocations:

Please refer to *Table 1.1 – Use and Intensity Allocation* for a list of general uses along with applicable intensities.

Table 1.1 – Use and Intensity Allocation		
General Use	**Applicable Lot Type(s)**	**Intensity Allocation**
Shopping Center	Commercial	250,000 SF
Entertainment (Indoor)	Commercial	100,000 SF
Neighborhood Bistro/Café/Restaurant/Bar	Commercial	100,000 SF
Fast Food/Coffee Shop	Commercial	25,000 SF
Convenience Store/Pharmacy	Commercial	25,000 SF
Office	Commercial	150,000 SF
Residential - Detached House	Single-Family Residential	150 Units
Residential - Townhouse	High-Density Residential	150 Units
Residential – Multifamily	High-Density Residential	700 Units
Hotel	Commercial	600 Rooms
Surf Park	Commercial	N/A (by total trips/use)
Entertainment (Outdoor)	Commercial	N/A (by total trips/use)

Uses and Intensities listed above in Table 1-1 are derived from the ITE Trip Generation Manual, which provide a baseline intensity by which traffic impacts are analyzed and mitigated for, if applicable. The uses listed in the General Uses column above are general in nature and account for similar uses contained within each general use category. Please refer to Table 1-2 for Lot Types accommodated by the Planned Development along with associated Lot and Dimensional Requirements and Permitted Uses allowed within each Lot Type.

The Traffic Impact Study for the project assumes that the Surf Park will include a 9.5-acre wave pool with ancillary facilities. The Surf Park and its ancillary facilities shall be allocated a Commercial Intensity Allocation of vehicle trips, as set forth in Table 1-1 above and as approved in the Master Traffic Impact Study. If the applicant applies for site plan approval for a Surf Park with a larger pool and facilities than that described in the Master Traffic Impact Report, then the City Planning Director may require an updated Traffic Impact Report and revised conditions of approval, if needed.

To provide flexibility in the build-out of the proposed development, Intensity Allocations provided above in Table 1.1 may be increased or decreased based on the Land Use Conversion Matrix on the following page.

Table 1.1a: Willow Lakes Land Use Conversion Matrix

	Land Use	Peak Hr Rates	Land Use to Decrease: Single Family (1 Unit)	Apartment Low-Rise (1 unit)	Apartment Mid-Rise (1 unit)	Shopping Center (1,000 SF)	Pharmacy/ Drugstore (1,000 SF)	Convience Store (1,000 SF)	Fast Food Restaurant (1,000 SF)	High Turnover Restaurant (1,000 SF)	Hotel (1 room)	General Office (1,000 SF)
		Per Unit	0.427	0.28	0.187	0.956	1.8	13.2	9.32	3.21	0.278	0.79
Land Use to Increase	Single Family (1 Unit)	0.427	1.000	1.525	2.283	0.447	0.237	0.032	0.046	0.133	1.536	0.541
	Apartment Low-Rise (1 unit)	0.28	0.656	1.000	1.497	0.293	0.156	0.021	0.030	0.087	1.007	0.354
	Apartment Mid-Rise (1 unit)	0.187	0.438	0.668	1.000	0.196	0.104	0.014	0.020	0.058	0.673	0.237
	Shopping Center (1,000 SF)	0.956	2.239	3.414	5.112	1.000	0.531	0.072	0.103	0.298	3.439	1.210
	Pharmacy/Drugstore (1,000 SF)	1.8	4.215	6.429	9.626	1.883	1.000	0.136	0.193	0.561	6.475	2.278
	Convience Store (1,000 SF)	13.2	30.913	47.143	70.588	13.808	7.333	1.000	1.416	4.112	47.482	16.709
	Fast Food Restaurant (1,000 SF)	9.32	21.827	33.286	49.840	9.749	5.178	0.706	1.000	2.903	33.525	11.797
	High Turnover Restaurant (1,000 SF)	3.21	7.518	11.464	17.166	3.358	1.783	0.243	0.344	1.000	11.547	4.063
	Hotel (1 room)	0.278	0.651	0.993	1.487	0.291	0.154	0.021	0.030	0.087	1.000	0.352
	General Office (1,000 SF)	0.79	1.850	2.821	4.225	0.826	0.439	0.060	0.085	0.246	2.842	1.000
	Medical Office (1,000 SF)	1.8	4.215	6.429	9.626	1.883	1.000	0.136	0.193	0.561	6.475	2.278
	Golf Simulator (1 Tee/Hole)	1.553	3.637	5.546	8.305	1.624	0.863	0.118	0.167	0.484	5.586	1.966
	Water Slide Park (1 Acre)	13.263	31.061	47.368	70.925	13.873	7.368	1.005	1.423	4.132	47.709	16.789
	Recreational Facility (1,000 SF)	1.531	3.585	5.468	8.187	1.601	0.851	0.116	0.164	0.477	5.507	1.938

*Rate is based on the highest resultant trip rates of either the AM or PM directional rate calculated as the highest directional trip divided by the units.

Example:

1. If you want to build an 3,000 SF Fast Food Restaurant by decreasing the number of Low-Rise Apartments, how many apartments would need to be cut?

Instruction= Multiply 3 by the number that connects the Fast Food Restaurant row with the Apartment Low-Rise column (33.286).

Result; 3*33.286

You will need to cut 100 Low-Rise Apartments

2. If you want to remove 100 MFDU and figure out how many square feet of shopping center to add you go to Shopping Center along the top of the columns and MFDU on the rows to the left and get the cell with .293.

Multiply 100 x .293 - 29.3. You can do 29,300 square feet of shopping center.

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V. DESIGN AND DEVELOPMENT GUIDELINES

The following section will govern overall design and development guidelines for development occurring within the Planned Development. *Table 1.2 – Dimensional Requirements* provides dimensional requirements by lot type followed by applicable development standards relating to permitted and restricted uses.

Table 1.2 – Dimensional Requirements

Lot Type	Maximum Gross Density (DU/Ac.)	Min. Lot Size	Min. Lot Width	Min. Road Frontage	Minimum Yard				Max. Bldg. Height	Max. Lot Coverage by Bldg.
					Front	Rear	Side	Side Corner		
Commercial - General	N/A	10,000 sf	50	50’	0’	0’	0’	0’	65’ (1)	none
Single-Family Attached Medium Density Residential	N/A (2)	2,500 sf	30’	30’	10’	5’	5’	10’	35’	none
Single-Family Detached Medium Density Residential	N/A (2)	2,500 sf	30’	30’	10’	5’	5’	10’	35’	none
Residential – High-Density/ Mixed Use	N/A (2)	1,500 sf	50	50	0’	10’	0’	0’	65’ (1)	none

*

1. *Maximum height for hotel/lodging buildings shall be a maximum of one hundred (100) feet if adjacent to I-95. If not adjacent to I-95, the sixty-five (65) foot maximum height limit shall apply.*
2. *Maximum Residential Density shall be determined by the Future Land Use in accordance with the City Comprehensive Plan, 15 units/acre gross Planned Development Area, not restricted. Development may be clustered, so that individual parcels may exceed 15 units/acre, provided that the Planned Development Area in total shall not exceed 15 units /acre and shall not exceed the maximum number of units set forth in Table 1.1.*

Where more than one lot, or parts of more than one lot, are owned by a single owner and subjected to a unity of title, the setbacks between such lots and any platted easements along the lot lines dividing such lots, shall be disregarded, and such lots or parts of lots may be developed pursuant to single unified site plan. In such event, the setbacks and platted lot line easements shall only apply to the outside boundaries of the property subjected to the unity of title, as if it were a single platted lot.

Commercial – General: The purpose of the Commercial General Lot Type is to provide and protect an environment suitable for a wide variety of commercial uses intended to serve a population over a large market area. The following uses shall be permitted within the Commercial – General Lot Type:

Permitted Uses:

a. Commercial – General and/or Neighborhood
b. Commercial – Town Center
c. Hotel (minimum 100 units)
d. Office Uses – Professional and/or Medical
e. Institutional

Residential – Medium Density Residential (10): The purpose of this district is to provide and protect an environment suitable for single-family, two-family, three-family, and multiple-family dwellings at a maximum density of ten (10) dwelling units per acre, together with such other uses as may be necessary for and compatible with moderate density residential surroundings. The following uses shall be permitted within the Residential – Medium Density Residential Lot Type:

Permitted Uses:

a. Community residential homes
b. Family day care homes
c. Multiple-family dwellings (Four (4) or more units)
d. Single-family detached dwellings
e. Two-family (duplex) dwellings
f. Three-family (triplex) dwellings
g. Townhome attached dwellings
h. Vacation Rentals

Residential – High-Density/Mixed Use: The purpose of this district is to provide and protect an environment suitable for a mix of compatible uses, including single-family, two-family, three-family, and multiple-family dwellings along with complementary commercial uses in a walkable, high-density residential and mixed-use village context, with specific building and neighborhood density limited only by building height and form, and by the maximum gross density permitted under the underlying land use in the Fort Pierce comprehensive plan of fifteen (15) dwelling units per acre of the gross Planned Development Area, together with such other uses as may be necessary for and compatible with high-density residential surroundings. The following uses shall be permitted within the Residential – High-Density/Mixed Use Lot Type:

Permitted Uses:

a. Multiple-family dwellings (four (4) or more units)
b. Single-family detached dwellings
c. Two-family (duplex) dwellings
d. Three-family (triplex) dwellings
e. Townhome attached dwellings
f. Multi-Family Apartments/Flats, with or without Commercial first-floor components.
g. Commercial – General and/or Neighborhood
h. Commercial – Town Center
i. Hotel
j. Vacation Rentals

Agricultural Use: For the purpose of this document, agricultural uses shall be limited to cultivated cropland and/or livestock. Agricultural uses of the property shall be allowed within any phase or phases of this planned development project at any time prior to the commencement of construction of such project phase. Upon commencement of construction of any project phase, agricultural use of such phase shall no longer be permitted.

Open Space: Pursuant of Section 22-40(b)(3) of the City of Fort Pierce Code of Ordinances, a minimum of 20% of the site area of this development is required to be set aside as Open Space (200.3 ac. x 0.2 = 40.06 ac.). Open Space shall be land devoid of any above-ground structures or buildings, except pergolas, gazebos, pavilions or other open-air structures; or landscape structures such as terraces, planters, walls or retaining walls. Open space may include natural areas, buffer areas, upland habitats, including those areas of on-site preservation required by the other provisions of the City of Fort Pierce Code of Ordinances; recreation areas, but not including swimming pools, tennis courts or other impervious activity areas; but may include parks, golf courses, sports fields; bicycle, pedestrian or equestrian paths and facilities; common open space, common landscaping or planting areas; stormwater detention and retention facilities providing that no more than thirty (30) per cent of the overall open space requirement shall be satisfied in this manner; water features, conservation areas or other areas intended for public purposes other than street or road rights-of-way, but shall exclude aquatic areas for conservation and development. This equates to 12.02 acres of the Open Space requirement to be satisfied by stormwater detention and retention facilities. As part of the development for Willow Lakes Resort Village and Community the Open Space requirement will be satisfied by a combination of open green space, streetscape/hardscape tree-lined pedestrian sidewalks, channelized waterways, and stormwater detention and retention. The calculations below delineate the areas associated with each category:

Open Space Provided:

Total SWM: 1,276,750 sf ~ 29.31 ac

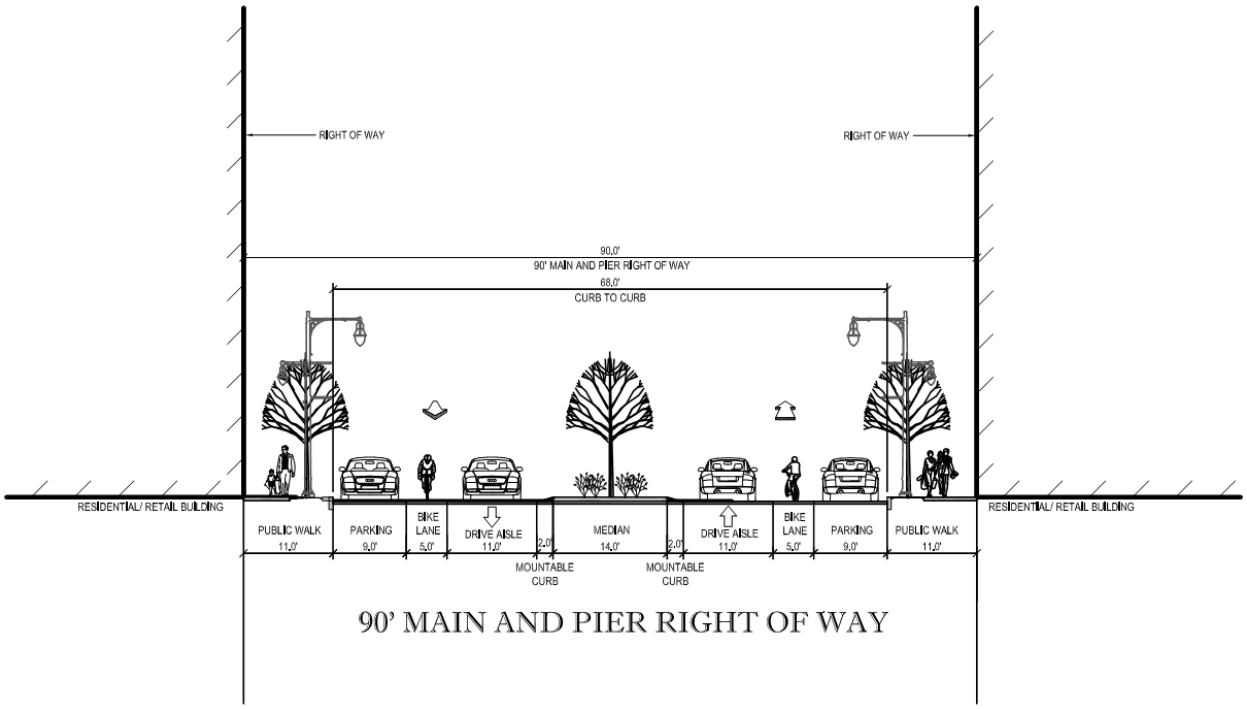
Open Green Space:		1,215,032 sf ~ 27.89 ac	
Channelized Waterways:		+150,139 sf ~ 3.45 ac	
Pedestrian-oriented Open Space/Facilities:			
Pier Avenue Pedestrian Walks:	119,189 sf ~ 2.73 ac		
Main Street Pedestrian Walks:	31,966 sf ~ 0.73 ac		
Strand Boulevard Pedestrian Walks:	53,934 sf ~ 1.24 ac		
Walton Pedestrian Walks:	78,666 sf ~ 1.80 ac		
Total Pedestrian-oriented Open Space/Facilities:		+283,755 sf	6.51 ac
30% SWM Facilities:			+12.02 ac
Open Space Provided:			**=49.87 ac**
> 40.06 ac Required			

Site Plan Review: Development proposed on any one (1) or more lots within the Planned Development shall be reviewed in accordance with Section 22-58 – Site Plan Review.

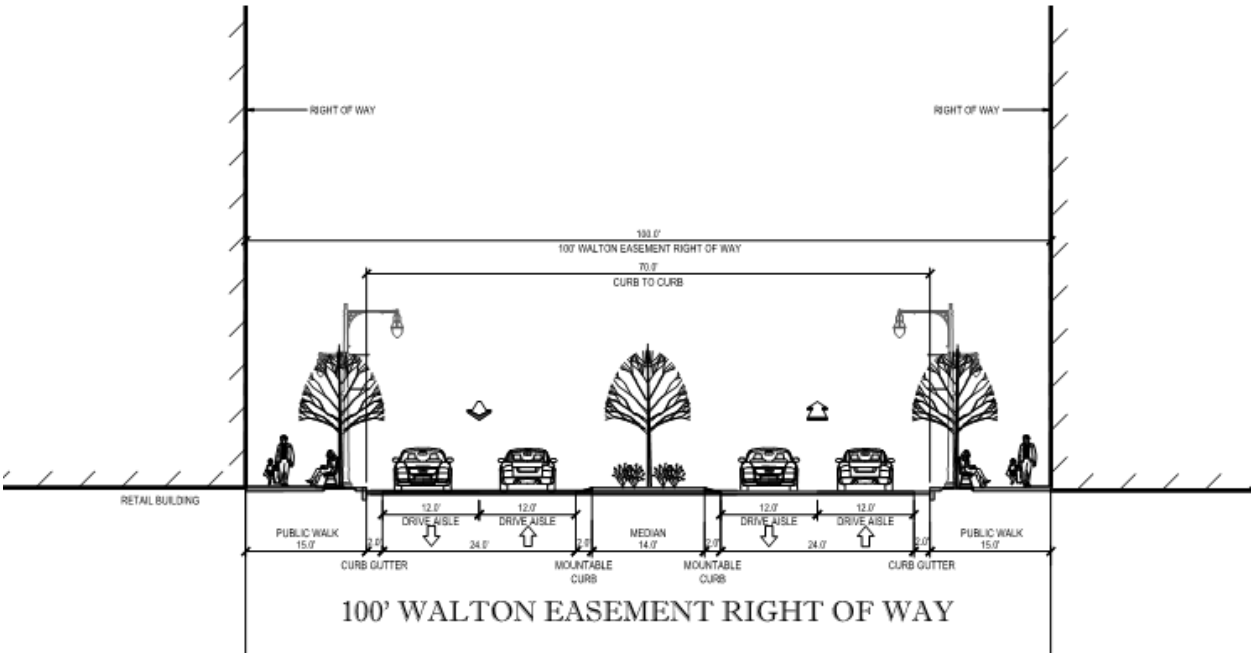
Additional Documentation: Prior to the development of each phase, the applicant shall submit for review and approval all documentation then required by City Code to obtain City site plan approval for such phase, including the site plan, landscaping plan, tree mitigation plan, lighting plan, and master sign plan for such phase.

Design Review: The applicant may submit with a future phase of this project, proposed design standards to govern development within the Willow Lakes Resort Village and Community Planned Development. Such proposed design standards shall be subject to review and approval by the City in accordance with applicable City Code provisions at the time of submittal.

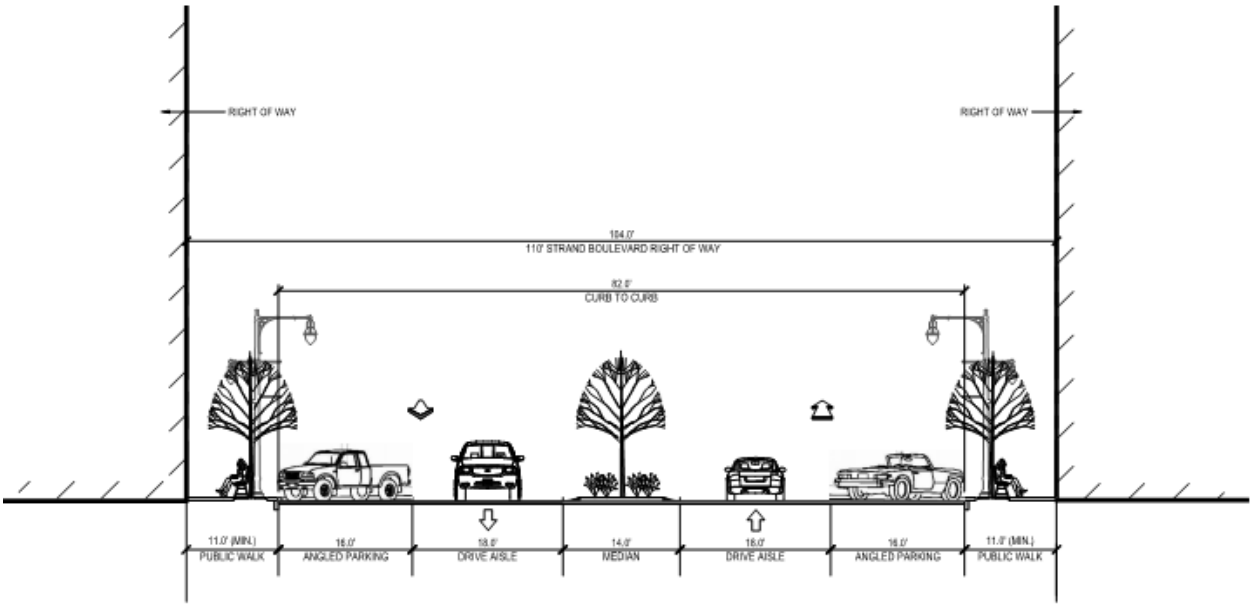
Private Access Tract Street Sections:



90' MAIN AND PIER RIGHT OF WAY



100' WALTON EASEMENT RIGHT OF WAY



104' STRAND BOULEVARD R.O.W. WITH
45° ANGLED PARKING

VI. HEALTH AND SAFETY REGULATION FOR SURF PARK

The applicant intends to develop a Surf Pool within Phase 1 of the Project. A "Surf Pool" means a pool that is designed to generate waves dedicated to the activity of surfing on a surfboard or an analogous surfing device commonly used in the ocean and intended for sport, as opposed to the general play intent of wave pools, other large-scale public swimming pools or other public bathing places. Pursuant to Florida Statute 514.0115, until such time as the Florida Department of Health adopts rules for the supervision and regulation of Surf Pools, the Surf Pool will be exempt from supervision or regulation under Florida Statutes Chapter 514, provided that the Surf Pool is larger than 4 acres, and is permitted by the City pursuant to a special use permit process in which the City asserts regulatory authority over the construction of the Surf Pool and, in consultation with the Florida Department of Health, establishes through the City's special use permitting process the conditions for the Surf Pool's operation, water quality and necessary lifesaving equipment. Therefore, if the Florida Department of Health has not yet adopted rules for the supervision or regulation of Surf Pools, then prior to the issuance of final site plan approval for any Surf Pool larger than 4 acres within the Project, special conditions regulating the construction and operation of the Surf Pool, including its water quality and lifesaving equipment, shall be reviewed and approved by the City, asserting its regulatory authority over the Surf Pool, and such conditions shall be deemed a part of, and incorporated into, these Planned Development Guidelines. The City shall consult with the Florida Department of Health, as required by Florida Statute 514.0115, in reviewing and approving such special conditions relating to the Surf Pool's operation, water quality and necessary lifesaving equipment.

VII. ZONING ORDINANCE EXCEPTIONS

The following deviations from the current City of Fort Pierce Code of Ordinances are proposed within the Willow Lakes Resort Village and Community Planned Development.

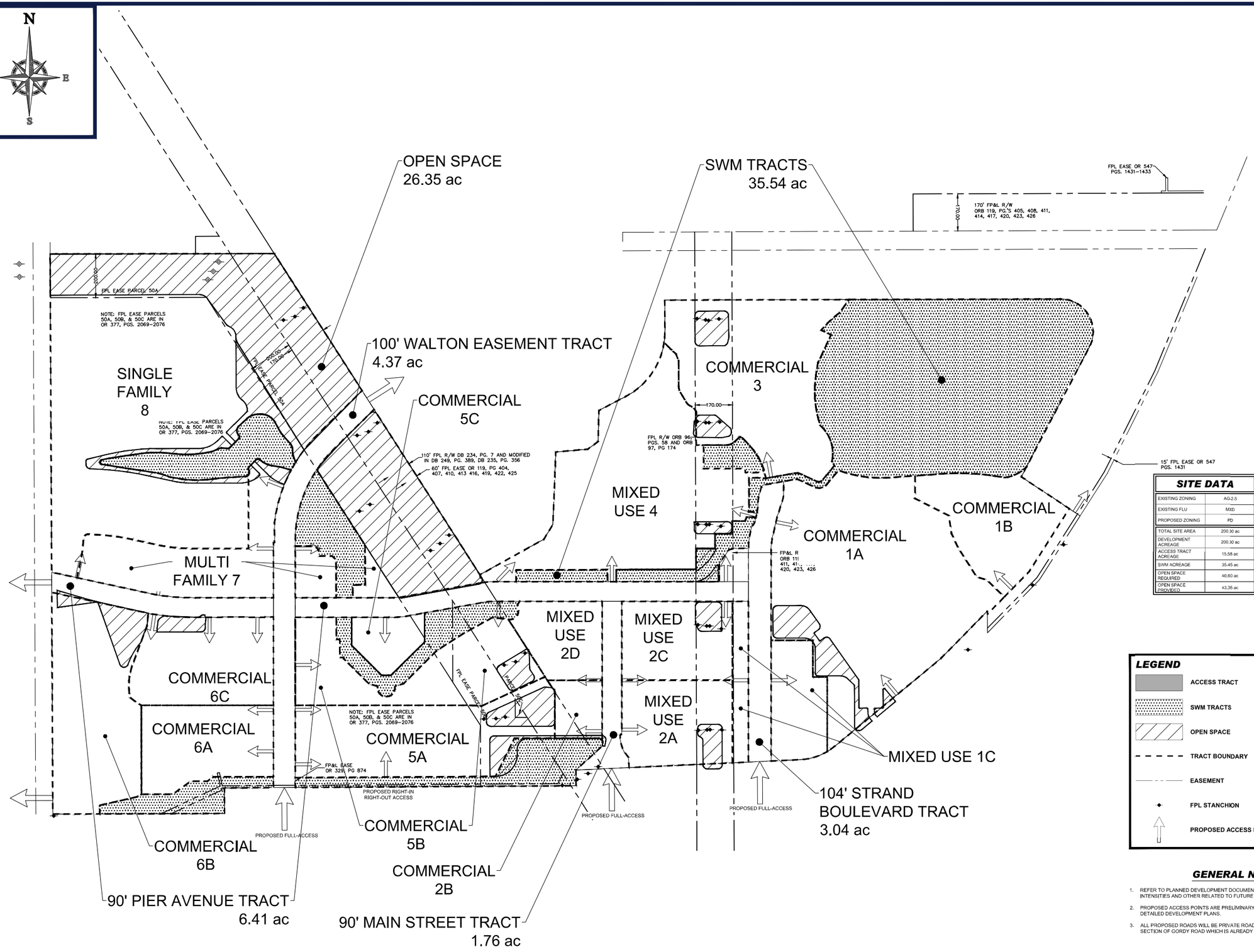
Chapter 22- Zoning

- Hotels shall be permitted to be constructed to a height not to exceed one hundred (100) feet if constructed generally proximate or adjacent to the frontage of I-95, or situated on the lake adjacent to I-95. This 100' height allowance exceeds the sixty-five (65) foot height limit for Hotel uses found in Chapter 22 -Zoning, of the City of Fort Pierce Code of Ordinances.

- A list of permitted and conditional uses has been included herein, which shall govern use allowances within the Planned Development; such permitted and conditional uses included herein may or may not be found within Chapter 22 -Zoning.

- Sec. 22-194. - Tree protection and mitigation: Mitigation shall be provided pursuant to future site plan submittals in the form of excellence in urban village, pedestrian-oriented tree-lined streetscapes, in lieu of the mitigation requirements set forth in the City Code.

APPENDIX A: PLANNED DEVELOPMENT SITE PLAN



SITE DATA	
EXISTING ZONING	AG-2.5
EXISTING FLU	MXD
PROPOSED ZONING	PD
TOTAL SITE AREA	200.30 ac
DEVELOPMENT ACREAGE	200.30 ac
ACCESS TRACT ACREAGE	15.58 ac
SWM ACREAGE	35.45 ac
OPEN SPACE REQUIRED	40.60 ac
OPEN SPACE PROVIDED	43.36 ac

LEGEND

- ACCESS TRACT
- SWM TRACTS
- OPEN SPACE
- TRACT BOUNDARY
- EASEMENT
- FPL STANCHION
- PROPOSED ACCESS POINT

GENERAL NOTES

1. REFER TO PLANNED DEVELOPMENT DOCUMENTS FOR PERMITTED USES AND INTENSITIES AND OTHER RELATED TO FUTURE DEVELOPMENT WITHIN TRACTS.
2. PROPOSED ACCESS POINTS ARE PRELIMINARY AND SUBJECT TO CHANGE BASED ON DETAILED DEVELOPMENT PLANS.
3. ALL PROPOSED ROADS WILL BE PRIVATE ROADS, WITH THE EXCEPTION OF THE SECTION OF GORDY ROAD WHICH IS ALREADY ST. LUCIE COUNTY ROAD ROW.

200 100 50 0 200
1"= 200'

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SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PROJECT No.:	CT191015
DRAWN BY:	BTJ
CHECKED BY:	GPF
DATE:	06/18/20
CAD I.D.:	CT191015-CVL_0

PROJECT:

PLANNED DEVELOPMENT PLAN DOCUMENTS

FOR

WILLOW LAKES, LLC

PROPOSED DEVELOPMENT
W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA
MAP ID: 32/02N

BOHLER
16 OLD FORGE RCAD, SUITE A
ROCKY HILL, CT 06067
Phone: (860)333-8900
Fax: (508)450-9080
2255 GLADES ROAD, SUITE 305E
BOCA RATON, FLORIDA 33431
Phone: (561) 571-0280
Fax: (561) 571-0281
www.BohlerEngineering.com

G.P. FITZGERALD
PROFESSIONAL ENGINEER

SHEET TITLE:

PLANNED DEVELOPMENT SITE PLAN

SHEET NUMBER:

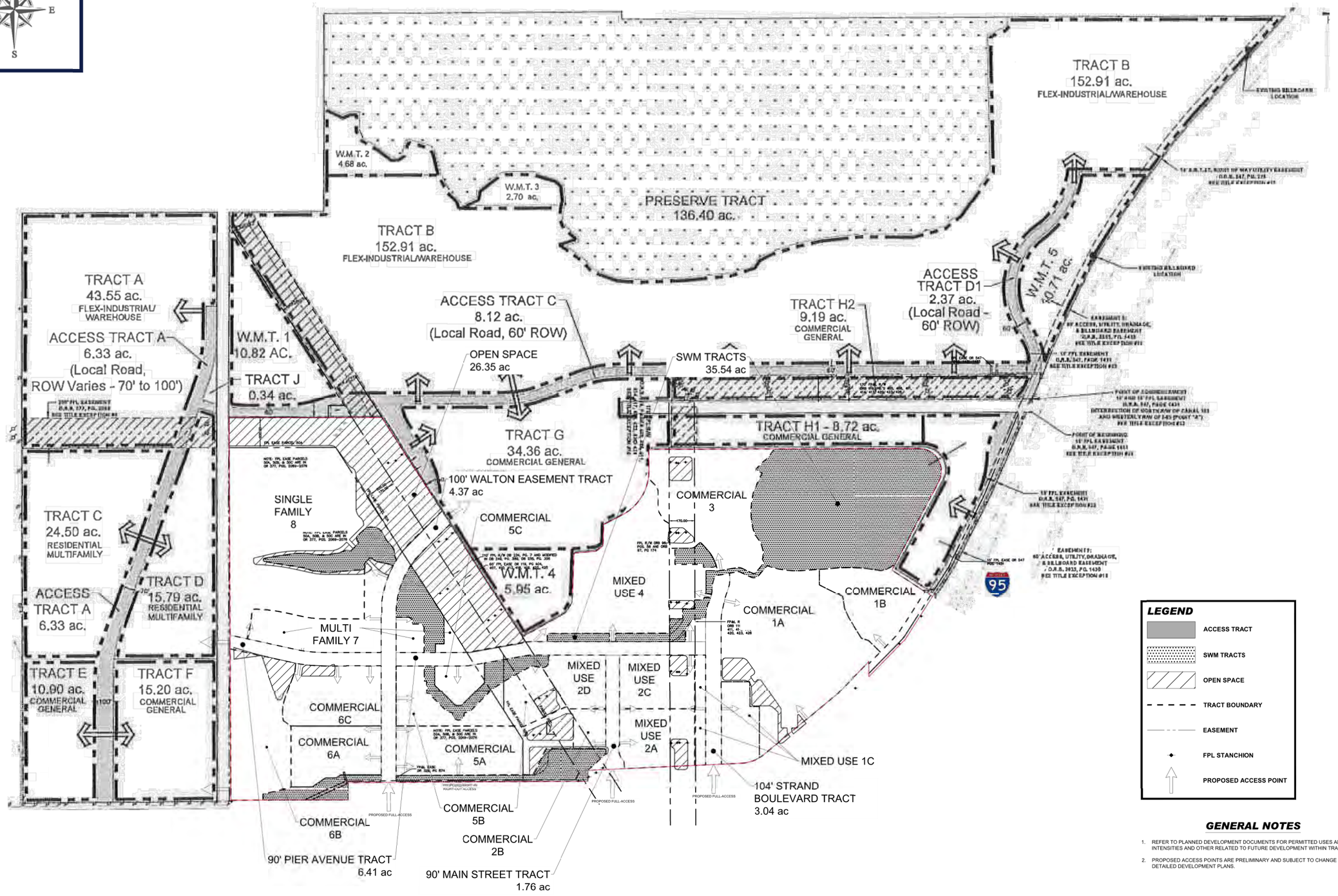
PD-01

ORG. DATE - 06/18/20

P:\PROJECTS\191015\DRAWINGS\EXHIBITS\ROAD TRACT PLANS\CT191015-CVL_0_TRACT PLAN-----LAYOUT: PD-01 PD PLAN

BTJ

APPENDIX B: PLANNED DEVELOPMENT SITE PLAN OVERLAY



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DRAWN BY:	BTJ
CHECKED BY:	GPF
DATE:	06/18/20
CAD I.D.:	CT191015-CVL_0

PROJECT:

PLANNED DEVELOPMENT PLAN DOCUMENTS

FOR

WILLOW LAKES, LLC

PROPOSED DEVELOPMENT
W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA
MAP ID: 32/02N

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BOCA RATON, FLORIDA 33431
Phone: (561) 571-0280
Fax: (561) 571-0281
www.BohlerEngineering.com

G.P. FITZGERALD
PROFESSIONAL ENGINEER

SHEET TITLE:
PLANNED DEVELOPMENT SITE PLAN OVERLAY

SHEET NUMBER:
PD-02

ORG. DATE - 06/18/20

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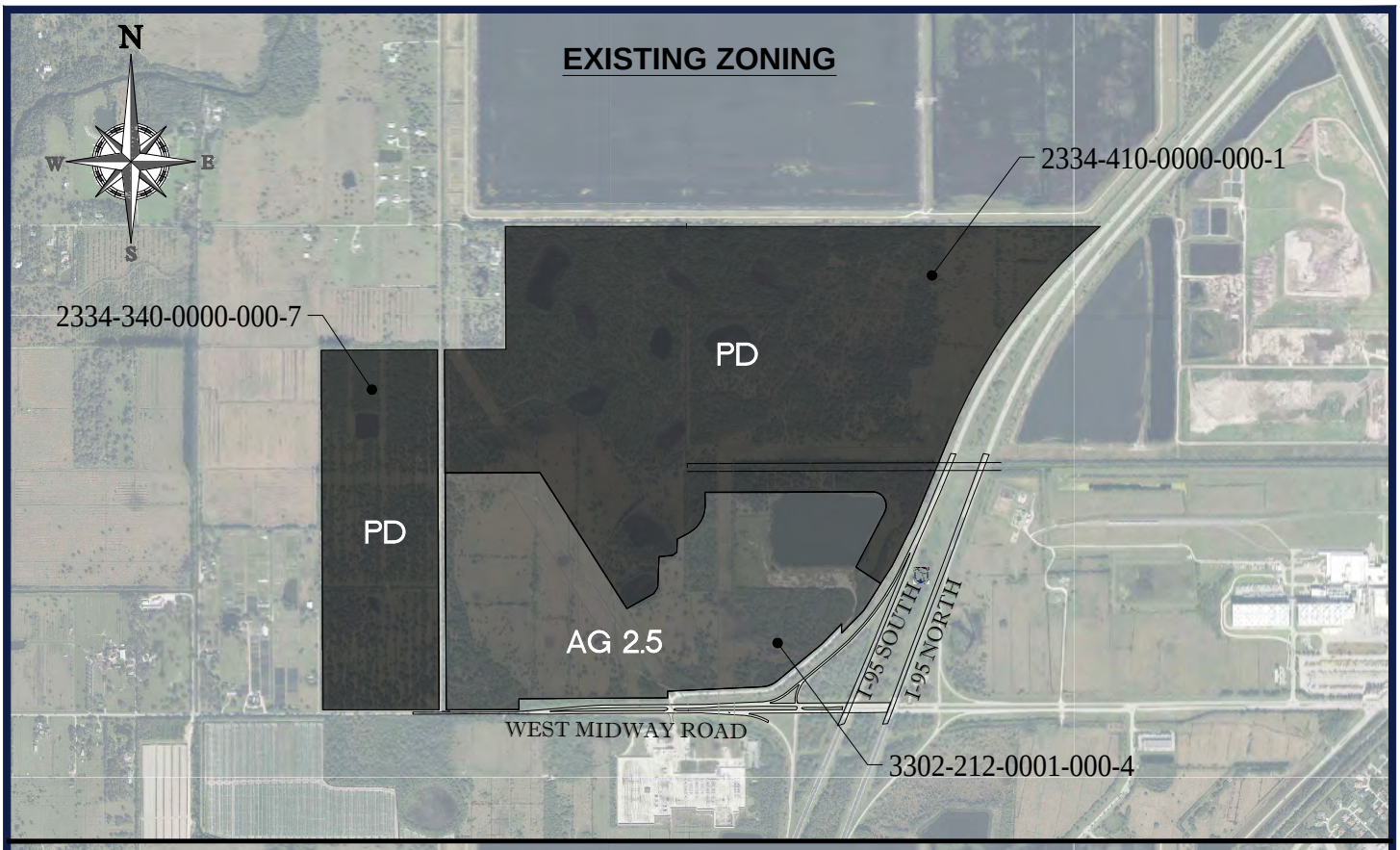
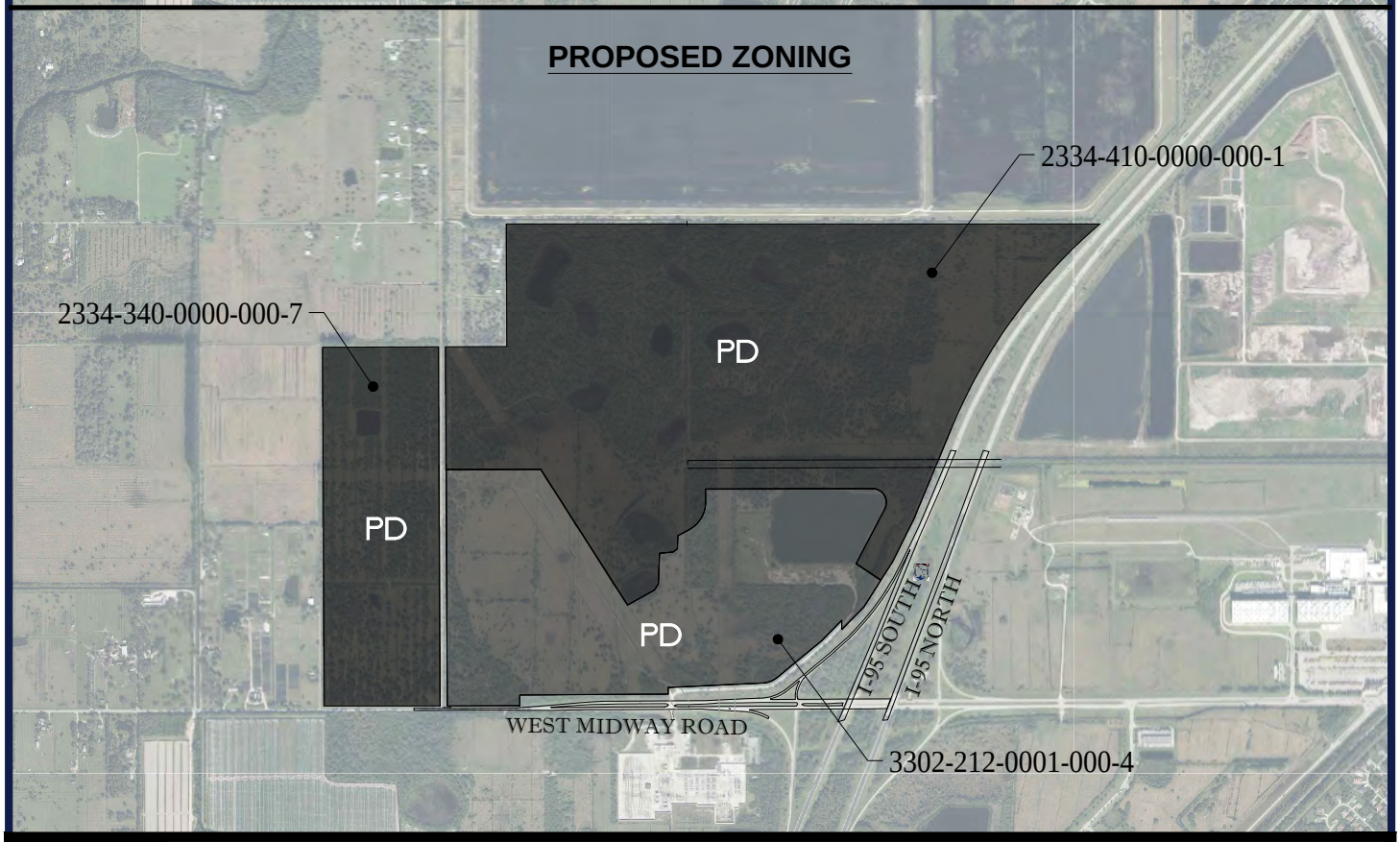
APPENDIX C: ZONING EXHIBIT





WILLOW LAKES, LLC

ZONING EXHIBIT

W. MIDWAY ROAD
CITY OF FORT PIERCE
ST. LUCIE COUNTY, FLORIDA

SCALE:1"=2,000' DATE: 01/20/2020

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Planned Development Guidelines
SUPPORTING DOCUMENTATION

For

Willow Lakes

A PROPOSED

Resort Village and Community

W. Midway Road
Fort Pierce, Florida
St. Lucie County

Master Developer:
WILLOW LAKES, LLC

Prepared by:

BOHLER
16 Old Forge Road, Suite A
Rocky Hill, CT 06067
(860) 333-8900 TEL.

2255 Glades Road Suite 305E
Boca Raton, FL 33431
561-571-0280

July 14, 2020
#CT191015

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I. PROJECT NARRATIVE

Jennifer Hofmeister, AICP, LCAM
Planning Director
City of Fort Pierce
W. Midway Road
Fort Pierce, FL 34950

Re: Proposed Resort Village and Community

Dear Mrs. Hofmeister,

Willow Lakes Resort Village and Community is envisioned as a vibrant, mixed-use urban village at the crossroads of Florida's Turnpike, Interstate 95, and the City of Fort Pierce. Situated on 200.23 acres of land lying immediately north of Midway Road and west of I-95 within the City of Fort Pierce, Willow Lakes will be an east coast destination that will bring together local residents and regional, national and international visitors in a lively, pedestrian-oriented, and healthy environment of inviting public spaces, walkable streets, and authentic neighborhoods in which to live, work, play and learn.

The vision is that of a typical beach community that celebrates outdoor activity and a healthy lifestyle. A place where residential, retail, and commercial uses will be combined to provide a critical mass of activity that will bring year-round life to the Village. Yet, this community will be one of a kind in Florida, situated not on a lone beach, but around the newest and largest world-class surf park in the country. A joy to simply relax and watch, and a thrill to experience, the Wavegarden at Willow Lakes will deliver high quality waves and authentic surfing experiences year-round for new and existing surfers of all ages, experience and ability. Beyond the Wavegarden. the Village will be comprised of several distinct neighborhoods, knit together by a network of walkable, pedestrian-oriented streets, and navigable floways designed for maximum environmental and recreational purposes. The result will be a natural, honest and inclusive environment where memorable experiences are created daily, and where visitors, residents, and professionals have fun, keep fit and feel part of a community that shares their passion and respect for surfing, the ocean, others and our planet.

Neighborhoods are the traditional building blocks of villages, towns and cities. They provide an organic, localized sense of place, identity and community within the larger fabric of a town. Willow Lakes Resort Village and Community is conceived as a series of small, local places organized in a framework of larger neighborhood types or areas. The primary neighborhoods that make up Willow Lakes will include the Wavegarden surf resort village and hotels, the mixed-use main and village streets immediately surrounding it, a town center plaza, an entertainment retail zone, and two residential areas, accompanied by adjacent undeveloped open space/conservation area. Within the larger, primary areas will be the smaller commercial and residential places that create variety, scale, local identity, and texture. The concentration of this series of neighborhoods will facilitate shared pedestrian accessibility to the many activities and residential options, the creation of vibrant commercial areas, and the simultaneous introduction of a system of recreational floways linking the natural spring-fed lake in the heart of the project to the neighborhoods and open space conservation areas throughout.

The street system proposed in this plan emphasizes connectivity and the importance of the streetscape as a place of value to the community. Where vehicle traffic is envisioned, parking is planned as an essential part of the project and will be encouraged on the streets, contributing to the availability of convenient parking spaces and to a sense of traffic-calming in pedestrian-oriented areas that have concentrated street-front commercial activity. Streets and parking facilities will be designed to support single-trip

visits to Willow Lakes for multiple activities. While the basic accommodation of cars is essential to the life of the project, and any similar project in Florida, Willow Lakes is fundamentally a place for people. The design of all streets and the associated public realm reflects a focus on pedestrians, accommodations for bicycles, and the enduring qualities of livable, active public spaces for human interaction.

The intent of this guideline is to provide flexible development options for the variety of uses proposed by utilizing the Planned Development Zoning District as outlined in Section 22-40 of the City of Fort Pierce Code of Ordinances. As proposed, approval of an overall Planned Development site plan and preliminary plat, along with Planned Development guidelines, will provide the foundation for future tenants to submit detailed development plan proposals for review and approval by the City. This affords all involved, including the City, the master developer and potential tenants a clear, approved plan to provide for the most efficient and flexible development of the overall project.

Design and development parameters by lot type, including, but not limited to: permitted and prohibited uses, applicable setbacks; allowable building area; street cross sections; landscaping, irrigation and signage standards have been provided for. A master Property Owners Association (POA) will be created to provide for continued and long-term maintenance of common areas, such as plazas, floways, open spaces and preserve areas, as well as the master stormwater system, master irrigation system, common area signage, street lighting, and other common improvements and services. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

BOHLER

Geoffrey P. Fitzgerald, PE, AICP, Branch Manager

II. PROJECT PHASING

As proposed, initial infrastructure improvements will be constructed by the developer, which include excavation of the storm water management floways and ponds within the Storm Water Management Tracts; clearing and rough grading development tracts; construction of certain roads or segments thereof, and placement of structural fill where deemed necessary or desirable. Installation of common utilities such as water and wastewater lines, fiber optics and telecom among other general infrastructure improvements is yet to be determined. To provide for as much flexibility as possible in accommodating potential end-users, the developer reserves the right to implement construction on any one (1) or more phases at any such time it is deemed appropriate; i.e. based on market demand or other metrics utilized by the developer.

The Phase Schedule below provides for a general outline of the Phases of infrastructure construction. Please note that the timelines provided are estimates only and are subject to market conditions and approval timelines. It is anticipated that a Phase 1 submittal will be made within a year.

PHASE SCHEDULE	
Estimated Duration of Construction of Phase	General Description of Improvements
Phase 1A (18 months)*	• Roadwork consisting of a full access signalized intersection at Midway Road and Gordy Road, Gordy Road Improvements, including roundabout at new Main Street. • Construction of pavement and landscaped median for Strand Boulevard Tract, and Main Street Tract from Gordy Road north to the intersection of Pier Avenue Tract. • Drainage associated with roadwork. • Construction of potable water and wastewater service mains and stub-outs for future phases; • Electric and telecom services and stub outs for future phases; • Construction of Pier Avenue subgrade for use as on-site construction haul road. • Rough site grading and excavation of Storm Water Management floways and ponds. • Placement of fill and preparation of subgrade on Wavegarden Surf Park parcel 1A. • Construction of Wavegarden Surf Park and associated commercial buildings, parking, drives, facilities, walks, landscaping and amenities. • Sidewalks and Street lighting along upper Strand Boulevard.
Phase 1B (8 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 1B commercial development.

	• Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities.
Phase 1C (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 1C commercial development. • Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Strand Boulevard. • Street Trees and Lighting along Strand Boulevard
Phase 2A (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 2A commercial development. • Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Frontage of Phase 2A
Phase 2B (18 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 2B commercial development. • Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Frontage of Phase 2B
Phase 2C (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for parcel 2C mixed-use development. • Construction of mixed-use development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Frontage of Phase 2C

Phase 2D (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for Phase 2D mixed-use development. • Construction of mixed-use development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Sidewalks along Frontage of Phase 2D
Phase 3 (12 months)*	• General earthwork, including placement of fill and preparation of subgrade and associated sitework for Phase 3 commercial development. • Construction of commercial development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities. • Improvements along lakefront and shoreline, and completion of eastern floway system. • Completion of Phase 3 and Phase 4 private roads and drives.
Phase 4 (12 months)*	• Construction of Multifamily Residential development and associated buildings, parking, drives, utility and storm water infrastructure, facilities, walks, landscaping, lighting and amenities.
Future Phases TBD*	• Roadwork consisting of a full access signalized intersection at Midway Road and Walton Easement Road, and remaining Pier Avenue Improvements to western limits of Willow Lakes property. • Construction of pavement and landscaped median for Walton Easement Tract, and Pier Avenue Tract. • Completion of western side floway system. • Drainage associated with roadwork. • Construction of potable water and wastewater service mains and stub-outs for future phases; • Electric and telecom services and stub outs for future phases; • Construction of commercial tracts in Phase 5 and 6, and residential tracts in Phases 7 and 8. See PD Conceptual Site Plan.

* Subject to market conditions

III. TRAFFIC CONCURRENCY (O'Rourke Engineering and Planning)

Trip Generation – The project will generate an estimated 37,297 daily trips, 2,381 AM peak hour trips and 2,486 PM peak hour trips.

Analysis/Needs – A detailed analysis of the intersections and link generally within a 5-mile radius that were significantly impacted by the project was conducted. As a result of the analysis, a series of prop share payments were estimated. The total prop share estimate is $7,358,178. These payments, which are creditable against impact fees, as well as additional impact fees collected, would be used to make improvements in the Midway corridor. The impact fees are estimated as $8,696,883, exclusive of the golf and Wave Garden facilities.

Those improvements include widening Midway Road to six lanes from Arterial A through to the northbound on ramps at I-95. Extensive turn lanes would also be required at the driveways along Midway Road. The construction along Midway Road will be coordinated with the developers of LTC Ranch and the Village at Midway, where appropriate.

Test Mix of Land Uses

WILLOW LAKES IMPACT FEES

Land Use	ITE Code	Intensity	St. Lucie County Road Impact fees	Total Fee
Residential Single-Family	210	150 DU	5015	752,250
Multifamily (Low-Rise)	220	150 DU	3875	581,250
Multifamily (High-Rise)	221	700 DU	2874	2,011,800
General Office	710	100,000 SF	3634	363,400
Medical Office	720	50,000 SF	3634	181,700
Commercial/ Retail	820	395,000 SF	7553	2,983,435
Gas Station with Convenience Market 3k+	820	16 Pumps	9852	157,632
Movie Theater	760	1,000 Seats	338	338,000
Rec. Facility	710	19,600 SF	1233	24,167
Hotel	310	600 Rooms	2172	1,303,200
TOTAL				**$8,696,834**

Note: This total does not include the Wave Garden or Top Golf facilities

O'ROURKE
ENGINEERING & PLANNING

TRAFFIC ANALYSIS

FOR

Willow Lakes

Prepared for:

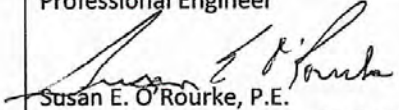
Willow Lakes, LLC

Prepared by

O'Rourke Engineering & Planning
22 SE Seminole Street
Stuart, Florida 34994
772-781-7918

May 4, 2020
Revised July 22, 2020

SR19101.0

Prepared by: O'Rourke Engineering & Planning Certificate of Authorization: #26869 22 SE Seminole Street Stuart, Florida 34994 772-781-7918	Professional Engineer  Susan E. O'Rourke, P.E. Date signed and sealed: 7/22/2020 License #: 42684

O'ROURKE
ENGINEERING & PLANNING

May 4, 2020

Mr. Chad LaBonte
Willow Lakes, LLC
433 S. Main Street
Suite 218
West Hartford, CT 06110

Re: Willow Lakes

Dear Mr. LaBonte:

O'Rourke Engineering & Planning has completed the analysis of the proposed mixed-use development with Wave Park project located generally north of Midway Road and west of the Interstate 95 freeway in St. Lucie County, Florida. The steps in the analysis and the ensuing results are presented herein.

It has been a pleasure working with you. If you have any questions or comments, please give me a call.

Respectfully submitted,
O'Rourke Engineering & Planning

Susan E. O'Rourke, P.E.
Registered Civil Engineer – Traffic

C6 – WillowLakes.text.5.4.2020

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APPENDIX F: Intersection Data

INTRODUCTION

O'Rourke Engineering & Planning was retained to prepare a traffic analysis for a mixed-use urban village, including residential, retail, restaurants, and other commercial uses, with a beach community theme, anchored by a world-class surf park. The development allows for uses to develop within a program identified in the planned development agreement. For trip generation, we have defined land uses to calculate trips based on the following specific uses: 150 single family dwelling units; 850 multifamily dwelling units; 100,000 square feet of office; 50,000 square feet of medical office; 250,000 square feet of retail; a 5,000 square foot convenience store with 16 pumps; a 5,000 square foot convenience market; 15,000 square feet of pharmacy without drive-thru; 25,000 square feet of fast food restaurant with drive-thru; 100,000 square feet of high turnover sit down restaurant; a 9.5 acre water park; 19,600 square feet of recreational facilities; a 42,500 square foot movie theater; a Top Golf golfing simulator facility; and a 600 room hotel.

The purpose of this report is to determine the impact of the proposed project on the surrounding roadway system in accordance with the City of Ft. Pierce Transportation Element comprehensive plan policies and F.S. 163.3180(5)(b)4. To that end, the following analytical steps were taken:

- summary of the project,
- summary of existing lane geometrics-links,
- summary of network and service volumes,
- assessment of project traffic,
- determination of study area,
- summary of cumulative traffic volumes-links,
- comparison of volumes to allowable levels of service,
- development of future intersection volume,
- development of project related improvements
- analysis of intersections

Each of these steps is outlined herein.

PROJECT DESCRIPTION

The proposed development involves a parcel of land located generally north of Midway Road and west of I-95 in Ft. Pierce, Florida. **Figure 1** shows the project location.

As noted above, the proposal is to develop a mix of uses. **Figure 2** illustrates a concept of how the site could develop.



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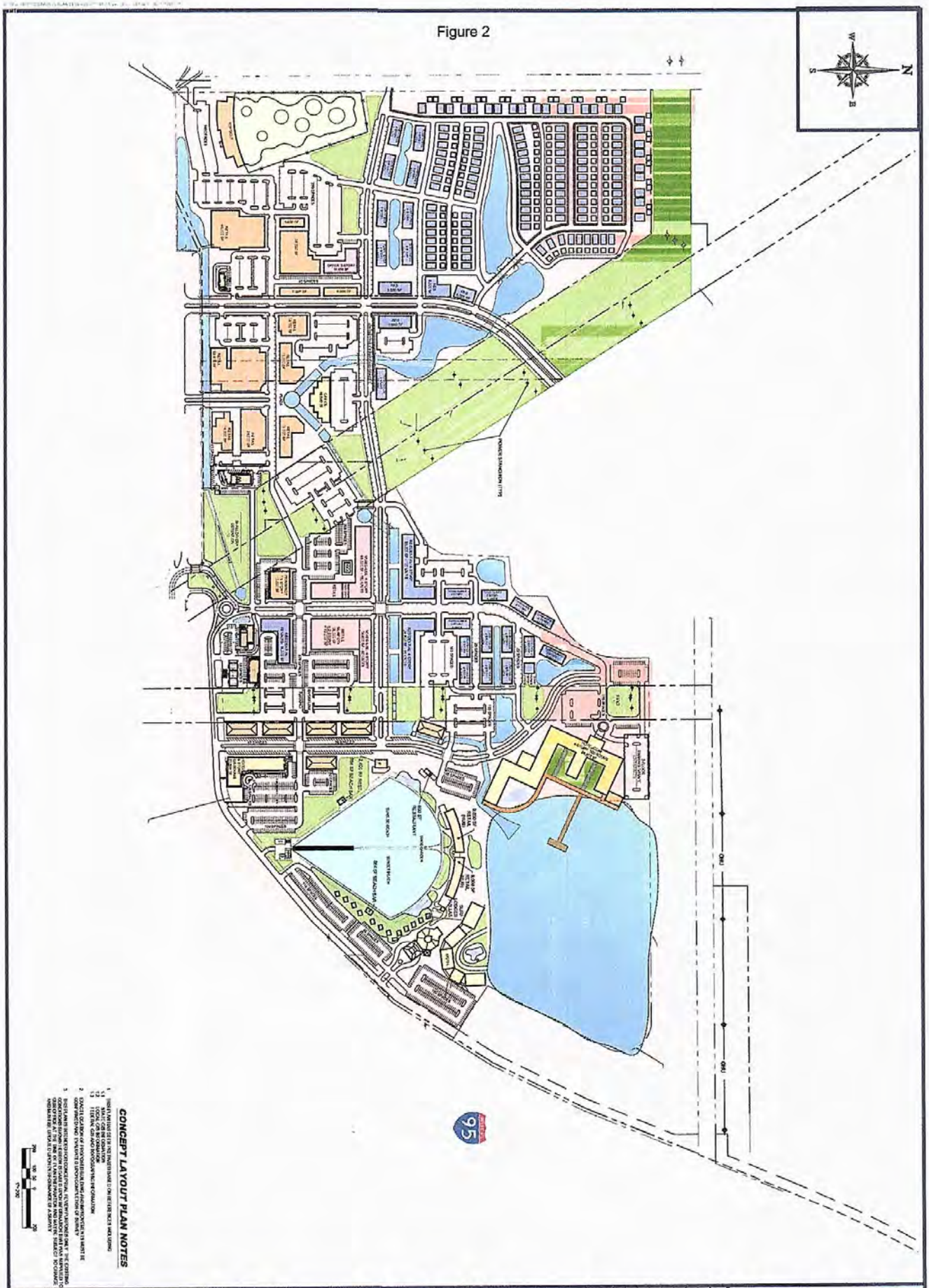
FIGURE 1

PROJECT LOCATION

Willow Lakes

Figure 2



CONCEPT LAYOUT PLAN NOTES
BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES
REVISIONS
FOR CONCEPT PURPOSES ONLY
PLANNED DEVELOPMENT PLAN DOCUMENTS
WILLOW LAKES, LLC
PROPOSED DEVELOPMENT
BOHLER
CONCEPTUAL LAYOUT PLAN
CA-01

EXISTING ROADWAY CONDITIONS

The study area is defined as the roadways upon which the project has an impact of 1% of the level of service capacity of the adjacent roadway link, 3% on the balance of the arterial and collector roadways within two miles, and 5% on arterials and collectors beyond two miles and on all freeway links. Once the project traffic was assigned, the study area was refined based on the impact percentages.

The study area roadways were defined in terms of existing plus committed lane geometrics and existing traffic volumes.

Lane Geometrics

The study area was reviewed to determine the existing number and type of lanes along the roadway. In addition, improvements outlined in City, County or FDOT Five Year Programs were included. Roadway Improvements included in the 5-year Road Program are:

- Midway Road from Selvitz Road to 25th Street, 2L to 4LD, Under Construction
- Midway Road from 25th Street to US 1, 2L to 4LD, under construction
- Kings Highway from south of Okeechobee Road to north of Picos Road, 2L to 4LD, FY 2024
- Kings Highway from north of Picos Road to north of I-95 overpass, 2L to 4LD, FY 2024
- St Lucie West Boulevard from I-95 southbound exit to I-95 northbound exit, 2L to 4LD, FY 2022

Key roadways are described below.

Midway Road is a two-lane arterial with an east/west alignment west of the project. It is a four - lane roadway from just west of I-95 to East Torino Parkway. The portion from 25th Street to US-1 is currently under construction with a completion date year of 2024. Both LTC Ranch and Village at Midway have commitments to widen Midway Road or contribute to its widening.

Glades Cut-Off Road is two lane arterial with a general northeast to southwest alignment.

I-95 is included in the St. Lucie County Needs Plan to widen with auxiliary lanes. A PDE is funded beginning year 2024.

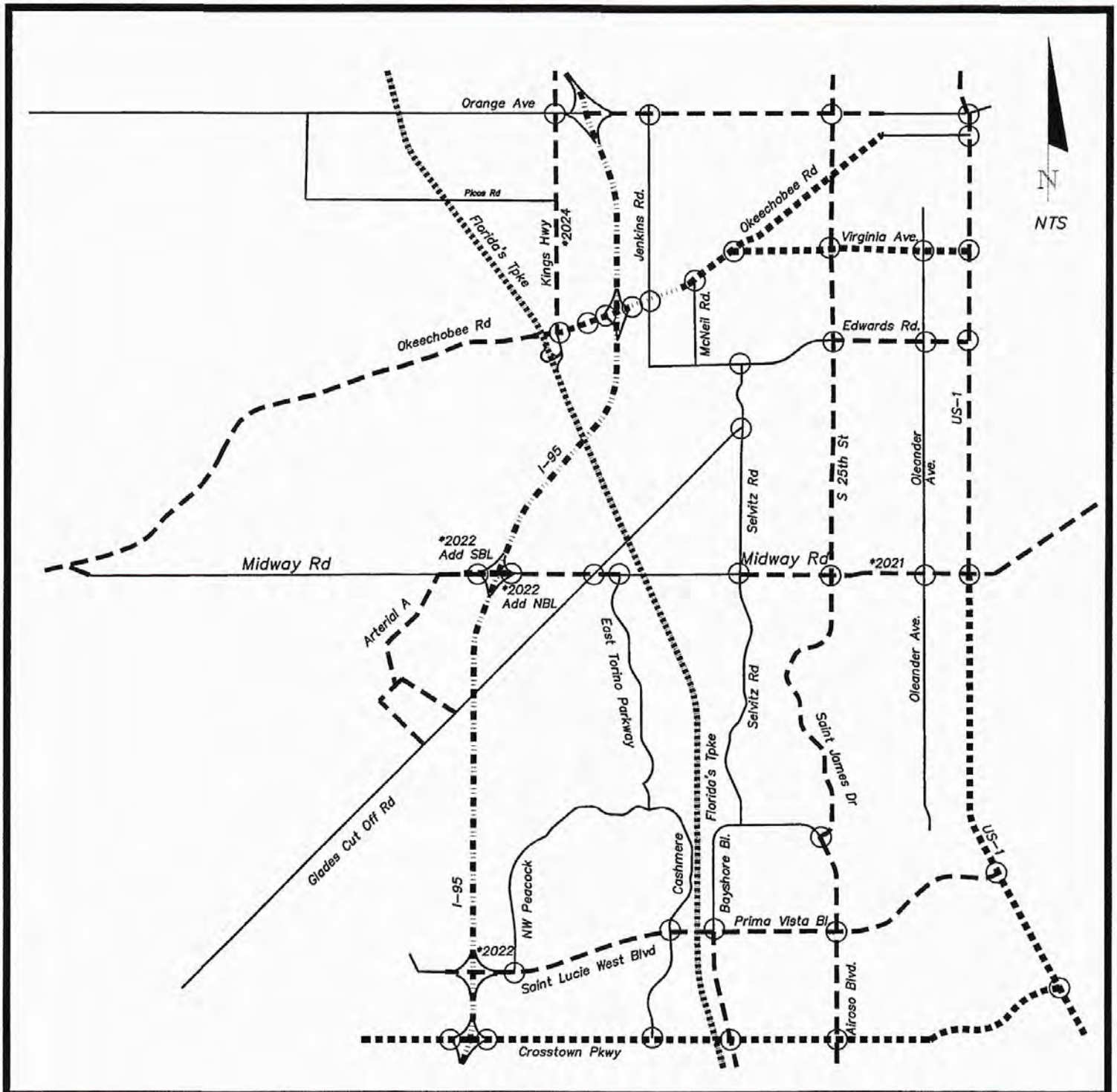
Figure 3 illustrates the existing lanes plus committed roadway network and signalized intersections within the general study area.

Existing Traffic Counts/Service Volumes

Existing traffic counts/service volumes were taken from the St. Lucie County Transportation Planning Organization (TPO) and from counts made in 2020. The peak direction and the D-factor were calculated from existing turning movement counts for significant links. This information was used to calculate the off-peak volumes.

Table 1 Summarizes the existing lanes and the relationship to the standardized capacity for each roadway link in the initial study area.

Existing count data, network, and D-factor data are provided in **Appendix A.**



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LEGEND

*Committed Lanes – Year

= 2 LANE ARTERIAL
= 4 LANE ARTERIAL
= 6 LANE ARTERIAL
= 8 LANE ARTERIAL
= 4 LANE EXPRESSWAY
= 6 LANE EXPRESSWAY
= SIGNALIZED INTERSECTION

FIGURE 3

EXISTING + COMMITTED ROADWAY NETWORK

WILLOW LAKES

February 2020

Table 1: Existing Traffic Counts and Service Volume

Segment	From	To	Direction	Federal Functional Classification (1)	Existing / Committed Capacity	2019 AM Peak Hour Volume	2019 PM Peak Hour Volume
Midway Rd	Okeechobee Rd	Shinn Rd	EB	Rural Principal Arterial-uf	760	272	376
	Okeechobee Rd	Shinn Rd	WB	Rural Principal Arterial-uf	760	295	347
	Shinn Rd	McCarty Rd	EB	Rural Principal Arterial-uf	630	272	376
	Shinn Rd	McCarty Rd	WB	Rural Principal Arterial-uf	630	295	347
	McCarty Rd	11 Mile Rd	EB	Urban Principal Arterial-uf	700	295	347
	McCarty Rd	11 Mile Rd	WB	Urban Principal Arterial-uf	700	272	376
	11 Mile Rd	Arterial A	EB	Urban Principal Arterial-uf	700	295	347
	11 Mile Rd	Arterial A	WB	Urban Principal Arterial-uf	700	272	376
	Arterial A	I95	EB	Urban Principal Arterial-uf	2100	295	347
	Arterial A	I95	WB	Urban Principal Arterial-uf	2100	272	376
	I95	Glades Cut off Rd	EB	Urban Principal Arterial-CI	2100	758	911
	I95	Glades Cut off Rd	WB	Urban Principal Arterial-CI	2100	926	1,027
	Glades Cut off Rd	NW East Torino Pkwy	EB	Urban Principal Arterial-CI	2100	1,178	1,281
	Glades Cut off Rd	NW East Torino Pkwy	WB	Urban Principal Arterial-CI	2100	1,226	890
	NW East Torino Pkwy	Florida's Turnpike	EB	Urban Principal Arterial-CI	920	1,216	1,253
	NW East Torino Pkwy	Florida's Turnpike	WB	Urban Principal Arterial-CI	920	995	1,304
	Florida's Turnpike	NW Corporate Way	EB	Urban Principal Arterial-CI	920	1,216	1,253
	Florida's Turnpike	NW Corporate Way	WB	Urban Principal Arterial-CI	920	995	1,304
	NW Corporate Way	S Jenkins Rd	EB	Urban Principal Arterial-CI	920	1,216	1,204
	NW Corporate Way	S Jenkins Rd	WB	Urban Principal Arterial-CI	920	1,036	1,304
	S Jenkins Rd	Selvitz Rd	EB	Urban Principal Arterial-CI	920	1,216	1,204
	S Jenkins Rd	Selvitz Rd	WB	Urban Principal Arterial-CI	920	1,078	1,304
	Selvitz Rd (3)	S 25th St	EB	Urban Principal Arterial-CI	2100	973	940
	Selvitz Rd	S 25th St	WB	Urban Principal Arterial-CI	2100	973	801
	S 25th St (4)	Oleander	EB	Urban Principal Arterial-CI	2100	1,025	942
	S 25th St	Oleander	WB	Urban Principal Arterial-CI	2100	805	802
	Oleander	US-1	EB	Urban Principal Arterial-CI	2100	635	654
	Oleander	US-1	WB	Urban Principal Arterial-CI	2100	808	800
Okeechobee Rd	McCarty Rd	Florida's Turnpike	EB	Urban Principal Arterial-CI	1810	378	391
	McCarty Rd	Florida's Turnpike	WB	Urban Principal Arterial-CI	1810	378	391
	Florida's Turnpike	S King's Hwy	EB	Urban Principal Arterial-CI	2010	378	391
	Florida's Turnpike	S King's Hwy	WB	Urban Principal Arterial-CI	2010	378	391
	S King's Hwy	Crossroads Pkwy	EB	Urban Principal Arterial-CI	4170	960	1,013
	S King's Hwy	Crossroads Pkwy	WB	Urban Principal Arterial-CI	4170	960	1,013
	Crossroads Pkwy	I95	EB	Urban Principal Arterial-CI	4170	1,063	1,086
	Crossroads Pkwy	I95	WB	Urban Principal Arterial-CI	4170	1,063	1,086
	I95	Jenkins Rd	EB	Urban Principal Arterial-CI	4240	1,976	1,578
	I95	Jenkins Rd	WB	Urban Principal Arterial-CI	4240	1,112	1,709
	Jenkins Rd	McNeil Rd	EB	Urban Principal Arterial-CI	4040	1,976	1,516
	Jenkins Rd	McNeil Rd	WB	Urban Principal Arterial-CI	4040	1,018	1,709
	McNeil Rd	Virginia Ave	EB	Urban Principal Arterial-CI	3170	1,580	1,522
	McNeil Rd	Virginia Ave	WB	Urban Principal Arterial-CI	3170	851	1,649
	Virginia Ave	35th St	EB	Urban Principal Arterial-CI	2100	687	727
	Virginia Ave	35th St	WB	Urban Principal Arterial-CI	2100	687	727
I-95	Orange Ave	Okeechobee Rd	NB	Interstate	7320	1,822	1,894
	Orange Ave	Okeechobee Rd	SB	Interstate	7320	1,822	1,894
	Okeechobee Rd	Midway Rd	NB	Interstate	4580	4,578	3,717
	Okeechobee Rd	Midway Rd	SB	Interstate	4580	3,181	3,717
	W Midway Rd	St Lucie West Blvd	NB	Interstate	4580	3,571	3,079
	W Midway Rd	St Lucie West Blvd	SB	Interstate	4580	3,571	3,079
	St Lucie West Blvd	Crosstown Pkwy	NB	Interstate	4580	4,048	3,657
	St Lucie West Blvd	Crosstown Pkwy	SB	Interstate	4580	4,048	3,657
Glades Cut off Rd	Range Line Rd	Reserve Blvd	NB	Urban Minor Arterial-UF	1070	200	252
	Range Line Rd	Reserve Blvd	SB	Urban Minor Arterial-UF	1070	164	233
	Reserve Blvd	Commerce Centre Dr	NB	Urban Minor Arterial-UF	1070	332	332
	Reserve Blvd	Commerce Centre Dr	SB	Urban Minor Arterial-UF	1070	272	308
	Commerce Centre Dr	W Midway Rd	NB	Urban Minor Arterial-CI	920	210	192
	Commerce Centre Dr	W Midway Rd	SB	Urban Minor Arterial-CI	920	202	151
	W Midway Rd	S. Jenkins Road	NB	Urban Minor Arterial-CII	790	669	421
	W Midway Rd	S. Jenkins Road	SB	Urban Minor Arterial-CII	790	526	687
	S Jenkins Rd	Selvitz Rd	NB	Urban Minor Arterial-CII	830	370	236
	S Jenkins Rd	Selvitz Rd	SB	Urban Minor Arterial-CII	830	291	385
SW Saint Lucie West Blvd	I95	California Blvd	EB	Other Principal Arterial	2100	1,722	1,670
	I95	California Blvd	WB	Other Principal Arterial	2100	1,722	1,670
	California Blvd	Country Club Dr	EB	Other Principal Arterial	2100	1,722	1,670
	California Blvd	Country Club Dr	WB	Other Principal Arterial	2100	1,722	1,670
	Country Club Dr	Cashmere Blvd	EB	Other Principal Arterial	2100	1,722	1,670
	Country Club Dr	Cashmere Blvd	WB	Other Principal Arterial	2100	1,722	1,670
	Cashmere Blvd	Florida's Turnpike	EB	Other Principal Arterial	3170	2,446	2,308
	Cashmere Blvd	Florida's Turnpike	WB	Other Principal Arterial	3170	2,446	2,308
	Florida's Turnpike	Bayshore Blvd	EB	Other Principal Arterial	3170	2,446	2,308
	Florida's Turnpike	Bayshore Blvd	WB	Other Principal Arterial	3170	2,446	2,308
Jenkins Rd	Edwards Rd	Okeechobee Rd	NB	Urban Minor Arterial	880	468	471
	Edwards Rd	Okeechobee Rd	SB	Urban Minor Arterial	880	549	553
	Okeechobee Rd	Orange Ave	NB	Urban Minor Arterial	920	485	525
	Okeechobee Rd	Orange Ave	SB	Urban Minor Arterial	920	593	569
25th St	Midway Rd	Edwards Rd	NB	Urban Principal Arterial-CI	2100	1,310	749
	Midway Rd	Edwards Rd	SB	Urban Principal Arterial-CI	2100	838	1,222
St James	Bayshore Blvd	Midway Rd	NB	Urban Principal Arterial	2100	1,188	689
	Bayshore Blvd	Midway Rd	SB	Urban Principal Arterial	2100	559	1,173
Virginia Ave	Okeechobee Rd	25th St	EB	Urban Principal Arterial	3020	1,199	1,126
	Okeechobee Rd	25th St	WB	Urban Principal Arterial	3020	1,169	1,126
Prima Vista Blvd	Bayshore Blvd	Alroso Blvd	EB	Urban Principal Arterial	2100	944	1,005
	Bayshore Blvd	Alroso Blvd	WB	Urban Principal Arterial	2100	944	1,005
	Alroso Blvd	US 1	EB	Urban Principal Arterial	2100	1,171	1,097
	Alroso Blvd	US 1	WB	Urban Principal Arterial	2100	1,171	1,097
Selvitz Rd	Bayshore Blvd	Midway Rd	NB	Minor Arterial	750	426	240
	Bayshore Blvd	Midway Rd	SB	Minor Arterial	750	200	426
	Midway Rd	Glades Cut Off Rd	NB	Minor Arterial	700	696	527
	Midway Rd	Glades Cut off Rd	SB	Minor Arterial	700	359	644
East Torino Pkwy	Midway Rd	Turtle Dove Ln	NB	Urban Minor Arterial	830	1,030	625
	Midway Rd	Turtle Dove Ln	SB	Urban Minor Arterial	880	555	978

Source: St. Lucie TPO Traffic Counts and Level of Service Report Fall/Winter 2019/2020
Note: Peak Direction Volumes from ST. Lucie County Traffic Counts and LOS Report Fall/Winter 2019/2020
Links analyzed in tables 4a and 4b include the off peak volumes calculated using D factors in Appendix E.
« TPO Value

(1) St. Lucie County Comprehensive Plan
(2) 2 lane portion fails with background traffic, and conditioned for improvement
(3) Selvitz to Christensen Rd/ Christensen to 25th St all one capacity
(4) 25th to Sunrise and Sunrise to Oleander same volume and capacity

TRIP GENERATION

To estimate the project traffic for this project various ITE Trip Generation, 10th edition rates were applied. The total trip generation will act as a "bank" of trips. As site plans are submitted, the trips will be calculated and draw down from the bank. The project has two unique uses; Topgolf and the Wave Garden. For Topgolf, 10,000 square feet of restaurant, 20 tees of golf, and 18 holes of golf were used to estimate trips. For the Wave Garden, 9.5 acres of a water slide park and 7,500 square feet of retail and restaurant, plus a 19,600 square foot recreation area were included to estimate trips. When the Wave Garden comes in for site plan, the quantity of uses will result in the trip calculation to be drawn from the overall pool of trips. No similar prototypes are operating currently in the US. Similar uses were used to estimate those uses as specific ITE and use codes for these uses do not exist. **Tables 2a, 2b, and 2c** provide the daily, AM, and PM trip generation for the proposed development. The project yields a high internal capture rate based on ITE internal capture pairings. The pairings were reduced in some cases to achieve an overall internal capture rate in line for projects of this size and with a complete mix of uses. **Appendix B** includes the details of the trip generation and internal capture for the Daily, AM and PM peak hours.

As shown, the project will generate 37,828 daily trips, 2,420 AM peak hour trips with 1,355 entering and 1,065 exiting, and 2,486 PM peak hour trips with 1,450 entering and 1,036 exiting.

PROJECT ASSIGNMENT

The project traffic was distributed using a select zone run from the 2040 Greater Treasure Coast Model. The assignment was run with and without the link to Arterial A in place. The resultant assignment from the 2040 Model is shown in **Appendix C**. The project percent assignment derived from that model assignment is shown in **Figure 4**.

STUDY AREA/ PROJECT IMPACT

Based on the project assignment and the impact to the network, the study area was refined.

Tables 3a and 3b summarize the project impact on the area network for the AM and PM Peak hour; respectively. As shown several links are significantly impacted by the project and required analysis.

FUTURE TRAFFIC LINKS

The project is expected to build out in 2035. To estimate future 2035 volumes the existing (2019/2020) traffic volumes were increased by a 0.5% growth rate. Traffic from 12 approved developments, including Village at Midway and LTC Ranch, was also added to create 2035 volumes without project. In no case was the resultant background growth less than 1%. In other words, if the background plus 0.5% per year plus committed traffic resulted in a volume that was less than existing plus 1% per year, the background traffic was adjusted up to the minimum 1%. The project traffic was then added to estimate the 2035 Total Traffic volumes with project. The Total Traffic volumes were then compared to the acceptable threshold on each link.

Tables 4a and 4b show the volumes and the relationship to adopted thresholds for the AM and PM Peak hours, respectively.

Appendix D includes the details regarding other approved projects.

Table 2 - Trip Generation

Table 2a: Daily

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips			Internalization Trips				Net External Trips			Pass-by Trips				Net New Trips		
					In	Out	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total
Single Family Detached	210	150	DU	Ln(T) = 0.92Ln(X) + 2.71	50%	50%	755	755	1,510	53	169	222	14.7%	702	586	1,288	-	-	-	0.0%	702	586	1,288
Multifamily Housing (Low-Rise)	220	150	DU	T = 7.56(X) - 40.86	50%	50%	547	546	1,093	38	122	160	14.6%	509	424	933	-	-	-	0.0%	509	424	933
Multifamily Housing (Mid-Rise)	221	700	DU	T = 5.45(X) - 1.75	50%	50%	1,907	1,906	3,813	133	426	559	14.7%	1,774	1,480	3,254	-	-	-	0.0%	1,774	1,480	3,254
General Office	710	100,000	Sft	Ln(T) = 0.97Ln(X) + 2.50	50%	50%	531	530	1,061	127	482	609	57.4%	404	48	452	-	-	-	0.0%	404	48	452
Medical Office	720	50,000	Sft	T = 38.42(X) - 87.62	50%	50%	917	916	1,833	220	834	1,054	57.5%	697	82	779	-	-	-	0.0%	697	82	779
Shopping Center	820	250,000	Sft	Ln(T) = 0.68Ln(X) + 5.57	50%	50%	5,605	5,605	11,210	921	798	1,719	15.3%	4,684	4,807	9,491	1,614	1,613	3,227	34.0%	3,070	3,194	6,264
Super Convenience Market/Gas Station	FDOT	16 / 5,000	Pumps/Sft	T=256.7(FP) - 144.5(Sft)[1]	50%	50%	1,693	1,692	3,385	278	241	519	15.3%	1,415	1,451	2,866	889	888	1,777	62.0%	526	563	1,089
Convenience Market	851	5,000	Sft	T = 762.28(X)	50%	50%	1,906	1,905	3,811	313	271	584	15.3%	1,593	1,634	3,227	823	823	1,646	51.0%	770	811	1,581
Pharmacy/Drugstore without Drive-Thru	880	15,000	Sft	Ln(T) = 0.99Ln(X) + 4.51	50%	50%	664	663	1,327	109	94	203	15.3%	555	569	1,124	298	298	596	53.0%	257	271	528
Fast-Food Restaurant with Drive-Thru	934	25,000	Sft	T = 470.95(X)	50%	50%	5,887	5,887	11,774	1,598	655	2,253	19.1%	4,289	5,232	9,521	2,333	2,332	4,665	49.0%	1,956	2,900	4,856
High-Turnover (Sit-Down) Restaurant	932	100,000	Sft	T = 112.18(X)	50%	50%	5,609	5,609	11,218	1,522	624	2,146	19.1%	4,087	4,985	9,072	1,951	1,950	3,901	43.0%	2,136	3,035	5,171
Water Slide Park	482	9.5	Acres	T = 150.33(X)	50%	50%	714	714	1,428	-	-	-	0.0%	714	714	1,428	-	-	-	0.0%	714	714	1,428
Multipurpose Recreational Facility	435	19,600	Sft	T = 29.10(X)[1]	50%	50%	285	285	570	-	-	-	0.0%	285	285	570	-	-	-	0.0%	285	285	570
Movie Theater	444	42,500	Sft	T = 78.09(X)	50%	50%	1,660	1,659	3,319	-	-	-	0.0%	1,660	1,659	3,319	-	-	-	0.0%	1,660	1,659	3,319
Golf Course	430	18	Holes	T = 30.38(X)	50%	50%	274	273	547	-	-	-	0.0%	274	273	547	-	-	-	0.0%	274	273	547
Golf Driving Range	432	20	Tees	T = 13.65(X)	50%	50%	137	136	273	-	-	-	0.0%	137	136	273	-	-	-	0.0%	137	136	273
Hotel	310	600	Rooms	T = 11.29(X) - 426.97	50%	50%	3,174	3,173	6,347	127	724	851	13.4%	3,047	2,449	5,496	-	-	-	0.0%	3,047	2,449	5,496
TOTALS							**32,265**	**32,254**	**64,519**	**5,439**	**5,440**	**10,879**	**16.9%**	**26,826**	**26,814**	**53,640**	**7,908**	**7,904**	**15,812**	**29.5%**	**18,918**	**18,910**	**37,828**

Table 2b: AM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips			Internalization Trips				Net External Trips			Pass-by Trips				Net New Trips		
					In	Out	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total
Single Family Detached	210	150	DU	T = 0.71(X) + 4.80	25%	75%	28	83	111	2	19	21	18.9%	26	64	90	-	-	-	0.0%	26	64	90
Multifamily Housing (Low-Rise)	220	150	DU	Ln(T) = 0.95Ln(X) - 0.51	23%	77%	16	54	70	1	12	13	18.6%	15	42	57	-	-	-	0.0%	15	42	57
Multifamily Housing (Mid-Rise)	221	700	DU	Ln(T) = 0.98Ln(X) - 0.98	26%	74%	60	170	230	4	39	43	18.7%	56	131	187	-	-	-	0.0%	56	131	187
General Office	710	100,000	Sft	T = 0.94(X) + 26.49	86%	14%	103	17	120	24	17	41	34.2%	79	-	79	-	-	-	0.0%	79	-	79
Medical Office	720	50,000	Sft	Ln(T) = 0.89Ln(X) + 1.31	78%	22%	94	27	121	24	17	41	33.9%	70	10	80	-	-	-	0.0%	70	10	80
Shopping Center	820	250,000	Sft	T = 0.50(X) + 151.78	62%	38%	172	105	277	21	19	40	14.4%	151	86	237	41	40	81	34.0%	110	46	156
Super Convenience Market/Gas Station	FDOT	16 / 5,000	Pumps/Sft	T= 12.3(FP) + 15.5(Sft)[1]	50%	50%	137	137	274	21	19	40	14.6%	116	118	234	73	72	145	62.0%	43	46	89
Convenience Market	851	5,000	Sft	T = 62.54(X)	50%	50%	157	156	313	24	22	46	14.7%	133	134	267	68	68	136	51.0%	65	66	131
Pharmacy/Drugstore without Drive-Thru	880	15,000	Sft	T = 10.22(X) - 75.70	65%	35%	51	27	78	6	5	11	14.1%	45	22	67	18	18	36	53.0%	27	4	31
Fast-Food Restaurant with Drive-Thru	934	25,000	Sft	T = 40.19(X)	51%	49%	513	492	1,005	75	41	116	11.5%	438	451	889	218	218	436	49.0%	220	233	453
High-Turnover (Sit-Down) Restaurant	932	100,000	Sft	T = 9.94(X)	55%	45%	547	447	994	74	40	114	11.5%	473	407	880	189	189	378	43.0%	284	218	502
Water Slide Park	482	9.5	Acres	T = 22.92(X)[3]	58%	42%	126	92	218	-	-	-	0.0%	126	92	218	-	-	-	0.0%	126	92	218
Multipurpose Recreational Facility	435	19,600	Sft	T = 2.24(X) [2]	71%	29%	31	13	44	-	-	-	0.0%	31	13	44	-	-	-	0.0%	31	13	44
Movie Theater	444	42,500	Sft	T = 0.22(X)	71%	29%	6	3	9	-	-	-	0.0%	6	3	9	-	-	-	0.0%	6	3	9
Golf Course	430	18	Holes	T = 1.76(X)	79%	21%	25	7	32	-	-	-	0.0%	25	7	32	-	-	-	0.0%	25	7	32
Golf Driving Range	432	20	Tees	T = 0.40(X)	61%	39%	5	3	8	-	-	-	0.0%	5	3	8	-	-	-	0.0%	5	3	8
Hotel	310	600	Rooms	T = 0.50(X) - 5.34	59%	41%	174	121	295	7	34	41	13.9%	167	87	254	-	-	-	0.0%	167	87	254
TOTALS							**2,245**	**1,954**	**4,199**	**283**	**284**	**567**	**13.5%**	**1,962**	**1,670**	**3,632**	**607**	**605**	**1,212**	**33.4%**	**1,355**	**1,065**	**2,420**

Table 2c: PM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips			Internalization Trips				Net External Trips			Pass-by Trips				Net New Trips		
					In	Out	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total
Single Family Detached	210	150	DU	Ln(T) = 0.96Ln(X) + 0.20	63%	37%	95	55	150	42	36	78	52.0%	53	19	72	-	-	-	0.0%	53	19	72
Multifamily Housing (Low-Rise)	220	150	DU	Ln(T) = 0.89Ln(X) - 0.02	63%	37%	54	31	85	24	20	44	51.8%	30	11	41	-	-	-	0.0%	30	11	41
Multifamily Housing (Mid-Rise)	221	700	DU	Ln(T) = 0.96Ln(X) - 0.63	61%	39%	175	112	287	80	69	149	51.9%	95	43	138	-	-	-	0.0%	95	43	138
General Office	710	100,000	Sft	Ln(T) = 0.95Ln(X) + 0.36	16%	84%	18	96	114	17	23	40	35.1%	1	73	74	-	-	-	0.0%	1	73	74
Medical Office	720	50,000	Sft	T = 3.39(X) + 2.02	28%	72%	48	124	172	26	34	60	34.9%	22	90	112	-	-	-	0.0%	22	90	112
Shopping Center	820	250,000	Sft	Ln(T) = 0.74Ln(X) + 2.89	48%	52%	514	556	1,070	196	202	398	37.2%	318	354	672	113	115	228	34.0%	205	239	444
Super Convenience Market/Gas Station	FDOT	16 / 5,000	Pumps/Sft	T= 12.3(FP) + 15.5(Sft)[1]	50%	50%	137	137	274	50	52	102	37.2%	87	85	172	48	48	96	56.0%	39	37	76
Convenience Market	851	5,000	Sft	T = 49.11(X)	51%	49%	125	121	246	45	46	91	37.0%	80	75	155	40	39	79	51.0%	40	36	76
Pharmacy/Drugstore without Drive-Thru	880	15,000	Sft	T = 8.51(X)	49%	51%	63	65	128	23	24	47	36.7%	40	41	81	21	22	43	53.0%	19	19	38
Fast-Food Restaurant with Drive-Thru	934	25,000	Sft	T = 32.67(X)	52%	48%	425	392	817	121	151	272	33.3%	304	241	545	134	133	267	49.0%	170	108	278
High-Turnover (Sit-Down) Restaurant	932	100,000	Sft	T = 9.77(X)	62%	38%	606	371	977	145	181	326	33.4%	461	190	651	140	140	280	43.0%	321	50	371
Water Slide Park	482	9.5	Acres	T = 22.92(X)[3]	42%	58%	92	126	218	27	14	41	18.8%	65	112	177	-	-	-	0.0%	65	112	177
Multipurpose Recreational Facility	435	19,600	Sft	T = 3.58(X)	55%	45%	39	31	70	9	4	13	18.6%	30	27	57	-	-	-	0.0%	30	27	57
Movie Theater	444	42,500	Sft	T = 6.17(X)	94%	6%	246	16	262	33	16	49	18.7%	213	-	213	-	-	-	0.0%	213	-	213
Golf Course	430	18	Holes	T = 2.91(X)	53%	47%	28	24	52	7	3	10	19.2%	21	21	42	-	-	-	0.0%	21	21	42
Golf Driving Range	432	20	Tees	T = 1.25(X)	45%	55%	11	14	25	3	2	5	20.0%	8	12	20	-	-	-	0.0%	8	12	20
Hotel	310	600	Rooms	T = 0.75(X) - 26.02	51%	49%	216	208	424	98	69	167	39.4%	118	139	257	-	-	-	0.0%	118	139	257
TOTALS							**2,892**	**2,479**	**5,371**	**946**	**946**	**1,892**	**35.2%**	**1,946**	**1,533**	**3,479**	**496**	**497**	**993**	**28.5%**	**1,450**	**1,036**	**2,486**

Source: ITE 10th Edition Trip Generation Rates



O'Rourke Engineering & Planning

FIGURE 4

PROJECT % ASSIGNMENT
Main Table

WILLOW LAKES

April 2020

O'ROURKE ENGINEERING & PLANNING

772-781-7918
969 SE Federal Highway Suite 402
Stuart, Florida 34994

Table 3a: AM Project Significance

Segment	From	To	Existing + Committed (C) Lanes	Direction	Federal Functional Classification	Existing / Committed Capacity (2012 Directional FDOT LOS D)	In/Out	Project Volume Peak Direction	%Project of Capacity Peak Direction	Project Percent Assignment	3% or Greater < 2 Miles 5% or Greater 2-5 Miles
Midway Rd	Okeechobee Rd	Shinn Rd	2	EB	Rural Principal Arterial-uf	760	In	27	3.57%	2%	NO
	Okeechobee Rd	Shinn Rd	2	WB	Rural Principal Arterial-uf	760	Out	21	2.80%	2%	NO
	Shinn Rd	McCarty Rd	2	EB	Rural Principal Arterial-uf	630	In	27	4.30%	2%	YES
	Shinn Rd	McCarty Rd	2	WB	Rural Principal Arterial-uf	630	Out	21	3.38%	2%	YES
	McCarty Rd	11 Mile Rd	2	EB	Urban Principal Arterial-uf	700	In	27	3.87%	2%	YES
	McCarty Rd	11 Mile Rd	2	WB	Urban Principal Arterial-uf	700	Out	21	3.04%	2%	YES
	11 Mile Rd	Arterial A	2	EB	Urban Principal Arterial-uf	700	In	27	3.87%	2%	YES
	11 Mile Rd	Arterial A	2	WB	Urban Principal Arterial-uf	700	Out	21	3.04%	2%	YES
	Arterial A	I95	4D(C)	EB	Urban Principal Arterial-uf	2100	Out	1022	48.69%	96%	YES
	Arterial A	I95	4D(C)	WB	Urban Principal Arterial-uf	2100	In	1301	61.94%	96%	YES
	I95	Glades Cut off Rd	4D	EB	Urban Principal Arterial-CI	2100	Out	330	15.72%	31%	YES
	I95	Glades Cut off Rd	4D	WB	Urban Principal Arterial-CI	2100	In	420	20.00%	31%	YES
	Glades Cut off Rd	NW East Torino Pkwy	4D	EB	Urban Principal Arterial-CI	2100	Out	266	12.68%	25%	YES
	Glades Cut off Rd	NW East Torino Pkwy	4D	WB	Urban Principal Arterial-CI	2100	In	339	16.13%	25%	YES
	NW East Torino Pkwy	Florida's Turnpike	2L	EB	Urban Principal Arterial-CI	920	Out	245	26.63%	23%	YES
	NW East Torino Pkwy	Florida's Turnpike	2L	WB	Urban Principal Arterial-CI	920	In	312	33.88%	23%	YES
	Florida's Turnpike	NW Corporate Way	2L	EB	Urban Principal Arterial-CI	920	Out	245	26.63%	23%	YES
	Florida's Turnpike	NW Corporate Way	2L	WB	Urban Principal Arterial-CI	920	In	312	33.88%	23%	YES
	NW Corporate Way	S Jenkins Rd	2L	EB	Urban Principal Arterial-CI	920	Out	245	26.63%	23%	YES
	NW Corporate Way	S Jenkins Rd	2L	WB	Urban Principal Arterial-CI	920	In	312	33.88%	23%	YES
	S Jenkins Rd	Selvitz Rd	2L	EB	Urban Principal Arterial-CI	920	Out	245	26.63%	23%	YES
	S Jenkins Rd	Selvitz Rd	2L	WB	Urban Principal Arterial-CI	920	In	312	33.88%	23%	YES
	Selvitz Rd	S 25th St	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	202	9.64%	19%	YES
	Selvitz Rd	S 25th St	4D(C)	WB	Urban Principal Arterial-CI	2100	In	257	12.26%	19%	YES
	S 25th St	Oleander	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	170	8.11%	16%	YES
	S 25th St	Oleander	4D(C)	WB	Urban Principal Arterial-CI	2100	In	217	10.32%	16%	YES
	Oleander	US-1	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	170	8.11%	16%	YES
	Oleander	US-1	4D(C)	WB	Urban Principal Arterial-CI	2100	In	217	10.32%	16%	YES
Okeechobee Rd	Florida's Turnpike	S King's Hwy	4LD	EB	Urban Principal Arterial-CI	2010	In	14	0.67%	1%	NO
	Florida's Turnpike	S King's Hwy	4LD	WB	Urban Principal Arterial-CI	2010	Out	11	0.53%	1%	NO
	S King's Hwy	Crossroads Pkwy	6LD	EB	Urban Principal Arterial-CI	4170	In	14	0.32%	1%	NO
	S King's Hwy	Crossroads Pkwy	6LD	WB	Urban Principal Arterial-CI	4170	Out	11	0.26%	1%	NO
	Crossroads Pkwy	I95	6LD	EB	Urban Principal Arterial-CI	4170	In	14	0.32%	1%	NO
	Crossroads Pkwy	I95	6LD	WB	Urban Principal Arterial-CI	4170	Out	11	0.26%	1%	NO
	I95	Jenkins Rd	6LD	EB	Urban Principal Arterial-CI	4240	Out	298	7.03%	28%	YES
	I95	Jenkins Rd	6LD	WB	Urban Principal Arterial-CI	4240	In	379	8.95%	28%	YES
	Jenkins Rd	McNeil Rd	8LD	EB	Urban Principal Arterial-CI	4040	Out	277	6.85%	26%	YES
	Jenkins Rd	McNeil Rd	8LD	WB	Urban Principal Arterial-CI	4040	In	352	8.72%	26%	YES
	McNeil Rd	Virginia Ave	6LD	EB	Urban Principal Arterial-CI	3170	Out	277	8.74%	26%	YES
	McNeil Rd	Virginia Ave	6LD	WB	Urban Principal Arterial-CI	3170	In	352	11.11%	26%	YES
	Virginia Ave	35th St	6LD	EB	Urban Principal Arterial-CI	2100	Out	75	3.55%	7%	NO
	Virginia Ave	35th St	6LD	WB	Urban Principal Arterial-CI	2100	In	95	4.52%	7%	NO
I-95	Orange Ave	Okeechobee Rd	8LD	NB	Interstate	7320	Out	149	2.04%	14%	NO
	Orange Ave	Okeechobee Rd	8LD	SB	Interstate	7320	In	190	2.59%	14%	NO
	Okeechobee Rd	Midway Rd	6LD	NB	Interstate	4580	Out	490	10.70%	46%	YES
	Okeechobee Rd	Midway Rd	6LD	SB	Interstate	4580	In	623	13.61%	46%	YES
	W Midway Rd	St Lucie West Blvd	6LD	NB	Interstate	4580	In	257	5.62%	19%	YES
	W Midway Rd	St Lucie West Blvd	6LD	SB	Interstate	4580	Out	202	4.42%	19%	NO
	St Lucie West Blvd	Crosstown Pkwy	6LD	NB	Interstate	4580	In	244	5.33%	18%	YES
	St Lucie West Blvd	Crosstown Pkwy	6LD	SB	Interstate	4580	Out	192	4.19%	18%	NO
Glades Cut off Rd	Range Line Rd	Reserve Blvd	2	NB	Urban Minor Arterial-UF	1070	In	27	2.53%	2%	NO
	Range Line Rd	Reserve Blvd	2	SB	Urban Minor Arterial-UF	1070	Out	21	1.99%	2%	NO
	Reserve Blvd	Commerce Centre Dr	2	NB	Urban Minor Arterial-UF	1070	In	27	2.53%	2%	NO
	Reserve Blvd	Commerce Centre Dr	2	SB	Urban Minor Arterial-UF	1070	Out	21	1.99%	2%	NO
	W Midway Rd	Florida's Turnpike	2	NB	Urban Minor Arterial-CI	790	Out	64	8.09%	6%	YES
	W Midway Rd	Florida's Turnpike	2	SB	Urban Minor Arterial-CI	790	In	81	10.29%	6%	YES
	Florida's Turnpike	S Jenkins Rd	2	NB	Urban Minor Arterial-CI	790	Out	64	8.09%	6%	YES
	Florida's Turnpike	S Jenkins Rd	2	SB	Urban Minor Arterial-CI	790	In	81	10.29%	6%	YES
	S Jenkins Rd	Selvitz Rd	2	NB	Urban Minor Arterial-CI	830	Out	64	7.70%	6%	YES
	S Jenkins Rd	Selvitz Rd	2	SB	Urban Minor Arterial-CI	830	In	81	9.80%	6%	YES
SW Saint Lucie West Blvd	I95	California Blvd	4LD	EB	Other Principal Arterial	2100	Out	11	0.51%	1%	NO
	I95	California Blvd	4LD	WB	Other Principal Arterial	2100	In	14	0.65%	1%	NO
	California Blvd	Country Club Dr	4LD	EB	Other Principal Arterial	2100	Out	11	0.51%	1%	NO
	California Blvd	Country Club Dr	4LD	WB	Other Principal Arterial	2100	In	14	0.65%	1%	NO
	Country Club Dr	Cashmere Blvd	4LD	EB	Other Principal Arterial	2100	Out	11	0.51%	1%	NO
	Country Club Dr	Cashmere Blvd	4LD	WB	Other Principal Arterial	2100	In	14	0.65%	1%	NO
	Cashmere Blvd	Florida's Turnpike	6LD	EB	Other Principal Arterial	3170	Out	11	0.34%	1%	NO
	Cashmere Blvd	Florida's Turnpike	6LD	WB	Other Principal Arterial	3170	In	14	0.43%	1%	NO
	Florida's Turnpike	Bayshore Blvd	6LD	EB	Other Principal Arterial	3170	Out	11	0.34%	1%	NO
	Florida's Turnpike	Bayshore Blvd	6LD	WB	Other Principal Arterial	3170	In	14	0.43%	1%	NO
Jenkins Rd	Edwards Rd	Okeechobee Rd	2L	NB	Urban Minor Arterial- CI	880	In	14	1.54%	1%	NO
	Edwards Rd	Okeechobee Rd	2L	SB	Urban Minor Arterial-CI	880	Out	11	1.21%	1%	NO
	Okeechobee Rd	Orange Ave	2L	NB	Urban Minor Arterial-CI	920	Out	11	1.16%	1%	NO
	Okeechobee Rd	Orange Ave	2L	SB	Urban Minor Arterial- CI	920	In	14	1.47%	1%	NO
25th St	Midway Rd	Edwards Rd	4LD	NB	Urban Principal Arterial-CI	2100	Out	21	1.01%	2%	NO
	Midway Rd	Edwards Rd	4LD	SB	Urban Principal Arterial-CI	2100	In	27	1.29%	2%	NO
St James	Bayshore Blvd	Midway Rd	4LD	NB	Urban Principal Arterial-CI	2100	In	14	0.65%	1%	NO
	Bayshore Blvd	Midway Rd	4LD	SB	Urban Principal Arterial-CI	2100	Out	11	0.51%	1%	NO
Virginia Ave	Okeechobee Rd	25th St	6LD	EB	Urban Principal Arterial-CI	3020	Out	170	5.64%	16%	YES
	Okeechobee Rd	25th St	6LD	WB	Urban Principal Arterial-CI	3020	In	217	7.18%	16%	YES
Prima Vista Blvd	Bayshore Blvd	Alroso Blvd	4LD	EB	Urban Principal Arterial-CI	2100	Out	11	0.51%	1%	NO
	Bayshore Blvd	Alroso Blvd	4LD	WB	Urban Principal Arterial-CI	2100	In	14	0.65%	1%	NO
	Alroso Blvd	US 1	4LD	EB	Urban Principal Arterial-CI	2100	Out	11	0.51%	1%	NO
	Alroso Blvd	US 1	4LD	WB	Urban Principal Arterial-CI	2100	In	14	0.65%	1%	NO
Selvitz Rd	Bayshore Blvd	Midway Rd	2	NB	Minor Arterial	750	In	41	5.42%	3%	YES
	Bayshore Blvd	Midway Rd	2	SB	Minor Arterial	750	Out	32	4.26%	3%	NO
	Midway Rd	Glades Cut Off Rd	2	NB	Minor Arterial	700	Out	11	1.52%	1%	NO
	Midway Rd	Glades Cut off Rd	2	SB	Minor Arterial	700	In	14	1.94%	1%	NO
East Torino Pkwy	Midway Rd	Turtle Dove Ln	2	NB	Urban Minor Arterial-CI	880	In	27	3.08%	2%	YES
	Midway Rd	Turtle Dove Ln	2	SB	Urban Minor Arterial-CI	880	Out	21	2.42%	2%	NO
Arterial A	Midway Rd	EW 5	6LD	NB	Urban Major Arterial - CI	3020	In	27	0.90%	2%	NO
	Midway Rd	EW 5	6LD	SB	Urban Major Arterial - CI	3020	Out	21	0.71%	2%	NO
	EW 5	Glades Cut off Rd	6LD	NB	Urban Major Arterial - CI	3020	In	27	0.90%	2%	NO
	EW 5	Glades Cut off Rd	6LD	SB	Urban Major Arterial - CI	3020	Out	21	0.71%	2%	NO

Source of Functional Classification: St. Lucie County Comprehensive Plan

= 5%

(2) 2 lane portion fails with background traffic, and conditioned for improvement

Trips In	1355
Trips Out	1065
Total	2420

Table 3b: PM Project Significance

Segment	From	To	Existing + Committed (C) Lanes	Direction	Federal Functional Classification	Existing/ Committed Capacity (2012 Directional FDOT LOS D)	In/Out	Project Volume Peak Direction	% Project of Capacity Peak Direction	Project Percent Assignment	3% or Greater < 2 Miles 5% or Greater 2-5 Miles
Midway Rd	Okeechobee Rd	Shinn Rd	2	EB	Rural Principal Arterial-uf	760	In	29	3.82%	2%	NO
	Okeechobee Rd	Shinn Rd	2	WB	Rural Principal Arterial-uf	760	Out	21	2.73%	2%	NO
	Shinn Rd	McCarty Rd	2	EB	Rural Principal Arterial-uf	630	In	29	4.60%	2%	YES
	Shinn Rd	McCarty Rd	2	WB	Rural Principal Arterial-uf	630	Out	21	3.29%	2%	YES
	McCarty Rd	11 Mile Rd	2	EB	Urban Principal Arterial-uf	700	In	29	4.14%	2%	YES
	McCarty Rd	11 Mile Rd	2	WB	Urban Principal Arterial-uf	700	Out	21	2.96%	2%	NO
	11 Mile Rd	Arterial A	2	EB	Urban Principal Arterial-uf	700	In	29	4.14%	2%	YES
	11 Mile Rd	Arterial A	2	WB	Urban Principal Arterial-uf	700	Out	21	2.96%	2%	NO
	Arterial A	I95	4D(C)	EB	Urban Principal Arterial-uf	2100	Out	995	47.36%	96%	YES
	Arterial A	I95	4D(C)	WB	Urban Principal Arterial-uf	2100	In	1392	66.29%	96%	YES
	I95	Glades Cut off Rd	4D	EB	Urban Principal Arterial-CI	2100	Out	321	15.29%	31%	YES
	I95	Glades Cut off Rd	4D	WB	Urban Principal Arterial-CI	2100	In	450	21.40%	31%	YES
	Glades Cut off Rd	NW East Torino Pkwy	4D	EB	Urban Principal Arterial-CI	2100	Out	259	12.33%	25%	YES
	Glades Cut off Rd	NW East Torino Pkwy	4D	WB	Urban Principal Arterial-CI	2100	In	363	17.26%	25%	YES
	NW East Torino Pkwy	Florida's Turnpike	2L	EB	Urban Principal Arterial-CI	920	Out	238	25.90%	23%	YES
	NW East Torino Pkwy	Florida's Turnpike	2L	WB	Urban Principal Arterial-CI	920	In	334	36.25%	23%	YES
	Florida's Turnpike	NW Corporate Way	2L	EB	Urban Principal Arterial-CI	920	Out	238	25.90%	23%	YES
	Florida's Turnpike	NW Corporate Way	2L	WB	Urban Principal Arterial-CI	920	In	334	36.25%	23%	YES
	NW Corporate Way	S Jenkins Rd	2L	EB	Urban Principal Arterial-CI	920	Out	238	25.90%	23%	YES
	NW Corporate Way	S Jenkins Rd	2L	WB	Urban Principal Arterial-CI	920	In	334	36.25%	23%	YES
	S Jenkins Rd	Selvitz Rd	2L	EB	Urban Principal Arterial-CI	920	Out	238	25.90%	23%	YES
	S Jenkins Rd	Selvitz Rd	2L	WB	Urban Principal Arterial-CI	920	In	334	36.25%	23%	YES
	Selvitz Rd	S 25th St	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	197	9.37%	19%	YES
	Selvitz Rd	S 25th St	4D(C)	WB	Urban Principal Arterial-CI	2100	In	276	13.12%	19%	YES
	S 25th St	Oleander	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	166	7.89%	16%	YES
	S 25th St	Oleander	4D(C)	WB	Urban Principal Arterial-CI	2100	In	232	11.05%	16%	YES
	Oleander	US-1	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	166	7.89%	16%	YES
	Oleander	US-1	4D(C)	WB	Urban Principal Arterial-CI	2100	In	232	11.05%	16%	YES
Okeechobee Rd	McCarty Rd	Florida's Turnpike	4LD	EB	Urban Principal Arterial-CI	1810	In	0	0.00%	0%	NO
	McCarty Rd	Florida's Turnpike	4LD	WB	Urban Principal Arterial-CI	1810	Out	0	0.00%	0%	NO
	Florida's Turnpike	S King's Hwy	4LD	EB	Urban Principal Arterial-CI	2010	In	15	0.72%	1%	NO
	Florida's Turnpike	S King's Hwy	4LD	WB	Urban Principal Arterial-CI	2010	Out	10	0.52%	1%	NO
	S King's Hwy	Crossroads Pkwy	6LD	EB	Urban Principal Arterial-CI	4170	In	15	0.35%	1%	NO
	S King's Hwy	Crossroads Pkwy	6LD	WB	Urban Principal Arterial-CI	4170	Out	10	0.25%	1%	NO
	Crossroads Pkwy	I95	6LD	EB	Urban Principal Arterial-CI	4170	In	15	0.35%	1%	NO
	Crossroads Pkwy	I95	6LD	WB	Urban Principal Arterial-CI	4170	Out	10	0.25%	1%	NO
	I95	Jenkins Rd	6LD	EB	Urban Principal Arterial-CI	4240	Out	290	6.84%	28%	YES
	I95	Jenkins Rd	6LD	WB	Urban Principal Arterial-CI	4240	In	406	9.58%	28%	YES
	Jenkins Rd	McNeil Rd	8LD	EB	Urban Principal Arterial-CI	4040	Out	269	6.67%	26%	YES
	Jenkins Rd	McNeil Rd	8LD	WB	Urban Principal Arterial-CI	4040	In	377	9.33%	26%	YES
	McNeil Rd	Virginia Ave	6LD	EB	Urban Principal Arterial-CI	3170	Out	269	8.50%	26%	YES
	McNeil Rd	Virginia Ave	6LD	WB	Urban Principal Arterial-CI	3170	In	377	11.89%	26%	YES
	Virginia Ave	35th St	6LD	EB	Urban Principal Arterial-CI	2100	Out	73	3.45%	7%	NO
	Virginia Ave	35th St	6LD	WB	Urban Principal Arterial-CI	2100	In	102	4.83%	7%	NO
I-95	Orange Ave	Okeechobee Rd	8LD	NB	Interstate	7320	Out	145	1.98%	14%	NO
	Orange Ave	Okeechobee Rd	8LD	SB	Interstate	7320	In	203	2.77%	14%	NO
	Okeechobee Rd	Midway Rd	6LD	NB	Interstate	4580	Out	477	10.41%	46%	YES
	Okeechobee Rd	Midway Rd	6LD	SB	Interstate	4580	In	667	14.56%	46%	YES
	W Midway Rd	St Lucie West Blvd	6LD	NB	Interstate	4580	In	276	6.02%	19%	YES
	W Midway Rd	St Lucie West Blvd	6LD	SB	Interstate	4580	Out	197	4.30%	19%	NO
	St Lucie West Blvd	Crosstown Pkwy	6LD	NB	Interstate	4580	In	261	5.70%	18%	YES
	St Lucie West Blvd	Crosstown Pkwy	6LD	SB	Interstate	4580	Out	186	4.07%	18%	NO
Glades Cut off Rd	Range Line Rd	Reserve Blvd	2	NB	Urban Minor Arterial-UF	1070	In	29	2.71%	2%	NO
	Range Line Rd	Reserve Blvd	2	SB	Urban Minor Arterial-UF	1070	Out	21	1.94%	2%	NO
	Reserve Blvd	Commerce Centre Dr	2	NB	Urban Minor Arterial-UF	1070	In	29	2.71%	2%	NO
	Reserve Blvd	Commerce Centre Dr	2	SB	Urban Minor Arterial-UF	1070	Out	21	1.94%	2%	NO
	W Midway Rd	Florida's Turnpike	2	NB	Urban Minor Arterial-CII	790	Out	62	7.87%	6%	YES
	W Midway Rd	Florida's Turnpike	2	SB	Urban Minor Arterial-CII	790	In	87	11.01%	6%	YES
	Florida's Turnpike	S Jenkins Rd	2	NB	Urban Minor Arterial-CII	790	Out	62	7.87%	6%	YES
	Florida's Turnpike	S Jenkins Rd	2	SB	Urban Minor Arterial-CII	790	In	87	11.01%	6%	YES
	S Jenkins Rd	Selvitz Rd	2	NB	Urban Minor Arterial-CII	830	Out	62	7.49%	6%	YES
	S Jenkins Rd	Selvitz Rd	2	SB	Urban Minor Arterial-CII	830	In	87	10.48%	6%	YES
SW Saint Lucie West Blvd	I95	California Blvd	4LD	EB	Other Principal Arterial	2100	Out	10	0.49%	1%	NO
	I95	California Blvd	4LD	WB	Other Principal Arterial	2100	In	15	0.69%	1%	NO
	California Blvd	Country Club Dr	4LD	EB	Other Principal Arterial	2100	Out	10	0.49%	1%	NO
	California Blvd	Country Club Dr	4LD	WB	Other Principal Arterial	2100	In	15	0.69%	1%	NO
	Country Club Dr	Cashmere Blvd	4LD	EB	Other Principal Arterial	2100	Out	10	0.49%	1%	NO
	Country Club Dr	Cashmere Blvd	4LD	WB	Other Principal Arterial	2100	In	15	0.69%	1%	NO
	Cashmere Blvd	Florida's Turnpike	6LD	EB	Other Principal Arterial	3170	Out	10	0.33%	1%	NO
	Cashmere Blvd	Florida's Turnpike	6LD	WB	Other Principal Arterial	3170	In	15	0.46%	1%	NO
	Florida's Turnpike	Bayshore Blvd	6LD	EB	Other Principal Arterial	3170	Out	10	0.33%	1%	NO
	Florida's Turnpike	Bayshore Blvd	6LD	WB	Other Principal Arterial	3170	In	15	0.46%	1%	NO
Jenkins Rd	Edwards Rd	Okeechobee Rd	2L	NB	Urban Minor Arterial- CI	880	In	15	1.65%	1%	NO
	Edwards Rd	Okeechobee Rd	2L	SB	Urban Minor Arterial-CI	880	Out	10	1.18%	1%	NO
	Okeechobee Rd	Orange Ave	2L	NB	Urban Minor Arterial-CI	920	Out	10	1.13%	1%	NO
	Okeechobee Rd	Orange Ave	2L	SB	Urban Minor Arterial- CI	920	In	15	1.58%	1%	NO
25th St	Midway Rd	Edwards Rd	4LD	NB	Urban Principal Arterial-CI	2100	Out	21	0.99%	2%	NO
	Midway Rd	Edwards Rd	4LD	SB	Urban Principal Arterial-CI	2100	In	29	1.38%	2%	NO
St James	Bayshore Blvd	Midway Rd	4LD	NB	Urban Principal Arterial-CI	2100	In	15	0.69%	1%	NO
	Bayshore Blvd	Midway Rd	4LD	SB	Urban Principal Arterial-CI	2100	Out	10	0.49%	1%	NO
Virginia Ave	Okeechobee Rd	25th St	6LD	EB	Urban Principal Arterial-CI	3020	Out	166	5.49%	16%	YES
	Okeechobee Rd	25th St	6LD	WB	Urban Principal Arterial-CI	3020	In	232	7.68%	16%	YES
Prima Vista Blvd	Bayshore Blvd	Alroso Blvd	4LD	EB	Urban Principal Arterial-CI	2100	Out	10	0.49%	1%	NO
	Bayshore Blvd	Alroso Blvd	4LD	WB	Urban Principal Arterial-CI	2100	In	15	0.69%	1%	NO
	Alroso Blvd	US 1	4LD	EB	Urban Principal Arterial-CI	2100	Out	10	0.49%	1%	NO
	Alroso Blvd	US 1	4LD	WB	Urban Principal Arterial-CI	2100	In	15	0.69%	1%	NO
Selvitz Rd	Bayshore Blvd	Midway Rd	2	NB	Minor Arterial	750	In	44	5.80%	3%	YES
	Bayshore Blvd	Midway Rd	2	SB	Minor Arterial	750	Out	31	4.14%	3%	NO
	Midway Rd	Glades Cut Off Rd	2	NB	Minor Arterial	700	Out	10	1.48%	1%	NO
	Midway Rd	Glades Cut off Rd	2	SB	Minor Arterial	700	In	15	2.07%	1%	NO
Arterial A	Midway Rd	EW 5	6LD	NB	Urban Major Arterial - CI	3020	In	29	0.96%	2%	NO
	Midway Rd	EW 5	6LD	SB	Urban Major Arterial - CI	3020	Out	21	0.69%	2%	NO
	EW 5	Glades Cut off Rd	6LD	NB	Urban Major Arterial - CI	3020	In	29	0.96%	2%	NO
	EW 5	Glades Cut off Rd	6LD	SB	Urban Major Arterial - CI	3020	Out	21	0.69%	2%	NO

Source of Functional Classification: St. Lucie County Comprehensive Plan

= 5%

(2) 2 lane portion fails with background traffic, and conditioned for improvement

Trips In	1450
Trips Out	1036
Total	2486

Table 4a: 2035 Link Analysis - AM Peak Hour

Segment	From	To	Existing + Committed (C) Lanes	Direction	Federal Functional Classification	2019 Volume	Existing/ Committed Capacity (2012 Directional FDOT LOS D)	.5% Growth	AM Approved Projects	2035 AM Total Traffic w/o Project	Calculated Growth	Minimum Existing + 1% Growth per year	2035 AM Total Traffic w/ Project	In/Out	Project Volume Peak Direction	%Project of Capacity Peak Direction	Project Percent Assignment	3% (5%) or Greater	Satisfies Criteria w/o Project	Satisfies Criteria w/ Project	Improvement	Proposed Capacity	Satisfies Criteria with Expanded Capacity
Midway Rd	Shiva Rd	McCarty Rd	2	EB	Rural Principal Arterial-uf	272	630	23	249	535	4.31%		562	In	27	4.30%	2%	YES	Yes	Yes	N/A		Yes
	Shiva Rd	McCarty Rd	2	WB	Rural Principal Arterial-uf	295	630	25	382	502	3.38%		523	Out	21	3.38%	2%	YES	Yes	Yes	N/A		Yes
	McCarty Rd	11 Mile Rd	2	EB	Urban Principal Arterial-uf	295	700	25	108	538	3.58%		545	In	27	3.87%	2%	YES	Yes	Yes	N/A		Yes
	McCarty Rd	11 Mile Rd	2	WB	Urban Principal Arterial-uf	272	700	23	139	434	2.96%		455	Out	21	3.04%	2%	YES	Yes	Yes	N/A		Yes
	11 Mile Rd	Arterial A	2	EB	Urban Principal Arterial-uf	295	700	25	267	587	4.39%		614	In	27	3.87%	2%	YES	Yes	Yes	N/A		Yes
	11 Mile Rd	Arterial A	2	WB	Urban Principal Arterial-uf	272	700	23	204	499	3.80%		520	Out	21	3.04%	2%	YES	Yes	Yes	N/A		Yes
	Arterial A	I95	2L/4LD(2)	EB	Urban Principal Arterial-uf	295	2100	25	866	1186	5.09%		2208	Out	1022	48.69%	96%	YES	Yes	No	6LD	3020	Yes
	Arterial A	I95	2L/4LD(2)	WB	Urban Principal Arterial-uf	272	2100	23	1,754	2049	13.44%		3350	In	1301	61.94%	95%	YES	Yes	No	6LD+	4040	Yes
	I95	Glades Cut off Rd	4D	EB	Urban Principal Arterial-CI	758	2100	63	403	1224	3.04%		1554	Out	330	15.72%	31%	YES	Yes	Yes	N/A		Yes
	I95	Glades Cut off Rd	4D	WB	Urban Principal Arterial-CI	926	2100	77	573	1576	3.38%		1996	In	420	20.00%	31%	YES	Yes	Yes	N/A		Yes
	Glades Cut off Rd	NW East Torino Pkwy	4D	EB	Urban Principal Arterial-CI	1,178	2100	98	703	1979	3.30%		2245	Out	266	12.68%	25%	YES	Yes	No	6LD	3020	Yes
	Glades Cut off Rd	NW East Torino Pkwy	4D	WB	Urban Principal Arterial-CI	1,226	2100	102	734	2062	3.30%		2401	In	339	16.13%	25%	YES	Yes	No	6LD	3020	Yes
	NW East Torino Pkwy	NW Corporate Way	2L	EB	Urban Principal Arterial-CI	1,216	920	101	787	2104	3.49%		2349	Out	245	26.63%	23%	YES	No	No	6LD	3020	Yes
	NW East Torino Pkwy	NW Corporate Way	2L	WB	Urban Principal Arterial-CI	995	920	83	922	2000	4.48%		2312	In	312	33.88%	29%	YES	No	No	6LD	3020	Yes
	NW Corporate Way	S Jenkins Rd	2L	EB	Urban Principal Arterial-CI	1,216	920	101	522	1839	2.62%		2084	Out	245	26.63%	23%	YES	No	No	4LD	2100	Yes
	NW Corporate Way	S Jenkins Rd	2L	WB	Urban Principal Arterial-CI	1,036	920	86	602	1724	3.24%		2036	In	312	33.88%	29%	YES	No	No	4LD	2100	Yes
	S Jenkins Rd	Selvitz Rd	2L	EB	Urban Principal Arterial-CI	1,216	920	101	467	1784	2.42%		2029	Out	245	26.63%	23%	YES	No	No	4LD	2100	Yes
	S Jenkins Rd	Selvitz Rd	2L	WB	Urban Principal Arterial-CI	1,078	920	90	540	1708	2.92%		2020	In	312	33.88%	29%	YES	No	No	4LD	2100	Yes
	Selvitz Rd	S 25th St	4D(C)	EB	Urban Principal Arterial-CI	973	2100	81	401	1455	2.55%		1657	Out	202	9.64%	19%	YES	Yes	Yes	N/A		Yes
	Selvitz Rd	S 25th St	4D(C)	WB	Urban Principal Arterial-CI	973	2100	81	448	1502	2.75%		1759	In	257	12.26%	19%	YES	Yes	Yes	N/A		Yes
	S 25th St	Oleander	4D(C)	EB	Urban Principal Arterial-CI	1,085	2100	85	401	1511	2.46%		1681	Out	170	8.12%	16%	YES	Yes	Yes	N/A		Yes
	S 25th St	Oleander	4D(C)	WB	Urban Principal Arterial-CI	805	2100	67	448	1320	3.14%		1537	In	217	10.32%	16%	YES	Yes	Yes	N/A		Yes
	Oleander	US-1	4D(C)	EB	Urban Principal Arterial-CI	635	2100	53	401	1089	3.43%		1259	Out	170	8.12%	16%	YES	Yes	Yes	N/A		Yes
	Oleander	US-1	4D(C)	WB	Urban Principal Arterial-CI	808	2100	67	448	1323	3.13%		1540	In	217	10.32%	16%	YES	Yes	Yes	N/A		Yes
Okeechobee Rd	I95	Jenkins Rd	6LD	EB	Urban Principal Arterial-CI	1,976	4240	164	199	2339	1.06%		2637	Out	298	7.03%	28%	YES	Yes	Yes	N/A		Yes
	I95	Jenkins Rd	6LD	WB	Urban Principal Arterial-CI	1,112	4240	92	127	1331	1.13%		1710	In	379	8.95%	28%	YES	Yes	Yes	N/A		Yes
	Jenkins Rd	McNeil Rd	8LD	EB	Urban Principal Arterial-CI	1,976	4040	164	138	2278	0.89%	2317	2555	Out	277	6.85%	26%	YES	Yes	Yes	N/A		Yes
	Jenkins Rd	McNeil Rd	8LD	WB	Urban Principal Arterial-CI	1,018	4040	85	70	1173	0.69%	1194	1525	In	352	8.72%	26%	YES	Yes	Yes	N/A		Yes
	McNeil Rd	Virginia Ave	6LD	EB	Urban Principal Arterial-CI	1,580	3170	131	6	1717	0.52%	1853	1954	Out	277	8.74%	26%	YES	Yes	Yes	N/A		Yes
	McNeil Rd	Virginia Ave	6LD	WB	Urban Principal Arterial-CI	851	3170	71	8	930	0.56%	998	1282	In	352	11.11%	26%	YES	Yes	Yes	N/A		Yes
I-95	Okeechobee Rd	Midway Rd	6LD	NB	Interstate	4578	4580	380	759	5717	1.40%		6207	Out	490	10.70%	40%	YES	No	No	8LD	7320	Yes
	Okeechobee Rd	Midway Rd	6LD	SB	Interstate	3181	4580	264	1,136	4581	2.33%		5204	In	623	13.61%	46%	YES	No	No	8LD	7320	Yes
	W Midway Rd	St Lucie West Blvd	6LD	NB	Interstate	3571	4580	297	1,127	4995	2.12%		5252	In	257	5.62%	19%	YES	No	No	8LD	7320	Yes
	St Lucie West Blvd	Crosstown Pkwy	6LD	NB	Interstate	4048	4580	336	1,297	5681	2.14%		5925	In	244	5.33%	18%	YES	No	No	8LD	7320	Yes
Glades Cut Off Rd	W Midway Rd	S. Jenkins Rd.	2	NB	Urban Minor Arterial-CII	669	790	56	133	858	1.57%		922	Out	64	8.09%	6%	YES	No	No	4LD	2000	Yes
	W Midway Rd	S. Jenkins Rd.	2	SB	Urban Minor Arterial-CII	526	790	44	137	707	1.87%		788	In	81	10.29%	6%	YES	Yes	Yes	N/A		Yes
	S Jenkins Rd	Selvitz Rd	2	NB	Urban Minor Arterial-CII	370	810	31	135	536	2.34%		600	Out	64	7.70%	6%	YES	Yes	Yes	N/A		Yes
	S Jenkins Rd	Selvitz Rd	2	SB	Urban Minor Arterial-CII	291	830	24	140	455	2.84%		535	In	81	9.80%	6%	YES	Yes	Yes	N/A		Yes
Virginia Ave	Okeechobee Rd	25th St	6LD	EB	Urban Principal Arterial-CI	1169	3020	97	60	1326	0.79%	1371	1496	Out	170	5.64%	16%	YES	Yes	Yes	N/A		Yes
	Okeechobee Rd	25th St	6LD	WB	Urban Principal Arterial-CI	1169	3020	97	54	1320	0.76%	1371	1537	In	217	7.18%	16%	YES	Yes	Yes	N/A		Yes
Selvitz Rd	Bayshore Blvd	Midway Rd	2	NB	Minor Arterial	416	750	35	50	511	1.14%		552	In	41	5.47%	3%	YES	Yes	Yes	N/A		Yes
East Torino Pkwy	Midway Rd	Turtle Dove Ln	2	NB	Urban Minor Arterial-CI	1,030	880	86	29	1145	0.66%	1208	1172	In	27	3.08%	2%	YES	No	No	4LD	2000	Yes

Source of Functional Classification: St. Lucie County Comprehensive Plan
TPO= 2019 Traffic Volumes
(1) Shaded Areas indicate project traffic triggered, not needed for background
(2) Midway from Arterial A to I-95 requires 4D for Background Traffic, Developer funded

Trips In	1355
Trips Out	1065
Total	2420
Years Grown	16

Table 4b: 2035 Link Analysis - PM Peak Hour

Segment	From	To	Existing + Committed (C) Lanes	Direction	Federal Functional Classification	2019 Volume	Existing/ Committed Capacity (2012 Directional FDOT LOS D)	.5% Growth	PM Approved Projects	2035 PM Total Traffic w/o Project	Calculated Growth	Minimum Existing + 1% Growth per year	2035 PM Total Traffic w/ Project	In/Out	Project Volume Peak Direction	%Project of Capacity Peak Direction	Project Percent Assignment	3% (5%) or Greater	Satisfies Criteria w/o Project	Satisfies Criteria w/ Project	Improvement	Proposed Capacity	Satisfies Criteria with Expanded Capacity
Midway Rd	Shinn Rd	McCarty Rd	2	EB	Rural Principal Arterial-uf	376	630	31	291	698	3.94%		727	In	29	4.60%	2%	YES	No	No	4LD	2000	Yes
	Shinn Rd	McCarty Rd	2	WB	Rural Prinipal Arterial-uf	347	630	29	395	772	5.12%		793	Out	21	3.28%	2%	YES	No	No	4LD	2000	Yes
	McCarty Rd	11 Mile Rd	2	EB	Urban Principal Arterial-uf	347	700	29	235	611	3.60%		640	In	39	4.14%	2%	YES	Yes	Yes	N/A		Yes
	11 Mile Rd	Arterial A	2	EB	Urban Principal Arterial-uf	347	700	29	274	650	4.00%		679	In	39	4.14%	2%	YES	Yes	Yes	N/A		Yes
	Arterial A	I95	2L/4LD(2)	EB	Urban Principal Arterial-uf	347	2100	29	2,147	2523	13.20%		3518	Out	995	47.36%	96%	YES	No 4L, Yes 6L	No 4L, No 6L	6LD+	4040	Yes
	Arterial A	I95	2L/4LD(2)	WB	Urban Principal Arterial-uf	376	2100	31	1,234	1641	9.65%		3033	In	1392	66.29%	96%	YES	Yes	No	6LD+	4040	Yes
	I95	Glades Cut off Rd	4D	EB	Urban Principal Arterial-CI	911	2100	76	829	1816	4.41%		2137	Out	321	15.29%	31%	YES	Yes	No	6LD	3020	Yes
	I95	Glades Cut off Rd	4D	WB	Urban Principal Arterial-CI	1,027	2100	85	538	1650	3.01%		2100	In	450	21.40%	31%	YES	Yes	Yes	N/A		Yes
	Glades Cut off Rd	NW East Torino Pkwy	4D	EB	Urban Principal Arterial-CI	1,281	2100	106	1,115	2502	4.27%		2761	Out	259	12.33%	25%	YES	No	No	6LD	3020	Yes
	Glades Cut off Rd	NW East Torino Pkwy	4D	WB	Urban Principal Arterial-CI	890	2100	74	915	1879	4.78%		2242	In	363	17.26%	25%	YES	Yes	No	6LD	3020	Yes
	NW East Torino Pkwy	Florida's Turnpike	2L	EB	Urban Principal Arterial-CI	1,253	920	104	1,434	2791	5.13%		3029	Out	238	25.90%	23%	YES	No	No	6LD	3020	No
	NW East Torino Pkwy	Florida's Turnpike	2L	WB	Urban Principal Arterial-CI	1,304	920	108	1,084	2496	4.14%		2830	In	334	36.25%	23%	YES	No	No	6LD	3020	Yes
	Florida's Turnpike	NW Corporate Way	2L	EB	Urban Principal Arterial-CI	1,253	920	104	1,416	2773	5.09%		3011	Out	238	25.90%	23%	YES	No	No	6LD	3020	Yes
	Florida's Turnpike	NW Corporate Way	2L	WB	Urban Principal Arterial-CI	1,304	920	108	1,076	2488	4.12%		2822	In	334	36.25%	23%	YES	No	No	6LD	3020	Yes
	NW Corporate Way	S Jenkins Rd	2L	EB	Urban Principal Arterial-CI	1,204	920	100	918	2122	3.33%		2470	Out	238	25.90%	23%	YES	No	No	6LD	3020	Yes
	NW Corporate Way	S Jenkins Rd	2L	WB	Urban Principal Arterial-CI	1,304	920	108	709	2121	3.09%		2455	In	334	36.25%	23%	YES	No	No	6LD	3020	Yes
	S Jenkins Rd	Selvitz Rd	2L	EB	Urban Principal Arterial-CI	1,204	920	100	827	2131	3.63%		2369	Out	238	25.90%	23%	YES	No	No	6LD	3020	Yes
	S Jenkins Rd	Selvitz Rd	2L	WB	Urban Principal Arterial-CI	1,304	920	108	630	2042	2.84%		2376	In	334	36.25%	23%	YES	No 2L, Yes 4L	No 2L, No 4L	6LD	3020	Yes
	Selvitz Rd	S 25th St	4 D(C)	EB	Urban Principal Arterial-CI	940	2100	78	688	1706	3.80%		1903	Out	197	9.37%	19%	YES	Yes	Yes	N/A		Yes
	Selvitz Rd	S 25th St	4 D(C)	WB	Urban Principal Arterial-CI	801	2100	67	541	1409	3.59%		1685	In	276	13.12%	19%	YES	Yes	Yes	N/A		Yes
	S 25th St	Oleander	4 D(C)	EB	Urban Principal Arterial-CI	942	2100	78	688	1708	3.79%		1874	Out	166	7.89%	16%	YES	Yes	Yes	N/A		Yes
	S 25th St	Oleander	4 D(C)	WB	Urban Principal Arterial-CI	802	2100	67	541	1410	3.59%		1642	In	232	11.05%	16%	YES	Yes	Yes	N/A		Yes
	Oleander	US-1	4 D(C)	EB	Urban Principal Arterial-CI	654	2100	54	688	1396	4.85%		1562	Out	166	7.89%	16%	YES	Yes	Yes	N/A		Yes
	Oleander	US-1	4 D(C)	WB	Urban Principal Arterial-CI	890	2100	66	541	1497	3.59%		1639	In	232	11.05%	16%	YES	Yes	Yes	N/A		Yes
Okeechobee Rd	I95	Jenkins Rd	6LD	EB	Urban Principal Arterial-CI	1,578	4240	131	205	1914	1.22%		2204	Out	290	6.84%	28%	YES	Yes	Yes	N/A		Yes
	I95	Jenkins Rd	6LD	WB	Urban Principal Arterial-CI	1,709	4240	142	247	2098	1.29%		2504	In	406	9.58%	28%	YES	Yes	Yes	N/A		Yes
	Jenkins Rd	McNeil Rd	8LD	EB	Urban Principal Arterial-CI	1,515	4040	126	122	1764	0.95%	1277	2046	Out	269	6.67%	26%	YES	Yes	Yes	N/A		Yes
	Jenkins Rd	McNeil Rd	8LD	WB	Urban Principal Arterial-CI	1,709	4040	142	163	2014	1.03%		2391	In	377	9.33%	26%	YES	Yes	Yes	N/A		Yes
	McNeil Rd	Virginia Ave	6LD	EB	Urban Principal Arterial-CI	1,522	3170	126	9	1657	0.53%	1765	1926	Out	269	8.50%	26%	YES	Yes	Yes	N/A		Yes
	McNeil Rd	Virginia Ave	6LD	WB	Urban Principal Arterial-CI	1,649	3170	137	8	1794	0.53%	1934	2311	In	377	11.89%	26%	YES	Yes	Yes	N/A		Yes
I-95	Okeechobee Rd	Midway Rd	6LD	NB	Interstate	3041	4580	253	1,548	4842	2.55%		5319	Out	477	10.41%	46%	YES	No	No	8LD	7320	Yes
	Okeechobee Rd	Midway Rd	6LD	SB	Interstate	3717	4580	309	995	5021	1.50%		5688	In	667	14.56%	46%	YES	No	No	8LD	7320	Yes
	W Midway Rd	St Lucie West Blvd	6LD	NB	Interstate	2519	4580	209	1,311	4039	2.99%		4315	In	276	6.03%	19%	YES	Yes	Yes	N/A		Yes
	St Lucie West Blvd	Crosstown Pkwy	6LD	NB	Interstate	2873	4580	239	1,950	5062	3.50%		5322	In	161	3.70%	18%	YES	No	No	8LD	7320	Yes
Glades Cut off Rd	W Midway Rd	S. Jenkins Road	2	NB	Urban Minor Arterial-CII	421	730	35	272	728	5.48%		790	Out	62	7.87%	6%	YES	Yes	Yes	N/A		Yes
	W Midway Rd	S. Jenkins Road	2	SB	Urban Minor Arterial-CII	687	730	57	199	943	2.00%		1030	In	87	11.01%	8%	YES	No	No	4LD	2000	Yes
	S Jenkins Rd	Selvitz Rd	2	NB	Urban Minor Arterial-CII	236	830	20	260	516	5.01%		578	Out	62	7.49%	6%	YES	Yes	Yes	N/A		Yes
	S Jenkins Rd	Selvitz Rd	2	SB	Urban Minor Arterial-CII	385	830	32	197	614	2.96%		701	In	87	10.48%	8%	YES	Yes	Yes	N/A		Yes
Virginia Ave	Okeechobee Rd	25th St	6LD	EB	Urban Principal Arterial-CI	1126	3020	94	66	1286	0.83%	1370	1486	Out	166	5.49%	16%	YES	Yes	Yes	N/A		Yes
	Okeechobee Rd	25th St	6LD	WB	Urban Principal Arterial-CI	999	3020	83	64	1146	0.86%	1171	1403	In	232	7.68%	16%	YES	Yes	Yes	N/A		Yes
Selvitz Rd	Bayshore Blvd	Midway Rd	2	NB	Minor Arterial	240	750	20	65	325	1.92%		369	In	44	5.80%	3%	YES	Yes	Yes	N/A		Yes
East Torino Pkwy	Midway Rd	Turtle Dove Ln	2	NB	Urban Minor Arterial-CI	625	880	52	55	732	0.99%	733	782	In	29	3.30%	2%	YES	Yes	Yes	N/A		Yes

Source of Functional Classification: St. Lucie County Comprehensive Plan
TPO=2019
(1) Shaded Areas indicate project triggered, not need for background
(2) Midway from Arterial A to I-95 requires 4 D for Background Traffic, Developer funded

Trips In	1450
Trips Out	1036
Total	2486
Years Grown:	16

ROADWAY NEEDS - LINKS

Based on the total traffic volumes, several roadways exceed capacity.

The project proposes to mitigate its impact by use of proportionate share. Florida Statutes state that if any road is determined to be transportation deficient without the project traffic under review, the costs of correcting that deficiency shall be removed from the project's proportionate-share calculation and the necessary transportation improvements to correct that deficiency shall be considered to be in place for purposes of the proportionate-share calculation. **Figure 5** illustrates the roadway improvements to which the project will provide a proportionate share contribution.

Table 5 summarizes the proportionate share by improvement for those improvements not needed by background traffic. As shown, the project's share is $7,506,123. That cost includes the roadway links and one intersection described in an upcoming section on intersection analysis. Long Range planning estimates from FDOT were applied to develop the construction costs. And additional 30% was added for design and contingency. Right-of-way costs based on a 20% increase over assessed values was included as well.

The applicant will pay its proportionate share as follows:

+ The applicant shall pay $5,843,946 to widen or the applicant shall cause to widen Midway Road from Arterial A to I-95 as a six-lane divided roadway with extended turn lanes, prior to pulling building permits that generate more than 805 AM inbound trips, or 873 AM outbound trips,
+ The applicant shall pay $806,463 to widen Midway Road from Glades Cut-off to NW East Torino Parkway as a six-lane divided arterial prior to pulling building permits that generate 920 AM outbound trips,
+ The applicant shall pay $132,932 to widen Midway Road from I-95 to Glades Cut-Off prior to pulling building permits that generate more than 1005 PM outbound trips, and
+ The applicant shall pay $722,782 to widen Midway Road from Jenkins Road to Selvitz. prior to pulling building permits that generate more than 1077 PM inbound trips.

DRIVEWAY ANALYSIS

There are three project driveways on Midway Road; Gordy Road (Main Street/Driveway 1), Driveway 2 (Right-in/Right-out), and Pier Avenue (Driveway 3) (Full Access). When the project Village at Midway extends Arterial A, Willow Lakes will connect to Arterial A at Driveway 4.

Figure 6 summarizes the driveway volumes. The top half shows the volumes with Village at Midway and the Arterial A Extension in place. The bottom half illustrates the volumes without the Arterial A Extension and without the Village at Midway traffic volumes. This scenario is included to establish the turn lanes at the project driveways without the connection to Arterial A.



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= 2L to 4L
= 2L to 6L
= 4L to 6L
= 4L to 6L+
= Intersection Improvements

FIGURE 5

Road Improvements to be Prop Shared

WILLOW LAKES

February 2020

TABLE 5a: Prop Share - 2035 - AM

Segment	From	To	Direction	2035 Assignment	Existing 2019 Volume (a)	2035 AM Peak Hour, Direct. Volume	Generalized Service Capacity (b)	Total Cumulative Project Volume-Peak Direction	Total Traffic Peak Direction (2035) (C)	Existing Number of Lanes	Proposed Number of Lanes	Proposed Capacity	Length in Miles	FDOT Unit Cost	Construction Cost	Design/CEI/ Contingency 30%(1)	Right of Way Cost	Total Cost of Improvement	Project Trips adjusted for remaining capacity	Project % of New Capacity	Project Share of Cost	Payment Due (2)
Midway Road	Arterial A	I-95	EB	96.0%	295	1,186	2,100	1022	2208	4D	6D	3020	1.32	4,915,750	3,244,395	973,319	0	4,217,714	108	11.8%	496,957	N/A
	Arterial A	I-95	WB	96.0%	272	2,049	2,100	1301	3350	4D	6LD+	4040	1.187	6,749,409	4,005,774	1,201,732	17,818	5,225,324	3,250	64.4%	3,366,294	805 Inbound
	Glades Cut Off	NW East Torino Parkway	EB	25.0%	1178	1,979	2,100	266	2245	4D	6D	3020	0.28	4,915,750	688,205	206,462	0	894,667	145	15.8%	141,250	920 Outbound
	Glades Cut Off	NW East Torino Parkway	WB	25.0%	1226	2,062	2,100	339	2401	4D	6D	3020	0.28	4,915,750	1,562,405	468,722	3,774	2,034,901	301	32.7%	665,213	1008 Inbound
																				Sub Total:	4,172,757		

(1) Adjustment for Design.CEI/Contingency: 0.3

(d) IN 1355
OUT 1065

(Does not include "yellow" higher value included in PM)

TABLE 5b: Prop Share - 2035 - PM

Segment	From	To	Direction	2035 Assignment	Existing 2019 Volume (a)	2035 PM Peak Hour, Direct. Volume	Generalized Service Capacity (b)	Total Cumulative Project Volume-Peak Direction	Total Traffic Peak Direction (2035) (C)	Existing Number of Lanes	Proposed Number of Lanes	Proposed Capacity	Length in Miles	FDOT Unit Cost	Construction Cost	Design/CEI/ Contingency 30%(1)	Right of Way Cost	Total Cost of Improvement	Cumulative Project Trips adjusted	Project % of New Capacity	Project Share of Cost	Payment Due (2)
Midway Road	Arterial A	I-95	EB	96.0%	347	2,523	3,020	995	3518	6LD	6LD+	4040	1	7,786,736	3,893,368	1,168,010	17,818	5,079,196	498	48.8%	2,477,652	873 Inbound
	Arterial A	I-95	WB	96.0%	376	1,641	2,100	1392	3033	4D	6LD	4040	1.187	4,915,750	2,917,497	875,249	17,818	3,810,564	983	48.1%	1,832,606	N/A
	I-95	Glades Cut- Off	EB	31.0%	911	1,816	2,100	321	2137	4D	6D	3020	1.03	4,915,750	2,531,611	759,483	0	3,291,094	37	4.0%	132,932	1005 Inbound
	Glades Cut Off	NW East Torino Parkway	WB	25.0%	890	1,879	2,100	363	2242	4D	6D	3020	0.28	4,915,750	688,105	206,462	3,774	898,441	142	15.4%	138,184	N/A
	Jenkins Rd	Selvitz	WB	23.0%	1304	2,042	2,100	334	2376	4D	6D	3020	0.75	4,915,750	1,843,406	553,022	17,219	2,413,647	276	29.9%	722,762	1077 Inbound
																				Sub Total:	3,333,366		
																				Total	$7,506,123		

(1) Adjustment for Design.CEI/Contingency

(d) IN 1459
OUT 1036

(Does not include "yellow" higher value included in AM)

FDOT Cost Per Mile Model	
Upgrade Type	Cost
2D To 4D	$5,357,794.05
4D to 6D	$4,915,749.60
6D to 8D	$5,953,076.42
1 Additional Lane	$1,833,659.75
New 2 Lane Roadway	$4,888,101.57
Bridge Section	$155/ Square foot

Right of Way Cost Calculation						
Section	Land Area (Sft)	Land Value	Cost/Sft	Length Needed (Ft)	Width Needed (Ft)	Total Cost
Arterial A to I-95 (WB)	5,079,532	$1,176,954	$0.23	800	80	$17,818
Glades Cut Off to Torino Pkwy (WB)	817,186	$705,700	$0.25	1,040	12	$3,774
Jenkins Rd to Selvitz Rd	770,576	$801,800	$1.04	657	21	$17,219

Total Links + Intersections Prop Share

(2) Payment Due Date Calculated As: The Available Capacity Divided by the Increase in Trips Multiplied by the Directional Project Trips

Threshold (a) = [(b-a)/(c-a)]*d
a = Existing 2019 Volume
b = Existing Capacity
c = 2035 Total Traffic Volume - 2019 Existing Volume
d = Directional Project Trips at Buildout
a = Trip Threshold

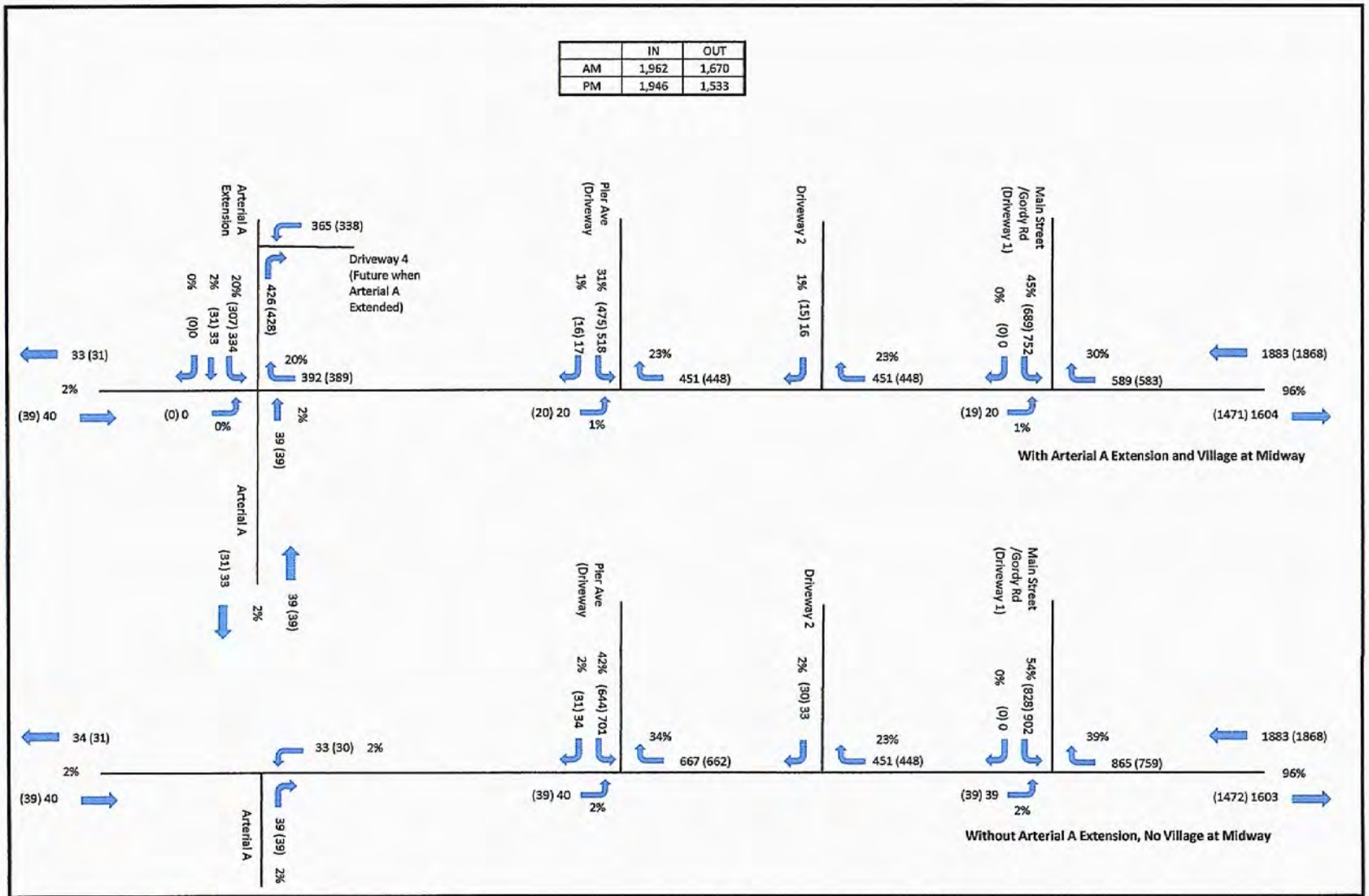

IN OUT
AM 1,962 1,670
PM 1,946 1,533
Arterial A Extension
Pier Ave (Driveway
Driveway 2
Main Street /Gordy Rd (Driveway 1)
Driveway 4 (Future when Arterial A Extended)
365 (338)
426 (428)
392 (389)
33 (31)
(39) 40
(0) 0
39 (39)
(20) 20
451 (448)
589 (583)
1883 (1868)
(1471) 1604
(19) 20
With Arterial A Extension and Village at Midway
Arterial A
(31) 33
34 (31)
33 (30)
667 (662)
865 (759)
(39) 40
(39) 39
(1472) 1603
Without Arterial A Extension, No Village at Midway
NTS
O'ROURKE ENGINEERING & PLANNING
969 SE Federal Hwy, Suite 402
Stuart, Fl, 34994
Job Number:
Date:
Legend
XX (XX) = AM (PM)
Figure 6
Willow Lakes Driveway Volumes
Willow Lakes

Figure 7 illustrates the turn lanes needed at each driveway. These turn lanes will support the traffic with or without Arterial A. The applicant will coordinate with the property owners of Village at Midway and LTC Ranch as appropriate on shared or proximate driveways along Midway Road.

Appendix E Provides the driveway turning movements and the Highway Capacity Manual analysis.

INTERSECTION ANALYSIS/IMPROVEMENTS

Ten intersections were analyzed to determine their operating level of service for the following scenarios; existing, 2035 without project, and 2035 with project traffic. The intersections were analyzed for the AM and PM peak hour using Highway Capacity Manual (HCM) based software as appropriate. **Table 6** summarizes the results of the intersection analysis. As shown, improvements will be needed at several intersections.

Table 7 shows the existing and proposed lanes for the subject intersections. As shown, most of the improvements that are needed will be needed to support background traffic. Therefore, the improvements do not need to be prop shared. The intersection of I-95 Northbound and Midway requires a third westbound through lane. That additional lane is address in the link improvement, so it is not included as an intersection cost.

Appendix F includes the intersection analyses, signal timing worksheet and resultant data.

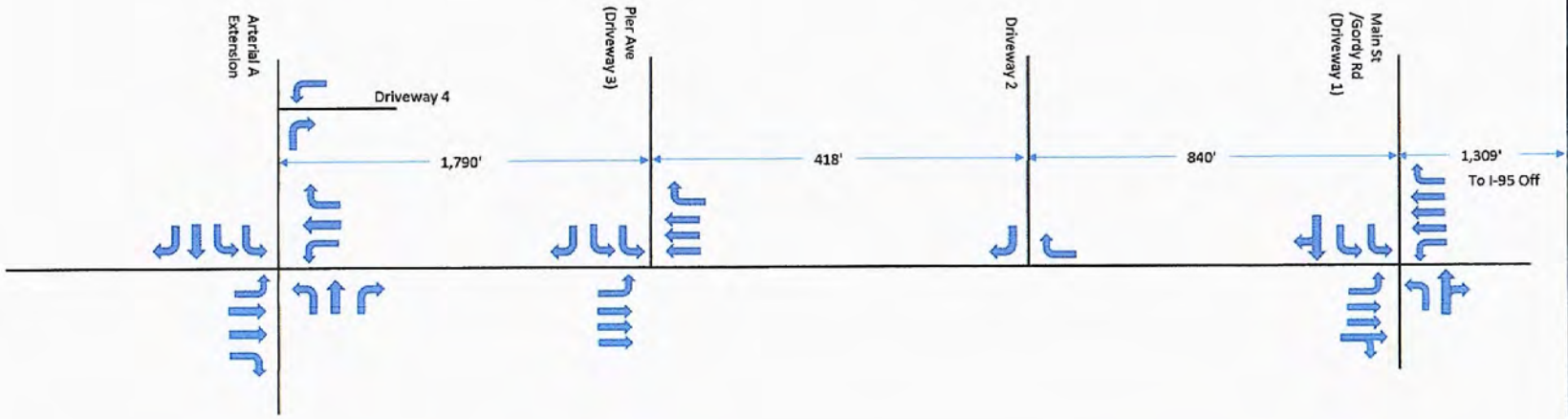
CONCLUSION

Willow Lakes will generate 37,828 daily trips; 2,420 AM Peak Hour trips and 2,486 PM Peak Hour trips. The project will provide sufficient access to the site and make proportionate share payments to mitigate offsite improvements. Improvements along Midway Road are required by multiple developers. The applicant will coordinate relative to the driveways and other construction projects.

The applicant will pay its proportionate share as follows:

+ The applicant shall pay $5,843,946 to widen or the applicant shall cause to widen Midway Road from Arterial A to I-95 as a six-lane divided roadway with extended turn lanes, prior to pulling building permits that generate more than 805 AM inbound trips, or 873 AM outbound trips,
+ The applicant shall pay $806,463 to widen Midway Road from Glades Cut-off to NW East Torino Parkway as a six-lane divided arterial prior to pulling building permits that generate 920 AM outbound trips,
+ The applicant shall pay $132,932 to widen Midway Road from I-95 to Glades Cut-Off prior to pulling building permits that generate more than 1005 PM outbound trips, and
+ The applicant shall pay $722,782 to widen Midway Road from Jenkins Road to Selvitz. prior to pulling building permits that generate more than 1077 PM inbound trips.

The total applicant prop share amount is $7,506,123. With the driveway construction along Midway and the proportionate share payments, concurrency will be satisfied for Willow Lakes. As each site plan is submitted, a trip generation calculation, and an analysis of internal components within that phase of development will be provided.



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Job Number:

Date:

Legend

xx' = Edge to Edge Spacing

= Lane Geometrics

Figure 7

Driveway Lane Configuration

Willow Lakes

Table 6a: Intersection Analysis with Existing Committed Lanes

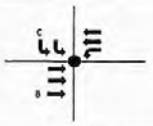
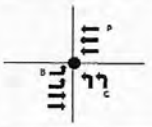
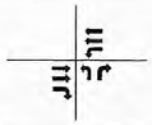
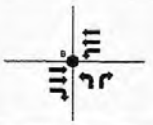
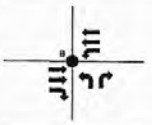
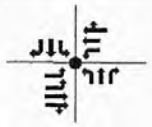
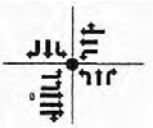
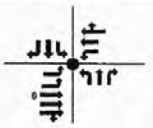
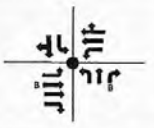
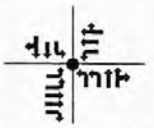
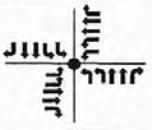
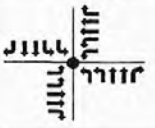
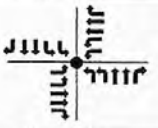
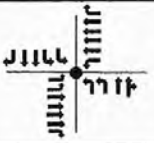
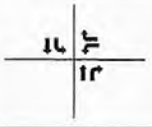
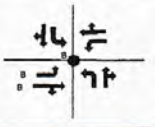
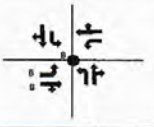
	Intersection	Existing				2035 Background				2035 with Project			
		AM		PM		AM		PM		AM		PM	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	Midway Rd & Okeechobee Rd	13.6	B	14.9	B	16.3	C	20.5	C	17.5	C	22.2	C
2	I-95 SB Ramp & Midway Rd	15.4	B	15.3	B	29.5	D	142.4	F	57.4	F	134.9	F
3	I-95 NB Ramp & Midway Rd	11.2	B	11.6	B	11	E	114.2	F	97.6	F	112.9	F
4	LTC Pkwy & Midway Rd (unsignalized)	11.5	B	19.7	C	876.3	F	1761.9	F	1545.3	F	2906.5	F
5	Glades Cut Off Rd & Midway Rd	39.8	D	28.7	C	85.2	F	96.7	F	78.9	F	101.3	F
6	Midway Rd & Torino Pkwy	45.2	D	84.2	C	127.8	F	148.6	F	131	F	147.8	F
7	Selvitz Rd & Midway Rd	35.3	D	29.6	C	47.2	D	45.3	D	48.1	D	51.6	D
8	25th St & Midway Rd	23.1	C	22.7	C	41.2	D	46.2	D	47.8	D	53.7	D
9	Jenkins Rd & Okeechobee Rd	32.2	C	31.1	C	42	D	43.1	D	41.8	D	43.5	D
10	Glades Cut Off Rd & Commerce Centre Dr (unsignalized)	17.2	C	11.7	B	N/A	F	N/A	F	N/A	F	N/A	F

Table 6b: Intersection Analysis with Improvements

	Intersection	Existing + Improvements				2035 Background + Improvements				2035 with Project + Improvements			
		AM		PM		AM		PM		AM		PM	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1	Midway Rd & Okeechobee Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	I-95 SB Ramp & Midway Rd	N/A	N/A	N/A	N/A	21.2	D	53.1	D	25.7	D	41.9	D
3	I-95 NB Ramp & Midway Rd	N/A	N/A	N/A	N/A	33.5	C	30.6	C	51.4	D	52.4	D
4	LTC Pkwy & Midway Rd	N/A	N/A	N/A	N/A	29.2	C	36.7	D	29.7	C	47.8	D
5	Glades Cut Off Rd & Midway Rd	N/A	N/A	N/A	N/A	46.9	D	50.4	D	39.7	D	43.6	D
6	Midway Rd & Torino Pkwy	N/A	N/A	N/A	N/A	54.2	D	51.5	D	49.4	D	38.6	D
7	Selvitz Rd & Midway Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	25th St & Midway Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	Jenkins Rd & Okeechobee Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	Glades Cut Off Rd & Commerce Centre Dr	N/A	N/A	N/A	N/A	42.2	D	49.7	D	38.4	D	53.8	D

Note: The HCS may included analyses with subsets of the final improvements to ensure that the background traffic could not operate with fewer improvements than the "with project" scenario

TABLE 7: Intersection Geometrics

Intersection #	Intersection	Existing + Committed (C)	Needs for Existing (N)	Needs for Background (B)	Needs for Project (P)
1	Midway Rd & Okeechobee Rd		N/A	N/A	N/A
2	I-95 SB & Midway Rd		N/A		
3	I-95 NB & Midway Rd		N/A		
4	LTC Parkway & Midway Rd		N/A		
5	Glades Cut Off Rd & Midway Rd		N/A		
6	Midway Rd & Torino Parkway		N/A		
7	Selvitz Rd & Midway Rd		N/A		
8	25th St & Midway Rd		N/A		
9	Jenkins Rd & Okeechobee Rd		N/A	N/A	N/A
10	Glades Cut Off Rd & Commerce Centre Dr		N/A		

(1) ● = Signalized Intersection
(2) N = Needed for Existing Conditions
(3) B = Needed for 2035 Background Conditions
(4) P = Needed for Project
(5) C = Committed Improvement
* = Free Flow

APPENDIX i

Methodology Letter

seorourke@comcast.net

From: Jennifer Hofmeister <jhofmeister@cityoffortpierce.com>
Sent: Monday, February 24, 2020 4:17 PM
To: seorourke@comcast.net
Cc: John Andrews
Subject: FW: Willow Lakes Traffic Methodology - SLC

Please see County comments below. Should you contact the County directly, please include Jack and I in the conversation so that we are all on the same page.

Thanks Susan.

Jennifer Hofmeister, AICP, LCAM | Planning Director | City of Fort Pierce
Planning Department
Phone: 772.467.3730 Fax: 772.466-5808 100 North U.S. 1 Fort Pierce, FL 34950

Website | Facebook | Survey

THE SUNRISE CITY
FORT PIERCE
Florida

From: Kori Benton <bentonk@stlucieco.org>
Sent: Monday, February 24, 2020 3:13 PM
To: Jennifer Hofmeister <jhofmeister@cityoffortpierce.com>
Subject: Willow Lakes Traffic Methodology - SLC

SECURITY WARNING: This email originated outside of the City of Fort Pierce systems. Please use caution when clicking links or opening attachments. For questions or concerns please contact IT immediately. .

Good afternoon Jennifer,

Our team is continuing coordination with Susan O'Rourke and Alex Memering of Kimley-Horn (at this time) to pinpoint the Traffic Methodology for the Willow Lakes Impact Report.

Our Public Works Department & Planning Division support the following:

- Please analyze roadways that are impacted by 3% or greater due to project traffic within a 2-mile radius
- For roadways that are impacted by 5% or greater due to project traffic outside of the 2-mile radius, please continue to study the impacted segments until below the 5% impact threshold. *Maximum radius of 5 miles.*

Supplemental Methodology comments include:

- Please provide a background traffic growth calculation for each studied link to show the resultant annual growth rate considering committed traffic. A minimum growth rate of 1% should be applied.
- Please provide a turn lane analysis for each driveway connection on Midway Road based on information found within the FDOT Access Management Guidebook (November 2019) and NCHRP Report 457.

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- Please provide a turn lane analysis for each driveway connection on Midway Road based on information found within the FDOT Access Management Guidebook (November 2019) and NCHRP Report 457.
- Based on discussions within the methodology meeting on February 12, 2019, a 15-year buildout timeframe is proposed. Due the potential impacts to roadways and intersections within the potential study area, please provide a supplementary analysis to determine the timeframe when recommended improvements are required within the 15-year buildout timeframe.
- Please explain where Daily and AM peak hour rates were found for ITE 435 Multipurpose Recreational Facility as there is no Daily of AM peak hour of adjacent street rates for this land use within the ITE Trip Generation Manual, 10th Edition.
- Please check directional splits within the trip generation tables for all land uses and correct accordingly.
- Please use pass-by percentages for ITE 945 Gasoline/Service Station with Convenience Market within the ITE Trip Generation Handbook, 3rd Edition as this is the most similar use to ITE 960 Super Convenience Market/Gas Station.

The County reserves the right to request any other specific area of impact based on a study. Further, we will reserve input on the project traffic distribution until the 2040 Greater Treasure Coast Model is performed.

Unless the City has a Traffic Consultant in place for evaluation of the project, Galvin, Giordano & Associates appears to be our next-in-line for the actual TIR review. We hope to discuss further after evaluation of the proposed Methodology.

Kind regards,
Kori

seorourke@comcast.net

From: seorourke@comcast.net
Sent: Friday, February 28, 2020 12:11 PM
To: 'Jennifer Hofmeister'
Cc: 'John Andrews'
Subject: RE: Willow Lakes Traffic Methodology - SLC

Jennifer,

We are OK with all of these comments and will incorporate the comments into the finalized methodology. We won't be doing some of those items now, such as demonstrating the resultant growth rate, we will include that calculation within the traffic study.

I will update and circulate with the assignment plots attached.

Thanks.

Susan.

Susan E. O'Rourke, P.E.
President

O'Rourke Engineering & Planning
969 SE Federal Highway, Suite 402
Stuart, FL 34994
772 781 7918 o
561 350 8738 c
www.ORourkeEngineering.com

From: Jennifer Hofmeister <jhofmeister@cityoffortpierce.com>
Sent: Monday, February 24, 2020 4:17 PM
To: seorourke@comcast.net
Cc: John Andrews <jandrews@cityoffortpierce.com>
Subject: FW: Willow Lakes Traffic Methodology - SLC

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Thanks Susan.

Jennifer Hofmeister, AICP, LCAM | Planning Director | City of Fort Pierce
Planning Department
Phone: 772.467.3730 Fax: 772.466-5808 100 North U.S. 1 Fort Pierce, FL 34950

Website | Facebook | Survey

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Kind regards,
Kori

Please Note: Florida has very broad public records laws. Most written communications to or from County officials regarding County business are public records available to the public and media upon request. It is the policy of St. Lucie County that all County records shall be open for personal inspection, examination and / or copying. Your e-mail communications will be subject to public disclosure unless an exemption applies to the communication. If you received this email in error, please notify the sender by reply e-mail and delete all materials from all computers.

'.

O'ROURKE
ENGINEERING & PLANNING

February 12, 2020

Methodology for Willow Lakes

A. The traffic analysis will be prepared in accordance with the **Draft TIS Guidelines prepared for the St. Lucie County TPO** and augmented based on discussion between the City of Ft. Pierce and St. Lucie County. The document reflects 5% on links and adjacent link of 1%. **Attachment A** includes the TIS Guideline.

B. Trip Generation for the site is based on ITE rates most closely related to the use. **Attachment B** summarizes the project trip generation and the internal capture. The use of ITE internal capture rates results in internal capture rates that are too high. So, the internal capture rates between certain pairings have been reduced. Those changes are shown in the attachments.

Pass-by will be limited to 10% of adjacent street and pass-by traffic shown separately for distribution and assignment.

Impact Area

According to the Guidelines, the adjacent link should be addressed if It has a one percent impact and the surrounding network should be addressed if the project has an impact of 5% or more.

If the project has 200 or more peak hour trips on a freeway ramp, a merge and weave analysis may be required for FDOT.

Attachment C shows the general study area. **Attachment D** shows the existing roadway geometrics in the study area.

We are in the process of running the 2040 Greater Treasure Coast Model. In the mean time we have presented the assignment for Village at Midway. The results are shown in **Attachment E.** We will run the assignment with and without Village at Midway and the extension of Arterial A.

Background traffic -- Will be determined based on existing counts plus historic growth not to exceed .5% and "other approved projects. We will include the approved DRIs. KHA or the City will provide the data that they have prepared. If other agencies have data, they should provide it as soon as possible.

969 SE Federal Hwy, Suite 402 | Stuart, FL 34994 | 772-781-7918 | SEORourke@comcast.net

Analysis

The Links will be analyzed in tabular format using the TPO capacities. If we feel those capacities are not appropriate we will review them with KHA prior to making adjustments.

Detailed arterial analysis may be used to demonstrate that operational level of service is different than the "theoretical" capacity

Intersections will be analyzed using the Highway Capacity Software by McTrans.

Other

Non-motorized transportation features and transit availability will be summarized for roadways within the study area.

Rights of way will be outlined for all roadways where mitigation is proposed.

Driveways

The project will have two full access driveways and one right-in/right-out driveway.

ATTACHMENT A

TIS Guideline



St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 ww.stlucietpo.org

STANDARDIZED TRAFFIC IMPACT STUDIES (TIS) METHODOLOGY AND PROCEDURES

- **ST. LUCIE COUNTY**
- **CITY OF FORT PIERCE**
- **CITY OF PORT ST. LUCIE**

January 2014

APPENDIX A

Existing Traffic Counts and Network Data

D Factor and Off-Peak Volume Calculations

Segment	From	To	Direction	Count Location	2020 TMC Count AM	2020 TMC Count PM	D Factor AM	D Factor PM	2019 AM Peak Hour Volume	2019 PM Peak Hour Volume
Midway Rd	Okeechobee Rd	Shinn Rd	EB	Okeechobee & Midway	172	225	0.48	0.52	272	376
	Okeechobee Rd	Shinn Rd	WB	Okeechobee & Midway	183	207	0.52	0.48	295	347
	Shinn Rd	McCarty Rd	EB	Okeechobee & Midway	172	225	0.48	0.52	272	376
	Shinn Rd	McCarty Rd	WB	Okeechobee & Midway	183	207	0.52	0.48	295	347
	McCarty Rd	11 Mile Rd	EB	I-95 SB & Midway	256	278	0.52	0.48	295	347
	McCarty Rd	11 Mile Rd	WB	I-95 SB & Midway	241	302	0.48	0.52	272	376
	11 Mile Rd	Arterial A	EB	I-95 SB & Midway	256	278	0.52	0.48	295	347
	11 Mile Rd	Arterial A	WB	I-95 SB & Midway	241	302	0.48	0.52	272	376
	Arterial A	I95	EB	I-95 SB & Midway	256	278	0.52	0.48	295	347
	Arterial A	I95	WB	I-95 SB & Midway	241	302	0.48	0.52	272	376
	I95	Glades Cut off Rd	EB	I-95 NB & Midway	918	820	0.45	0.47	758	911
	I95	Glades Cut off Rd	WB	I-95 NB & Midway	1131	910	0.55	0.53	926	1,027
	Glades Cut off Rd	NW East Torino Pkwy	EB	Glades Cut-Off & Midway	921	915	0.49	0.59	1,178	1,281
	Glades Cut off Rd	NW East Torino Pkwy	WB	Glades Cut-Off & Midway	959	641	0.51	0.41	1,226	890
	NW East Torino Pkwy	Florida's Turnpike	EB	Torino & Midway	1030	823	0.55	0.49	1,216	1,253
	NW East Torino Pkwy	Florida's Turnpike	WB	Torino & Midway	841	865	0.45	0.51	995	1,304
	Florida's Turnpike	NW Corporate Way	EB	Torino & Midway	1030	823	0.55	0.49	1,216	1,253
	Florida's Turnpike	NW Corporate Way	WB	Torino & Midway	841	865	0.45	0.51	995	1,304
	NW Corporate Way	S Jenkins Rd	EB	Jenkins & Midway	1004	812	0.54	0.48	1,216	1,204
	NW Corporate Way	S Jenkins Rd	WB	Jenkins & Midway	855	879	0.46	0.52	1,036	1,304
	S Jenkins Rd	Selvitz Rd	EB	Jenkins & Midway	982	822	0.53	0.48	1,216	1,204
	S Jenkins Rd	Selvitz Rd	WB	Jenkins & Midway	863	875	0.47	0.52	1,078	1,304
	Selvitz Rd (3)	S 25th St	EB	25th & Midway	712	786	0.50	0.54	973	940
	Selvitz Rd	S 25th St	WB	25th & Midway	718	670	0.50	0.48	973	801
	S 25th St (4)	Oleander	EB	25th & Midway	680	760	0.56	0.54	1,025	942
	S 25th St	Oleander	WB	25th & Midway	533	656	0.44	0.46	805	802
	Oleander	US-1	EB						635	654
	Oleander	US-1	WB						808	800
Okeechobee Rd	McCarty Rd	Florida's Turnpike	EB						378	391
	McCarty Rd	Florida's Turnpike	WB						378	391
	Florida's Turnpike	S King's Hwy	EB						378	391
	Florida's Turnpike	S King's Hwy	WB						378	391
	S King's Hwy	Crossroads Pkwy	EB						960	1,013
	S King's Hwy	Crossroads Pkwy	WB						960	1,013
	Crossroads Pkwy	I95	EB						1,063	1,086
	Crossroads Pkwy	I95	WB						1,063	1,086
	I95	Jenkins Rd	EB	Jenkins & Okeechobee	1450	1183	0.64	0.48	1,976	1,578
	I95	Jenkins Rd	WB	Jenkins & Okeechobee	810	1304	0.36	0.52	1,112	1,709
	Jenkins Rd	McNeil Rd	EB	Jenkins & Okeechobee	1349	1136	0.66	0.47	1,976	1,516
	Jenkins Rd	McNeil Rd	WB	Jenkins & Okeechobee	689	1271	0.34	0.53	1,018	1,709
	McNeil Rd	Virginia Ave	EB						1,580	1,522
	McNeil Rd	Virginia Ave	WB						851	1,649
	Virginia Ave	35th St	EB						687	727
	Virginia Ave	35th St	WB						687	727
I-95	Orange Ave	Okeechobee Rd	NB						1,822	1,894
	Orange Ave	Okeechobee Rd	SB						1,822	1,894
	Okeechobee Rd	Midway Rd	NB						4,578	3,717
	Okeechobee Rd	Midway Rd	SB						3,181	3,717
	W Midway Rd	St Lucie West Blvd	NB						3,571	3,079
	W Midway Rd	St Lucie West Blvd	SB						3,571	3,079
	St Lucie West Blvd	Crosstown Pkwy	NB						4,048	3,657
	St Lucie West Blvd	Crosstown Pkwy	SB						4,048	3,657
Glades Cut off Rd	Range Line Rd	Reserve Blvd	NB	Glades Cut-Off & Commerce	450	268	0.55	0.52	200	252
	Range Line Rd	Reserve Blvd	SB	Glades Cut-Off & Commerce	375	244	0.45	0.48	164	233
	Reserve Blvd	Commerce Centre Dr	NB	Glades Cut-Off & Commerce	450	268	0.55	0.52	332	332
	Reserve Blvd	Commerce Centre Dr	SB	Glades Cut-Off & Commerce	375	244	0.45	0.48	272	306
	Commerce Centre Dr	W Midway Rd	NB	Glades Cut-Off & Commerce	272	177	0.51	0.56	210	192
	Commerce Centre Dr	W Midway Rd	SB	Glades Cut-Off & Commerce	262	140	0.49	0.44	202	151
	W Midway Rd	S. Jenkins Road	NB	Glades Cut-Off & Midway	374	261	0.56	0.38	669	421
	W Midway Rd	S. Jenkins Road	SB	Glades Cut-Off & Midway	296	432	0.44	0.62	526	687
	S Jenkins Rd	Selvitz Rd	NB	Glades Cut-Off & Midway	374	261	0.56	0.38	370	236
	S Jenkins Rd	Selvitz Rd	SB	Glades Cut-Off & Midway	296	432	0.44	0.62	291	385
SW Saint Lucie West Blvd	I95	California Blvd	EB						1,722	1,670
	I95	California Blvd	WB						1,722	1,670
	California Blvd	Country Club Dr	EB						1,722	1,670
	California Blvd	Country Club Dr	WB						1,722	1,670
	Country Club Dr	Cashmere Blvd	EB						1,722	1,670
	Country Club Dr	Cashmere Blvd	WB						1,722	1,670
	Cashmere Blvd	Florida's Turnpike	EB						2,446	2,308
	Cashmere Blvd	Florida's Turnpike	WB						2,446	2,308
	Florida's Turnpike	Bayshore Blvd	EB						2,446	2,308
	Florida's Turnpike	Bayshore Blvd	WB						2,446	2,308
Jenkins Rd	Edwards Rd	Okeechobee Rd	NB	Jenkins & Okeechobee	315	294	0.46	0.46	468	471
	Edwards Rd	Okeechobee Rd	SB	Jenkins & Okeechobee	364	349	0.54	0.54	549	553
	Okeechobee Rd	Orange Ave	NB	Jenkins & Okeechobee	328	385	0.45	0.48	485	525
	Okeechobee Rd	Orange Ave	SB	Jenkins & Okeechobee	397	425	0.55	0.52	593	569
25th St	Midway Rd	Edwards Rd	NB	25th & Midway	1122	681	0.61	0.38	1,310	749
	Midway Rd	Edwards Rd	SB	25th & Midway	730	1095	0.39	0.62	838	1,222
St James	Bayshore Blvd	Midway Rd	NB	25th & Midway	1032	615	0.68	0.37	1,186	689
	Bayshore Blvd	Midway Rd	SB	25th & Midway	487	1041	0.32	0.63	559	1,173
Virginia Ave	Okeechobee Rd	25th St	EB						1,169	1,126
	Okeechobee Rd	25th St	WB						1,169	1,126
Prima Vista Blvd	Bayshore Blvd	Alroso Blvd	EB						944	1,005
	Bayshore Blvd	Alroso Blvd	WB						944	1,005
	Alroso Blvd	US 1	EB						1,171	1,097
	Alroso Blvd	US 1	WB						1,171	1,097
Selvitz Rd	Bayshore Blvd	Midway Rd	NB	Selvitz & Midway	742	419	0.68	0.36	426	240
	Bayshore Blvd	Midway Rd	SB	Selvitz & Midway	355	746	0.32	0.64	200	426
	Midway Rd	Glades Cut Off Rd	NB	Selvitz & Midway	677	389	0.66	0.45	696	527
	Midway Rd	Glades Cut off Rd	SB	Selvitz & Midway	353	483	0.34	0.55	359	644
East Torino Pkwy	Midway Rd	Turtle Dove Ln	NB	Torino & Midway	966	502	0.65	0.39	1,030	625
	Midway Rd	Turtle Dove Ln	SB	Torino & Midway	515	784	0.35	0.61	555	978

Source: St. Lucie TPO Traffic Counts and Level of Service Report Fall/Winter 2019/2020

(1) St. Lucie County Comprehensive Plan

(2) 2 lane portion fails with background traffic, and conditioned for improvement

Note: Peak Direction Volumes from ST. Lucie County Traffic Counts and LOS Report Fall/Winter 2019/2020

Links analyzed in tables 4a and 4b include the off peak volumes calculated using D factors in Appendix E.

(3) Selvitz to Christensen Rd/ Christensen to 25th St all one capacity

(4) 25th to Sunrise and Sunrise to Oleander same volume and capacity

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						Volume	LOS	V/C	Volume	LOS	V/C
2ND ST	CITRUS AVE to ORANGE AVE	601	2,167	2017	540	190	C	0.704	161	C	0.596
2ND ST	ORANGE AVE to AVENUE A	602	2,217	2017	540	142	C	0.526	133	C	0.493
7TH ST	SUNRISE BLVD to GEORGIA AVE	519	1,022	2019	600	67	C	0.223	75	C	0.250
7TH ST	GEORGIA AVE to DELAWARE AVE	517	1,680	2019	790	101	C	0.259	106	C	0.272
7TH ST	DELAWARE AVE to CITRUS AVE	515	2,567	2019	790	155	C	0.397	153	C	0.392
7TH ST	CITRUS AVE to ORANGE AVE	515	2,567	2019	750	155	C	0.419	153	C	0.414
7TH ST	ORANGE AVE to AVENUE C	603	2,979	2016	750	204	C	0.551	225	C	0.608
7TH ST	AVENUE C to AE BACKUS AVE	603	2,979	2016	540	204	C	0.756	225	C	0.833
7TH ST	AE BACKUS AVE to AVENUE D	603	2,979	2016	750	204	C	0.551	225	C	0.608
7TH ST	AVENUE D to AVENUE H	604	1,767	2017	750	116	C	0.314	113	C	0.305
10TH ST	DELAWARE AVE to ORANGE AVE	605	233	2017	600	25	C	0.083	24	C	0.080
10TH ST	ORANGE AVE to AVENUE C	605	233	2017	600	25	C	0.083	24	C	0.080
10TH ST	AVENUE C to AVENUE D	605	233	2017	540	25	C	0.093	24	C	0.089
13TH ST	VIRGINIA AVE to NEBRASKA AVE	527	6,500	2020	750	401	D	0.535	420	D	0.560
13TH ST	NEBRASKA AVE to GEORGIA AVE	527	6,500	2020	790	401	D	0.508	420	D	0.532
13TH ST	GEORGIA AVE to DELAWARE AVE	525	4,746	2017	750	275	C	0.743	260	C	0.703
13TH ST	DELAWARE AVE to ORANGE AVE	523	3,886	2017	750	256	C	0.692	239	C	0.646
13TH ST	ORANGE AVE to AVENUE B	521	2,776	2017	750	164	C	0.443	160	C	0.432
13TH ST	AVENUE B to AVENUE D	521	2,776	2017	750	164	C	0.443	160	C	0.432
13TH ST	AVENUE D to AVENUE H	165	2,728	2017	750	163	C	0.441	151	C	0.408
13TH ST	AVENUE H to AVENUE I	165	2,728	2017	540	163	C	0.604	151	C	0.559
13TH ST	AVENUE I to AVENUE O	165	2,728	2017	540	163	C	0.604	151	C	0.559
13TH ST	AVENUE O to AVENUE Q	165	2,728	2017	540	163	C	0.604	151	C	0.559
17TH ST	GEORGIA AVE to DELAWARE AVE	606	3,233	2016	600	179	C	0.597	179	C	0.597
17TH ST	DELAWARE AVE to ORANGE AVE	607	6,200	2020	790	294	C	0.754	283	C	0.726

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						Volume	LOS	V/C	Volume	LOS	V/C
17TH ST	ORANGE AVE to AVENUE D	608	4,033	2016	750	236	C	0.638	225	C	0.608
17TH ST	AVENUE D to AVENUE Q	608	4,033	2016	750	236	C	0.638	225	C	0.608
25TH ST	MIDWAY RD to BELL AVE	940016	18,275	2017	2,100	1,310	C	0.652	1,222	C	0.608
25TH ST	BELL AVE to EDWARDS RD	159	19,040	2019	2,100	1,056	C	0.525	1,053	C	0.524
25TH ST	EDWARDS RD to CORTEZ BLVD	940021	22,049	2017	2,000	1,405	C	0.736	1,401	C	0.734
25TH ST	CORTEZ BLVD to VIRGINIA AVE	529	21,000	2020	2,000	1,182	C	0.619	1,261	C	0.660
25TH ST	VIRIGINIA AVE to NEBRASKA AVE	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	NEBRASKA AVE to OKEECHOBEE RD	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	OKEECHOBEE RD to GEORGIA AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	GEORGIA AVE to DELAWARE AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	DELAWARE AVE to ORANGE AVE	940014	19,612	2017	1,630	1,021	D	0.626	1,015	D	0.623
25TH ST	ORANGE AVE to AVENUE D	610	19,000	2020	1,630	877	D	0.538	904	D	0.555
25TH ST	AVENUE D to AVENUE Q	940050	15,331	2017	1,630	807	D	0.495	784	D	0.481
25TH ST	AVENUE Q to JUANITA AVE	945152	13,301	2017	2,000	752	C	0.394	689	C	0.361
25TH ST	JUANITA AVE to ST LUCIE BLVD	940791	14,647	2013	2,100	794	C	0.395	745	C	0.371
25TH ST	ST LUCIE BLVD to US 1	945165	5,924	2017	2,100	340	C	0.169	380	C	0.189
33RD ST	OKEECHOBEE RD to DELAWARE AVE	611	7,000	2020	750	419	D	0.559	368	C	0.995
33RD ST	DELAWARE AVE to ORANGE AVE	948507	4,991	2017	790	230	C	0.622	230	C	0.622
35TH ST	KIRBY LOOP RD to CORTEZ BLVD	612	6,300	2020	540	497	D	0.920	406	D	0.752
35TH ST	CORTEZ BLVD to VIRGINIA AVE	612	6,300	2020	790	497	D	0.629	406	D	0.514
35TH ST	VIRGINIA AVE to OKEECHOBEE RD	613	4,600	2016	750	279	C	0.754	280	C	0.757
53RD ST	ANGLE RD to JUANITA AVE	614	2,767	2016	540	148	C	0.548	163	C	0.604
AE BACKUS AVE	7TH ST to US 1	632	1,033	2017	750	70	C	0.189	81	C	0.219
AIROSO BLVD	PORT ST LUCIE BLVD to THORNHILL DR	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423
AIROSO BLVD	THORNHILL DR to CROSSTOWN PKWY	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423

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AIROSO BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	243	15,827	2017	2,100	789	C	0.393	807	C	0.401
AIROSO BLVD	PRIMA VISTA BLVD to FLORESTA DR	101	14,344	2017	2,000	751	C	0.393	760	C	0.398
AIROSO BLVD	FLORESTA DR to ST JAMES DR	301	21,000	2019	2,100	1,114	C	0.554	1,130	C	0.562
ANGLE RD	ORANGE AVE to AVENUE D	100	10,000	2020	790	513	D	0.649	490	D	0.620
ANGLE RD	AVENUE D to AVENUE Q	100	10,000	2020	540	513	D	0.950	490	D	0.907
ANGLE RD	AVENUE Q to 53RD ST	615	8,600	2020	600	508	D	0.847	521	D	0.868
ANGLE RD	53RD ST to KEEN RD	616	6,000	2020	630	319	C	0.532	357	C	0.595
ANGLE RD	KEEN RD to KINGS HWY	616	6,000	2020	880	319	C	0.384	357	C	0.430
ANGLE RD	KINGS HWY to JOHNSTON RD	617	3,267	2016	1,070	201	B	0.529	195	B	0.513
ANGLE RD	JOHNSTON RD to FLORIDA'S TURNPIKE	948505	707	2017	1,070	37	B	0.088	37	B	0.088
AVENUE A	7TH ST to US 1	945034	1,189	2017	790	136	C	0.349	136	C	0.349
AVENUE A	US 1 to INDIAN RIVER DR	945033	2,200	2017	600	147	C	0.490	136	C	0.453
AVENUE D	ANGLE RD to 29TH ST	164	3,683	2016	600	209	C	0.697	205	C	0.683
AVENUE D	29TH ST to 25TH ST	164	3,683	2016	790	209	C	0.536	205	C	0.526
AVENUE D	25TH ST to 17TH ST	163	4,289	2016	750	241	C	0.651	227	C	0.614
AVENUE D	17TH ST to 13TH ST	162	3,711	2016	750	171	C	0.462	185	C	0.500
AVENUE D	13TH ST to 10TH ST	161	2,118	2016	750	100	C	0.270	112	C	0.303
AVENUE D	10TH ST to 7TH ST	160	2,383	2016	750	119	C	0.322	129	C	0.349
AVENUE D	7TH ST to US 1	160	2,383	2016	750	119	C	0.322	129	C	0.349
AVENUE I	25TH ST to 17TH ST	620	2,533	2016	750	218	C	0.589	171	C	0.462
AVENUE I	17TH ST to 13TH ST	620	2,533	2016	750	218	C	0.589	171	C	0.462
AVENUE H	13TH ST to 7TH ST	618	1,583	2017	540	92	C	0.341	99	C	0.367
AVENUE H	7TH ST to US 1	619	1,233	2017	750	67	C	0.181	66	C	0.178
AVENUE Q	ANGLE RD to 25TH ST	700	5,700	2020	750	301	C	0.814	289	C	0.781
AVENUE Q	25TH ST to 17TH ST	701	3,937	2016	750	281	C	0.759	314	C	0.849

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AVENUE Q	17TH ST to 13TH ST	701	3,937	2016	540	281	D	0.520	314	D	0.581
AVENUE Q	13TH ST to US 1	685	1,867	2017	540	105	C	0.389	108	C	0.400
AVENUE C	10TH ST to 7TH ST	631	350	2017	540	20	C	0.074	21	C	0.078
BAYSHORE BLVD	MOUNTWELL ST to PORT ST LUCIE BLVD	621	6,000	2019	830	373	C	0.478	324	C	0.415
BAYSHORE BLVD	PORT ST LUCIE BLVD to THORNHILL DR	309	28,260	2018	2,100	1,335	C	0.664	1,297	C	0.645
BAYSHORE BLVD	THORNHILL DR to CROSSTOWN PKWY	948508	22,081	2017	2,100	1,019	C	0.534	1,019	C	0.534
BAYSHORE BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	307	27,000	2019	2,100	1,394	C	0.694	1,356	C	0.675
BAYSHORE BLVD	PRIMA VISTA BLVD to FLORESTA DR	305	17,500	2019	920	829	C	0.953	858	C	0.986
BAYSHORE BLVD	FLORESTA DR to SELVITZ RD	622	13,000	2019	790	707	C	0.943	623	C	0.831
BAYSHORE BLVD	SELVITZ RD to 25TH ST	622	13,000	2019	750	707	D	0.943	623	D	0.831
BEACH AVE	OLEANDER AVE to RIO MAR DR	623	3,500	2017	540	247	C	0.915	211	C	0.781
BECKER RD	VILLAGE PKWY to I-95	624	2,500	2017	3,170	196	C	0.063	178	C	0.058
BECKER RD	I-95 to SAVONA BLVD	625	21,000	2019	2,000	1,809	C	0.947	1,616	C	0.846
BECKER RD	SAVONA BLVD to PORT ST LUCIE BLVD	626	18,000	2019	2,100	1,142	C	0.568	1,083	C	0.539
BECKER RD	ALBACORE ST to DARWIN BLVD	302	13,500	2019	1,500	863	C	0.603	842	C	0.589
BECKER RD	PORT ST LUCIE BLVD to ALBACORE ST	302	13,500	2019	2,100	863	C	0.429	842	C	0.419
BECKER RD	ATHENA DR to FLORIDA'S TURNPIKE	627	15,000	2019	1,500	1,320	C	0.923	1,244	C	0.870
BECKER RD	DARWIN BLVD to ATHENA DR	627	15,000	2019	2,000	1,320	C	0.691	1,244	C	0.651
BECKER RD	FLORIDA'S TURNPIKE to SOUTHBEND BLVD	628	20,000	2019	2,100	1,333	C	0.663	1,657	C	0.824
BECKER RD	SOUTHBEND BLVD to GILSON RD	629	15,000	2019	920	956	F	1.039	1,182	F	1.285
BELL AVE	25TH ST to SUNRISE BLVD	104	4,758	2019	790	313	C	0.803	326	C	0.836
BELL AVE	SUNRISE BLVD to OLEANDER AVE	102	3,854	2019	600	217	C	0.723	223	C	0.743
CASHMERE BLVD	PEACOCK BLVD to TORINO PKWY	676	10,159	2018	630	714	F	1.133	589	C	0.982
CALIFORNIA BLVD	CAMEO BLVD to DEL RIO BLVD	633	7,813	2018	750	503	D	0.671	429	D	0.572
CALIFORNIA BLVD	DEL RIO BLVD to SAVONA BLVD	634	14,000	2019	920	774	C	0.890	771	C	0.886

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CALIFORNIA BLVD	SAVONA BLVD to DEL RIO BLVD	635	12,500	2019	920	800	C	0.920	788	C	0.906
CALIFORNIA BLVD	DEL RIO BLVD to CROSSTOWN PKWY	636	15,000	2019	920	946	F	1.028	952	F	1.035
CALIFORNIA BLVD	CROSSTOWN PKWY to HEATHERWOOD BLVD	234	19,500	2019	920	962	F	1.046	1,085	F	1.179
CALIFORNIA BLVD	HEATHERWOOD BLVD to ST LUCIE WEST BLVD	234	19,500	2019	920	962	F	1.046	1,085	F	1.179
CALIFORNIA BLVD	ST LUCIE WEST BLVD to COUNTRY CLUB DR	233	9,100	2019	920	488	C	0.561	484	C	0.556
CALIFORNIA BLVD	COUNTRY CLUB DR to UNIVERSITY BLVD	724	7,800	2019	790	531	C	0.708	466	C	0.621
CALIFORNIA BLVD	UNIVERSITY BLVD to PEACOCK BLVD	724	7,800	2019	630	531	C	0.885	466	C	0.777
CALIFORNIA BLVD	PEACOCK BLVD to TORINO PKWY	637	13,000	2019	630	968	F	1.537	821	F	1.303
CASHMERE BLVD	DEL RIO BLVD to CROSSTOWN PKWY	642	10,021	2018	920	698	C	0.802	627	C	0.721
CASHMERE BLVD	CROSSTOWN PKWY to HEATHERWOOD BLVD	232	13,000	2019	920	749	C	0.861	666	C	0.766
CASHMERE BLVD	HEATHERWOOD BLVD to ST LUCIE WEST BLVD	232	13,000	2019	920	749	C	0.861	666	C	0.766
CASHMERE BLVD	ST LUCIE WEST BLVD to PEACOCK BLVD	231	14,000	2019	920	1,141	F	1.240	1,099	F	1.195
CARLTON RD	CARLTON RD (S) to OKEECHOBEE RD	641	392	2017	390	34	B	0.155	31	B	0.141
CAMEO BLVD	PORT ST LUICE BLVD to CALIFORNIA BLVD	638	4,600	2019	750	376	D	0.501	281	C	0.759
CAMEO BLVD	CALIFORNIA BLVD to CROSSTOWN PKWY	639	9,319	2018	790	673	D	0.852	536	D	0.678
CAMPBELL RD	PICOS RD to ORANGE AVE	640	533	2017	540	44	C	0.163	43	C	0.159
CANE SLOUGH RD	US 1 to LENNARD RD	167	9,772	2016	1,710	535	C	0.695	545	C	0.708
CITRUS AVE	7TH ST to US 1	643	1,083	2019	750	150	C	0.405	150	C	0.405
CITRUS AVE	US 1 to 2ND ST	940160	4,131	2017	790	246	C	0.631	251	C	0.644
CITRUS AVE	2ND ST to INDIAN RIVER DR	644	4,276	2016	540	261	C	0.967	263	C	0.974
COMMUNITY BLVD	WESTCLIFFE LN to TRADITION PKWY	647	5,317	2017	1,470	362	C	0.548	336	C	0.509
COMMERCE CENTER DR	CROSSTOWN PKWY to ST LUCIE WEST BLVD	645	5,819	2017	1,710	363	C	0.471	390	C	0.506
COMMERCE CENTER DR	ST LUCIE WEST BLVD to GLADES CUT-OFF RD	646	7,500	2019	540	400	D	0.741	460	D	0.852
CORTEZ BLVD	35TH ST to 25TH ST	948500	2,171	2017	750	105	C	0.284	105	C	0.284
CORTEZ BLVD	25TH ST to SUNRISE BLVD	648	2,950	2019	750	211	C	0.570	193	C	0.522

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COUNTRY CLUB DR	ST LUCIE WEST BLVD to CALIFORNIA BLVD	725	8,300	2019	1,710	535	C	0.695	489	C	0.635
CROSSTOWN PKWY	COMMERCE CENTER DR to I-95	650	16,233	2016	3,170	1,008	C	0.326	865	C	0.280
CROSSTOWN PKWY	I-95 to CALIFORNIA BLVD	651	24,500	2020	3,170	1,290	C	0.417	1,244	C	0.403
CROSSTOWN PKWY	CALIFORNIA BLVD to CASHMERE BLVD	652	25,000	2020	3,170	1,299	C	0.420	1,395	C	0.451
CROSSTOWN PKWY	CASHMERE BLVD to CAMEO BLVD	653	26,500	2019	3,170	1,256	C	0.406	1,307	C	0.423
CROSSTOWN PKWY	CAMEO BLVD to BAYSHORE BLVD	654	30,500	2019	3,170	1,502	C	0.486	1,556	C	0.504
CROSSTOWN PKWY	BAYSHORE BLVD to AIROSO BLVD	655	25,000	2020	3,170	1,320	C	0.427	1,384	C	0.448
CROSSTOWN PKWY	AIROSO BLVD to SANDIA DR	656	5,400	2016	3,170	348	C	0.118	297	C	0.101
CROSSTOWN PKWY	SANDIA DR to MANTH LN	657	6,400	2016	3,170	344	C	0.117	360	C	0.122
CROSSTOWN PKWY	FLORESTA DR to US 1	658	19,000	2020	3,170	1,019	C	0.347	1,124	C	0.382
CROSSROADS PKWY	OKEECHOBEE RD to KINGS HWY	649	2,142	2017	790	108	C	0.277	107	C	0.274
DARWIN BLVD	BECKER RD to PAAR DR	235	7,298	2018	630	728	F	1.156	642	F	1.019
DARWIN BLVD	PAAR DR to TULIP BLVD	235	7,298	2018	920	728	C	0.837	642	C	0.738
DARWIN BLVD	TULIP BLVD to PORT ST LUCIE BLVD	659	13,500	2019	920	673	C	0.774	708	C	0.814
DEL RIO BLVD	PORT ST LUCIE BLVD to CALIFORNIA BLVD	311	8,100	2019	920	633	C	0.728	570	C	0.655
DEL RIO BLVD	CALIFORNIA BLVD to CASHMERE BLVD	660	8,400	2019	880	512	C	0.617	508	C	0.612
DEL RIO BLVD	CASHMERE BLVD to CALIFORNIA BLVD	661	4,800	2017	880	281	C	0.339	294	C	0.354
DELAWARE AVE	HARTMAN RD to 33RD ST	662	1,667	2016	600	259	C	0.863	208	C	0.693
DELAWARE AVE	33RD ST to 25TH ST	500	3,118	2017	1,710	207	C	0.269	237	C	0.308
DELAWARE AVE	25TH ST to OKEECHOBEE RD	948526	3,122	2017	1,220	144	C	0.197	144	C	0.197
DELAWARE AVE	OKEECHOBEE RD to 13TH ST	663	12,000	2020	790	657	D	0.832	611	D	0.773
DELAWARE AVE	13TH ST to 10TH ST	664	7,402	2017	750	497	D	0.663	411	D	0.548
DELAWARE AVE	10TH ST to 7TH ST	664	7,402	2017	600	497	D	0.828	411	D	0.685
DELAWARE AVE	7TH ST to US 1	665	7,200	2020	750	390	D	0.520	402	D	0.536
EAST TORINO PKWY	CASHMERE BLVD to TORINO PKWY	710	11,500	2020	830	716	C	0.918	653	C	0.837

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Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
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EAST TORINO PKWY	TORINO PKWY to MIDWAY RD	237	14,500	2020	880	1,030	F	1.170	978	F	1.111
EASY ST	US 1 to BUCHANAN DR	106	8,029	2018	750	601	D	0.801	483	D	0.644
EASY ST	BUCHANAN DR to YUCCA DR	106	8,029	2018	540	601	F	1.036	483	D	0.894
EDWARDS RD	JENKINS RD to MCNEIL RD	174	11,500	2020	630	573	C	0.955	594	C	0.990
EDWARDS RD	MCNEIL RD to SELVITZ RD	174	11,500	2020	700	573	C	0.868	594	C	0.900
EDWARDS RD	SELVITZ RD to 25TH ST	110	15,000	2020	880	755	C	0.910	771	C	0.929
EDWARDS RD	25TH ST to SUNRISE BLVD	108	16,697	2019	1,630	877	D	0.538	867	D	0.532
EDWARDS RD	SUNRISE BLVD to OLEANDER AVE	502	15,207	2019	1,630	754	D	0.463	735	D	0.451
EDWARDS RD	OLEANDER AVE to US 1	173	9,581	2019	1,630	527	C	0.722	460	C	0.630
FARMER'S MARKET RD	OLEANDER AVE to US 1	112	1,876	2019	750	130	C	0.351	127	C	0.343
FLORESTA DR	OAKLYN ST to PORT ST LUCIE BLVD	317	13,000	2019	920	900	D	0.978	687	C	0.790
FLORESTA DR	THORNHILL DR to CROSSTOWN PKWY	315	12,500	2019	880	810	C	0.976	738	C	0.889
FLORESTA DR	PORT ST LUCIE BLVD to THORNHILL DR	315	12,500	2019	880	810	C	0.976	738	C	0.889
FLORESTA DR	CROSSTOWN PKWY to PRIMA VISTA BLVD	109	11,000	2019	920	671	C	0.771	576	C	0.662
FLORESTA DR	PRIMA VISTA BLVD to AIROSO BLVD	107	9,600	2019	920	559	C	0.643	601	C	0.691
FLORESTA DR	SELVITZ RD to BAYSHORE BLVD	313	4,467	2018	630	349	C	0.582	365	C	0.608
FLORESTA DR	AIROSO BLVD to SELVITZ RD	313	4,467	2018	880	349	C	0.420	365	C	0.440
FT PIERCE BLVD	INDRIO RD to EMERSON AVE	226	3,555	2019	540	267	C	0.989	273	D	0.506
GARDENIA AVE	OLEANDER AVE to US 1	666	2,817	2017	750	188	C	0.508	200	C	0.541
GATLIN BLVD	W OF I-95 to E OF I-95	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	E OF I-95 to SAVAGE BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	SAVAGE BLVD to ROSSER BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	ROSSER BLVD to SAVONA BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	SAVONA BLVD to PORT ST LUCIE BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GEORGIA AVE	25TH ST to OKEECHOBEE RD	667	4,700	2020	600	290	C	0.967	262	C	0.873

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GEORGIA AVE	OKEECHOBEE RD to 17TH ST	667	4,700	2020	750	290	C	0.784	262	C	0.708
GEORGIA AVE	17TH ST to 13TH ST	508	4,733	2019	600	264	C	0.880	268	C	0.893
GEORGIA AVE	13TH ST to 7TH ST	506	2,169	2019	600	134	C	0.447	137	C	0.457
GEORGIA AVE	7TH ST to US 1	504	1,938	2019	600	122	C	0.407	135	C	0.450
GILSON RD	MARTIN C.L. to BECKER RD	111	11,000	2019	710	949	F	1.249	954	F	1.255
GILSON RD	BECKER RD to LAKERIDGE DR	111	11,000	2019	540	949	F	1.636	954	F	1.645
GLADES CUT-OFF RD	RANGE LINE RD to RESERVE BLVD	668	2,833	2017	1,070	200	B	0.526	252	B	0.663
GLADES CUT-OFF RD	RESERVE BLVD to COMMERCE CENTER DR	119	3,585	2016	1,070	332	B	0.874	332	B	0.874
GLADES CUT-OFF RD	CARLTON RD to RANGE LINE RD	668	2,833	2017	390	200	B	0.909	252	C	0.646
GLADES CUT-OFF RD	COMMERCE CENTER DR to MIDWAY RD	940279	2,770	2017	920	210	C	0.241	192	C	0.221
GLADES CUT-OFF RD	MIDWAY RD to JENKINS RD	115	12,500	2020	790	669	D	0.847	687	D	0.870
GLADES CUT-OFF RD	JENKINS RD to SELVITZ RD	113	6,600	2020	830	370	C	0.474	385	C	0.494
GRAHAM RD	KINGS HWY to JENKINS RD	669	3,733	2017	630	255	C	0.425	243	C	0.405
GREEN RIVER PKWY	MARTIN C.L. to CHARLESTON DR	319	4,759	2018	1,070	337	B	0.887	332	B	0.874
GREEN RIVER PKWY	CHARLESTON DR to MELALEUCA BLVD	319	4,759	2018	1,070	337	B	0.887	332	B	0.874
GREEN RIVER PKWY	MELALEUCA BLVD to WALTON RD	319	4,759	2018	1,070	337	B	0.887	332	B	0.874
HARTMAN RD	OKEECHOBEE RD to PETERSON RD	670	5,867	2017	750	388	D	0.517	357	C	0.965
HARTMAN RD	PETERSON RD to DELAWARE AVE	670	5,867	2017	540	388	D	0.719	357	D	0.661
HARTMAN RD	DELAWARE AVE to ORANGE AVE	670	5,867	2017	790	388	C	0.995	357	C	0.915
HEADER CANAL RD	OKEECHOBEE RD to ORANGE AVE	121	560	2019	670	46	B	0.209	56	B	0.255
HILLMOOR DR	US 1 to LENNARD RD	671	5,900	2019	790	306	C	0.785	389	C	0.997
I-95	GATLIN BLVD to ST LUCIE WEST BLVD	941901	79,065	2017	4,580	4,048	C	0.884	3,657	C	0.798
I-95	ST LUCIE WEST BLVD to MIDWAY RD	941904	63,486	2017	4,580	3,571	C	0.780	3,079	B	0.916
I-95	MIDWAY RD to OKEECHOBEE RD	941902	75,846	2017	4,580	4,578	C	10	3,717	C	0.812
I-95	OKEECHOBEE RD to ORANGE AVE	941903	45,500	2009	7,320	1,822	B	0.405	1,894	B	0.421

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I-95	ORANGE AVE to INDRIO RD	941905	43,452	2017	7,320	2,090	B	0.464	1,924	B	0.428
INDIAN RIVER DR	CITRUS AVE to ORANGE AVE	945029	5,228	2017	750	311	C	0.841	356	C	0.962
INDIAN RIVER DR	ORANGE AVE to AVENUE A	940003	5,888	2017	750	344	C	0.930	335	C	0.905
INDIAN RIVER DR	AVENUE D to SEAWAY DR	940004	5,971	2017	790	349	C	0.895	411	D	0.520
INDIAN RIVER DR	AVENUE A to AVENUE D	940004	5,971	2017	540	349	D	0.646	411	D	0.761
INDRIO RD	PRIVATE RD to I-95 W RAMP	940128	951	2017	1,080	69	B	0.168	75	B	0.183
INDRIO RD	I-95 W RAMP to I-95 E RAMP	940128	951	2017	3,240	69	B	0.038	75	B	0.041
INDRIO RD	I-95 E RAMP to KOBLEGARD RD	940038	10,455	2017	3,240	598	B	0.330	629	B	0.348
INDRIO RD	KOBLEGARD RD to JOHNSTON RD	940038	10,455	2017	700	598	C	0.906	629	C	0.953
INDRIO RD	JOHNSTON RD to EMERSON AVE	940038	10,455	2017	880	598	C	0.720	629	C	0.758
INDRIO RD	EMERSON RD to SEMINOLE RD	940281	9,876	2017	920	595	C	0.684	501	C	0.576
INDRIO RD	SEMINOLE RD to KINGS HWY	940281	9,876	2017	790	595	D	0.753	501	D	0.634
INDRIO RD	KINGS HWY to SLASH PINE TRL	114	6,600	2020	790	422	D	0.534	413	D	0.523
INDRIO RD	SLASH PINE TRL to US 1	114	6,600	2020	920	422	C	0.485	413	C	0.475
INDRIO RD	US 1 to OLD DIXIE HWY	672	917	2016	750	64	C	0.173	86	C	0.232
JENNINGS RD	US 1 to LENNARD RD	673	4,600	2016	2,100	304	C	0.151	248	C	0.123
JENKINS RD	EDWARDS RD to OKEECHOBEE RD	133	10,500	2020	880	549	C	0.661	553	C	0.666
JENKINS RD	OKEECHOBEE RD to GRAHAM RD	131	10,500	2020	920	593	C	0.682	569	C	0.654
JENKINS RD	GRAHAM RD to PETERSON RD	131	10,500	2020	630	593	C	0.988	569	C	0.948
JENKINS RD	PETERSON RD to ORANGE AVE	131	10,500	2020	920	593	C	0.682	569	C	0.654
JOHNSTON RD	ANGLE RD to L20	674	2,600	2016	1,070	176	B	0.463	171	B	0.450
JOHNSTON RD	L20 to MEADOWOOD DR	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	MEADOWOOD DR to OLD JOHNSTON RD	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	OLD JOHNSTON RD to INDRIO RD	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	INDRIO RD to RUSSOS RD	135	9,600	2020	1,070	544	C	0.716	545	C	0.717

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JOHNSTON RD	RUSSOS RD to INDIAN RIVER C.L.	135	9,600	2020	1,070	544	C	0.716	545	C	0.717
JUANITA AVE	53RD ST to 25TH ST	122	2,432	2017	750	157	C	0.424	143	C	0.386
JUANITA AVE	25TH ST to US 1	120	3,321	2017	750	185	C	0.500	182	C	0.492
KEEN RD	ANGLE RD to JUANITA AVE	129	2,885	2019	630	174	C	0.290	203	C	0.338
KEEN RD	JUANITA AVE to ST LUCIE BLVD	129	2,885	2019	630	174	C	0.290	203	C	0.338
KINGS HWY	OKEECHOBEE RD to CROSSROADS PKWY	940757	8,234	2017	830	361	C	0.435	369	C	0.445
KINGS HWY	CROSSROADS PKWY to GRAHAM RD	940757	8,234	2017	660	361	C	0.547	369	C	0.559
KINGS HWY	GRAHAM RD to PICOS RD	940076	8,216	2017	660	405	C	0.614	389	C	0.589
KINGS HWY	PICOS RD to ORANGE AVE	940076	8,216	2017	830	405	C	0.488	389	C	0.469
KINGS HWY	ORANGE AVE to ANGLE RD	940077	16,792	2017	870	885	D	0.962	890	D	0.967
KINGS HWY	ANGLE RD to ST LUCIE BLVD	940751	11,394	2017	830	627	C	0.755	630	C	0.759
KINGS HWY	ST LUCIE BLVD to INDRIO RD	940006	13,481	2017	830	836	D	0.950	786	C	0.947
KITTERMAN RD	OLEANDER AVE to US 1	124	3,402	2018	750	224	C	0.605	203	C	0.549
KITTERMAN RD	US 1 to LENNARD EXT	678	2,250	2017	750	128	C	0.346	130	C	0.351
KIRBY LOOP RD	EDWARDS RD to 35TH ST	677	4,479	2016	630	296	C	0.493	362	C	0.603
LENNARD RD	US 1 to MARIPOSA AVE	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	MARIPOSA AVE to MELALEUCA BLVD	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	MELALEUCA BLVD to JENNINGS RD	325	18,500	2019	1,630	953	D	0.585	984	D	0.604
LENNARD RD	JENNINGS RD to HILLMOOR DR	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	HILLMOOR DR to TIFFANY AVE	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	TIFFANY AVE to WALTON RD	323	5,765	2016	1,710	301	C	0.391	305	C	0.396
LENNARD RD	WALTON RD to S OF SAVANNA CLUB BLVD	679	4,455	2016	790	390	C	10	381	C	0.977
LYNGATE DR	VETERANS MEMORIAL PKWY to MORNINGSIDE BLVD	306	9,400	2020	920	588	C	0.676	626	C	0.720
LYNGATE DR	MORNINGSIDE BLVD to US 1	306	9,400	2020	920	588	C	0.676	626	C	0.720
MARIPOSA AVE	LENNARD RD to HALLAHAN ST	166	6,400	2019	880	485	C	0.584	686	C	0.827

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MCNEIL RD	OKEECHOBEE RD to KIRBY LOOP RD	682	4,600	2020	790	281	C	0.721	280	C	0.718
MCNEIL RD	KIRBY LOOP RD to EDWARDS RD	682	4,600	2020	540	281	D	0.520	280	D	0.519
MCCARTY RD	WILLIAMS RD to MIDWAY RD	680	375	2017	540	33	C	0.122	35	C	0.130
MCCARTY RD	MIDWAY RD to OKEECHOBEE RD	681	400	2020	540	34	C	0.126	35	C	0.130
MELALEUCA BLVD	LENNARD RD to GREEN RIVER PKWY	683	9,804	2018	920	648	C	0.745	584	C	0.671
MIDWAY RD	EAST TORINO PKWY to MILNER DR	134	22,500	2020	880	1,216	F	1.382	1,304	F	1.482
MIDWAY RD	MILNER DR to W OF SELVITZ RD	134	22,500	2020	790	1,216	F	1.539	1,304	F	1.651
MIDWAY RD	OKEECHOBEE RD to SHINN RD	940732	5,118	2017	760	295	C	0.440	376	C	0.561
MIDWAY RD	SHINN RD to MCCARTY RD	940732	5,118	2017	630	295	C	0.492	376	C	0.627
MIDWAY RD	MCCARTY RD to I-95	940732	5,118	2017	700	295	C	0.447	376	C	0.570
MIDWAY RD	I-95 to GLADES CUT-OFF RD	945140	16,655	2017	2,100	926	C	0.461	1,027	C	0.511
MIDWAY RD	GLADES CUT-OFF RD to EAST TORINO PKWY	228	21,500	2020	2,100	1,226	C	0.610	1,281	C	0.637
MIDWAY RD	W OF SELVITZ RD to SELVITZ RD	134	22,500	2020	920	1,216	F	1.322	1,304	F	1.417
MIDWAY RD	SELVITZ RD to CHRISTENSEN RD	132	18,500	2020	920	973	F	1.058	940	F	1.022
MIDWAY RD	CHRISTENSEN RD to 25TH ST	132	18,500	2020	790	973	F	1.158	940	F	1.119
MIDWAY RD	25TH ST to SUNRISE BLVD	130	18,791	2016	790	1,025	F	1.220	942	F	1.121
MIDWAY RD	SUNRISE BLVD to OLEANDER AVE	130	18,791	2016	790	1,025	F	1.220	942	F	1.121
MIDWAY RD	OLEANDER AVE to US 1	242	15,309	2016	790	808	E	0.962	800	E	0.952
MIDWAY RD	US 1 to WALLACE ST	940023	3,709	2017	790	287	C	0.736	317	C	0.813
MIDWAY RD	WALLACE ST to WEATHERBEE RD	940023	3,709	2017	920	287	C	0.330	317	C	0.364
MIDWAY RD	WEATHERBEE RD to INDIAN RIVER DR	940023	3,709	2017	630	287	C	0.478	317	C	0.528
MORNINGSIDE BLVD	WESTMORELAND BLVD to PORT ST LUCIE BLVD	333	2,654	2017	920	159	C	0.183	152	C	0.175
MORNINGSIDE BLVD	PORT ST LUCIE BLVD to LYNGATE DR	331	2,900	2020	880	230	C	0.277	244	C	0.294
NEBRASKA AVE	25TH ST to 13TH ST	684	3,767	2017	1,710	234	C	0.304	197	C	0.256
OAKRIDGE DR	MOUNTWELL ST to OAKLYN ST	621	6,000	2019	700	373	C	0.565	324	C	0.491

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OHIO AVE	SUNRISE BLVD to COLONIAL RD	686	4,250	2017	540	252	C	0.933	246	C	0.911
OHIO AVE	COLONIAL RD to US 1	686	4,250	2017	750	252	C	0.681	246	C	0.665
OKEECHOBEE RD	OKEECHOBEE C.L. to BLUEFIELD RD	687	10,500	2020	1,010	540	B	0.535	528	B	0.523
OKEECHOBEE RD	BLUEFIELD RD to CARLTON RD	687	10,500	2020	1,270	540	B	0.425	528	B	0.416
OKEECHOBEE RD	CARLTON RD to SNEED RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	IDEAL HOLDING RD to HEADER CANAL RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	SNEED RD to IDEAL HOLDING RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	HEADER CANAL RD to MIDWAY RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	MIDWAY RD to SHINN RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	SHINN RD to MCCARTY RD	940195	6,025	2017	1,810	327	B	0.181	327	B	0.181
OKEECHOBEE RD	MCCARTY RD to FLORIDA'S TURNPIKE	940025	7,551	2017	1,810	378	B	0.209	391	B	0.216
OKEECHOBEE RD	FLORIDA'S TURNPIKE to KINGS HWY	940025	7,551	2017	2,010	378	C	0.188	391	C	0.195
OKEECHOBEE RD	KINGS HWY to CROSSROADS PKWY	940748	21,250	2017	4,170	960	C	0.230	1,013	C	0.243
OKEECHOBEE RD	CROSSROADS PKWY to I-95	940106	24,585	2017	4,170	1,063	C	0.255	1,086	C	0.260
OKEECHOBEE RD	I-95 to JENKINS RD	940029	30,244	2017	4,240	1,976	C	0.474	1,709	C	0.410
OKEECHOBEE RD	JENKINS RD to MCNEIL RD	940029	30,244	2017	4,040	1,976	C	0.498	1,709	C	0.430
OKEECHOBEE RD	MCNEIL RD to VIRGINIA AVE	940742	28,870	2017	3,170	1,580	C	0.511	1,649	C	0.534
OKEECHOBEE RD	VIRGINIA AVE to HARTMAN RD	688	12,500	2020	2,100	687	C	0.342	727	C	0.362
OKEECHOBEE RD	HARTMAN RD to 35TH ST	688	12,500	2020	1,630	687	C	0.941	727	C	0.996
OKEECHOBEE RD	35TH ST to 33RD ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	33RD ST to 25TH ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	25TH ST to GEORGIA AVE	690	13,500	2020	1,630	777	D	0.477	738	D	0.453
OKEECHOBEE RD	GEORGIA AVE to DELAWARE AVE	690	13,500	2020	1,710	777	D	0.454	738	C	0.958
OLD DIXIE HWY	US 1 to SR A1A NORTH	691	5,150	2017	790	400	D	0.506	363	C	0.931
OLD DIXIE HWY	SR A1A NORTH to ST LUCIE BLVD	948521	1,383	2017	750	65	C	0.176	65	C	0.176

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OLD DIXIE HWY	ST LUCIE BLVD to INDRIO RD	227	2,041	2016	790	150	C	0.385	116	C	0.297
OLD DIXIE HWY	INDRIO RD to INDIAN RIVER C.L.	948523	1,227	2017	870	57	C	0.069	57	C	0.069
OLEANDER AVE	BEACH AVE to KITTERMAN RD	692	2,900	2017	540	175	C	0.648	193	C	0.715
OLEANDER AVE	KITTERMAN RD to MIDWAY RD	141	6,498	2017	750	406	D	0.541	426	D	0.568
OLEANDER AVE	MIDWAY RD to WEATHERBEE RD	139	7,100	2020	750	388	D	0.517	421	D	0.561
OLEANDER AVE	WEATHERBEE RD to BELL AVE	139	7,100	2020	540	388	D	0.719	421	D	0.780
OLEANDER AVE	BELL AVE to FARMER'S MARKET RD	240	12,500	2020	540	671	F	1.157	647	F	1.116
OLEANDER AVE	FARMER'S MARKET RD to EDWARDS RD	240	12,500	2020	750	671	D	0.895	647	D	0.863
OLEANDER AVE	EDWARDS RD to WISTERIA AVE	505	10,000	2020	750	611	D	0.815	554	D	0.739
OLEANDER AVE	WISTERIA AVE to GARDENIA AVE	505	10,000	2020	540	611	F	1.053	554	E	0.955
OLEANDER AVE	GARDENIA AVE to VIRGINIA AVE	505	10,000	2020	790	611	D	0.773	554	D	0.701
OLEANDER AVE	VIRGINIA AVE to SUNRISE BLVD	503	4,561	2019	600	259	C	0.863	270	C	0.900
ORANGE AVE	OKEECHOBEE C.L. to SNEED RD	144	4,780	2019	390	300	C	0.769	293	C	0.751
ORANGE AVE	SNEED RD to HEADER CANAL RD	144	4,780	2019	390	300	C	0.769	293	C	0.751
ORANGE AVE	SHINN RD to CAMPBELL RD	940144	2,722	2017	380	149	B	0.355	149	B	0.355
ORANGE AVE	CAMPBELL RD to KINGS HWY	940144	2,722	2017	1,070	149	B	0.355	149	B	0.355
ORANGE AVE	KINGS HWY to I-95	940041	18,112	2017	2,000	780	C	0.388	786	C	0.391
ORANGE AVE	I-95 to JENKINS RD	940035	14,009	2017	2,000	962	C	0.479	905	C	0.450
ORANGE AVE	JENKINS RD to HARTMAN RD	940028	14,189	2017	2,000	764	C	0.380	710	C	0.353
ORANGE AVE	HARTMAN RD to ANGLE RD	940028	14,189	2017	2,000	764	C	0.380	710	C	0.353
ORANGE AVE	ANGLE RD to 25TH ST	940151	10,749	2013	1,710	847	D	0.495	985	D	0.576
ORANGE AVE	25TH ST to 17TH ST	945040	13,196	2017	1,630	690	C	0.945	757	D	0.464
ORANGE AVE	17TH ST to 13TH ST	945040	13,196	2017	1,710	690	C	0.896	757	C	0.983
ORANGE AVE	13TH ST to 10TH ST	945040	13,196	2017	370	690	D	0.920	757	E	0.946
ORANGE AVE	10TH ST to 7TH ST	940155	8,760	2017	300	443	D	0.738	509	D	0.848

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ORANGE AVE	7TH ST to US 1	945134	7,219	2017	300	460	D	0.767	409	D	0.682
ORANGE AVE	US 1 to 2ND ST	945133	3,645	2017	300	232	C	0.773	227	C	0.757
ORANGE AVE	2ND ST to INDIAN RIVER DR	945133	3,645	2017	370	232	C	0.627	227	C	0.614
PARR DR	PORT ST LUCIE BLVD to DARWIN BLVD	209	1,108	2016	700	81	C	0.123	71	C	0.108
PARR DR	DARWIN BLVD to TULIP BLVD	723	1,900	2019	540	167	C	0.619	126	C	0.467
PARR DR	SAVONA BLVD to PORT ST LUCIE BLVD	209	1,108	2016	700	81	C	0.123	71	C	0.108
PARR DR	ROSSER BLVD to SAVONA BLVD	209	1,108	2016	630	81	C	0.135	71	C	0.118
PEACOCK BLVD	CALIFORNIA BLVD to CASHMERE BLVD	693	4,717	2017	630	408	C	0.680	340	C	0.567
PEACOCK BLVD	UNIVERSITY BLVD to CALIFORNIA BLVD	694	10,000	2019	920	746	C	0.857	634	C	0.729
PEACOCK BLVD	ST LUCIE WEST BLVD to UNIVERSITY BLVD	948514	15,534	2017	2,100	717	C	0.375	717	C	0.375
PETERSON RD	BENT CREEK DR to HARTMAN RD	695	1,183	2017	540	94	C	0.348	80	C	0.296
PICOS RD	CAMPBELL RD to KINGS HWY	696	1,333	2017	540	92	C	0.341	86	C	0.319
PORT ST LUCIE BLVD	MARTIN C.L. to BECKER RD	948519	15,868	2017	920	732	C	0.882	732	C	0.882
PORT ST LUCIE BLVD	BECKER RD to PAAR DR	948519	15,868	2017	920	732	C	0.882	732	C	0.882
PORT ST LUCIE BLVD	PAAR DR to TULIP BLVD	948519	15,868	2017	700	732	C	0.882	732	C	0.882
PORT ST LUCIE BLVD	TULIP BLVD to DARWIN BLVD	948519	15,868	2017	920	732	C	0.882	732	C	0.882
PORT ST LUCIE BLVD	DARWIN BLVD to GATLIN BLVD	697	32,000	2019	3,020	1,720	C	0.585	1,731	C	0.589
PORT ST LUCIE BLVD	GATLIN BLVD to DEL RIO BLVD	698	38,000	2019	3,170	2,215	C	0.717	1,957	C	0.633
PORT ST LUCIE BLVD	DEL RIO BLVD to CAMEO BLVD	945074	47,644	2017	3,170	3,186	F	1.01	2,892	C	0.936
PORT ST LUCIE BLVD	CAMEO BLVD to FLORIDA'S TURNPIKE	945074	47,644	2017	3,020	3,186	F	1.055	2,892	C	0.984
PORT ST LUCIE BLVD	FLORIDA'S TURNPIKE to BAYSHORE BLVD	945074	47,644	2017	3,170	3,186	F	1.01	2,892	C	0.936
PORT ST LUCIE BLVD	BAYSHORE BLVD to AIROSO BLVD	945073	48,955	2017	3,020	3,094	F	1.025	3,065	F	1.015
PORT ST LUCIE BLVD	AIROSO BLVD to FLORESTA DR	940780	49,175	2017	3,020	3,027	F	1	2,653	C	0.902
PORT ST LUCIE BLVD	FLORESTA DR to VETERANS MEMORIAL PKWY	940778	61,616	2017	3,020	4,415	F	1.462	3,293	F	1.090
PORT ST LUCIE BLVD	VETERANS MEMORIAL PKWY to MORNINGSIDE BLVD	940776	41,526	2017	3,020	2,499	C	0.850	2,217	C	0.754

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PORT ST LUCIE BLVD	MORNINGSIDE BLVD to US 1	945072	40,456	2017	3,170	3,072	C	0.994	1,916	C	0.620
PRIMA VISTA BLVD	BAYSHORE BLVD to AIROSO BLVD	314	21,500	2020	2,100	944	C	0.470	1,005	C	0.500
PRIMA VISTA BLVD	AIROSO BLVD to FLORESTA DR	150	25,425	2018	2,100	1,171	C	0.583	1,097	C	0.546
PRIMA VISTA BLVD	FLORESTA DR to NARANJA AVE	148	26,500	2019	2,100	1,514	C	0.753	1,408	C	0.700
PRIMA VISTA BLVD	NARANJA AVE to RIO MAR DR	148	26,500	2019	2,000	1,514	C	0.793	1,408	C	0.737
PRIMA VISTA BLVD	RIO MAR DR to US 1	146	26,283	2018	2,100	1,278	C	0.636	1,165	C	0.580
PRIMA VISTA BLVD	US 1 to LENNARD RD	699	7,400	2017	1,710	449	C	0.583	452	C	0.587
RANGE LINE RD	MARTIN C.L. to BECKER RD	145	1,780	2019	1,080	119	B	0.290	119	B	0.290
RANGE LINE RD	BECKER RD to 2 MI S OF GLADES CUT-OFF RD	145	1,780	2019	1,080	119	B	0.290	119	B	0.290
RANGE LINE RD	2 MI S OF GLADES CUT-OFF RD to GLADES CUT-OF...	145	1,780	2019	1,080	119	B	0.290	119	B	0.290
RIO MAR DR	PRIMA VISTA BLVD to BEACH AVE	147	6,600	2020	750	408	D	0.544	429	D	0.572
RIO MAR DR	BEACH AVE to US 1	147	6,600	2020	790	408	D	0.516	429	D	0.543
ROSSER BLVD	APRICOT RD to GATLIN BLVD	948510	3,425	2017	920	158	C	0.19	158	C	0.19
ROSSER BLVD	PAAR DR to APRICOT RD	948510	3,425	2017	1,070	158	B	0.376	158	B	0.376
SAVONA BLVD	BECKER RD to PAAR DR	236	9,800	2019	790	893	F	1.063	796	E	0.948
SAVONA BLVD	PAAR DR to GATLIN BLVD	236	9,800	2019	750	893	F	1.116	796	E	0.995
SAVONA BLVD	GATLIN BLVD to CALIFORNIA BLVD	702	14,500	2019	790	787	D	0.996	732	D	0.927
SAVAGE BLVD	GATLIN BLVD to GALIANO RD	168	3,922	2018	920	258	C	0.297	208	C	0.239
SAVANNAH RD	US 1 to INDIAN RIVER DR	514	2,188	2019	540	155	C	0.574	153	C	0.567
SELVITZ RD	BAYSHORE BLVD to ST JAMES BLVD	948501	8,756	2017	750	426	D	0.568	426	D	0.568
SELVITZ RD	ST JAMES BLVD to MIDWAY RD	948501	8,756	2017	750	426	D	0.568	426	D	0.568
SELVITZ RD	MIDWAY RD to GLADES CUT-OFF RD	703	10,400	2019	700	696	D	0.994	644	C	0.976
SELVITZ RD	GLADES CUT-OFF RD to EDWARDS RD	704	14,000	2020	790	787	D	0.996	752	D	0.952
SHINN RD	MIDWAY RD to OKEECHOBEE RD	705	775	2017	580	51	C	0.100	49	C	0.096
SHINN RD	OKEECHOBEE RD to ORANGE AVE	149	819	2019	1,080	62	B	0.151	62	B	0.151

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SNEED RD	OKEECHOBEE RD to ORANGE AVE	151	1,079	2019	670	68	B	0.309	83	B	0.377
SOUTHBEND BLVD	BECKER RD to FLORESTA DR	337	16,000	2019	790	931	F	1.108	971	F	1.156
SR A1A NORTH	US 1 to OLD DIXIE HWY	940709	6,370	2017	920	430	C	0.494	430	C	0.494
SR A1A NORTH	OLD DIXIE HWY to N HWY A1A	706	10,500	2020	2,000	558	C	0.641	621	C	0.714
SR A1A NORTH	SHOREWINDS DR to INDIAN RIVER C.L.	940114	8,090	2017	920	435	C	0.500	477	C	0.548
SR A1A SOUTH	NETTLES ISLAND to FPL PLANT	940719	5,507	2017	920	337	C	0.387	302	C	0.347
SR A1A SOUTH	FPL PLANT to BLUE HERON BLVD	940116	3,825	2017	700	457	C	0.692	367	C	0.556
SR A1A SOUTH	BLUE HERON BLVD to SEAWAY DR	945016	7,908	2017	600	427	D	0.712	511	D	0.852
SR A1A SOUTH	OCEAN DR to BINNEY DR	940115	13,023	2017	600	648	F	1.012	678	F	1.059
SR A1A SOUTH	BINNEY DR to S CAUSEWAY PARK	940115	13,023	2017	790	648	D	0.820	678	D	0.858
SR A1A SOUTH	S CAUSEWAY PARK to INDIAN RIVER DR	940711	11,974	2017	1,550	659	C	0.955	596	C	0.864
SR A1A SOUTH	INDIAN RIVER DR to US 1	940711	11,974	2017	1,710	659	C	0.856	596	C	0.774
ST JAMES DR	AIROSO BLVD to ST JAMES BLVD	172	16,500	2020	2,100	1,129	C	0.562	1,088	C	0.541
ST JAMES DR	ST JAMES BLVD to PEACHTREE BLVD	239	19,000	2020	2,100	1,345	C	0.669	1,301	C	0.647
ST JAMES DR	PEACHTREE BLVD to TELFORD AVE	172	16,500	2020	1,800	1,129	C	0.656	1,088	C	0.633
ST JAMES DR	TELFORD AVE to MIDWAY RD	345	19,500	2020	2,100	1,188	C	0.591	1,173	C	0.584
ST JAMES BLVD	SELVITZ RD to ST JAMES DR	707	4,750	2017	790	279	C	0.715	275	C	0.705
ST LUCIE BLVD	KINGS HWY to KEEN RD	156	5,710	2019	880	310	C	0.373	407	C	0.490
ST LUCIE BLVD	KEEN RD to 25TH ST	156	5,710	2019	880	310	C	0.373	407	C	0.490
ST LUCIE BLVD	25TH ST to SENECA AVE	940270	3,819	2017	750	195	C	0.527	199	C	0.538
ST LUCIE BLVD	SENECA AVE to US 1	940270	3,819	2017	790	195	C	0.500	199	C	0.510
ST LUCIE WEST BLVD	COMMERCE CENTER DR to W OF I-95	152	13,500	2019	700	662	D	0.946	683	D	0.976
ST LUCIE WEST BLVD	I-95 to CALIFORNIA BLVD	318	36,000	2019	2,100	1,722	C	0.857	1,670	C	0.831
ST LUCIE WEST BLVD	CALIFORNIA BLVD to COUNTRY CLUB DR	318	36,000	2019	2,100	1,722	C	0.857	1,670	C	0.831
ST LUCIE WEST BLVD	COUNTRY CLUB DR to CASHMERE BLVD	318	36,000	2019	2,100	1,722	C	0.857	1,670	C	0.831

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ST LUCIE WEST BLVD	CASHMERE BLVD to BAYSHORE BLVD	316	46,000	2019	3,170	2,446	C	0.792	2,308	C	0.747
SUNRISE BLVD	MIDWAY RD to BELL AVE	155	3,590	2016	540	249	C	0.922	233	C	0.863
SUNRISE BLVD	BELL AVE to EDWARDS RD	153	3,814	2016	750	253	C	0.684	286	C	0.773
SUNRISE BLVD	EDWARDS RD to CORTEZ BLVD	511	7,300	2020	600	647	F	1.011	515	D	0.858
SUNRISE BLVD	CORTEZ BLVD to VIRGINIA AVE	511	7,300	2020	750	647	D	0.863	515	D	0.687
SUNRISE BLVD	VIRGINIA AVE to OLEANDER AVE	509	5,300	2020	750	417	D	0.556	411	D	0.548
SUNRISE BLVD	OLEANDER AVE to 7TH ST	708	3,900	2017	1,540	243	C	0.352	282	C	0.409
SUNRISE BLVD	7TH ST to US 1	708	3,900	2017	1,710	243	C	0.316	282	C	0.366
TIFFANY AVE	US 1 to HILLMOOR DR	322	15,000	2019	2,100	855	C	0.425	862	C	0.429
TIFFANY AVE	HILLMOOR DR to VILLAGE GREEN DR	322	15,000	2019	2,100	855	C	0.425	862	C	0.429
TIFFANY AVE	VILLAGE GREEN DR to LENNARD RD	320	4,666	2017	2,100	242	C	0.120	261	C	0.130
TORINO PKWY	CASHMERE BLVD to CALIFORNIA BLVD	709	7,800	2018	630	404	C	0.673	443	C	0.738
TORINO PKWY	CALIFORNIA BLVD to EAST TORINO PKWY	238	4,314	2018	630	255	C	0.425	223	C	0.372
TRADITION PKWY	COMMUNITY BLVD to VILLAGE PKWY	711	8,367	2018	1,710	996	D	0.582	1,144	D	0.669
TRADITION PKWY	VILLAGE PKWY to W OF I-95	712	36,500	2019	3,170	2,021	C	0.654	1,924	C	0.623
TULIP BLVD	DARWIN BLVD to PORT ST LUCIE BLVD	713	8,200	2019	790	524	D	0.663	456	D	0.577
TULIP BLVD	PORT ST LUCIE BLVD to PAAR DR	714	9,133	2018	790	639	D	0.809	493	D	0.624
TULIP BLVD	PAAR DR to DARWIN BLVD	714	9,133	2018	790	639	D	0.809	493	D	0.624
TURNPIKE FEEDER RD	TURNPIKE FEEDER RD SB RAMP to US 1	940078	4,989	2015	660	653	C	0.989	653	C	0.989
TURNPIKE FEEDER RD	INDIAN PINES BLVD to TURNPIKE FEEDER RD SB R...	940269	10,253	2017	870	676	C	0.777	620	C	0.713
TURNPIKE FEEDER RD	INDRIO RD to INDIAN PINES BLVD	940745	12,876	2017	870	696	C	0.800	732	C	0.841
US 1	MARTIN C.L. to LENNARD RD	945071	41,817	2017	4,240	1,904	C	0.457	2,239	C	0.537
US 1	LENNARD RD to PORT ST LUCIE BLVD	945071	41,817	2017	4,040	1,904	C	0.480	2,239	C	0.564
US 1	PORT ST LUCIE BLVD to JENNINGS RD	945070	31,458	2017	3,020	1,510	C	0.514	1,603	C	0.545
US 1	JENNINGS RD to TIFFANY AVE	945070	31,458	2017	3,020	1,510	C	0.514	1,603	C	0.545

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Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
US 1	TIFFANY AVE to WALTON RD	945070	31,458	2017	3,020	1,510	C	0.514	1,603	C	0.545
US 1	WALTON RD to VILLAGE GREEN DR	945150	43,634	2017	3,020	2,364	C	0.804	2,119	C	0.721
US 1	VILLAGE GREEN DR to SPANISH LAKES BLVD	940265	47,369	2017	3,170	2,516	C	0.814	2,356	C	0.762
US 1	SPANISH LAKES BLVD to PRIMA VISTA BLVD	940265	47,369	2017	3,170	2,516	C	0.814	2,356	C	0.762
US 1	PRIMA VISTA BLVD to RIO MAR DR	940264	36,624	2017	3,170	1,694	C	0.548	1,667	C	0.539
US 1	RIO MAR DR to KITTERMAN RD	940266	30,753	2017	3,170	1,503	C	0.486	1,361	C	0.440
US 1	KITTERMAN RD to S OF SAEGER AVE	940266	30,753	2017	3,020	1,503	C	0.511	1,361	C	0.463
US 1	S OF SAEGER AVE to EASY ST	940266	30,753	2017	3,170	1,503	C	0.486	1,361	C	0.440
US 1	EASY ST to MIDWAY RD	945156	29,579	2017	3,170	1,379	C	0.446	1,340	C	0.434
US 1	MIDWAY RD to WEATHERBEE RD	940012	27,675	2017	2,100	1,300	C	0.647	1,316	C	0.655
US 1	WEATHERBEE RD to FARMER'S MARKET RD	940012	27,675	2017	2,000	1,300	C	0.681	1,316	C	0.689
US 1	FARMER'S MARKET RD to EDWARDS RD	940012	27,675	2017	2,000	1,300	C	0.681	1,316	C	0.689
US 1	EDWARDS RD to SAVANNAH RD	945002	26,196	2017	2,000	1,200	C	0.628	1,177	C	0.616
US 1	GARDENIA AVE to VIRGINIA AVE	945002	26,196	2017	2,000	1,200	C	0.628	1,177	C	0.616
US 1	SAVANNAH RD to GARDENIA AVE	945002	26,196	2017	2,000	1,200	C	0.628	1,177	C	0.616
US 1	VIRGINIA AVE to OHIO AVE	945003	23,845	2017	2,000	1,148	C	0.601	1,157	C	0.606
US 1	OHIO AVE to GEORGIA AVE	945003	23,845	2017	1,630	1,148	D	0.704	1,157	D	0.710
US 1	GEORGIA AVE to DELAWARE AVE	945008	21,107	2017	1,630	1,088	D	0.667	1,040	D	0.638
US 1	DELAWARE AVE to CITRUS AVE	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	CITRUS AVE to ORANGE AVE	940118	20,283	2017	1,630	1,009	D	0.619	910	D	0.558
US 1	ORANGE AVE to AVENUE A	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	AVENUE A to AE BACKUS AVE	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	AE BACKUS AVE to AVENUE D	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	AVENUE D to SR A1A SOUTH	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	SR A1A SOUTH to AVENUE H	715	33,500	2020	2,100	1,766	C	0.879	1,742	C	0.867

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**



Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
US 1	AVENUE H to OLD DIXIE HWY	715	33,500	2020	2,000	1,766	C	0.925	1,742	C	0.912
US 1	OLD DIXIE HWY to AVENUE O	940123	22,051	2017	2,000	1,530	C	0.801	1,196	C	0.626
US 1	AVENUE O to SR A1A NORTH	940123	22,051	2017	2,100	1,530	C	0.761	1,196	C	0.595
US 1	SR A1A NORTH to JUANITA AVE	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	JUANITA AVE to ST LUCIE BLVD	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	ST LUCIE BLVD to 25TH ST	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	25TH ST to INDRIO RD	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	INDRIO RD to TURNPIKE FEEDER RD	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
US 1	TURNPIKE FEEDER RD to INDIAN RIVER C.L.	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
VETERANS MEMORIAL PKWY	PORT ST LUCIE BLVD to LYNGATE DR	329	14,500	2019	2,100	779	C	0.388	817	C	0.406
VETERANS MEMORIAL PKWY	LYNGATE DR to US 1	327	14,911	2017	2,100	756	C	0.376	804	C	0.400
VILLAGE GREEN DR	US 1 to WALTON RD	716	9,600	2017	2,100	619	C	0.308	575	C	0.286
VILLAGE GREEN DR	WALTON RD to TIFFANY AVE	717	4,633	2017	920	249	C	0.286	235	C	0.270
VIRGINIA AVE	35TH ST to 25TH ST	940032	21,557	2017	3,020	1,111	C	0.378	1,083	C	0.368
VIRGINIA AVE	OKEECHOBEE RD to HARTMAN RD	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	HARTMAN RD to 35TH ST	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	25TH ST to 13TH ST	940033	20,913	2017	3,020	1,093	C	0.372	1,164	C	0.396
VIRGINIA AVE	13TH ST to 11TH ST	940794	22,873	2017	3,020	1,101	C	0.374	1,101	C	0.374
VIRGINIA AVE	11TH ST to SUNRISE BLVD	940794	22,873	2017	3,170	1,101	C	0.356	1,101	C	0.356
VIRGINIA AVE	SUNRISE BLVD to OLEANDER AVE	940792	19,519	2017	3,020	1,063	C	0.362	992	C	0.337
VIRGINIA AVE	OLEANDER AVE to COLONIAL RD	940034	18,483	2017	3,170	1,043	C	0.338	1,020	C	0.330
VIRGINIA AVE	COLONIAL RD to US 1	940034	18,483	2017	3,020	1,043	C	0.355	1,020	C	0.347
VILLAGE PKWY	DISCOVERY WAY to TRADITION PKWY	718	14,000	2019	2,650	732	C	0.595	797	C	0.648
VILLAGE PKWY	BECKER RD to DISCOVERY WAY	718	14,000	2019	1,710	732	C	0.951	797	D	0.466
VILLAGE PKWY	TRADITION PKWY to WESTCLIFFE LN	719	23,000	2019	1,710	1,208	D	0.706	1,265	D	0.740

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
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* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

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St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
VILLAGE PKWY	WESTCLIFFE LN to CROSSROADS PKWY	720	12,000	2019	1,540	640	C	0.928	634	C	0.919
WALTON RD	US 1 to VILLAGE GREEN DR	330	15,156	2019	1,710	915	D	0.535	841	D	0.492
WALTON RD	VILLAGE GREEN DR to LENNARD RD	328	13,000	2019	1,710	690	C	0.896	684	C	0.888
WALTON RD	LENNARD RD to GREEN RIVER PKWY	326	9,382	2018	880	569	C	0.686	627	C	0.755
WALTON RD	GREEN RIVER PKWY to INDIAN RIVER DR	324	5,402	2018	630	416	C	0.693	430	C	0.717
WESTCLIFFE LN	TREMONTE AVE to VILLAGE PKWY	722	6,267	2018	1,470	439	C	0.665	338	C	0.512
WEATHERBEE RD	OLEANDER AVE to US 1	721	3,574	2019	750	265	C	0.716	242	C	0.654
WEATHERBEE RD	US 1 to MIDWAY RD	158	6,300	2020	750	431	D	0.575	461	D	0.615
WESTMORELAND BLVD	MORNINGSIDE BLVD to PORT ST LUCIE BLVD	339	13,000	2019	920	685	C	0.787	729	C	0.838
WESTMORELAND BLVD	MARTIN C.L. to MORNINGSIDE BLVD	245	9,700	2019	920	540	C	0.621	598	C	0.687

Countywide Performance

Weighted V/C = **0.69**

% VMT below Standard = **8.04%**

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
* **Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

MIDWAY ROAD FROM GLADES CUT OFF ROAD TO SELVITZ ROAD - RESERVE

4385431 Non-SIS



Project Description: FUNDING ACTION
Extra Description: 2019 TPO PRIORITY #2 RESERVE FOR FM 231440-3
Lead Agency: MANAGED BY FDOT
From: GLADES CUT OFF ROAD
Length: 0
To: SELVITZ ROAD
Phase Group: CONSTRUCTION

Phase	Fund Code	2020	2021	2022	2023	2024	Total
CST	SA	0	0	0	0	1,000,000	1,000,000
CST	SU	0	0	0	0	1,000,000	1,000,000
						2,000,000	**2,000,000**

A-21

Prior Year Cost: 0
Future Year Cost: 0
Total Project Cost: 2,000,000
LRTP: Page 6-5

Notes

I-95 NORTHBOUND AND SOUTHBOUND OFF-RAMPS AT MIDWAY ROAD
4397541 SIS



Project Description: INTERCHANGE - ADD LANES
Extra Description: MIDWAY ROAD AT I-95 NB & SB OFF-RAMP INTERSECTION SHORT TERM IMPROVEMENTS; A)ADD SECOND LEFT TURN LANES TO BOTH NB AND SB OFF-RAMPS
Lead Agency: MANAGED BY FDOT **From:** OFF-RAMPS
Length: 0.775 **To:** MIDWAY RD
Phase Group: PRELIMINARY ENGINEERING, RAILROAD & UTILITIES, CONSTRUCTION, ENVIRONMENTAL

Phase	Fund Code	2020	2021	2022	2023	2024	Total
PE	DIH	20,000	0	0	0	0	20,000
PE	DS	230,000	0	0	0	0	230,000
RRU	DS	10,000	0	0	0	0	10,000
CST	DIH	0	0	57,472	0	0	57,472
CST	DS	0	0	1,468,717	0	0	1,468,717
ENV	DS	10,000	30,000	0	0	0	40,000
		270,000	**30,000**	**1,526,189**			**1,826,189**

A-22
Prior Year Cost: 0
Future Year Cost: 0
Total Project Cost: 1,826,189
LRTP: Page 6-2

Notes

I-95 @ ST LUCIE WEST BLVD
4353371 SIS



A-23

Prior Year Cost: 1,196,654
Future Year Cost: 0
Total Project Cost: 17,818,063
LRTP: Page 6-2

Project Description: INTERCHANGE - ADD LANES
Extra Description: 2017 TPO PRIORITY #5 FROM COMMERCE CENTER DRIVE TO PEACOCK BLVD., WIDENING OF ROADWAY TO ACCOMMODATE THREE EB LANES AND TWO WB LANES ACROSS THE BRIDGE OVER I-95 AND BUILD A NEW EB BRIDGE. WIDENING THE SOUTHBOUND OFF RAMP INTERSECTION TO PROVIDE TWO LEFT TURN LANES AND ONE RIGHT TURN LANE. WIDENING THE...
Lead Agency: MANAGED BY FDOT **From:** SR-9/I-95
Length: 1.814 **To:** ST LUCIE WEST BLVD
Phase Group: PRELIMINARY ENGINEERING, RAILROAD & UTILITIES, CONSTRUCTION, CONTRACT INCENTIVES, ENVIRONMENTAL

Phase	Fund Code	2020	2021	2022	2023	2024	Total
RRU	DDR	0	400,000	0	0	0	400,000
CST	LF	0	0	3,100,000	0	0	3,100,000
CST	DDR	0	0	10,153,103	0	0	10,153,103
CST	DIH	0	0	108,786	0	0	108,786
CST	TRIP	0	0	2,113,636	0	0	2,113,636
CST	TRWR	0	0	565,884	0	0	565,884
INC	DDR	0	0	150,000	0	0	150,000
ENV	DDR	30,000	0	0	0	0	30,000
		30,000	**400,000**	**16,191,409**			**16,621,409**

Notes

I-95 FROM MARTIN/ST. LUCIE COUNTY LINE TO OKEECHOBEE ROAD
4226816 SIS



Project Description: PD&E/EMO STUDY
Lead Agency: MANAGED BY FDOT
Length: 15.499
Phase Group: P D & E

From: MARTIN/ST. LUCIE COUNTY LINE
To: OKEECHOBEE ROAD

Phase	Fund Code	2020	2021	2022	2023	2024	Total
PDE	ACNP	0	0	0	0	550,000	550,000
						550,000	**550,000**

Prior Year Cost: 2,536,059
Future Year Cost: 2,110,000
Total Project Cost: 11,992,052
LRTP: Page 7-1

A-24

Notes

APPENDIX B

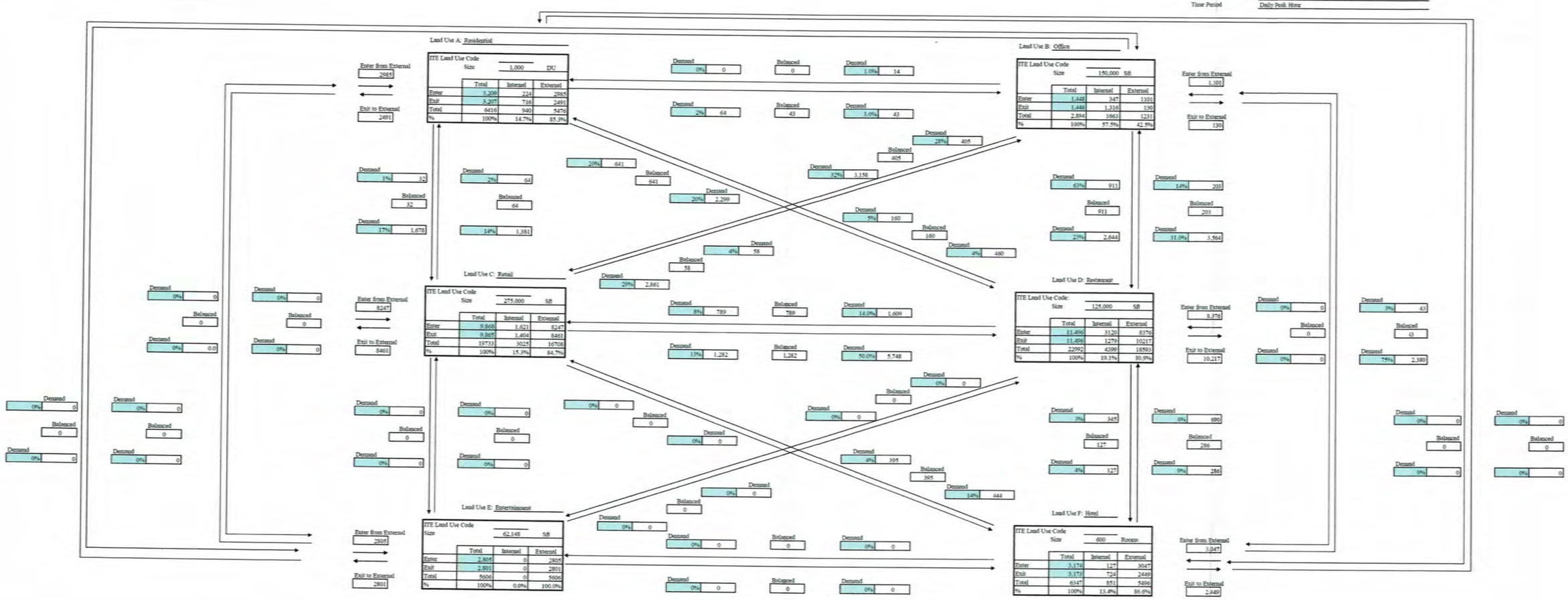
AM and PM Trip Generation
Proposed Future Land Use

Attachment B: Daily Internal Traffic

PROJECT
TRIP INTERNALIZATION - Daily

Analyst: James Kemp
Date: Feb-20

Name of Devlpt: Willow Lakes
Time Period: Daily Peak Hour



Net External Trips for Multi-Use Development

	Land Use A		Land Use B		Land Use C		Land Use D		Land Use E		Land Use F		Total	
Enter	2985		1101		8247		8376		2805		3,047		26561	
Exit	2491		130		8461		10217		2801		2,449		26549	
Total	5476		1231		16708		18593		5606		5496		53110	
Single-Use Trip Gen Estimate	6416		2894		19733		22992		5606		6347		63988	Internal Capture
														17.0%

Source: based on procedures from the ITE Trip Generation Handbook, Chapter 7, March 2001

Legend

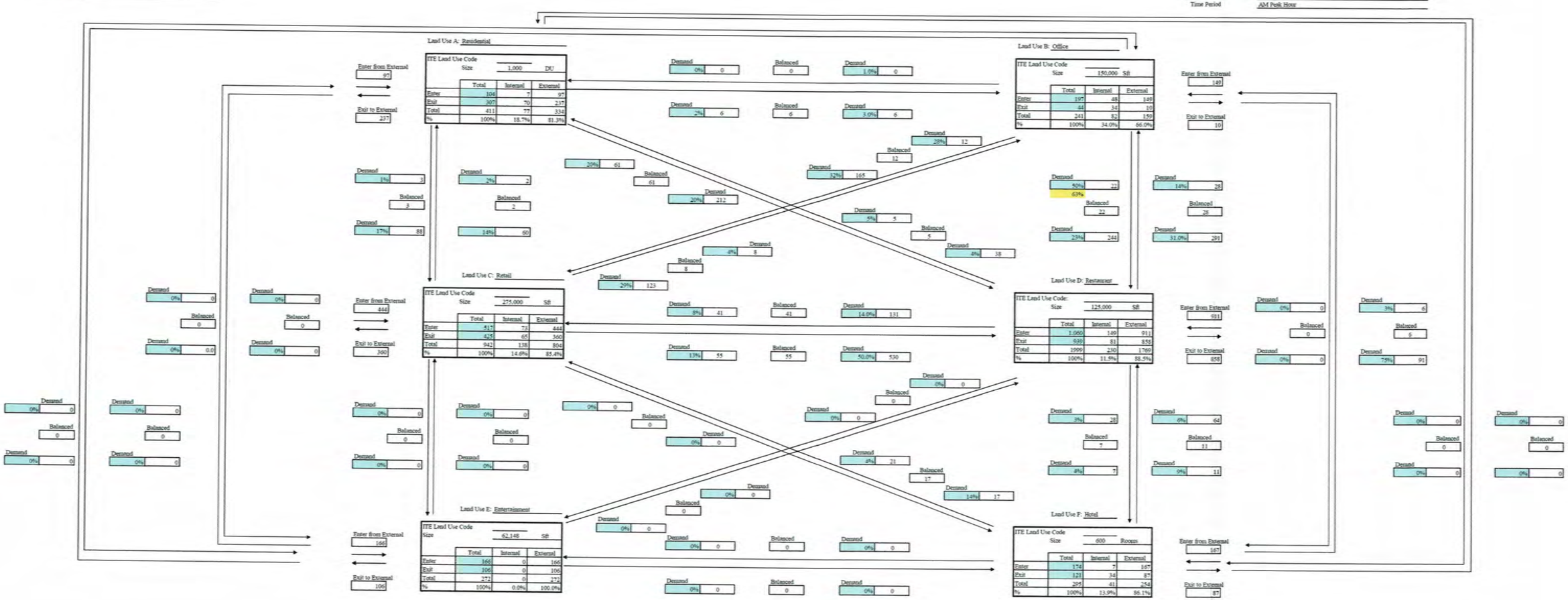
X% Denotes % Used
X% Denotes ITE Value if different from % Used
Balanced Denotes Internal Trips Computed

Attachment B: AM Internal Traffic - Phase 1

PROJECT
TRIP INTERNALIZATION - AM

Analyst: James Kemp
Date: Feb-20

Name of Devlpt: Willow Lakes
Time Period: AM Peak Hour



Net External Trips for Multi-Use Development

	Land Use A		Land Use B		Land Use C		Land Use D		Land Use E		Land Use F		Total	
Enter	97		149		444		911		166		167		1934	
Exit	237		10		360		858		106		87		1658	Internal
Total	334		159		804		1769		272		254		3592	Capture
Single-Use Trip Gen Estimate	411		241		942		1999		272		295		4160	13.7%

Source: based on procedures from the ITE Trip Generation Handbook, Chapter 7, March 2001

Legend

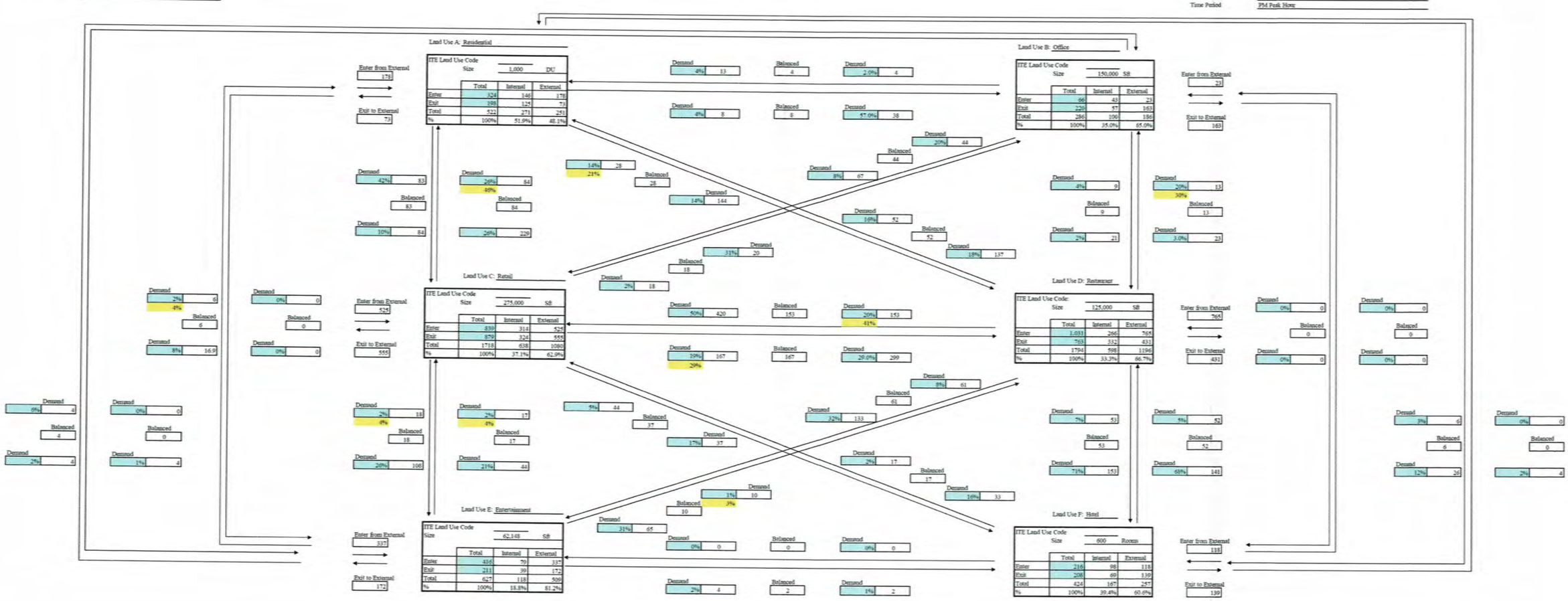
X%	Denotes % Used
X%	Denotes ITE Value if different from % Used
Balanced	Denotes Internal Trips Computed

Attachment B: PM Internal Traffic

PROJECT
TRIP INTERNALIZATION - PM

Analyst: James Kemp
Date: Feb-20

Name of Devlpt: Willow Lakes
Time Period: PM Peak Hour



Net External Trips for Multi-Use Development

	Land Use A		Land Use B		Land Use C		Land Use D		Land Use E		Land Use F		Total	
Enter	178		23		525		765		337		118		1946	
Exit	73		163		555		431		172		139		1533	Internal
Total	251		186		1080		1196		509		257		3479	Capture
Single-Use Trip Gen Estimate	522		286		1718		1794		627		424		5371	35.2%

Source: based on procedures from the ITE Trip Generation Handbook, Chapter 7, March 2001

Legend

X% Denotes % Used
X% Denotes ITE Value if different from % Used
Balanced Denotes Internal Trips Computed

APPENDIX C

Model Assignment

Southern Assignment

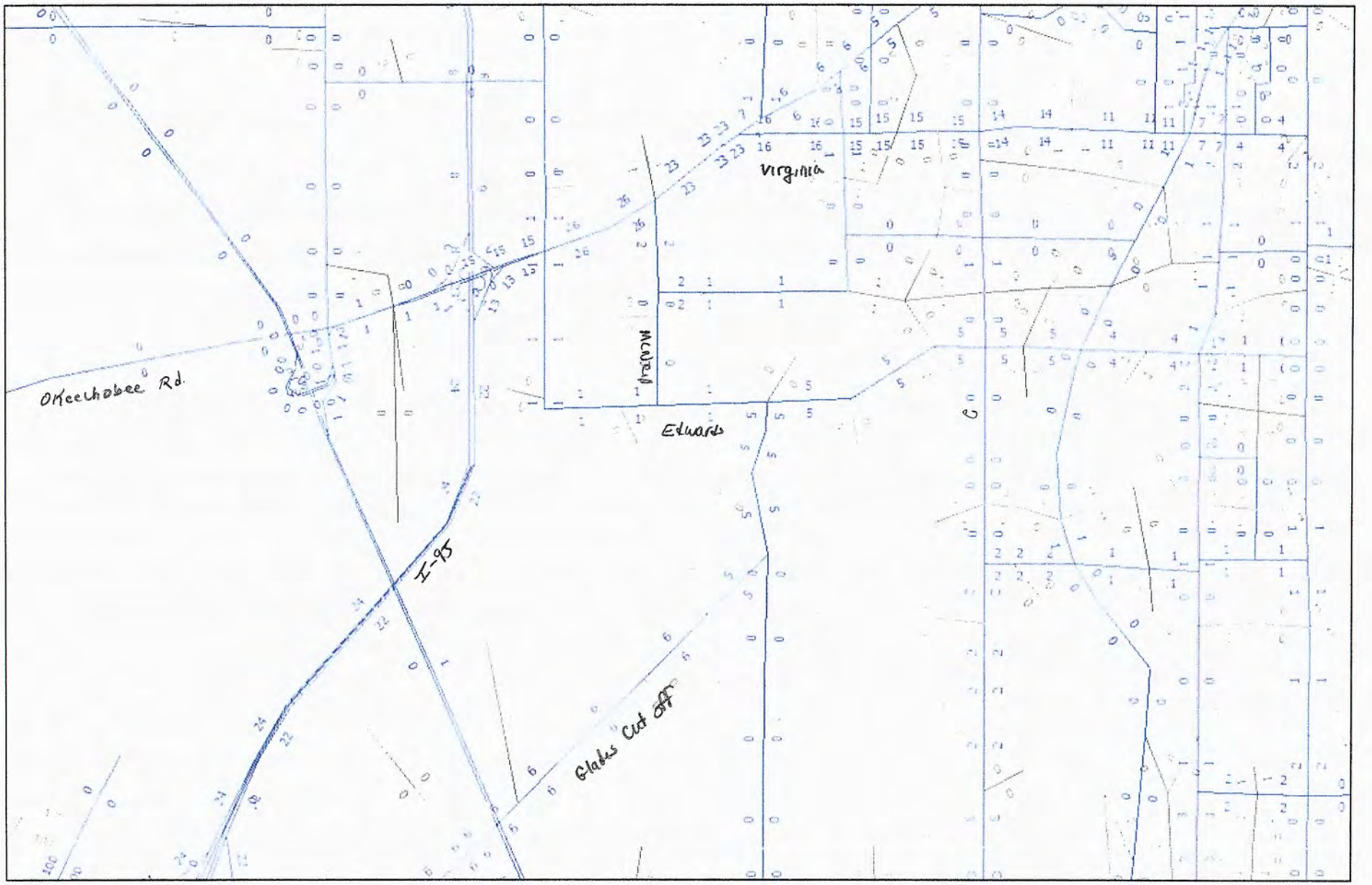


C-1

NO VAN

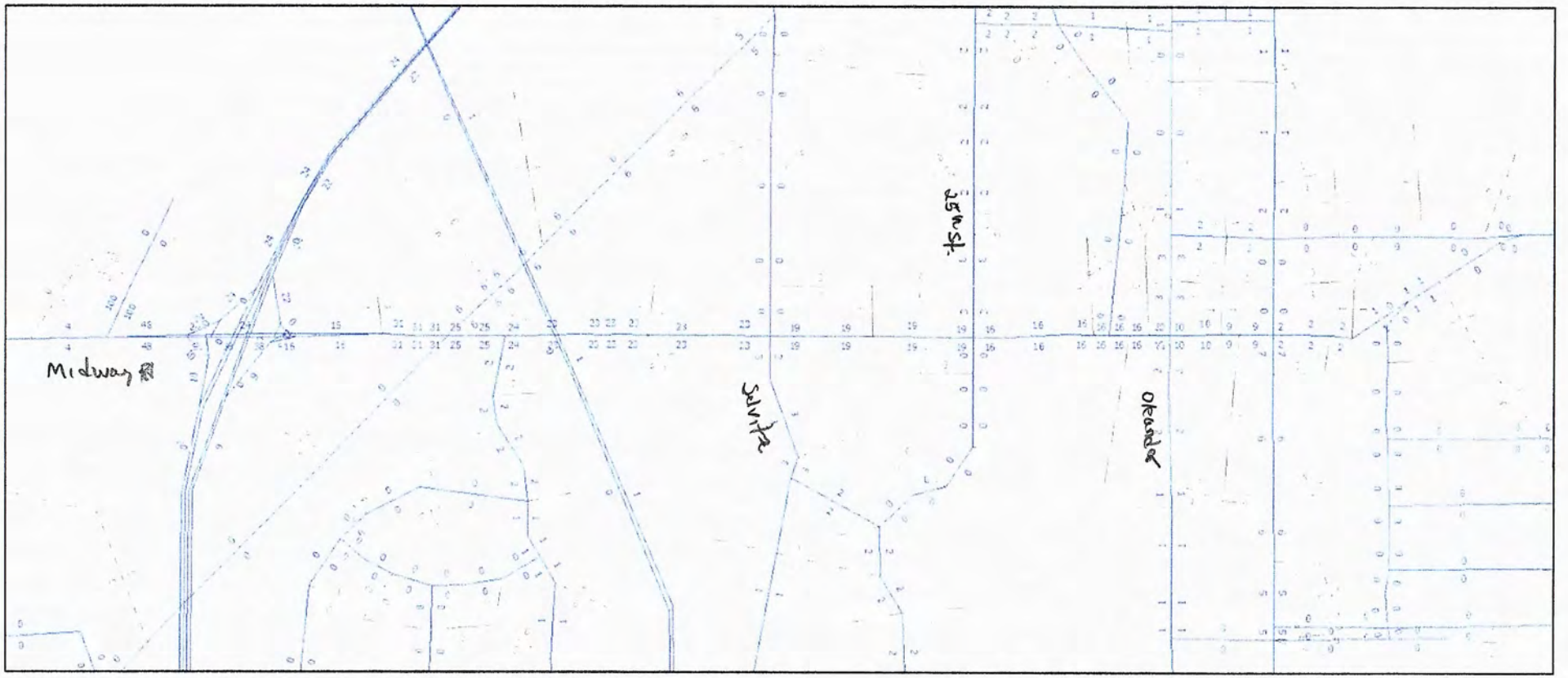
N/A

Northern Assignment



No VAM

Eastern Assignment

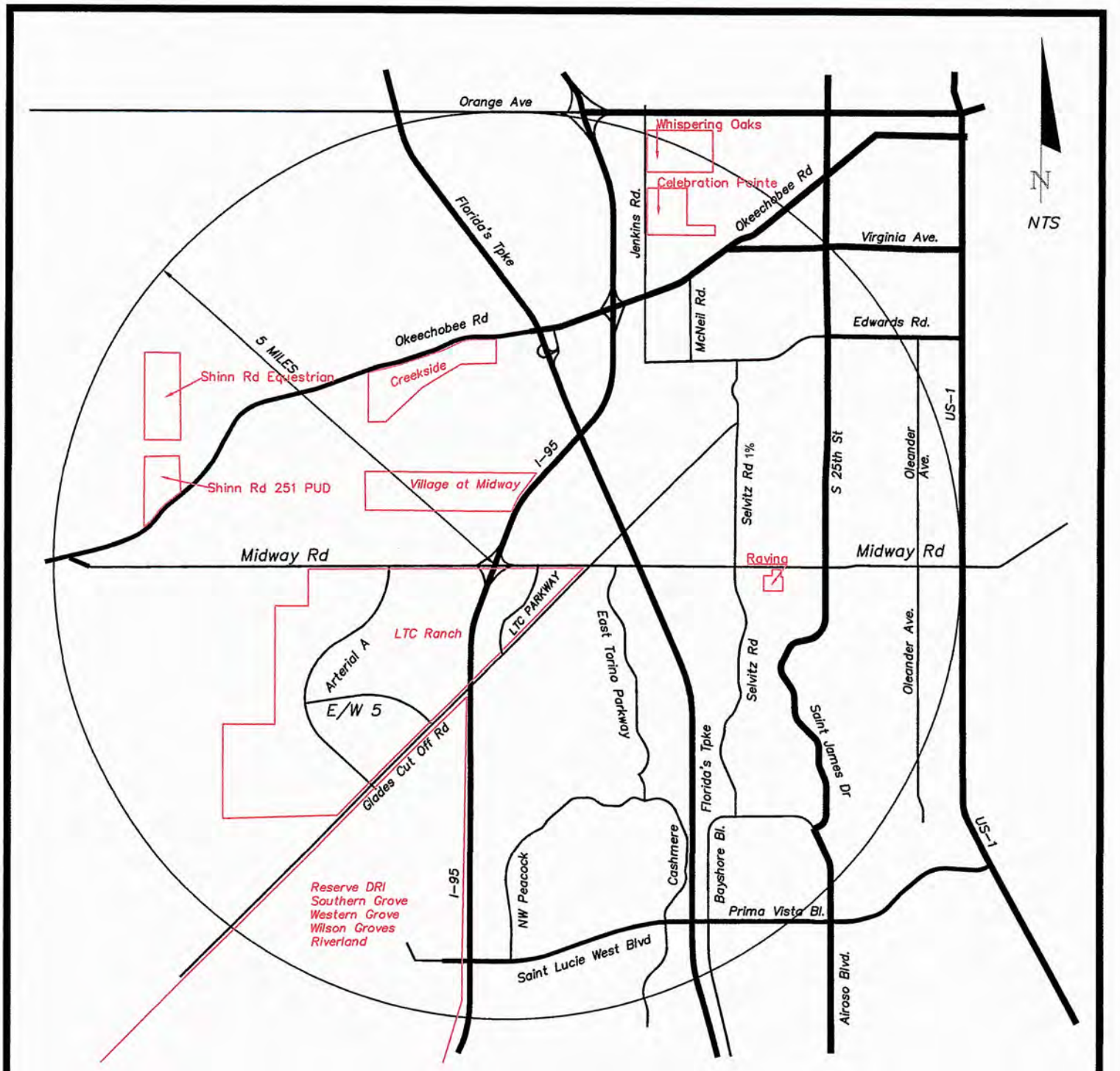


APPENDIX D

2035 Background Traffic Data

Other Projects

The Village at Midway
Whispering Oaks
Shinn Road
Rio Lago
Ravinia
Creekside
Western Annexation: Western Grove, Southern Grove, Riverland, Wilson Grove
Village of Sunset Lake
LTC Ranch



O'Rourke Engineering & Planning

O'ROURKE ENGINEERING & PLANNING

772-781-7918
969 SE Federal Highway Suite 402
Stuart, Florida 34994

Approved Project Locations

WILLOW LAKES

February 2020

| AM APPROVED PROJECTS | | | Southern Grove DRI | | | | | | Western Grove DRI | | | | | | Wilson Groves DRI | | | | | | Riverland DRI | | | | | | LTC Ranch | | | | | | Creekside | | | | | | Palm Breezes Club | | | | | | 10 Village of Sunset Lakes St. Lucie County | | | | | | 36 Rio Lago St. Lucie County | | | | | | 44 Celebration Pointe City of Fort Pierce | | | | | | Shinn Road 251 PUD | | | | | | Shinn Road Equestrian Estates | | | | | | Sedona Ria Frontera | | | | | | 37 Whispering Oaks | | | | | | Village at Midway | | | | | | Ravinia | | | | | | St. Lucie Commerce Center | | | | | | SUM Directional N/E | | | SUM Directional S/W | | | Directional N/E | | Directional S/W | |
|---|---|---

| PM APPROVED PROJECTS | | | Southern Grove DRI | | | | Western Grove DRI | | | | Wilson Groves DRI | | | | Riverland DRI | | | | LTC Ranch | | | | Creekside | | | | Palm Breezes Club | | | | 10 Village of Sunset Lakes St. Lucie County | | | | 36 Rio Lago St. Lucie County | | | | 44 Celebration Pointe City of Fort Pierce | | | | Shinn Road 251 PUD | | | | Shinn Road Equestrian Estates | | | | Sedona fka Frontera | | | | 37 Whispering Oaks | | | | Village at Midway | | | | Ravinia | | | | St. Lucie Commerce Center | | | | SJM Directional N/E | | SJM Directional S/W | | Directional N/E | | Directional S/W | |
|---|---|---

Table 2a Trip Generation - Daily

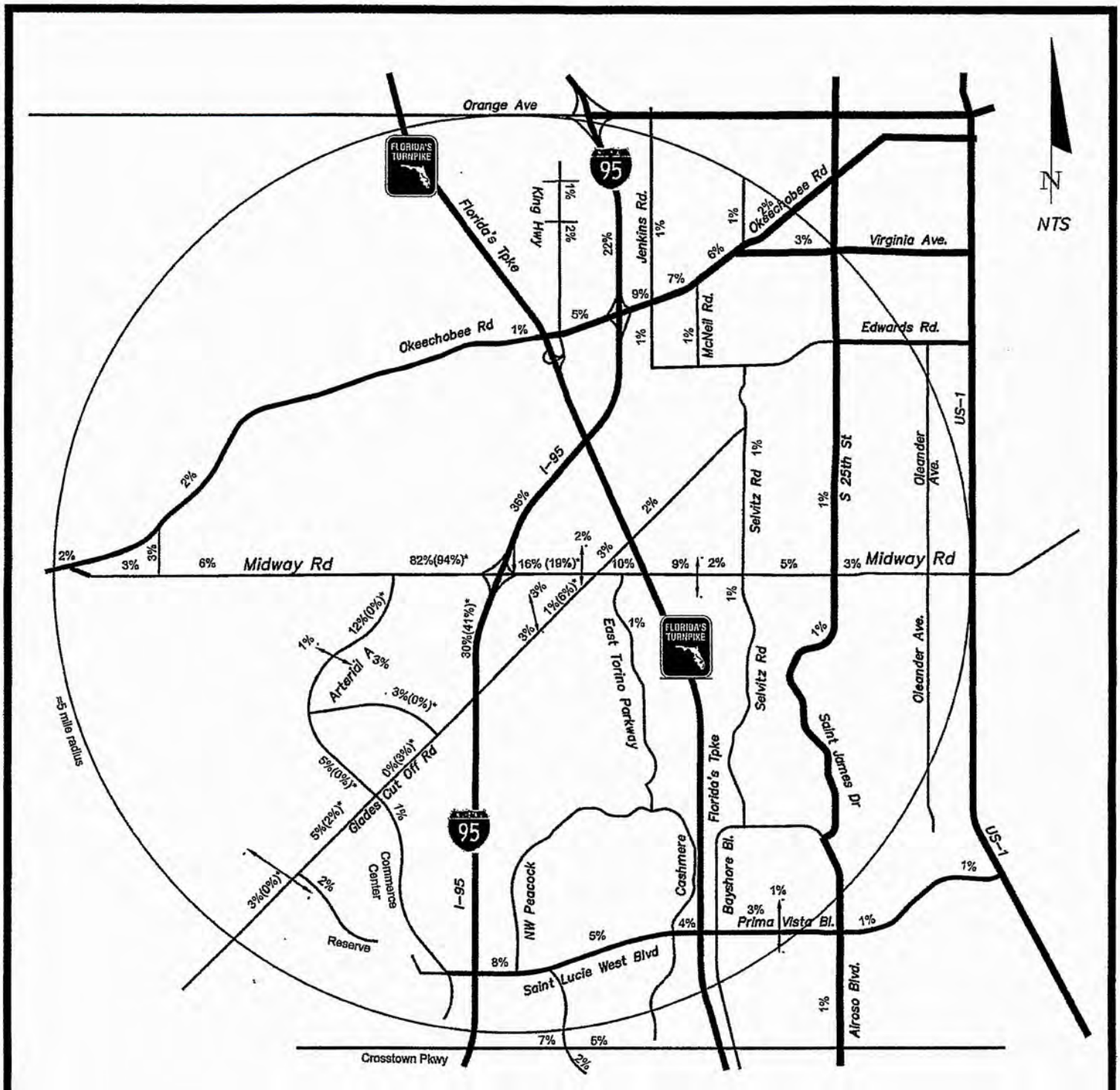
Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Directional Split		Gross Trips			Internalization Trips (2)				Net External Trips			Pass-by Trips		Net New Trips		
				% In	% Out	In	Out	Total	In	Out	Total	%	In	Out	Total			In	Out	Total
Warehouse	150	1,500,000 SF	Ln(T)=0.86ln(x)+2.24	50%	50%	2,531	2,530	5,061	144	131	275	5.4%	2,387	2,399	4,786	479	10.0%	2,154	2,153	4,307
Apartment	220	650 DU	T=6.06(x)+123.56	50%	50%	2,032	2,031	4,063	793	709	1,502	37.0%	1,239	1,322	2,561	0	0.0%	1,281	1,280	2,561
Shopping Center	820	160,000 SF	Ln(T)=0.65ln(x)+5.83	50%	50%	4,609	4,609	9,218	706	792	1,498	16.3%	3,903	3,817	7,720	2625	34.00%	2,548	2,547	5,095
General Light Industrial	110	1,200,000 SF	T=7.47(x)-101.92	50%	50%	4,431	4,431	8,862	253	229	482	5.4%	4,178	4,202	8,380	838	10.0%	3,771	3,771	7,542
Convience Store	851	5,000 SF	T=737.99(x)	50%	50%	1,845	1,845	3,690	282	317	599	16.2%	1,563	1,528	3,091	1886	61.0%	603	602	1,205
Fast Food Restaurant	934	10,000 SF	T=496.12(x)	50%	50%	2,481	2,480	4,961	508	508	1,016	20.5%	1,973	1,972	3,945	1933	49.0%	1,006	1,006	2,012
High Turnover Restaurant	932	25,000 SF	T=127.15(x)	50%	50%	1,590	1,589	3,179	326	326	652	20.5%	1,264	1,263	2,527	1087	43.0%	720	720	1,440
TOTAL						19,519	19,515	39,034	3,012	3,012	6,024	15.4%	16,507	16,503	33,010	8848	26.8%	12,083	12,079	24,162

Table 2b Trip Generation - AM

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Directional Split		Gross Trips			Internalization Trips (2)				Net External Trips			Pass-by Trips		Net New Trips		
				% In	% Out	In	Out	Total	In	Out	Total	%	In	Out	Total			In	Out	Total
Warehouse	150	1,500,000 SF	Ln(T)=0.55Ln(x)+1.88	79%	21%	289	77	366	24	22	46	12.6%	265	55	320	32	10.0%	228	60	288
Apartment	220	650 DU	T=0.49Ln(x)+3.73	20%	80%	64	258	322	4	60	64	19.9%	60	198	258	0	0.0%	52	206	258
Shopping Center	820	160,000 SF	Ln(T)=0.61Ln(x)+2.24	62%	38%	129	79	208	35	28	63	30.3%	94	51	145	49	34.00%	60	36	96
General Light Industrial	110	1,200,000 SF	T=1.18(x)-89.28	88%	12%	1,168	159	1,327	86	78	164	12.4%	1,082	81	1,163	116	10.0%	921	126	1,047
Convience Store	851	5,000 SF	T=67.03(x)	50%	50%	168	167	335	46	59	105	31.3%	122	108	230	140	61.0%	45	45	90
Fast Food Restaurant	934	10,000 SF	T=45.42(x)	51%	49%	232	222	454	82	49	131	28.9%	150	173	323	158	49.0%	84	81	165
High Turnover Restaurant	932	25,000 SF	T=10.81(x)	55%	45%	149	121	270	48	29	77	28.5%	101	92	193	83	43.0%	61	49	110
TOTAL						2,199	1,083	3,282	325	325	650	19.8%	1,874	758	2,632	578	22.0%	1,451	603	2,054

Table 2c Trip Generation - PM

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Directional Split		Gross Trips			Internalization Trips (2)				Net External Trips			Pass-by Trips		Net New Trips		
				% In	% Out	In	Out	Total	In	Out	Total	%	In	Out	Total			In	Out	Total
Warehouse	150	1,500,000 SF	Ln(T)=0.64Ln(x)+1.14	25%	75%	84	253	337	4	10	14	4.2%	80	243	323	32	10.0%	73	218	291
Apartment	220	650 DU	T=0.55Ln(x)+17.65	65%	35%	244	131	375	86	61	147	39.2%	158	70	228	0	0.0%	148	80	228
Shopping Center	820	160,000 SF	Ln(T)=0.67Ln(x)+3.31	48%	52%	394	427	821	100	88	188	22.9%	294	339	633	215	34.00%	201	217	418
General Light Industrial	110	1,200,000 SF	T=1.43(x)-157.36	12%	88%	187	1,372	1,559	20	48	68	4.4%	167	1,324	1,491	149	10.0%	161	1,181	1,342
Convience Store	851	5,000 SF	T=52.41(x)	51%	49%	134	128	262	34	27	61	23.3%	100	101	201	123	61.0%	40	38	78
Fast Food Restaurant	934	10,000 SF	T=32.65(x)	52%	48%	170	157	327	58	63	121	37.0%	112	94	206	101	49.0%	55	50	105
High Turnover Restaurant	932	25,000 SF	T=9.85(x)	55%	45%	135	111	246	43	48	91	37.0%	92	63	155	67	43.0%	48	40	88
TOTAL						1,348	2,579	3,927	345	345	690	17.6%	1,003	2,234	3,237	687	21.2%	726	1,824	2,550



Susan E. O'Rourke, P.E., Inc.
Traffic Engineering, Transportation Planning
772-781-7918
969 SE Federal Highway Suite 402
Stuart, Florida 34994

LEGEND

xx% - Assignment w/ Arterial A

(xx%)* - Assignment w/out Arterial A

FIGURE 4

PROJECT % ASSIGNMENT

THE VILLAGE AT MIDWAY

JUNE 2015

PROJECT TRAFFIC

To estimate traffic generated by the Whispering Oaks Development, the ITE Trip Generation, 7th Edition trip rates were applied. These calculations provide an estimate of the typical generation. Trip generation for the project is shown in Table 2.

TABLE 2: Project Trip Generation

Land Use	Units	ITE Land Use Code	Daily Trip Equation (Trips)	PM Peak Hour Trip Equation (Trips)	%In/ %Out (trips in/trip out)
Town Home	231	230	Ln(T)= 0.85Ln(x) + 2.55(1308)	Ln(T) = 0.82Ln(x)+ 0.32 (119)	67%/ 33% (80/39)
Single Family	145	210	Ln(T)=0.92Ln(x)+2.71 (1464)	Ln(T)=0.90Ln(x)+ 0.53 (150)	63/37 (94/55)
	376		2772	269	174/ 95

The PM peak hour total trips would be 269 with 174 entering and 95 exiting the project.

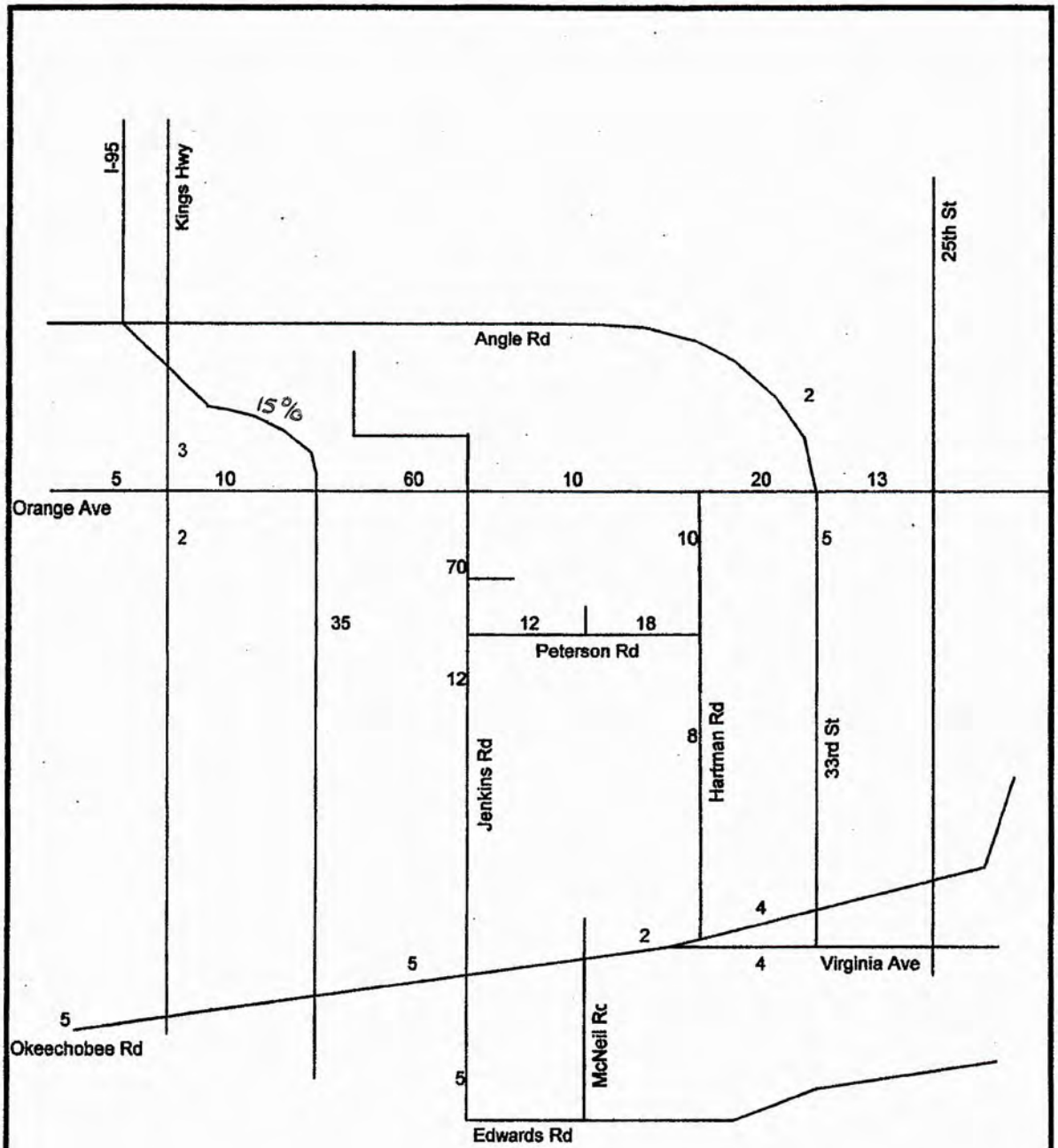
PROJECT DISTRIBUTION / ASSIGNMENT/ IMPACT

The project traffic was distributed by general geographic direction and then assigned to the roadway network.

Distribution -- The project general geographic traffic distribution was estimated as 15% north, 45% south, 25% east and 15% west.

Assignment -- This general distribution led to an assignment of external, new trips to the roadway network. Figure 2 illustrates the trip assignment and resultant trips.

The project provided a connection to Peterson Road to enhance the distribution of traffic. Additionally, the project will provide right-of-way on Jenkins Road for possible future widening.



North
not to scale

Figure 2

Project Percent Assignment

Whispering Oaks

Exhibit 2
Shinn Road 251 PUD
Trip Generation

DAILY

Land Use	Intensity	Trip Generation Rate (1)	Total Trips	Internal Trips		External Trips	Pass-by Trips (1)		New External Trips
High Turnover Restaurant	10,000 SF	127.15 /1,000 SF	1,272	25	2.0%	1,247	312	25.0%	935
Retail	85,000 SF	Ln(T)=0.65Ln(X)+5.83	6,110	61	1.0%	6,049	1,512	25.0%	4,537
Residential-Single Family	50 DUs	Ln (T) = 0.92Ln (X)+2.71	550	110	20.0%	440	-	0.0%	440
Drive-In Bank	5,000 SF	246.49 /1000 SF	1,232	37	3.0%	1,195	359	30.0%	836
TOTALS			9,164	233	2.5%	8,931	2,183		6,748

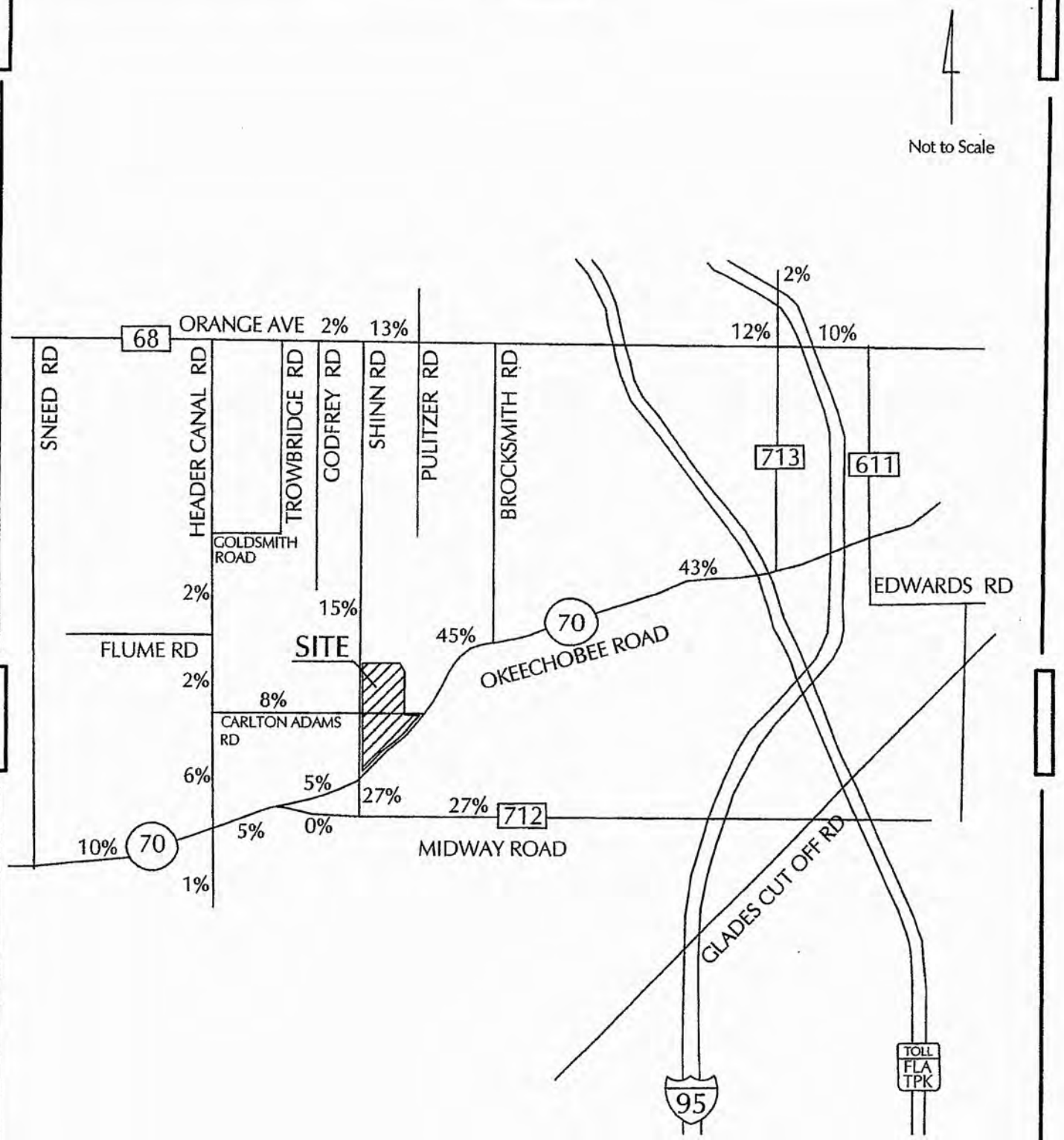
AM PEAK HOUR

Land Use	Intensity	Trip Generation Rate (1)	Total Trips			Internal Trips		External Trips			Pass-by Trips (1)		New Trips		
			In	Out	Trips			In	Out	Trips			In	Out	Trips
High Turnover Restaurant	10,000 SF	11.52 /1,000 SF (52/48)	60	55	115	5	4.0%	57	53	110	28	25.0%	42	40	82
Retail	85,000 SF	1.03 /1,000 SF (61/39)	54	34	88	3	3.0%	52	33	85	21	25.0%	39	25	64
Residential-Single Family	50 DUs	T=0.70(X)+9.43(25/75)	11	33	44	9	20.0%	9	26	35	-	0.0%	9	26	35
Drive-In Bank	5,000 SF	12.34 /1,000 SF (56/44)	35	27	62	3	5.0%	33	26	59	18	30.0%	23	18	41
TOTALS			160	149	309	20	6.5%	151	138	289	67		113	109	222

PM PEAK HOUR

Land Use	Intensity	Trip Generation Rate (1)	Total Trips			Internal Trips		External Trips			Pass-by Trips (1)		New Trips		
			In	Out	Trips			In	Out	Trips			In	Out	Trips
High Turnover Restaurant	10,000 SF	10.92 /1,000 SF (61/39)	66	43	109	5	5.0%	63	41	104	26	25.0%	46	31	78
Retail	85,000 SF	Ln (T) = 0.660Ln (X)+3.40(48/52)	270	292	562	6	1.0%	267	289	556	139	25.0%	200	217	417
Residential-Single Family	50 DUs	Ln (T) = 0.90Ln (X)+0.53(63/37)	36	21	57	11	20.0%	29	17	46	-	0.0%	29	17	46
Drive-In Bank	5,000 SF	45.74 /1,000 SF (50/50)	115	115	229	9	4.0%	109	110	220	66	30.0%	76	76	154
TOTALS			487	471	957	31	3.2%	468	457	926	231		351	341	695

(1) Source: Institute of Transportation Engineers (ITE), Trip Generation, 7th Edition.



SHINN ROAD 251 PUD	EXHIBIT 3A PROJECT TRAFFIC DISTRIBUTION	PTC

Exhibit 3
Shinn Road Equestrian Estates
Trip Generation

DAILY

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips
Residential Single Family	210	106 Dus	Ln (T) = 0.920Ln (X)+2.71	1,097
TOTAL		106 Dus		1,097

AM PEAK HOUR

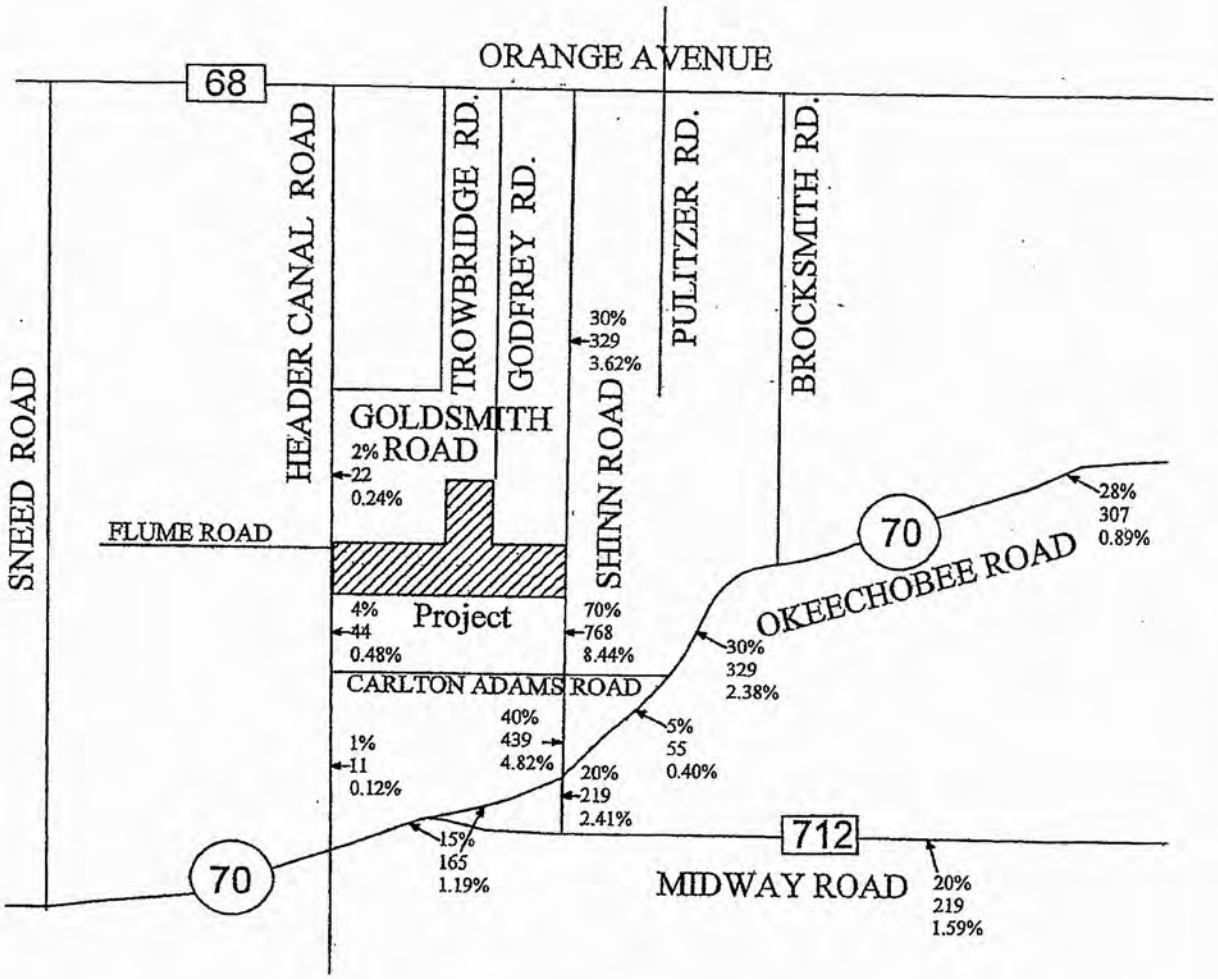
Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips		
				In	Out	Total
Residential Single Family	210	106 Dus	T=0.700(X)+9.43(25/75)	21	63	84
TOTALS				21	63	84

PM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips		
				In	Out	Total
Residential Single Family	210	106 Dus	Ln (T) = 0.90Ln (X)+0.53(63/37)	71	42	113
TOTALS				71	42	113

(1) Source: Institute of Transportation Engineers (ITE), Trip Generation, 7th Edition.

Not to Scale



LEGEND

20% - PROJECT TRAFFIC DISTRIBUTION
219 - DAILY TRAFFIC ASSIGNMENT
2.41% - PROJECT TRAFFIC IMPACT

04-04-06
05-031 S

Shinn Road
Equestrian Estates

EXHIBIT 4

TRAFFIC DISTRIBUTION

PTC

EXISTING TRAFFIC CONDITIONS

The Peak Season, Average Daily Traffic Volume for the roadways in the study area were obtained from the Spring 2005, St. Lucie Urban Area Metropolitan Planning Organization traffic counts. These counts include the committed trips for the roadway link as published in the Spring 2005 Counts, and are summarized below:

Roadway	Segment	LOS AADT	Current AADT	Current AADT plus committed	LOS
Keen Road	north of project entrance	14,600	2,400	2,400	B
	south of project entrance	14,600	2,400	2,400	B
St. Lucie Boulevard	west of Keen Road	16,900	6,300	6,300	C
	east of Keen Road	16,900	6,300	6,300	C
Angle Road	west of Keen Road	16,900	10,600	10,600	C
	east of Keen Road	16,900	10,600	10,600	C
	west of No. Kings Highway	14,600	n/a	n/a	
No. Kings Highway	north of Angle Road	16,900	14,700	14,700	D
	south of Angle Road	16,900	14,000	14,000	D

TRIP GENERATION

The Trip Generation for the proposed Rio Lago Subdivision project was developed by utilizing the "Institute of Transportation Engineers Trip Generation Manual, Seventh Edition" which established the Trip Generation Rates for the proposed facility.

In developing the Trip Generation Rates, the ITE Manual was utilized for the AADT volumes. The following Tables have been provided to depict the Trip Generation Rates for this development. Table I depicts the 24-Hour Daily Volumes.

The Land Use Codes 210 "Single Family Detached Housing".

TABLE I
Average Daily Trip Generation Volume

Land Use	Dwelling Units (Each/SF)	Rate	Volume (Trips/Day)
ITE Code 210	72	$Ln(T) = 0.92Ln(X) + 2.71$ $T = [e^{(0.92Ln(72)+2.71)}]$	768
		Total New Trips per Day =	768

TABLE II
P.M. Peak Hour Trip Generation Volume

Land Use	Dwelling Units (Each/SF)	Rate	Volume (Trips/Day)
ITE Code 210	72	$Ln(T) = 0.90Ln(X) + 0.53$ $T = [e^{(0.90Ln(72)+0.53)}]$	79
		Total New Trips per Day =	79

TRIP DISTRIBUTION

The Trip Distribution from the site onto the surrounding network was derived based upon a review of the surrounding destinations for shopping, school and work; local knowledge and experience in evaluating traffic and travel patterns in the area and an assessment of the condition of the existing Transportation Network in the area. A summary of the Major Trip Assignments was estimated and a graphical representation follows on the next page.

A summary of the additional trips created by the project are as follows:

TABLE 1
Trip Distribution – Average Daily Trips

Roadway	Segment	project trip assignments as % of total trips generated	project trips as number of total
Keen Road	north of project entrance	20%	154
	south of project entrance	80%	614
St. Lucie Boulevard	west of Keen Road	5%	38
	east of Keen Road	15%	115
Angle Road	west of Keen Road	30%	230
	east of Keen Road	50%	384
	west of No. Kings Highway	1%	8
No. Kings Highway	north of Angle Road	7%	54
	south of Angle Road	22%	169

Exhibit 2
Ravinia
Trip Generation

DAILY

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips
Residential-Single	210	150 DUs	9.52 /DU	1,428
TOTAL		150 DUs		1,428

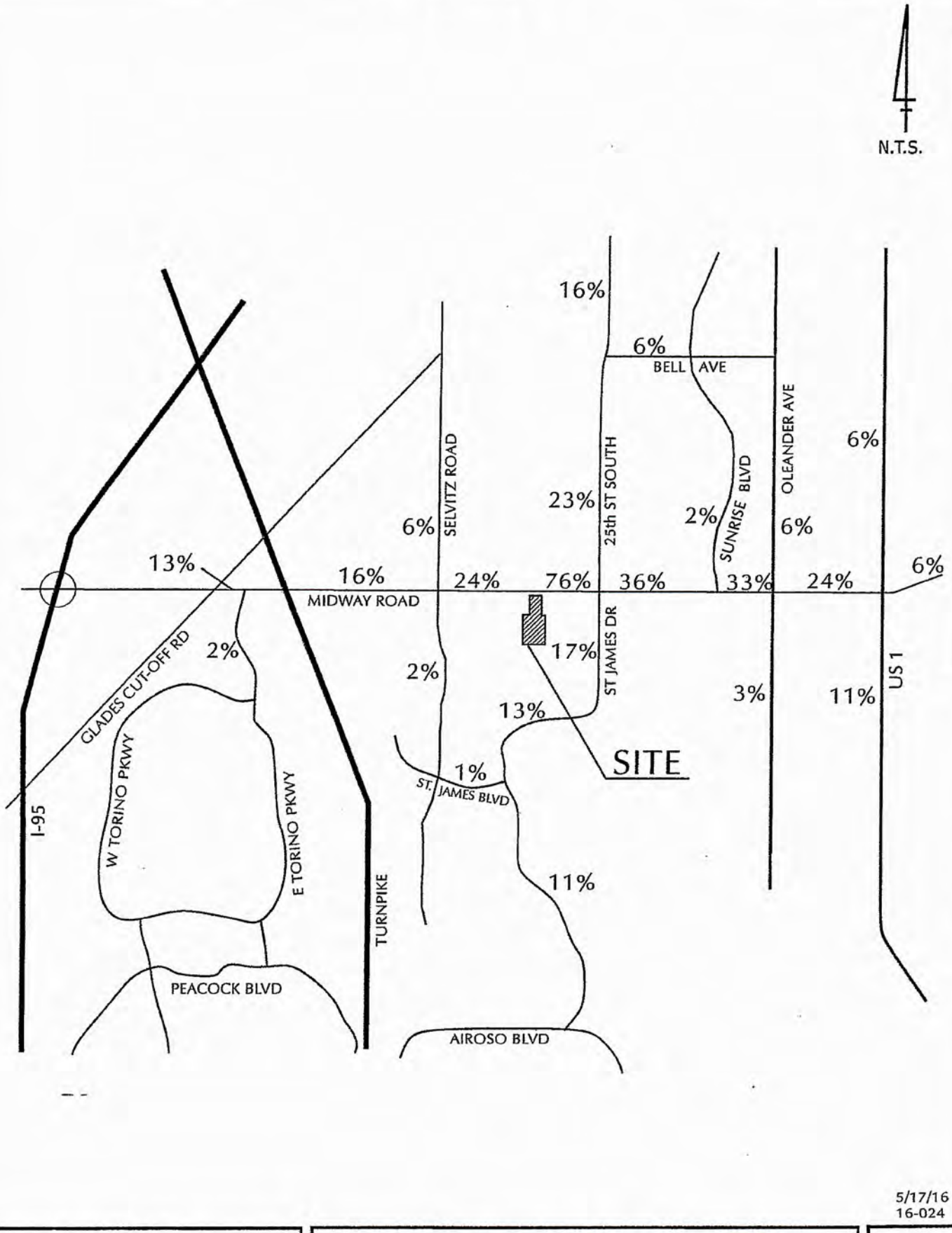
AM Peak Hour

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips		
				In	Out	Total
Residential-Single	210	150 DUs	0.75 /DU (25/75)	28	85	113
TOTAL		150 DUs		28	85	113

PM Peak Hour

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips		
				In	Out	Total
Residential-Single	210	150 DUs	1.00 /DU (63/37)	95	55	150
TOTAL		150 DUs		95	55	150

(1) Source: Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition.



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16-024

RAVINIA	EXHIBIT 3A PROJECT TRAFFIC DISTRIBUTION	PTC

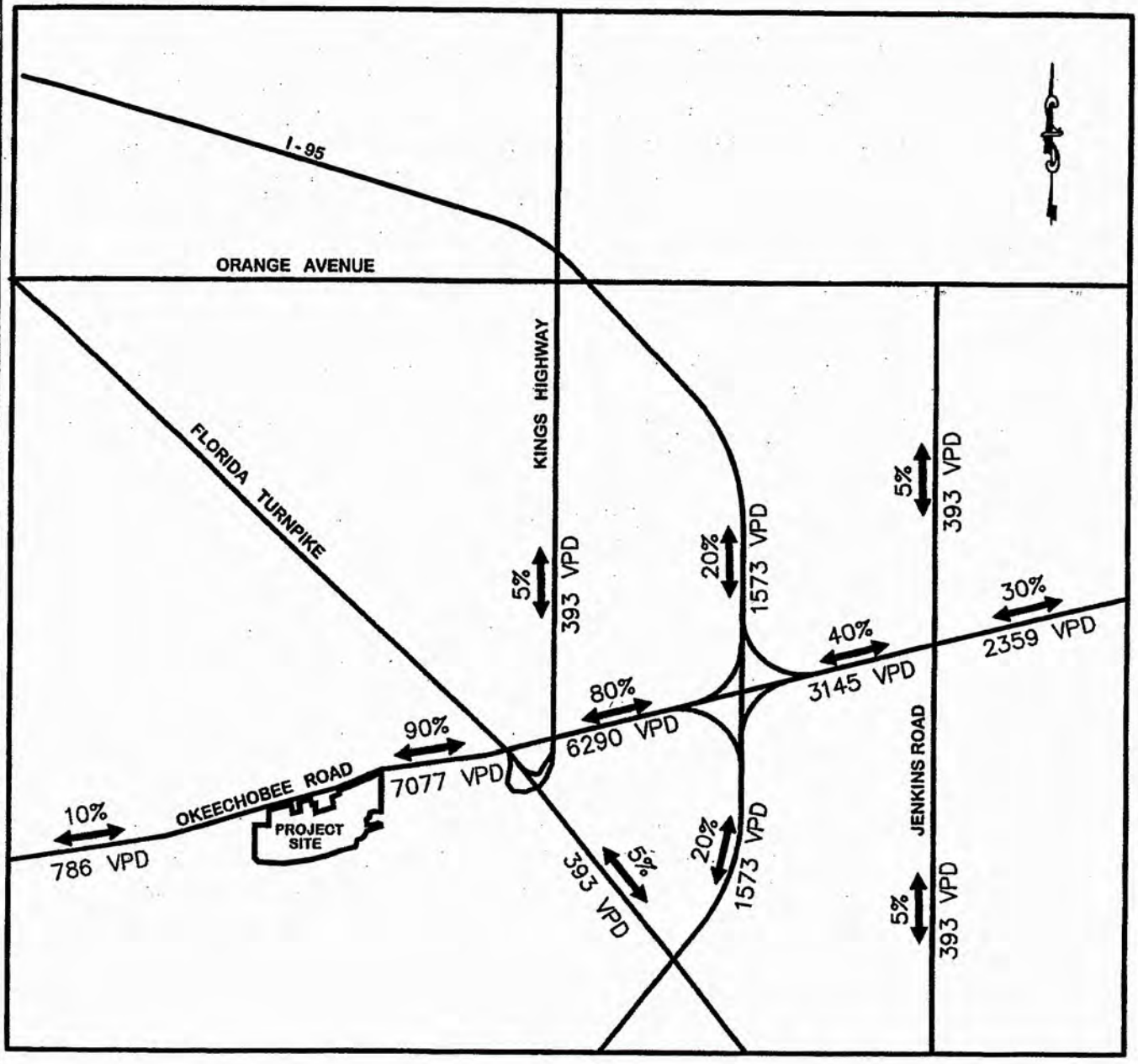

FIGURE 2

CULPEPPER & TERPENING, INC.
CONSULTING ENGINEERS
&
LAND SURVEYORS
2980 SOUTH 25th STREET
FORT PIERCE, FLORIDA 34981
(772) 464-3537
AUTHORIZATION NO. 4286

CREEKSIDE

TRIP DISTRIBUTION

JOB NO: 03-126	SCALE: N.T.S.
FILE: 03-126 EXH.DWG	DATE: 3-15-04

PROPOSED TRAFFIC GENERATION:

The additional traffic, which will be generated by the development of the Creekside PUD, is based upon the number and type of residential dwellings. The Institute of Transportation Engineer's Trip Generation Manual, Sixth Edition, Code 210 "Residential Single Family", Code 230 "Residential Condominium/Townhouse", Code 412 "County Park, and Code 814 Specialty Retail Center" was utilized to develop the trip generation rates. The trip generation of the facility for both the Average Daily Traffic and PM Peak Hour Traffic is calculated as follows:

Table No. 1
Average Daily Traffic

Land Use	ITE Code	Units/Size	ADT Rates	ADT
Single Family	210	443 DU	.920Ln(443)+2.707	4,077 VPD
Town Houses	230	397 DU	.850Ln(397)+2.564	2,101 VPD
County Park	412	3 Acres	2.28 Trips/Acre	7 VPD
Commercial	814	30,000 SF	40.67/1,000 SF*	1,678 VPD
			Total	7,863 VPD

* The commercial component of the development will result in pass-by and internal capture for the home to shopping portion of the standard trips generated. This percentage of pass-by and internal capture is typically estimated to be 25% for shopping centers. The trip generation rate for the commercial component is therefore reduced by 25% prior to application to the existing roadway network.

Table No. 2
PM Peak Hour Traffic

Land Use	Units/Size	Peak Hour Avg. Rate	Directional Distribution		Directional Volumes	
			Enter	Exit	Enter	Exit
Single Family	443 DU	.901Ln(443)+.527	64%	36%	263vph	147vph
Town Houses	397 DU	.827Ln(397)+.309	67%	33%	129vph	63vph
County Park	3 Acres	.06/Acre	41%	59%	0 vpd	0 vpd
Commercial	55,000 SF	2.59/1,000 SF*	43%	57%	46vph	61vph
			Totals		438vph	271vph

Table 3
Western Annexation Study
Cumulative Daily External Trips

Phase / DRI	Western Grove	Southern Grove	Riverland	Wilson Groves	TOTAL
Phase 1 (2010)	7,963	13,292	32,007	25,883	**79,145**
Phase 2 (2015)	26,969	66,403	110,332	61,492	**265,196**
Phase 3 (2020)	46,620	117,010	134,672	83,762	**382,064**
Phase 4 (2025)	46,975	163,121	140,083	96,188	**446,367**

Table 4
Western Annexation Study
Cumulative External P.M. Peak Hour Trips

Phase / DRI	Western Grove			Southern Grove			Riverland			Wilson Groves		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Phase 1 (2010)	2,493	2,044	4,537	5,123	6,697	11,820	6,942	6,519	13,461	4,166	4,484	8,650
Phase 2 (2015)	1,480	1,138	2,618	3,157	3,469	6,626	5,944	4,991	10,935	3,261	2,986	6,247
Phase 3 (2020)	497	300	797	734	555	1,289	1,728	1,491	3,219	1,380	1,193	2,573
Phase 4 (2025)	2,510	2,061	4,571	6,990	10,071	17,061	7,095	7,277	14,372	4,543	5,639	10,182

Table 4
Western Annexation Study
Cumulative External P.M. Peak Hour Trips – Grand Totals

Phase	In	Out	Total
Phase 1 (2010)	**18,724**	**19,744**	**38,468**
Phase 2 (2015)	**13,842**	**12,584**	**26,426**
Phase 3 (2020)	**4,339**	**3,539**	**7,878**
Phase 4 (2025)	**21,138**	**25,048**	**46,186**

Table TR-4
Western Annexation Study
2025 Southern Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
Range Line	Martin Hwy. to Becker Rd.	2	3.0%	4,894	210	302	810	26%	37%	Y	Y
	Becker Rd. to E/W 4 (Paar Dr.)	2	0.7%	1,142	49	70	810	6%	9%	Y	Y
	E/W 4 (Paar Dr.) to E/W 3	2	0.8%	1,305	56	81	810	7%	10%	Y	Y
	E/W 3 to E/W 1	2	1.0%	1,631	101	70	810	12%	9%	Y	Y
	E/W 1 to Gatlin Blvd.	2	0.5%	816	50	35	810	6%	4%	Y	N
	Gatlin Blvd. to West Virginia Blvd.	2	0.1%	163	10	7	810	1%	1%	N	N
	West Virginia Blvd. to Glades Cut-Off Rd.	2	0.4%	652	40	28	810	5%	3%	N	N
Glades Cut-Off Rd.	Range Line / CR 609 to N/S A	2	0.0%	0	0	0	760	0%	0%	N	N
	N/S A to Commerce Center Pkwy.	2	0.1%	163	10	7	760	1%	1%	N	N
	Commerce Center Pkwy to Midway Rd.	2	0.1%	163	10	7	760	1%	1%	N	N
	N. of Midway Rd.	2	0.2%	326	20	14	760	3%	2%	N	N
N/S A	Gatlin Blvd. to E/W XY	4	0.8%	1,305	81	56	1860	4%	3%	N	N
	E/W XY to West Virginia Blvd.	4	0.5%	816	50	35	1860	3%	2%	N	N
	West Virginia Blvd. to Glades Cut-Off Rd.	2	0.1%	163	10	7	860	1%	1%	N	N
Community Blvd.	Gatlin Blvd. to E/W XY	2	1.1%	1,794	111	77	860	13%	9%	Y	Y
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	1.9%	3,099	191	133	1860	10%	7%	Y	Y
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	0.8%	1,305	81	56	860	9%	7%	Y	Y
Village Pkwy.	Gatlin Blvd. to E/W XY	6	10.7%	17,454	1,078	748	2790	39%	27%	Y	Y
	E/W XY to West Virginia Blvd.	4	5.8%	9,461	584	405	1860	31%	22%	Y	Y
I-95	Martin Hwy. to Becker Rd.	6	13.9%	22,674	972	1,400	5410	18%	26%	Y	Y
	Becker Rd. to E/W 3	6	10.0%	16,312	699	1,007	5410	13%	19%	Y	Y
	E/W 3 to Gatlin Blvd.	6	8.3%	13,539	580	836	5410	11%	15%	Y	Y
	Gatlin Blvd. to West Virginia Blvd.	6	11.2%	18,270	1,128	783	5410	21%	14%	Y	Y
	West Virginia Blvd. to St. Lucie West Blvd.	6	7.9%	12,887	796	552	5410	15%	10%	Y	Y
	St. Lucie West Blvd. to Midway Rd.	6	4.7%	7,667	473	329	5410	9%	6%	Y	Y
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	1.2%	1,957	121	84	760	16%	11%	Y	Y
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Rosser Blvd.	Becker Rd. to Paar Dr.	4	2.0%	3,262	140	201	1620	9%	12%	Y	Y
	Paar Dr. to E/W 3	4	1.7%	2,773	119	171	1620	7%	11%	Y	Y
	E/W 3 to Gatlin Blvd.	4	4.2%	6,851	294	423	1620	18%	26%	Y	Y
W. Torino Pkwy.	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N	N
E Torino Pkwy.	NW Peacock Blvd. to Midway Rd.	2	0.2%	326	20	14	760	3%	2%	N	N
S Torino Pkwy.	California Blvd. to Cashmere Blvd.	2	0.2%	326	20	14	760	3%	2%	N	N
California Blvd.	Del Rio Blvd. to Savonna Blvd.	2	0.3%	489	21	30	760	3%	4%	N	N
	Savonna Blvd. to Del Rio Blvd.	2	0.4%	652	28	40	760	4%	5%	N	Y
	Del Rio Blvd. to West Virginia Blvd.	2	0.2%	326	14	20	760	2%	3%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	4	1.0%	1,631	101	70	1620	6%	4%	Y	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.2%	326	20	14	760	3%	2%	N	N
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.2%	326	20	14	760	3%	2%	N	N
Savona Blvd.	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Paar Dr. to Gatlin Blvd.	2	0.7%	1,142	49	70	760	6%	9%	Y	Y
	Gatlin Blvd. to California Blvd.	2	1.4%	2,284	141	98	760	19%	13%	Y	Y
Cashmere Blvd.	Del Rio Blvd. to West Virginia Blvd.	2	0.3%	489	21	30	760	3%	4%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	0.4%	652	40	28	760	5%	4%	Y	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N

Table TR-4
Western Annexation Study
2025 Southern Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	California Blvd. to Cashmere Blvd.	2	0.3%	489	30	21	760	4%	3%	N	N
	Cashmere Blvd. to California Blvd.	2	0.1%	163	10	7	760	1%	1%	N	N
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	4	2.3%	3,752	161	232	1860	9%	12%	Y	Y
	Becker Rd. to Paar Dr.	2	2.8%	4,567	196	282	890	22%	32%	Y	Y
	Paar Dr. to Darwin Blvd.	2	3.2%	5,220	224	322	890	25%	36%	Y	Y
	Darwin Blvd. to Gatlin Blvd.	4	2.7%	4,404	189	272	1860	10%	15%	Y	Y
	Gatlin Blvd. to Del Rio Blvd.	6	8.2%	13,376	826	573	2790	30%	21%	Y	Y
	Del Rio Blvd. to Bayshore Blvd.	6	6.5%	10,603	655	454	2790	23%	16%	Y	Y
	Bayshore Blvd. to Airoso Blvd.	6	4.9%	7,993	493	343	2790	18%	12%	Y	Y
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	6	3.7%	6,035	373	259	2790	13%	9%	Y	Y
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	3.3%	5,383	332	231	2790	12%	8%	Y	Y
	Midport Rd. to US-1	6	2.0%	3,262	201	140	2790	7%	5%	Y	Y
	US-1 to Lennard Rd.	4	0.9%	1,468	91	63	1860	5%	3%	N	N
Darwin Blvd.	Becker Rd. to Port St. Lucie Blvd.	2	0.1%	163	7	10	760	1%	1%	N	N
Turnpike	Martin Hwy. to Becker Rd.	4	1.2%	1,957	84	121	2940	3%	4%	N	N
	Becker Rd. to Port St. Lucie Blvd.	4	0.0%	0	0	0	2940	0%	0%	N	N
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	4	0.8%	1,305	56	81	1860	3%	4%	N	N
	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.3%	489	30	21	1860	2%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.5%	816	50	35	1860	3%	2%	N	N
	Prima Vista Blvd. to Selvitz Rd.	2	0.6%	979	60	42	760	8%	6%	Y	Y
	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
Selvitz Rd.	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N
	E/W 5 to Midway Rd.	2	0.1%	163	10	7	760	1%	1%	N	N
	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N
St. James Dr.	Bayshore Blvd. to E/W 5	4	0.4%	652	40	28	1860	2%	2%	N	N
	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N
25 th Street	N. of Midway	4	0.1%	163	10	7	1860	1%	0%	N	N
Airoso Blvd.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.7%	1,142	70	49	1860	4%	3%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	1.2%	1,957	121	84	1860	7%	5%	Y	N
	Prima Vista Blvd. to Floresta Dr.	4	0.3%	489	30	21	1860	2%	1%	N	N
	Floresta Dr. to St. James Blvd.	4	0.3%	489	30	21	1860	2%	1%	N	N
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2	0.9%	1,468	63	91	760	8%	12%	Y	Y
	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Floresta Dr.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.4%	652	40	28	1860	2%	2%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.2%	326	20	14	1860	1%	1%	N	N
	Prima Vista Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
Oleander Ave.	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	0.5%	816	50	35	1860	3%	2%	N	N
	Lyngate Dr. to West Virginia Dr.	4	0.1%	163	10	7	1860	1%	0%	N	N
High Meadows Ave.	CR 714 to Martin Downs Blvd.	2	0.3%	489	21	30	760	3%	4%	N	N
	Martin Downs Blvd. to Mapp Rd/Murphy Rd.	2	0.1%	163	7	10	760	1%	1%	N	N
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	1.0%	1,631	70	101	760	9%	13%	Y	Y

Table TR-4
Western Annexation Study
2025 Southern Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
US-1	Lennard Rd. to Port St. Lucie Blvd.	8	1.8%	2,936	181	126	3540	5%	4%	Y	N
	Port. St. Lucie Blvd. to Tiffany Dr./Lyngate Dr.	6	0.5%	816	50	35	2790	2%	1%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	0.5%	816	50	35	2790	2%	1%	N	N
	West Virginia Dr. to Village Green Dr.	6	0.2%	326	20	14	2790	1%	1%	N	N
	Village Green Dr. to Savannah Club Blvd.	6	0.2%	326	20	14	2790	1%	1%	N	N
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.1%	163	10	7	2790	0%	0%	N	N
	St. Lucie West Blvd. to E/W 6	6	0.1%	163	10	7	2790	0%	0%	N	N
	E/W 6 to Midway Rd.	6	0.1%	163	10	7	2790	0%	0%	N	N
	N. of Midway	6	0.1%	163	10	7	2790	0%	0%	N	N
Lennard Rd.	US-1 to Tiffany Dr./Lyngate Dr.	4	0.2%	326	20	14	1620	1%	1%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.3%	489	30	21	1620	2%	1%	N	N
	West Virginia Dr. to Savannah Club Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
SR 714/Martin Hwy	Range Line Rd. to I-95	2	0.2%	326	14	20	860	2%	2%	N	N
	I-95 to Port St. Lucie Blvd.	2	2.0%	3,262	201	140	860	23%	16%	Y	Y
	Port St. Lucie Blvd. to Turnpike	4	1.2%	1,957	121	84	1860	7%	5%	Y	N
SR 714/Martin Downs Blvd.	N. of FL. TPK Entrance to High Meadows Ave.	4	0.6%	979	60	42	1860	3%	2%	N	N
	E. of High Meadows Ave.	4	0.5%	816	50	35	1860	3%	2%	N	N
CR 714	Turnpike to High Meadows Ave.	4	2.0%	3,262	201	140	1620	12%	9%	Y	Y
	High Meadows Ave. to Berry Ave.	4	1.7%	2,773	171	119	1620	11%	7%	Y	Y
Mapp Rd/Murphy Rd.	E. of High Meadows Ave.	2	0.3%	489	30	21	760	4%	3%	N	N
Becker Rd.	I-95 to Rosser Rd.	6	8.8%	14,355	886	615	2790	32%	22%	Y	Y
	Rosser Blvd. to Savona Blvd.	4	4.4%	7,177	443	308	1860	24%	17%	Y	Y
	Savona Blvd. to Port St. Lucie Blvd.	4	4.3%	7,014	433	301	1860	23%	16%	Y	Y
	Port St. Lucie Blvd. to Darwin Blvd.	4	4.8%	7,830	483	336	1860	26%	18%	Y	Y
	Darwin Blvd. to Turnpike	4	4.9%	7,993	493	343	1860	27%	18%	Y	Y
	Turnpike to Southbend Blvd.	4	3.1%	5,057	312	217	1860	17%	12%	Y	Y
	Southbend Blvd. to Gilson Rd.	4	1.0%	1,631	101	70	1860	5%	4%	Y	N
Paar Dr.	Rosser Blvd. to Savona Blvd.	4	7.5%	12,234	755	524	1860	41%	28%	Y	Y
	Savona Blvd. to Port St. Lucie Blvd.	4	6.6%	10,766	665	461	1860	36%	25%	Y	Y
Gatlin Blvd.	Range Line Rd. to N/S A	4	2.6%	4,241	182	262	1860	10%	14%	Y	Y
	N/S A to Community Blvd.	4	6.3%	10,277	440	634	1860	24%	34%	Y	Y
	Community Blvd. to Village Pkwy.	4	3.3%	5,383	231	332	1860	12%	18%	Y	Y
	Village Pkwy. to I-95	8	12.2%	19,901	1,229	853	3540	35%	24%	Y	Y
	I-95 to Rosser Blvd.	6	9.9%	16,149	997	692	2790	36%	25%	Y	Y
	Rosser Blvd. to Savona Blvd.	6	7.9%	12,887	796	552	2790	29%	20%	Y	Y
	Savona Blvd. to Port St. Lucie Blvd.	6	9.9%	16,149	997	692	2790	36%	25%	Y	Y
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	2	0.6%	979	60	42	760	8%	6%	Y	Y
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	4	0.8%	1,305	81	56	1620	5%	3%	Y	N
Tiffany Dr/Lyngate Dr.	Midport Rd. to US-1	2	0.3%	489	30	21	760	4%	3%	N	N
	US-1 to Villagegreen Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
E/W XY	N/S A to Community Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Commerce Center Parkway to Village Pkwy.	4	0.7%	1,142	49	70	1620	3%	4%	N	N

Table TR-4
Western Annexation Study
2025 Southern Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
West Virginia Dr.	Range Line Rd. to N/S A	4	0.8%	1,305	56	81	1620	3%	5%	N	Y
	N/S A to Village Pkwy.	4	4.1%	6,688	287	413	1860	15%	22%	Y	Y
	Village Pkwy. to Commerce Center Pkwy.	6	2.9%	4,731	292	203	2790	10%	7%	Y	Y
	Commerce Center Pkwy. to I-95	6	2.1%	3,426	211	147	2790	8%	5%	Y	Y
	I-95 to California Blvd.	6	4.3%	7,014	433	301	2790	16%	11%	Y	Y
	California Blvd. to Cashmere Rd.	6	3.2%	5,220	322	224	2790	12%	8%	Y	Y
	Cashmere Rd. to Bayshore Blvd.	6	3.2%	5,220	322	224	2790	12%	8%	Y	Y
	Bayshore Blvd. to Airoso Blvd.	6	2.7%	4,404	272	189	2790	10%	7%	Y	Y
	Airoso Blvd. to Floresta Dr.	6	1.6%	2,610	161	112	2790	6%	4%	Y	N
	Floresta Dr. to Midport Rd.	6	1.4%	2,284	141	98	2790	5%	4%	Y	N
	Midport Rd. to US-1	6	1.3%	2,121	131	91	2790	5%	3%	N	N
	US-1 to Villagegreen Dr.	4	0.4%	652	40	28	1860	2%	2%	N	N
	Villagegreen Dr. to Lennard Rd.	4	0.4%	652	40	28	1860	2%	2%	N	N
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4	1.9%	3,099	133	191	1800	7%	11%	Y	Y
	I-95 to NW Peacock Blvd.	6	3.0%	4,894	302	210	2710	11%	8%	Y	Y
	NW Peacock Blvd. to California Blvd.	6	1.2%	1,957	121	84	2710	4%	3%	N	N
	California Blvd. to Cashmere Rd.	4	1.4%	2,284	141	98	1800	8%	5%	Y	Y
	Cashmere Rd. to Bayshore Blvd.	6	0.6%	979	60	42	2710	2%	2%	N	N
	Bayshore Blvd. to Airoso Blvd.	4	0.3%	489	30	21	1800	2%	1%	N	N
	Airoso Blvd. to Floresta Dr.	4	0.9%	1,468	91	63	1800	5%	4%	Y	N
	Floresta Dr. to US-1	4	0.5%	816	50	35	1800	3%	2%	N	N
Midway Rd.	W. of Eleven Mile Rd.	2	0.2%	326	14	20	860	2%	2%	N	N
	Eleven Mile Rd. to Commerce Center Pkwy.	2	0.3%	489	21	30	860	2%	3%	N	N
	Commerce Center Pkwy. to I-95	2	0.2%	326	14	20	860	2%	2%	N	N
	I-95 to Glades Cut-Off Rd.	4	1.0%	1,631	70	101	1860	4%	5%	N	Y
	Glades Cut-Off Rd to Torino Pkwy	4	0.8%	1,305	81	56	1860	4%	3%	N	N
	Torino Pkwy to Selvitz Rd.	4	0.8%	1,305	81	56	1860	4%	3%	N	N
	Selvitz Rd. to S. 25th St.	4	0.6%	979	60	42	1860	3%	2%	N	N
	S. 25th St. to Sunrise Blvd.	2	0.5%	816	50	35	860	6%	4%	Y	N
	Sunrise Blvd. to Oleander Ave.	2	0.5%	816	50	35	860	6%	4%	Y	N
	Oleander Ave. to US-1	2	0.3%	489	30	21	860	3%	2%	N	N
	E. of US-1	2	0.2%	326	20	14	860	2%	2%	N	N

External Traffic	
IN	6,990
OUT	10,071
Daily	163,121

TABLE TR-4

Western Annexation Study
2025 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
West Virginia Dr.	Range Line Rd. to N/S A	4	16.8%	7,892	768	422	1620	47%	26%	Y	Y
	N/S A to Village Pkwy.	4	25.4%	11,932	1,161	638	1860	62%	34%	Y	Y
	Village Pkwy. to Commerce Center Pkwy.	6	18.6%	8,737	467	850	2790	17%	30%	Y	Y
	Commerce Center Pkwy. to I-95	6	17.2%	8,080	432	786	2790	15%	28%	Y	Y
	I-95 to California Blvd.	6	11.5%	5,402	289	526	2790	10%	19%	Y	Y
	California Blvd. to Cashmere Rd.	6	8.9%	4,181	223	407	2790	8%	15%	Y	Y
	Cashmere Rd. to Bayshore Blvd.	6	8.4%	3,946	211	384	2790	8%	14%	Y	Y
	Bayshore Blvd. to Airoso Blvd.	6	7.0%	3,288	176	320	2790	6%	11%	Y	Y
	Airoso Blvd. to Floresta Dr.	6	5.1%	2,396	128	233	2790	5%	8%	N	Y
	Floresta Dr. to Midport Rd.	6	4.7%	2,208	118	215	2790	4%	8%	N	Y
	Midport Rd. to US-1	6	4.3%	2,020	108	197	2790	4%	7%	N	Y
	US-1 to Villagegreen Dr.	4	1.2%	564	30	55	1860	2%	3%	N	N
	Villagegreen Dr. to Lennard Rd.	4	1.1%	517	28	50	1860	2%	3%	N	N
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4	1.5%	705	38	69	1800	2%	4%	N	N
	I-95 to NW Peacock Blvd.	6	3.0%	1,409	75	137	2710	3%	5%	N	Y
	NW Peacock Blvd. to California Blvd.	6	1.0%	470	25	46	2710	1%	2%	N	N
	California Blvd. to Cashmere Rd.	4	1.2%	564	30	55	1800	2%	3%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	0.4%	188	10	18	2710	0%	1%	N	N
	Bayshore Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1800	0%	0%	N	N
	Airoso Blvd. to Floresta Dr.	4	0.9%	423	23	41	1800	1%	2%	N	N
	Floresta Dr. to US-1	4	0.5%	235	13	23	1800	1%	1%	N	N
Midway Rd.	W. of Eleven Mile Rd.	2	0.4%	188	18	10	860	2%	1%	N	N
	Eleven Mile Rd. to Commerce Center Pkwy.	2	0.5%	235	23	13	860	3%	2%	N	N
	Commerce Center Pkwy. to I-95	2	0.0%	0	0	0	860	0%	0%	N	N
	I-95 to Glades Cut-Off Rd.	4	0.4%	188	18	10	1860	1%	1%	N	N
	Glades Cut-Off Rd to Torino Pkwy	4	1.0%	470	25	46	1860	1%	2%	N	N
	Torino Pkwy to Selvitz Rd.	4	1.0%	470	25	46	1860	1%	2%	N	N
	Selvitz Rd. to S. 25th St.	4	0.8%	376	20	37	1860	1%	2%	N	N
	S. 25th St. to Sunrise Blvd.	2	0.7%	329	18	32	860	2%	4%	N	N
	Sunrise Blvd. to Oleander Ave.	2	0.9%	423	23	41	860	3%	5%	N	N
	Oleander Ave. to US-1	2	0.4%	188	10	18	860	1%	2%	N	N
	E. of US-1	2	0.2%	94	5	9	860	1%	1%	N	N

External Traffic	
IN	4,571
OUT	2,510
Daily	46,975

TABLE TR-4

Western Annexation Study
2025 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
US-1	Lennard Rd. to Port St. Lucie Blvd.	8	2.4%	1,127	60	110	3540	2%	3%	N	N
	Port. St. Lucie Blvd. to Tiffany Dr./Lyngate Dr.	6	2.6%	1,221	65	119	2790	2%	4%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	2.6%	1,221	65	119	2790	2%	4%	N	N
	West Virginia Dr. to Village Green Dr.	6	0.2%	94	5	9	2790	0%	0%	N	N
	Village Green Dr. to Savannah Club Blvd.	6	0.1%	47	3	5	2790	0%	0%	N	N
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.1%	47	3	5	2790	0%	0%	N	N
	St. Lucie West Blvd. to E/W 6	6	0.1%	47	3	5	2790	0%	0%	N	N
	E/W 6 to Midway Rd.	6	0.1%	47	3	5	2790	0%	0%	N	N
	N. of Midway	6	0.1%	47	3	5	2790	0%	0%	N	N
Lennard Rd.	US-1 to Tiffany Dr./Lyngate Dr.	4	0.1%	47	3	5	1620	0%	0%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.1%	47	3	5	1620	0%	0%	N	N
	West Virginia Dr. to Savannah Club Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
SR 714/Martin Hwy	Range Line Rd. to I-95	2	0.0%	0	0	0	860	0%	0%	N	N
	I-95 to Port St. Lucie Blvd.	2	1.8%	846	45	82	860	5%	10%	Y	Y
	Port St. Lucie Blvd. to Turnpike	4	0.8%	376	20	37	1860	1%	2%	N	N
SR 714/Martin Downs Blvd.	N. of FL. TPK Entrance to High Meadows Ave.	4	0.3%	141	8	14	1860	0%	1%	N	N
	E. of High Meadows Ave.	4	0.2%	94	5	9	1860	0%	0%	N	N
CR 714	Turnpike to High Meadows Ave.	4	1.1%	517	28	50	1620	2%	3%	N	N
	High Meadows Ave. to Berry Ave.	4	0.8%	376	20	37	1620	1%	2%	N	N
Mapp Rd/Murphy Rd.	E. of High Meadows Ave.	2	0.2%	94	5	9	760	1%	1%	N	N
Becker Rd.	I-95 to Rosser Rd.	6	1.4%	658	35	64	2790	1%	2%	N	N
	Rosser Blvd. to Savona Blvd.	4	1.1%	517	28	50	1860	2%	3%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	4	1.1%	517	28	50	1860	2%	3%	N	N
	Port St. Lucie Blvd. to Darwin Blvd.	4	2.1%	986	53	96	1860	3%	5%	N	Y
	Darwin Blvd. to Turnpike	4	2.1%	986	53	96	1860	3%	5%	N	Y
	Turnpike to Southbend Blvd.	4	1.3%	611	33	59	1860	2%	3%	N	N
	Southbend Blvd. to Gilson Rd.	4	0.9%	423	23	41	1860	1%	2%	N	N
Paar Dr.	Rosser Blvd. to Savona Blvd.	4	2.4%	1,127	60	110	1860	3%	6%	N	Y
	Savona Blvd. to Port St. Lucie Blvd.	4	2.3%	1,080	58	105	1860	3%	6%	N	Y
Gatlin Blvd.	Range Line Rd. to N/S A	4	24.7%	11,603	1,129	620	1860	61%	33%	Y	Y
	N/S A to Community Blvd.	4	31.0%	14,562	778	1,417	1860	42%	76%	Y	Y
	Community Blvd. to Village Pkwy.	4	22.2%	10,428	557	1,015	1860	30%	55%	Y	Y
	Village Pkwy. to I-95	6	14.4%	6,764	361	658	3540	10%	19%	Y	Y
	I-95 to Rosser Blvd.	6	6.9%	3,241	173	315	2790	6%	11%	Y	Y
	Rosser Blvd. to Savona Blvd.	6	4.7%	2,208	118	215	2790	4%	8%	N	Y
	Savona Blvd. to Port St. Lucie Blvd.	6	3.7%	1,738	93	169	2790	3%	6%	N	Y
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	2	0.3%	141	8	14	760	1%	2%	N	N
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	4	0.7%	329	18	32	1620	1%	2%	N	N
Tiffany Dr/Lyngate Dr.	Midport Rd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
	US-1 to Villagegreen Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
E/W XY	N/S A to Community Blvd.	2	4.9%	2,302	123	224	760	16%	29%	Y	Y
	Commerce Center Parkway to Village Pkwy.	4	2.5%	1,174	63	114	1620	4%	7%	N	Y

TABLE TR-4

Western Annexation Study

2025 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
	California Blvd. to Cashmere Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
	Cashmere Blvd. to California Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	4	1.2%	564	55	30	1860	3%	2%	N	N
	Becker Rd. to Paar Dr.	2	2.2%	1,033	101	55	890	11%	6%	Y	Y
	Paar Dr. to Darwin Blvd.	2	0.6%	282	27	15	890	3%	2%	N	N
	Darwin Blvd. to Gatlin Blvd.	4	0.7%	329	32	18	1860	2%	1%	N	N
	Gatlin Blvd. to Del Rio Blvd.	6	3.0%	1,409	137	75	2790	5%	3%	N	N
	Del Rio Blvd. to Bayshore Blvd.	6	2.3%	1,080	58	105	2790	2%	4%	N	N
	Bayshore Blvd. to Airoso Blvd.	6	1.6%	752	40	73	2790	1%	3%	N	N
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	6	1.6%	752	40	73	2790	1%	3%	N	N
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	1.3%	611	33	59	2790	1%	2%	N	N
	Midport Rd. to US-1	6	0.9%	423	23	41	2790	1%	1%	N	N
	US-1 to Lennard Rd.	4	0.5%	235	13	23	1860	1%	1%	N	N
Darwin Blvd.	Becker Rd. to Port St. Lucie Blvd.	2	0.2%	94	5	9	760	1%	1%	N	N
Turnpike	Martin Hwy. to Becker Rd.	4	0.5%	235	23	13	2940	1%	0%	N	N
	Becker Rd. to Port St. Lucie Blvd.	4	0.0%	0	0	0	2940	0%	0%	N	N
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	4	0.7%	329	32	18	1860	2%	1%	N	N
	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.6%	282	15	27	1860	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.7%	329	18	32	1860	1%	2%	N	N
	Prima Vista Blvd. to Selvitz Rd.	2	0.5%	235	13	23	760	2%	3%	N	N
	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
Selvitz Rd.	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N
	E/W 5 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N
St. James Dr.	Bayshore Blvd. to E/W 5	4	0.5%	235	13	23	1860	1%	1%	N	N
	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N
25 th Street	N. of Midway	4	0.0%	0	0	0	1860	0%	0%	N	N
Airoso Blvd.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.6%	282	15	27	1860	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	1.3%	611	33	59	1860	2%	3%	N	N
	Prima Vista Blvd. to Floresta Dr.	4	0.5%	235	13	23	1860	1%	1%	N	N
	Floresta Dr. to St. James Blvd.	4	0.5%	235	13	23	1860	1%	1%	N	N
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2	0.7%	329	32	18	760	4%	2%	N	N
	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Floresta Dr.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.3%	141	8	14	1860	0%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.1%	47	3	5	1860	0%	0%	N	N
	Prima Vista Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
Oleander Ave.	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	0.2%	94	5	9	1860	0%	0%	N	N
	Lyngate Dr. to West Virginia Dr.	4	0.2%	94	5	9	1860	0%	0%	N	N
High Meadows Ave.	CR 714 to Martin Downs Blvd.	2	0.3%	141	14	8	760	2%	1%	N	N
	Martin Downs Blvd. to Mapp Rd/Murphy Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	0.6%	282	27	15	760	4%	2%	N	N

TABLE TR-4

Western Annexation Study

2025 Western Grove Significant Impact

External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Range Line	Martin Hwy. to Becker Rd.	2	2.8%	1,315	128	70	810	16%	9%	Y	Y
	Becker Rd. to E/W 4 (Paar Dr.)	2	2.3%	1,080	105	58	810	13%	7%	Y	Y
	E/W 4 (Paar Dr.) to E/W 3	2	2.7%	1,268	123	68	810	15%	8%	Y	Y
	E/W 3 to E/W 1	2	3.3%	1,550	151	83	810	19%	10%	Y	Y
	E/W 1 to Gatlin Blvd.	2	3.6%	1,691	165	90	810	20%	11%	Y	Y
	Gatlin Blvd. to West Virginia Blvd.	2	0.5%	235	13	23	810	2%	3%	N	N
	West Virginia Blvd. to Glades Cut-Off Rd.	2	1.1%	517	50	28	810	6%	3%	Y	N
Glades Cut-Off Rd.	Range Line / CR 609 to N/S A	2	0.1%	47	3	5	760	0%	1%	N	N
	N/S A to Commerce Center Pkwy.	2	4.7%	2,208	118	215	760	16%	28%	Y	Y
	Commerce Center Pkwy to Midway Rd.	2	1.2%	564	30	55	760	4%	7%	N	Y
	N. of Midway Rd.	2	0.5%	235	13	23	760	2%	3%	N	N
N/S A	Gatlin Blvd. to E/W XY	4	16.0%	7,516	402	731	1860	22%	39%	Y	Y
	E/W XY to West Virginia Blvd.	4	13.5%	6,342	339	617	1860	18%	33%	Y	Y
	West Virginia Blvd. to Glades Cut-Off Rd.	2	4.7%	2,208	118	215	860	14%	25%	Y	Y
Community Blvd.	Gatlin Blvd. to E/W XY	2	0.9%	423	41	23	860	5%	3%	N	N
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	1.4%	658	35	64	1860	2%	3%	N	N
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	0.1%	47	3	5	860	0%	1%	N	N
Village Pkwy.	Gatlin Blvd. to E/W XY	6	1.1%	517	50	28	2790	2%	1%	N	N
	E/W XY to West Virginia Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
I-95	Martin Hwy. to Becker Rd.	6	9.5%	4,463	434	238	5410	8%	4%	Y	N
	Becker Rd. to E/W 3	6	9.6%	4,510	439	241	5410	8%	4%	Y	N
	E/W 3 to Gatlin Blvd.	6	7.6%	3,570	347	191	5410	6%	4%	Y	N
	Gatlin Blvd. to West Virginia Blvd.	6	0.0%	0	0	0	5410	0%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	6	5.8%	2,725	146	265	5410	3%	5%	N	N
	St. Lucie West Blvd. to Midway Rd.	6	4.1%	1,926	103	187	5410	2%	3%	N	N
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	1.9%	893	48	87	760	6%	11%	Y	Y
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Rosser Blvd.	Becker Rd. to Paar Dr.	4	0.2%	94	9	5	1620	1%	0%	N	N
	Paar Dr. to E/W 3	4	0.0%	0	0	0	1620	0%	0%	N	N
	E/W 3 to Gatlin Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
W. Torino Pkwy.	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N	N
E Torino Pkwy.	NW Peacock Blvd. to Midway Rd.	2	0.2%	94	5	9	760	1%	1%	N	N
S Torino Pkwy.	California Blvd. to Cashmere Blvd.	2	0.3%	141	8	14	760	1%	2%	N	N
California Blvd.	Del Rio Blvd. to Savonna Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Savonna Blvd. to Del Rio Blvd.	2	0.5%	235	23	13	760	3%	2%	N	N
	Del Rio Blvd. to West Virginia Blvd.	2	0.6%	282	27	15	760	4%	2%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	4	1.9%	893	48	87	1620	3%	5%	N	Y
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.3%	141	8	14	760	1%	2%	N	N
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.3%	141	8	14	760	1%	2%	N	N
Savona Blvd.	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Paar Dr. to Gatlin Blvd.	2	0.8%	376	37	20	760	5%	3%	N	N
	Gatlin Blvd. to California Blvd.	2	0.2%	94	5	9	760	1%	1%	N	N
Cashmere Blvd.	Del Rio Blvd. to West Virginia Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	0.5%	235	13	23	760	2%	3%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N

TABLE TR-4
Western Annexation Study
2025 Wilson Groves Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
West Virginia Dr.	Range Line Rd. to N/S A	4	0.2%	192	9	11	1620	1%	1%	N	N
	N/S A to Village Pkwy.	4	5.4%	5,194	245	305	1860	13%	16%	Y	Y
	Village Pkwy. to Commerce Center Pkwy.	6	3.1%	2,982	175	141	2790	6%	5%	Y	Y
	Commerce Center Pkwy. to I-95	6	2.7%	2,597	152	123	2790	5%	4%	Y	N
	I-95 to California Blvd.	6	3.1%	2,982	175	141	2790	6%	5%	Y	Y
	California Blvd. to Cashmere Rd.	6	2.3%	2,212	130	104	2790	5%	4%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	2.0%	1,924	113	91	2790	4%	3%	N	N
	Bayshore Blvd. to Airoso Blvd.	6	1.6%	1,539	90	73	2790	3%	3%	N	N
	Airoso Blvd. to Floresta Dr.	6	0.7%	673	39	32	2790	1%	1%	N	N
	Floresta Dr. to Midport Rd.	6	0.6%	577	34	27	2790	1%	1%	N	N
	Midport Rd. to US-1	6	0.6%	577	34	27	2790	1%	1%	N	N
	US-1 to Villagegreen Dr.	4	0.2%	192	11	9	1860	1%	0%	N	N
	Villagegreen Dr. to Lennard Rd.	4	0.2%	192	11	9	1860	1%	0%	N	N
St. Lucie W/ Prima Vista Blvd.	Commerce Center Pkwy. to I-95	4	0.4%	385	18	23	1800	1%	1%	N	N
	I-95 to NW Peacock Blvd.	6	2.3%	2,212	130	104	2710	5%	4%	N	N
	NW Peacock Blvd. to California Blvd.	6	0.7%	673	39	32	2710	1%	1%	N	N
	California Blvd. to Cashmere Rd.	4	1.0%	962	56	45	1800	3%	3%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	0.4%	385	23	18	2710	1%	1%	N	N
	Bayshore Blvd. to Airoso Blvd.	4	0.1%	96	6	5	1800	0%	0%	N	N
	Airoso Blvd. to Floresta Dr.	4	0.4%	385	23	18	1800	1%	1%	N	N
	Floresta Dr. to US-1	4	0.3%	289	17	14	1800	1%	1%	N	N
Midway Rd.	W. of Eleven Mile Rd.	2	0.2%	192	9	11	860	1%	1%	N	N
	Eleven Mile Rd. to Commerce Center Pkwy.	2	0.3%	289	14	17	860	2%	2%	N	N
	Commerce Center Pkwy. to I-95	2	0.8%	770	36	45	860	4%	5%	N	Y
	I-95 to Glades Cut-Off Rd.	4	0.7%	673	32	39	1860	2%	2%	N	N
	Glades Cut-Off Rd to Torino Pkwy	4	0.7%	673	39	32	1860	2%	2%	N	N
	Torino Pkwy to Selvitz Rd.	4	0.7%	673	39	32	1860	2%	2%	N	N
	Selvitz Rd. to S. 25th St.	4	0.6%	577	34	27	1860	2%	1%	N	N
	S. 25th St. to Sunrise Blvd.	2	0.5%	481	28	23	860	3%	3%	N	N
	Sunrise Blvd. to Oleander Ave.	2	0.5%	481	28	23	860	3%	3%	N	N
	Oleander Ave. to US-1	2	0.3%	289	17	14	860	2%	2%	N	N
	E. of US-1	2	0.1%	96	6	5	860	1%	1%	N	N

External Traffic	
IN	4,543
OUT	5,639
Daily	96,188

TABLE TR-4
Western Annexation Study
2025 Wilson Groves Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
US-1	Lennard Rd. to Port St. Lucie Blvd.	8	0.7%	673	39	32	3540	1%	1%	N	N
	Port. St. Lucie Blvd. to Tiffany Dr./Lyngate D	6	0.0%	0	0	0	2790	0%	0%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	0.0%	0	0	0	2790	0%	0%	N	N
	West Virginia Dr. to Village Green Dr.	6	0.2%	192	11	9	2790	0%	0%	N	N
	Village Green Dr. to Savannah Club Blvd.	6	0.2%	192	11	9	2790	0%	0%	N	N
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.0%	0	0	0	2790	0%	0%	N	N
	St. Lucie West Blvd. to E/W 6	6	0.1%	96	6	5	2790	0%	0%	N	N
	E/W 6 to Midway Rd.	6	0.1%	96	6	5	2790	0%	0%	N	N
	N. of Midway	6	0.1%	96	6	5	2790	0%	0%	N	N
Lennard Rd.	US-1 to Tiffany Dr./Lyngate Dr.	4	0.3%	289	17	14	1620	1%	1%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.2%	192	11	9	1620	1%	1%	N	N
	West Virginia Dr. to Savannah Club Blvd.	4	0.1%	96	6	5	1620	0%	0%	N	N
	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
SR 714/Martin Hwy	Range Line Rd. to I-95	2	0.1%	96	6	5	860	1%	1%	N	N
	I-95 to Port St. Lucie Blvd.	2	1.3%	1,250	73	59	860	8%	7%	Y	Y
	Port St. Lucie Blvd. to Turnpike	4	0.9%	866	51	41	1860	3%	2%	N	N
SR 714/Martin Downs Blvd.	N. of FL. TPK Entrance to High Meadows Av	4	0.7%	673	39	32	1860	2%	2%	N	N
	E. of High Meadows Ave.	4	0.6%	577	34	27	1860	2%	1%	N	N
CR 714	Turnpike to High Meadows Ave.	4	1.7%	1,635	96	77	1620	6%	5%	Y	N
	High Meadows Ave. to Berry Ave.	4	1.4%	1,347	79	64	1620	5%	4%	N	N
Mapp Rd/Murphy Rd.	E. of High Meadows Ave.	2	0.3%	289	17	14	760	2%	2%	N	N
Becker Rd.	I-95 to Rosser Rd.	6	8.5%	8,176	479	386	2790	17%	14%	Y	Y
	Rosser Blvd. to Savona Blvd.	4	5.6%	5,387	316	254	1860	17%	14%	Y	Y
	Savona Blvd. to Port St. Lucie Blvd.	4	5.5%	5,290	310	250	1860	17%	13%	Y	Y
	Port St. Lucie Blvd. to Darwin Blvd.	4	4.9%	4,713	276	223	1860	15%	12%	Y	Y
	Darwin Blvd. to Turnpike	4	4.9%	4,713	276	223	1860	15%	12%	Y	Y
	Turnpike to Southbend Blvd.	4	3.1%	2,982	175	141	1860	9%	8%	Y	Y
	Southbend Blvd. to Gilson Rd.	4	0.8%	770	45	36	1860	2%	2%	N	N
Paar Dr.	Rosser Blvd. to Savona Blvd.	4	7.2%	6,926	406	327	1860	22%	18%	Y	Y
	Savona Blvd. to Port St. Lucie Blvd.	4	6.7%	6,445	378	304	1860	20%	16%	Y	Y
Gatlin Blvd.	Range Line Rd. to N/S A	4	0.8%	770	36	45	1860	2%	2%	N	N
	N/S A to Community Blvd.	4	0.4%	385	18	23	1860	1%	1%	N	N
	Community Blvd. to Village Pkwy.	4	0.0%	0	0	0	1860	0%	0%	N	N
	Village Pkwy. to I-95	8	1.6%	1,539	90	73	3540	3%	2%	N	N
	I-95 to Rosser Blvd.	6	1.0%	962	56	45	2790	2%	2%	N	N
	Rosser Blvd. to Savona Blvd.	6	1.8%	1,731	102	82	2790	4%	3%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	6	1.3%	1,250	73	59	2790	3%	2%	N	N
Westmoreland Blvd.	Port St. Lucie Blvd. to US-1	2	0.3%	289	17	14	760	2%	2%	N	N
Oakridge Blvd.	Bayshore Blvd. to Southbend Blvd.	4	0.3%	289	17	14	1620	1%	1%	N	N
Tiffany Dr/Lyngate Dr.	Midport Rd. to US-1	2	0.2%	192	11	9	760	1%	1%	N	N
	US-1 to Villagegreen Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
E/W XY	N/S A to Community Blvd.	2	0.1%	96	6	5	760	1%	1%	N	N
	Commerce Center Parkway to Village Pkwy.	4	0.3%	289	17	14	1620	1%	1%	N	N

TABLE TR-4
Western Annexation Study
2025 Wilson Groves Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic NB/EB	Project Traffic SB/WB	Service Volume	Impact NB/EB	Impact SB/WB	Significant Impact NB/EB	Significant Impact SB/WB
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Cashmere Blvd. to California Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Port St. Lucie Blvd.	Martin Hwy. to Becker Rd.	4	1.8%	1,731	82	102	1860	4%	5%	N	Y
	Becker Rd. to Paar Dr.	2	1.7%	1,635	96	77	890	11%	9%	Y	Y
	Paar Dr. to Darwin Blvd.	2	4.9%	4,713	276	223	890	31%	25%	Y	Y
	Darwin Blvd. to Gatlin Blvd.	4	4.0%	3,848	226	182	1860	12%	10%	Y	Y
	Gatlin Blvd. to Del Rio Blvd.	6	5.2%	5,002	293	236	2790	11%	8%	Y	Y
	Del Rio Blvd. to Bayshore Blvd.	6	4.5%	4,328	254	204	2790	9%	7%	Y	Y
	Bayshore Blvd. to Airoso Blvd.	6	3.7%	3,559	209	168	2790	7%	6%	Y	Y
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	6	2.9%	2,789	164	132	2790	6%	5%	Y	N
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	2.4%	2,309	135	109	2790	5%	4%	N	N
	Midport Rd. to US-1	6	1.4%	1,347	79	64	2790	3%	2%	N	N
	US-1 to Lennard Rd.	4	0.5%	481	28	23	1860	2%	1%	N	N
Darwin Blvd.	Becker Rd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Turnpike	Martin Hwy. to Becker Rd.	4	1.0%	962	45	56	2940	2%	2%	N	N
	Becker Rd. to Port St. Lucie Blvd.	4	0.0%	0	0	0	2940	0%	0%	N	N
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N
Bayshore Blvd.	Oakridge Blvd. to Port. St. Lucie Blvd.	4	0.3%	289	14	17	1860	1%	1%	N	N
	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.2%	192	11	9	1860	1%	0%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.4%	385	23	18	1860	1%	1%	N	N
	Prima Vista Blvd. to Selvitz Rd.	2	0.4%	385	23	18	760	3%	2%	N	N
	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
Selvitz Rd.	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N
	E/W 5 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N
St. James Dr.	Bayshore Blvd. to E/W 5	4	0.3%	289	17	14	1860	1%	1%	N	N
	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N
25 th Street	N. of Midway	4	0.1%	96	6	5	1860	0%	0%	N	N
Airoso Blvd.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.5%	481	28	23	1860	2%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.9%	866	51	41	1860	3%	2%	N	N
	Prima Vista Blvd. to Floresta Dr.	4	0.3%	289	17	14	1860	1%	1%	N	N
	Floresta Dr. to St. James Blvd.	4	0.3%	289	17	14	1860	1%	1%	N	N
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2	0.8%	770	45	36	760	6%	5%	Y	N
	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Floresta Dr.	Port. St. Lucie Blvd. to West Virginia Dr.	4	0.3%	289	17	14	1860	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.1%	96	6	5	1860	0%	0%	N	N
	Prima Vista Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
Oleander Ave.	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	0.6%	577	34	27	1860	2%	1%	N	N
	Lyngate Dr. to West Virginia Dr.	4	0.1%	96	6	5	1860	0%	0%	N	N
High Meadows Ave.	CR 714 to Martin Downs Blvd.	2	0.3%	289	14	17	760	2%	2%	N	N
	Martin Downs Blvd. to Mapp Rd/Murphy Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Gilson Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	0.8%	770	36	45	760	5%	6%	N	Y

TABLE TR-4
Western Annexation Study
2025 Wilson Groves Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Range Line	Martin Hwy. to Becker Rd.	2	5.9%	5,675	268	333	810	33%	41%	Y	Y
	Becker Rd. to E/W 4 (Paar Dr.)	2	1.2%	1,154	68	55	810	8%	7%	Y	Y
	E/W 4 (Paar Dr.) to E/W 3	2	1.9%	1,828	86	107	810	11%	13%	Y	Y
	E/W 3 to E/W 1	2	2.5%	2,405	141	114	810	17%	14%	Y	Y
	E/W 1 to Gatlin Blvd.	2	1.9%	1,828	107	86	810	13%	11%	Y	Y
	Gatlin Blvd. to West Virginia Blvd.	2	1.2%	1,154	68	55	810	8%	7%	Y	Y
	West Virginia Blvd. to Glades Cut-Off Rd.	2	1.0%	962	56	45	810	7%	6%	Y	Y
Glades Cut-Off Rd.	Range Line / CR 609 to N/S A	2	0.4%	385	23	18	760	3%	2%	N	N
	N/S A to Commerce Center Pkwy.	2	2.2%	2,116	124	100	760	16%	13%	Y	Y
	Commerce Center Pkwy to Midway Rd.	2	0.3%	289	17	14	760	2%	2%	N	N
	N. of Midway Rd.	2	0.3%	289	17	14	760	2%	2%	N	N
N/S A	Gatlin Blvd. to E/W XY	4	7.2%	6,926	406	327	1860	22%	18%	Y	Y
	E/W XY to West Virginia Blvd.	4	7.0%	6,733	395	318	1860	21%	17%	Y	Y
	West Virginia Blvd. to Glades Cut-Off Rd.	2	1.8%	1,731	102	82	860	12%	10%	Y	Y
Community Blvd.	Gatlin Blvd. to E/W XY	2	1.5%	1,443	85	68	860	10%	8%	Y	Y
Commerce Center Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	0.4%	385	23	18	1860	1%	1%	N	N
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	0.1%	96	6	5	860	1%	1%	N	N
Village Pkwy.	Gatlin Blvd. to E/W XY	6	1.7%	1,635	96	77	2790	3%	3%	N	N
	E/W XY to West Virginia Blvd.	4	0.5%	481	28	23	1860	2%	1%	N	N
I-95	Martin Hwy. to Becker Rd.	6	5.7%	5,483	259	321	5410	5%	6%	N	Y
	Becker Rd. to E/W 3	6	1.7%	1,635	96	77	5410	2%	1%	N	N
	E/W 3 to Gatlin Blvd.	6	5.7%	5,483	321	259	5410	6%	5%	Y	N
	Gatlin Blvd. to West Virginia Blvd.	6	6.4%	6,156	361	291	5410	7%	5%	Y	Y
	West Virginia Blvd. to St. Lucie West Blvd.	6	6.1%	5,867	344	277	5410	6%	5%	Y	Y
	St. Lucie West Blvd. to Midway Rd.	6	4.0%	3,848	226	182	5410	4%	3%	N	N
NW Peacock Blvd. Loop	St. Lucie West Blvd. to California Blvd.	2	1.1%	1,058	62	50	760	8%	7%	Y	Y
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Rosser Blvd.	Becker Rd. to Paar Dr.	4	2.9%	2,789	164	132	1620	10%	8%	Y	Y
	Paar Dr. to E/W 3	4	1.7%	1,635	96	77	1620	6%	5%	Y	N
	E/W 3 to Gatlin Blvd.	4	2.4%	2,309	135	109	1620	8%	7%	Y	Y
W. Torino Pkwy.	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N	N
E Torino Pkwy.	NW Peacock Blvd. to Midway Rd.	2	0.1%	96	6	5	760	1%	1%	N	N
S Torino Pkwy.	California Blvd. to Cashmere Blvd.	2	0.2%	192	11	9	760	1%	1%	N	N
California Blvd.	Del Rio Blvd. to Savonna Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Savonna Blvd. to Del Rio Blvd.	2	0.1%	96	6	5	760	1%	1%	N	N
	Del Rio Blvd. to West Virginia Blvd.	2	0.1%	96	6	5	760	1%	1%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	4	0.7%	673	39	32	1620	2%	2%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.1%	96	6	5	760	1%	1%	N	N
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.2%	192	11	9	760	1%	1%	N	N
Savona Blvd.	Becker Rd. to Paar Dr.	2	0.1%	96	6	5	760	1%	1%	N	N
	Paar Dr. to Gatlin Blvd.	2	0.5%	481	28	23	760	4%	3%	N	N
	Gatlin Blvd. to California Blvd.	2	0.6%	577	34	27	760	4%	4%	N	N
Cashmere Blvd.	Del Rio Blvd. to West Virginia Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	0.2%	192	11	9	760	1%	1%	N	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N

TABLE 1
VILLAGE OF SUNSET LAKES
TRIP GENERATION

Land Use	Intensity	Daily Trips	PM Peak Hour		
			Total	In	Out
Proposed Site Traffic					
Single-Family Residential	63 DU	680	69	43	26
Apartments	314 DU	2,026	190	124	66
Townhomes	342 DU	1,875	165	111	54
Specialty Retail	2,000 SF	89	5	2	3
Subtotal		4,670	429	280	149
Internal Capture					
Residential to Specialty Retail	5%	234	22	11	11
Pass-By Trip Reduction					
Specialty Retail	34%	29	2	1	1
Net New External Trips		**4,407**	**405**	**268**	**137**
Driveway Trips		4,436	407	269	138

Note: Trips were calculated using the following rates and/or equations found in the Institute of Transportation Engineers' (ITE) Trip Generation Report, 8th Edition:

Daily Traffic Generation

Single-Family Residential	[ITE 210]	=	Ln(T) = 0.92*Ln(X) + 2.71
Apartments	[ITE 220]	=	T = 6.06*(X) + 123.56
Townhomes	[ITE 230]	=	Ln(T) = 0.87*Ln(X) + 2.46
Specialty Retail	[ITE 814]	=	T = 44.32*(X/1000)

PM Peak Hour Traffic Generation

Single-Family Residential	[ITE 210]	=	Ln(T) = 0.90*Ln(X) + 0.51; (63% in, 37% out)
Apartments	[ITE 220]	=	T = 0.55*(X) + 17.65; (65% in, 35% out)
Townhomes	[ITE 230]	=	Ln(T) = 0.82*Ln(X) + 0.32; (67% in, 33% out)
Specialty Retail	[ITE 814]	=	T = 2.71*(X/1000); (44% in, 56% out)

Average Pass-By Trip Percentage for Retail Development = 34%

k:\wpb_tpto\1443\86000\traffic\2009-03\calcs\[2009-03-12.xls]trip gen

March 12, 2009

Kimley-Horn and Associates, Inc.

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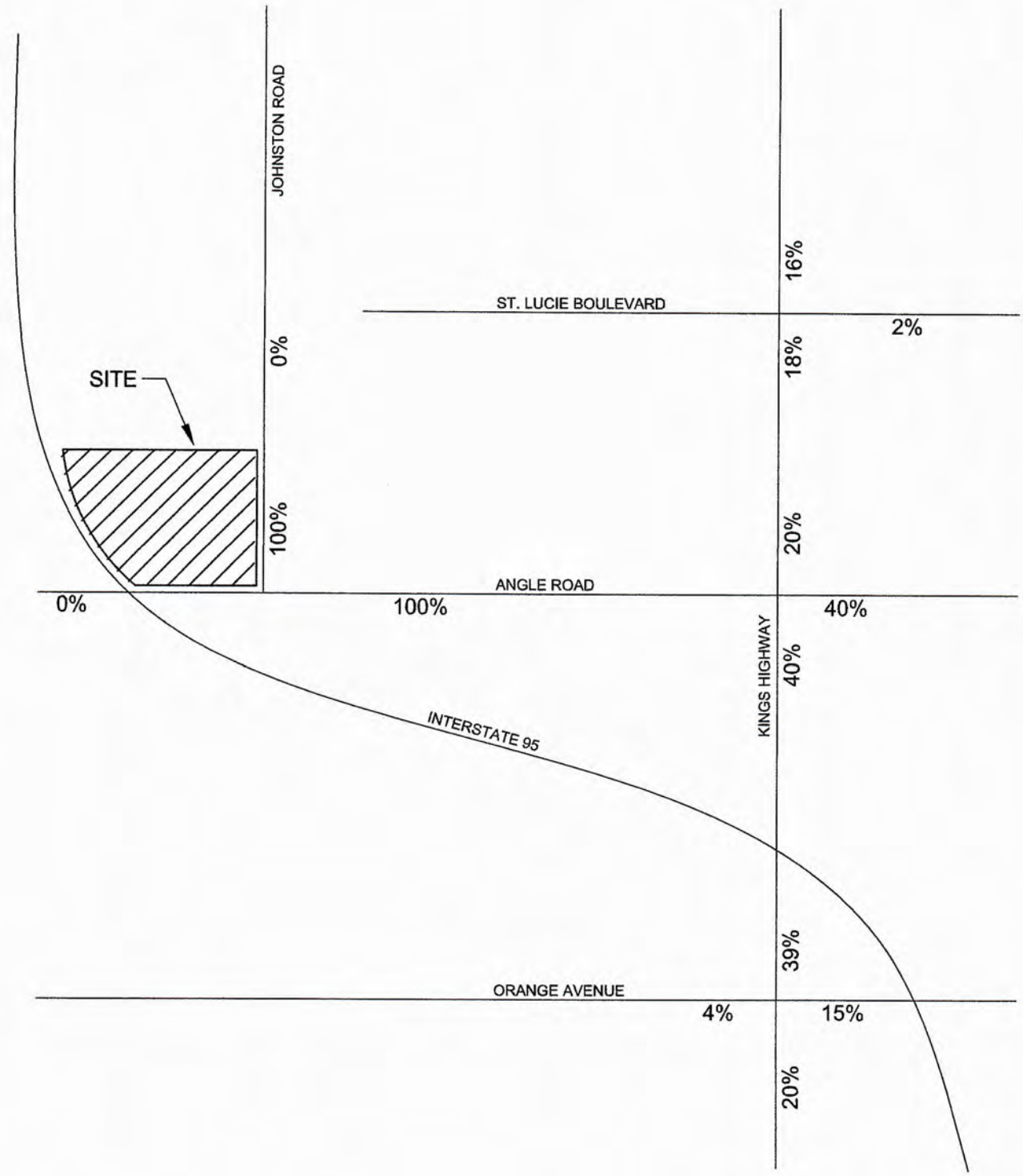


NORTH

NOT TO SCALE

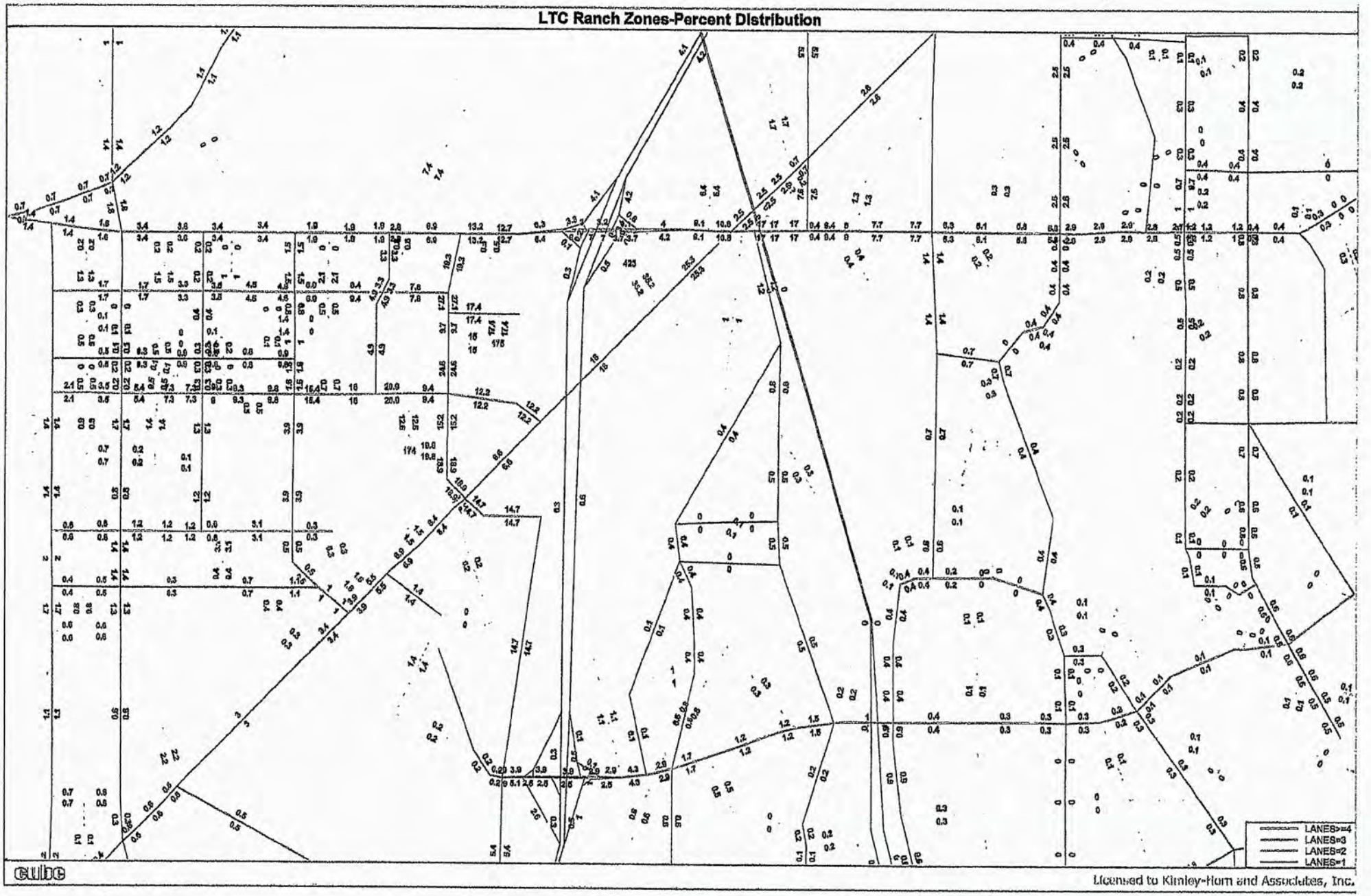
LEGEND

XX% Project Traffic Distribution

FIGURE 2
PROJECT TRAFFIC DISTRIBUTION
VILLAGE OF SUNSET LAKES

Kimley-Horn and Associates, Inc.

PROJECT # 144386000


LTC Ranch Zones-Percent Distribution
LANES>=4
LANES=3
LANES=2
LANES=1
cube
Licensed to Kimley-Horn and Associates, Inc.

Trip Generation: LTC Ranch

Daily

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips			Internal Trips				Net External Trips			Pass-by Trips		Net New Trips			Resultant Trips			Resultant Rates to be Used for Trip Tracking			Factored to Allowable Trip			
					In	Out	In	Out	Total	In	Out	Total	%	In	Out	Total	Total	%	In	Out	Total	In	Out	Total	In	Out	Total	West Side Trips	East Side Trips	West Side Trips	East Side Trips
Single Family Detached	210	3,350	DU	Ln(T)=0.92Ln(X)+2.71	50%	50%	13,151	13,150	26,301	3,481	3,613	7,094	27.0%	9,670	9,537	19,207	-	0.0%	9,670	9,537	19,207	2.89	2.85	5.73	19,207		20,940	-			
Multi-Family Housing	220	650	DU	T=7.56(X) - 40.86	50%	50%	2,437	2,436	4,873	645	669	1,314	27.0%	1,792	1,767	3,559	-	0.0%	1,792	1,767	3,559	2.76	2.72	5.48	3,559		3,880	-			
General Office	710	1,508,500	Sft	Ln(T)=0.97Ln(X)+2.50	50%	50%	7,378	7,377	14,755	1,550	3,525	5,075	34.4%	5,828	3,852	9,680	-	0.0%	5,828	3,852	9,680	3.86	2.55	6.41		9,680	-	10,553			
Industrial Park	130	1,000,000	Sft	T=3.37(X)	50%	50%	1,685	1,685	3,370	354	741	1,095	32.5%	1,331	944	2,275	-	0.0%	1,331	944	2,275	1.33	0.94	2.27		2,275	-	2,480			
Warehousing	150	960,000	Sft	T=1.58(X)+45.54	50%	50%	781	781	1,562	164	344	508	32.5%	617	437	1,054	-	0.0%	617	437	1,054	0.64	0.46	1.10		1,054	-	1,149			
Shopping Center	820	725,000	Sft	Ln(T)=0.68Ln(X)+5.57	50%	50%	11,562	11,561	23,123	5,659	3,241	8,900	38.5%	5,903	8,320	14,223	4,836	34.0%	3,485	5,902	9,387	4.81	8.14	12.95	9,387		10,234	-			
TOTALS							**36,994**	**36,990**	**73,984**	**11,853**	**12,133**	**23,986**	**32.4%**	**25,141**	**24,857**	**49,998**	**4,836**	**9.7%**	**22,723**	**22,439**	**45,162**				**32,153**	**13,009**	**35,054**	**14,182**		

Source: ITE 10th Edition Trip Generation Rates

45,162 49,236

AM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips			Internal Trips				Net External Trips			Pass-by Trips		Net New Trips			Resultant Rates to be Used for Trip Tracking			Factored to Allowable Trip			
					In	Out	In	Out	Total	In	Out	Total	%	In	Out	Total	Total	%	In	Out	Total	In	Out	Total	West Side Tips	East Side Tips	West Side Trips	East Side Trips		
Single Family Detached	210	3,350	DU	T=0.71(X)+4.80	25%	75%	596	1,787	2,383	41	603	644	27.0%	555	1,184	1,739	-	0.0%	555	1,184	1,739	0.17	0.35	0.52	1,739		1,739	-			
Multi-Family Housing	220	650	DU	Ln(T)=0.95Ln(X)-0.51	23%	77%	65	217	282	5	71	76	27.0%	60	146	206	-	0.0%	60	146	206	0.09	0.22	0.32	206		206	-			
General Office	710	1,508,500	Sft	T=0.94(X)+26.49	86%	14%	1,242	202	1,444	409	86	495	34.3%	833	116	949	-	0.0%	833	116	949	0.55	0.08	0.63		949	-	951			
Industrial Park	130	1,000,000	Sft	T=0.40(X)	81%	19%	324	76	400	113	24	137	34.3%	211	52	263	-	0.0%	211	52	263	0.21	0.05	0.26		263	-	263			
Warehousing	150	960,000	Sft	T=0.17(X)	77%	23%	126	37	163	46	10	56	34.4%	80	27	107	-	0.0%	80	27	107	0.08	0.03	0.11		107	-	107			
Shopping Center	820	725,000	Sft	T=0.94(X)	62%	38%	423	259	682	293	114	407	59.7%	130	145	275	94	34.0%	83	98	181	0.11	0.14	0.25	181		181	-			
TOTALS							**2,776**	**2,578**	**5,354**	**907**	**908**	**1,815**	**33.9%**	**1,869**	**1,670**	**3,539**	**94**	**2.7%**	**1,822**	**1,623**	**3,445**				**2,126**	**1,319**	**2,126**	**1,321**		

Source: ITE 10th Edition Trip Generation Rates

3,445 3,447

PM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips			Internal Trips				Net External Trips			Pass-by Trips		Net New Trips			Resultant Rates to be Used for Trip Tracking			Factored to Allowable Trip			
					In	Out	In	Out	Total	In	Out	Total	%	In	Out	Total	Total	%	In	Out	Total	In	Out	Total	West Side Tips	East Side Tips	West Side Trips	East Side Trips		
Single Family Detached	210	3,350	DU	Ln(T)=0.96Ln(X)+0.20	63%	37%	1,863	1,094	2,957	244	567	811	27.4%	1,619	527	2,146	-	0.0%	1,619	527	2,146	0.48	0.16	0.64	2,146		2,416	-			
Multi-Family Housing	220	650	DU	Ln(T)=0.89Ln(X)-0.02	63%	37%	197	115	312	26	60	86	27.6%	171	55	226	-	0.0%	171	55	226	0.26	0.08	0.34	226		254	-			
General Office	710	1,508,500	Sft	Ln(T)=0.95Ln(X)+0.36	16%	84%	240	1,260	1,500	169	258	427	28.5%	71	1,002	1,073	-	0.0%	71	1,002	1,073	0.05	0.66	0.71		1,073	-	1,208			
Industrial Park	130	1,000,000	Sft	T=0.40(X)	21%	79%	84	316	400	45	69	114	28.5%	39	247	286	-	0.0%	39	247	286	0.04	0.25	0.29		286	-	322			
Warehousing	150	960,000	Sft	T=0.19(X)	27%	73%	49	133	182	21	31	52	28.6%	28	102	130	-	0.0%	28	102	130	0.03	0.11	0.14		130	-	146			
Shopping Center	820	725,000	Sft	Ln(T)=0.74Ln(X)+2.89	48%	52%	1,130	1,224	2,354	781	301	1,082	46.0%	349	923	1,272	432	34.0%	134	706	840	0.18	0.97	1.15	840		945	-			
TOTALS							**3,563**	**4,142**	**7,705**	**1,286**	**1,286**	**2,572**	**33.4%**	**2,277**	**2,856**	**5,133**	**432**	**8.4%**	**2,062**	**2,639**	**4,701**				**3,212**	**1,489**	**3,615**	**1,676**		

Source: ITE 10th Edition Trip Generation Rates

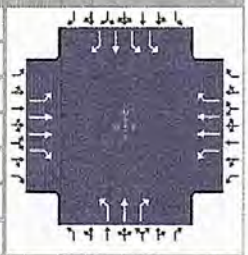
4,701 5,291

APPENDIX E

DRIVEWAY ANALYSIS

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - AM Peak Hour - 7.22.20.xus		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	56	502	126	241	453	748	112	225	214	478	124	23

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.2	7.8	37.6	9.7	4.3	19.5	1	2	3	4		
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	5	6	7	8		
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	11.2	43.6	24.9	57.3	15.7	25.5	26.0	35.8
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	3.1	3.2	3.1	3.2
Queue Clearance Time (g_s), s	5.9		18.5		9.7	18.3	18.7	8.7
Green Extension Time (g_e), s	0.1	0.0	0.5	0.0	0.2	1.2	1.2	1.2
Phase Call Probability	0.86		1.00		0.98	1.00	1.00	1.00
Max Out Probability	0.00		0.00		0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	59	528	133	254	477	787	118	237	225	503	131	24
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1610	1810	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	3.9	12.7	6.5	16.5	8.2	46.6	7.7	14.3	16.3	16.7	6.7	1.4
Cycle Queue Clearance Time (g_c), s	3.9	12.7	6.5	16.5	8.2	46.6	7.7	14.3	16.3	16.7	6.7	1.4
Green Ratio (*g/C*)	0.04	0.31	0.39	0.16	0.43	0.59	0.08	0.16	0.16	0.17	0.25	0.25
Capacity (*c*), veh/h	78	1133	634	285	1548	957	146	309	262	585	472	400
Volume-to-Capacity Ratio (*X*)	0.758	0.467	0.209	0.889	0.308	0.823	0.806	0.766	0.859	0.861	0.277	0.061
Back of Queue (*Q*), ft/ln (95 th percentile)	84.3	226.1	117	305	147.8	628.3	163.4	278.2	274.5	295.5	139.2	24.4
Back of Queue (*Q*), veh/ln (95 th percentile)	3.4	9.0	4.7	12.2	5.9	25.1	6.5	11.1	11.0	11.8	5.6	1.0
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	56.8	27.7	24.0	49.5	16.5	19.3	54.2	48.0	48.9	48.7	36.4	34.4
Incremental Delay (d_2), s/veh	5.5	1.4	0.7	3.8	0.5	8.0	3.9	1.5	3.2	1.5	0.1	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	62.3	29.1	24.8	53.3	17.0	27.3	58.1	49.5	52.1	50.2	36.5	34.4
Level of Service (LOS)	E	C	C	D	B	C	E	D	D	D	D	C
Approach Delay, s/veh / LOS	31.0	C		28.4	C		52.3	D		46.9	D	
Intersection Delay, s/veh / LOS	36.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	2.28	B	2.46	B	2.45	B
Bicycle LOS Score / LOS	1.08	A	1.74	B	1.44	A	1.57	B

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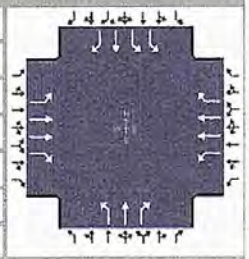
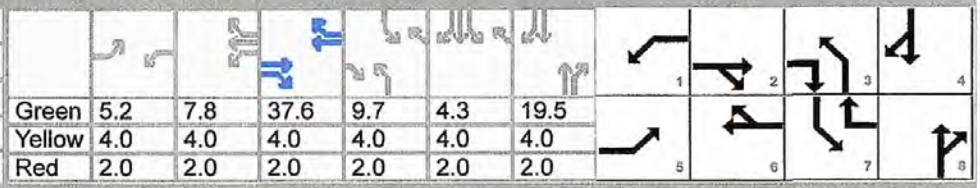
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - AM Peak Hour - 7.22.20.xus		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	56	502	126	241	453	748	112	225	214	478	124	23

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	5.2	7.8		37.6	9.7	4.3	19.5					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	56	502	126	241	453	748	112	225	214	478	124	23
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	20.0	20.0	20.0	60.0	20.0	60.0	20.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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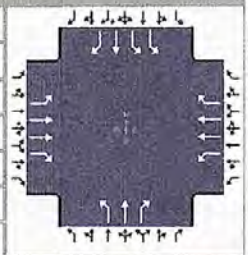
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - PM Peak Hour - 7.22.20.xus		
Project Description	Willow Lakes				

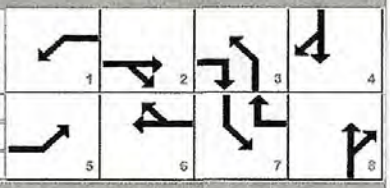


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	30	544	160	306	626	580	205	120	392	731	299	67

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	4.2	16.8	25.6	18.8	9.0	29.6
Yellow	4.0	4.0	4.0	4.0	4.0	4.0
Red	2.0	2.0	2.0	2.0	2.0	2.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	10.2	31.6	33.0	54.3	24.8	35.6	39.8	50.6
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0	3.1	3.2	3.1	3.2
Queue Clearance Time (g_s), s	4.4		26.5		18.4	28.1	31.8	20.9
Green Extension Time (g_e), s	0.0	0.0	0.6	0.0	0.4	1.7	2.0	1.7
Phase Call Probability	0.71		1.00		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	32	573	168	322	659	611	216	126	307	769	315	71
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1610	1810	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	2.4	21.2	11.2	24.5	18.2	35.3	16.4	7.9	26.1	29.8	18.9	4.4
Cycle Queue Clearance Time (g_c), s	2.4	21.2	11.2	24.5	18.2	35.3	16.4	7.9	26.1	29.8	18.9	4.4
Green Ratio (*g/C*)	0.03	0.18	0.32	0.19	0.35	0.59	0.13	0.21	0.21	0.24	0.32	0.32
Capacity (*c*), veh/h	55	664	512	348	1250	945	243	401	340	849	605	513
Volume-to-Capacity Ratio (*X*)	0.576	0.862	0.329	0.926	0.527	0.646	0.888	0.315	0.904	0.907	0.520	0.138
Back of Queue (*Q*), ft/ln (95 th percentile)	52.5	393.2	204.5	438.5	302.8	491.6	308.6	168.7	405.3	478.5	344	77.9
Back of Queue (*Q*), veh/ln (95 th percentile)	2.1	15.7	8.2	17.5	12.1	19.7	12.3	6.7	16.2	19.1	13.8	3.1
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	67.0	51.2	36.4	55.6	29.6	19.2	59.6	46.7	53.8	51.6	39.0	34.0
Incremental Delay (d_2), s/veh	3.5	13.9	1.7	8.3	1.6	3.4	4.3	0.2	3.7	1.6	0.3	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	70.5	65.0	38.1	63.8	31.2	22.6	63.9	46.8	57.5	53.2	39.2	34.1
Level of Service (LOS)	E	E	D	E	C	C	E	D	E	D	D	C
Approach Delay, s/veh / LOS	59.4	E		34.5	C		57.6	E		48.2	D	
Intersection Delay, s/veh / LOS	46.5						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.28	B	2.29	B	2.46	B	2.45	B
Bicycle LOS Score / LOS	1.13	A	1.80	B	1.56	B	2.39	B

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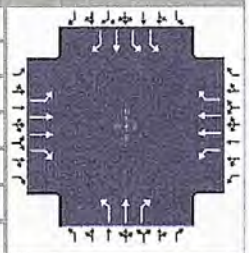
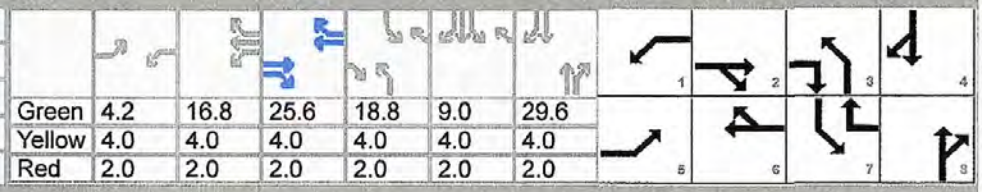
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - PM Peak Hour - 7.22.20.xus		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	30	544	160	306	626	580	205	120	392	731	299	67

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	4.2	16.8	25.6	18.8	9.0	29.6	
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	
Red	2.0	2.0	2.0	2.0	2.0	2.0	

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	30	544	160	306	626	580	205	120	392	731	299	67
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_0), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	100	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	19.0	13.0	18.0	12.0	89.0	15.0	94.0	20.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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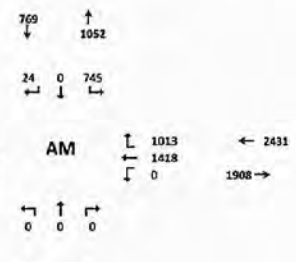
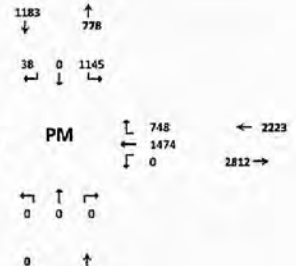
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Pier Ave
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	0	0	0	0	63	0	0	49	0	112	456
7:15-7:30	0	0	0	0	0	0	0	57	0	0	50	0	107	457
7:30-7:45	0	0	0	0	0	0	0	83	0	0	67	0	148	489
7:45-8:00	0	0	0	0	0	0	0	63	0	0	66	0	129	446
8:00-8:15	0	0	0	0	0	0	0	55	0	0	58	0	113	419
8:15-8:30	0	0	0	0	0	0	0	41	0	0	58	0	99	
8:30-8:45	0	0	0	0	0	0	0	44	0	0	61	0	105	
8:45-9:00	0	0	0	0	0	0	0	67	0	0	35	0	102	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	0	0	0	0	0	0	0	256	0	0	241	0	497	
Season Factor	0	0	0	0	0	0	0	256	0	0	241	0	497	
Growth	0	0	0	0	0	0	0	275	0	0	260	0	536	
In/Out	-	-	-	OUT	OUT	OUT	IN	IN/OUT		-	IN/OUT	IN		
Percentage	0%	0%	0%	31%	0%	1%	1%	1%/20%		0%	20%/1%	23%		
PROJECT	0	0	0	518	0	17	20	354	0	0	409	451	1768	
Midway %				30%		1%	1%	2%/19%			19%/2%	30%		
Village at Midway				227		8	10	182			371	562	1369	
LTC Ranch %								13.2%			13.2%			
LTC Ranch Volume								214			241		455	
Southern Grove %								0.8%			0.8%			
Southern Grove								42			42		84	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								30			30		61	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								45			45		89	
Western Grove %								0.8%			0.8%			
Western Grove								17			17		34	
Ravinia %								5.0%			5.0%			
Ravinia								3			3		7	
Total	0	0	0	745	0	24	38	1163	0	0	1418	1013	4402	



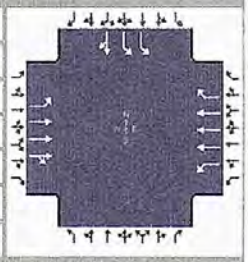
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	0	0	0	0	0	0	54	0	0	71	0	125	537
4:15-4:30	0	0	0	0	0	0	0	51	0	0	77	0	128	572
4:30-4:45	0	0	0	0	0	0	0	75	0	0	73	0	148	582
4:45-5:00	0	0	0	0	0	0	0	60	0	0	76	0	136	564
5:00-5:15	0	0	0	0	0	0	0	88	0	0	72	0	160	545
5:15-5:30	0	0	0	0	0	0	0	57	0	0	81	0	138	
5:30-5:45	0	0	0	0	0	0	0	65	0	0	65	0	130	
5:45-6:00	0	0	0	0	0	0	0	61	0	0	56	0	117	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	0	0	0	0	0	0	0	280	0	0	302	0	582	
Season Factor	0	0	0	0	0	0	0	280	0	0	302	0	582	
Growth	0	0	0	0	0	0	0	302	0	0	325	0	627	
In/Out	-	-	-	OUT	OUT	OUT	IN	IN/OUT	0	-	IN/OUT	IN		
Percentage	0%	0%	0%	31%	0%	1%	1%	1%/20%	0%	0%	20%/1%	23%		
PROJECT	0	0	0	475	0	15	19	328	0	0	405	448	1688	
Midway %				30.0%		1.0%	1.0%	2%/19%			19%/2%	30.0%		
Village at Midway				670		22	10	445			235	301	1683	
LTC Ranch %								13.2%			13.2%			
LTC Ranch Volume								392			306		698	
Southern Grove %								0.8%			0.8%			
Southern Grove								81			81		161	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								45			45		90	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								58			58		116	
Western Grove %								0.8%			0.8%			
Western Grove								16			16		33	
Ravinia %								5.0%			5.0%			
Ravinia								7			2		4	
Total	0	0	0	1145	0	38	29	1667	0	0	1474	748	5102	



E-5

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - AM Peak Hour - 7.21.20.xus		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	38	1163	0	0	1418	1013				745	0	24

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	0.0	4.4	67.6	30.0	0.0	0.0	5	6	7	8	
Yellow	4.0	4.0	4.0	4.0	0.0	0.0					
Red	0.0	2.0	2.0	2.0	0.0	0.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6				4
Case Number	2.0	4.0	2.0	3.0				10.0
Phase Duration, s	10.4	84.0	0.0	73.6				36.0
Change Period, (*Y+R c*), s	6.0	6.0	4.0	6.0				6.0
Max Allow Headway (*MAH*), s	3.1	0.0	0.0	0.0				3.1
Queue Clearance Time (*g s*), s	4.6							27.9
Green Extension Time (*g e*), s	0.1	0.0	0.0	0.0				2.1
Phase Call Probability	0.74							1.00
Max Out Probability	0.00							0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	40	1224	0	0	1493	751				784	25	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1810	1725	1610				1757	1610	
Queue Service Time (*g s*), s	2.6	4.8	0.0	0.0	14.0	45.8				25.9	1.4	
Cycle Queue Clearance Time (*g c*), s	2.6	4.8	0.0	0.0	14.0	45.8				25.9	1.4	
Green Ratio (*g/C*)	0.04	0.65			0.56	0.56				0.25	0.25	
Capacity (*c*), veh/h	67	3705		2	2915	907				878	402	
Volume-to-Capacity Ratio (*X*)	0.600	0.330	0.000	0.000	0.512	0.828				0.893	0.063	
Back of Queue (*Q*), ft/ln (95 th percentile)	56	68.8	0	0	183	632.2				417.8	25.4	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.2	2.8	0.0	0.0	7.3	25.3				16.7	1.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	
Uniform Delay (*d 1*), s/veh	56.9	3.1		0.0	8.3	21.4				43.4	34.3	
Incremental Delay (*d 2*), s/veh	3.2	0.2	0.0	0.0	0.6	8.6				1.3	0.0	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	60.1	3.4		0.0	8.9	30.0				44.8	34.3	
Level of Service (LOS)	E	A			A	C				D	C	
Approach Delay, s/veh / LOS	5.2	A		16.0	B		0.0			44.5	D	
Intersection Delay, s/veh / LOS	18.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.36	A	2.09	B	3.18	C	2.62	C
Bicycle LOS Score / LOS	1.18	A	1.72	B			1.82	B

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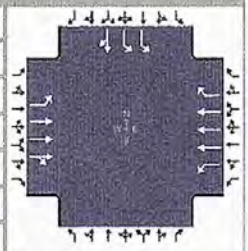
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - AM Peak Hour - 7.21.20.xus		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	38	1163	0	0	1418	1013				745	0	24

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.0	4.4	67.6	30.0	0.0	0.0						
Yellow	4.0	4.0	4.0	4.0	0.0	0.0						
Red	0.0	2.0	2.0	2.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	38	1163	0	0	1418	1013				745	0	24
Initial Queue (Q_b), veh/h	0	0	0	0	0	0				0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900				1900	1900	1900
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %	0	0		0	0	0				0	0	
Ped / Bike / RTOR, /h	0	0		0	0	300	0	0		0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3				3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0				12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0				0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35				35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	18.0	26.0	15.0	23.0				79.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0				4.0
Red Clearance Interval (R_c), s	2.0	2.0	0.0	2.0				2.0
Minimum Green (G_{min}), s	6	6	6	6				6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0				2.0
Recall Mode	Off	Min	Off	Min				Off
Dual Entry	No	Yes	No	Yes				Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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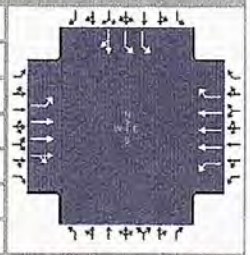
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - PM Peak Hour - 7.21.20.xus		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	29	1667	0	0	1474	745				1145	0	38

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.0	4.2		66.6	51.3	0.0	0.0					
Yellow	4.0	4.0		4.0	4.0	0.0	0.0					
Red	0.0	2.0		2.0	2.0	0.0	0.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6				4
Case Number	2.0	4.0	2.0	3.0				10.0
Phase Duration, s	10.2	82.7	0.0	72.6				57.3
Change Period, (*Y+R c*), s	6.0	6.0	4.0	6.0				6.0
Max Allow Headway (*MAH*), s	3.1	0.0	0.0	0.0				3.1
Queue Clearance Time (*g s*), s	4.3							48.3
Green Extension Time (*g e*), s	0.0	0.0	0.0	0.0				2.9
Phase Call Probability	0.69							1.00
Max Out Probability	0.00							0.12

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	31	1755	0	0	1552	468				1205	40	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1810	1725	1610				1757	1610	
Queue Service Time (*g s*), s	2.3	19.7	0.0	0.0	25.6	30.1				46.3	2.3	
Cycle Queue Clearance Time (*g c*), s	2.3	19.7	0.0	0.0	25.6	30.1				46.3	2.3	
Green Ratio (*g/C*)	0.03	0.55			0.48	0.48				0.37	0.37	
Capacity (*c*), veh/h	54	3125		1	2461	766				1287	590	
Volume-to-Capacity Ratio (*X*)	0.566	0.562	0.000	0.000	0.630	0.612				0.937	0.068	
Back of Queue (*Q*), ft/ln (95 th percentile)	50.7	266	0	0	347.1	448.1				729.7	39.9	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.0	10.6	0.0	0.0	13.9	17.9				29.2	1.6	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	
Uniform Delay (*d 1*), s/veh	67.0	11.2		0.0	18.1	27.2				42.8	28.8	
Incremental Delay (*d 2*), s/veh	3.4	0.7	0.0	0.0	1.2	3.6				10.1	0.0	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	70.5	11.9		0.0	19.4	30.8				52.9	28.9	
Level of Service (LOS)	E	B			B	C				D	C	
Approach Delay, s/veh / LOS	12.9	B		22.0	C		0.0			52.1	D	
Intersection Delay, s/veh / LOS	26.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.39	A	2.11	B	3.18	C	2.63	C
Bicycle LOS Score / LOS	1.47	A	1.60	B			2.54	C

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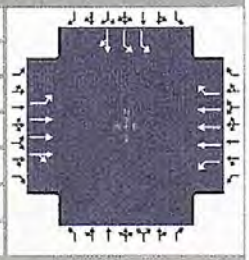
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - PM Peak Hour - 7.21.20.xus		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	29	1667	0	0	1474	745				1145	0	38

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.0	4.2	66.6	51.3	0.0	0.0	1	2	3	4		
Yellow	4.0	4.0	4.0	4.0	0.0	0.0	5	6	7	8		
Red	0.0	2.0	2.0	2.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	29	1667	0	0	1474	745				1145	0	38
Initial Queue (Q_b), veh/h	0	0	0	0	0	0				0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900				1900	1900	1900
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %	0	0		0	0	0				0	0	
Ped / Bike / RTOR, /h	0	0		0	0	300	0	0		0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3				3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0				12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0				0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35				35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	62.0	13.0	62.0				65.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0				4.0
Red Clearance Interval (R_c), s	2.0	2.0	0.0	2.0				2.0
Minimum Green (G_{min}), s	6	6	6	6				6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0				2.0
Recall Mode	Off	Min	Off	Min				Off
Dual Entry	No	Yes	No	Yes				Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50					No	0.50	

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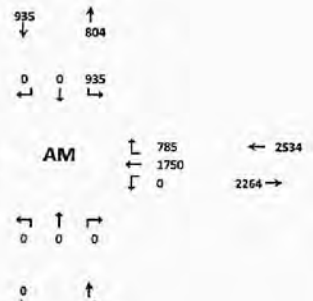
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Gordy Rd
EW STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

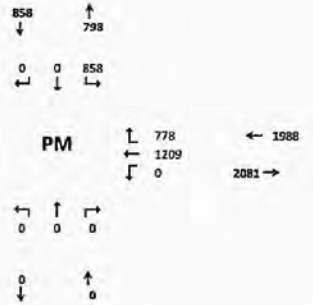
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	0	0	0	0	63	0	0	49	0	112	496
7:15-7:30	0	0	0	0	0	0	0	57	0	0	50	0	107	497
7:30-7:45	0	0	0	0	0	0	0	81	0	0	67	0	148	489
7:45-8:00	0	0	0	0	0	0	0	63	0	0	66	0	129	446
8:00-8:15	0	0	0	0	0	0	0	55	0	0	58	0	113	419
8:15-8:30	0	0	0	0	0	0	0	41	0	0	58	0	99	
8:30-8:45	0	0	0	0	0	0	0	44	0	0	61	0	105	
8:45-9:00	0	0	0	0	0	0	0	67	0	0	35	0	102	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	0	0	0	0	0	0	0	256	0	0	241	0	497	
Season Factor	0	0	0	0	0	0	0	256	0	0	241	0	497	
Growth	0	0	0	0	0	0	0	275	0	0	260	0	536	
In/Out	-	-	-	OUT	OUT	OUT	IN	OUT		-	IN	IN		
Percentage	0%	0%	0%	56%	0%	0%	1%	42%		0%	57%	40%		
PROJECT	0	0	0	935	0	0	20	701	0	0	1118	785	3559	
LTC Ranch %								13.2%			13.2%			
LTC Ranch Volume								214			241		455	
Southern Grove %								0.8%			0.8%			
Southern Grove								42			50		92	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								30			31		61	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								45			38		83	
Western Grove %								0.8%			0.8%			
Western Grove								17			11		28	
Ravinia %								5.0%			5.0%			
Ravinia								3			1		5	
Total	0	0	0	935	0	0	20	1329	0	0	1250	785	4818	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,962	1,670
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	68

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	0	0	0	0	0	0	54	0	0	71	0	125	537
4:15-4:30	0	0	0	0	0	0	0	51	0	0	77	0	128	572
4:30-4:45	0	0	0	0	0	0	0	75	0	0	73	0	148	582
4:45-5:00	0	0	0	0	0	0	0	80	0	0	76	0	156	564
5:00-5:15	0	0	0	0	0	0	0	88	0	0	72	0	160	545
5:15-5:30	0	0	0	0	0	0	0	57	0	0	81	0	138	
5:30-5:45	0	0	0	0	0	0	0	65	0	0	65	0	130	
5:45-6:00	0	0	0	0	0	0	0	61	0	0	56	0	117	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	0	0	0	0	0	0	0	280	0	0	302	0	582	
Season Factor	0	0	0	0	0	0	0	280	0	0	302	0	582	
Growth	0	0	0	0	0	0	0	302	0	0	325	0	627	
In/Out	-	-	-	OUT	OUT	OUT	IN	OUT	0	-	IN	IN		
Percentage	0%	0%	0%	56%	0%	0%	1%	42%	0%	0%	57%	40%		
PROJECT	0	0	0	858	0	0	19	326	0	0	405	778	2387	
LTC Ranch %								13.2%			13.2%			
LTC Ranch Volume								392			306		698	
Southern Grove %								0.8%			0.8%			
Southern Grove								81			55		136	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								45			36		81	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								58			57		115	
Western Grove %								0.8%			0.8%			
Western Grove								16			20		37	
Ravinia %								5.0%			5.0%			
Ravinia								2			4		6	
Total	0	0	0	858	0	0	19	1222	0	0	1209	778	4088	

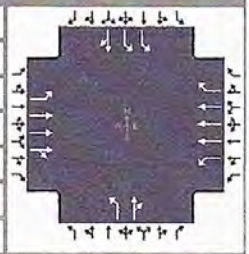


Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,946	1,533
LTC Ranch	2,320	2,070
Southern Grove	6,900	10,071
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,005	7,277
Western Grove	2,510	2,061
Ravinia	77	44

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - AM Peak Hour - 7.21.20...		
Project Description	Willow Lakes				

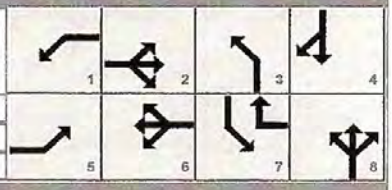


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	57	1851	0	0	2845	1207	0	0	0	1002	0	15

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	5.2	63.8	33.0	0.0	0.0	0.0						
Yellow	4.0	4.0	4.0	0.0	0.0	0.0						
Red	2.0	2.0	2.0	0.0	0.0	0.0						



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	1.1	3.0		10.0		10.0
Phase Duration, s	11.2	81.0	0.0	69.8		0.0		39.0
Change Period, (*Y+R c*), s	6.0	6.0	6.0	6.0		6.0		6.0
Max Allow Headway (*MAH*), s	3.1	0.0	0.0	0.0		0.0		3.1
Queue Clearance Time (*g s*), s	3.7							35.0
Green Extension Time (*g e*), s	0.1	0.0	0.0	0.0		0.0		0.0
Phase Call Probability	0.86							1.00
Max Out Probability	0.00							1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	60	1948	0	0	2995	771	0	0		1055	16	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1810	1900	1610	1810	1610		1810	1610	
Queue Service Time (*g s*), s	1.7	12.6	0.0	0.0	61.3	21.3	0.0	0.0		33.0	0.9	
Cycle Queue Clearance Time (*g c*), s	1.7	12.6	0.0	0.0	61.3	21.3	0.0	0.0		33.0	0.9	
Green Ratio (*g/C*)	0.59	0.62		0.48	0.53	0.81		0.32		0.28	0.28	
Capacity (*c*), veh/h	140	3562		177	3031	1299	2			995	443	
Volume-to-Capacity Ratio (*X*)	0.429	0.547	0.000	0.000	0.988	0.593	0.000	0.000		1.060	0.036	
Back of Queue (*Q*), ft/ln (95 th percentile)	42.4	153	0	0	752.6	238.4	0	0		731.9	15.2	
Back of Queue (*Q*), veh/ln (95 th percentile)	1.7	6.1	0.0	0.0	30.1	9.5	0.0	0.0		29.3	0.6	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (*d 1*), s/veh	28.4	4.8		0.0	17.1	4.3	0.0			43.5	31.9	
Incremental Delay (*d 2*), s/veh	0.8	0.6	0.0	0.0	13.8	2.0	0.0	0.0		45.8	0.0	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	29.1	5.4		0.0	30.9	6.3	0.0			89.3	31.9	
Level of Service (LOS)	C	A			C	A				F	C	
Approach Delay, s/veh / LOS	6.1	A		25.8	C		0.0			88.4	F	
Intersection Delay, s/veh / LOS	29.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	2.09	B	3.43	C	2.62	C
Bicycle LOS Score / LOS	1.59	B	2.56	C	0.49	A	2.25	B

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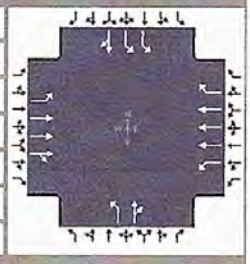
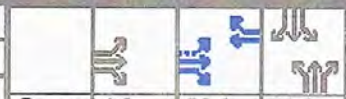
HCS7 Signalized Intersection Results Summary

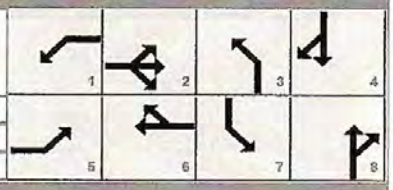
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - PM Peak Hour - 7.21.20...		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	40	2317	0	0	1701	915	0	0	0	1427	0	45

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



										
							1	2	3	4
Green	4.8	58.2	59.0	0.0	0.0	0.0				
Yellow	4.0	4.0	4.0	0.0	0.0	0.0				
Red	2.0	2.0	2.0	0.0	0.0	0.0				
							5	6	7	8

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	2.0	3.0		10.0		10.0
Phase Duration, s	10.8	75.0	0.0	64.2		0.0		65.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0		6.0		6.0
Max Allow Headway (*MAH*), s	3.1	0.0	0.0	0.0		0.0		3.1
Queue Clearance Time (g_s), s	3.8							59.5
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0		0.0		0.0
Phase Call Probability	0.81							1.00
Max Out Probability	0.00							1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	42	2439	0	0	1791	542	0	0		1502	47	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1810	1900	1610	1810	1610		1810	1610	
Queue Service Time (g_s), s	1.8	47.8	0.0	0.0	33.8	41.5	0.0	0.0		57.5	2.5	
Cycle Queue Clearance Time (g_c), s	1.8	47.8	0.0	0.0	33.8	41.5	0.0	0.0		57.5	2.5	
Green Ratio (*g/C*)	0.46	0.49			0.42	0.42		0.42		0.42	0.42	
Capacity (*c*), veh/h	161	2809		1	2368	669	1			1525	679	
Volume-to-Capacity Ratio (*X*)	0.262	0.868	0.000	0.000	0.756	0.810	0.000	0.000		0.985	0.070	
Back of Queue (*Q*), ft/ln (95 th percentile)	35	637.3	0	0	505.6	622	0	0		945.8	42.7	
Back of Queue (*Q*), veh/ln (95 th percentile)	1.4	25.5	0.0	0.0	20.2	24.9	0.0	0.0		37.8	1.7	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	26.0	20.4		0.0	25.8	36.1	0.0			40.1	24.1	
Incremental Delay (d_2), s/veh	0.3	4.0	0.0	0.0	2.3	10.3	0.0	0.0		19.4	0.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	26.3	24.3		0.0	28.1	46.3	0.0			59.5	24.2	
Level of Service (LOS)	C	C			C	D				E	C	
Approach Delay, s/veh / LOS	24.4	C		32.3	C		0.0			58.4	E	
Intersection Delay, s/veh / LOS	35.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	2.12	B	3.33	C	2.62	C
Bicycle LOS Score / LOS	1.85	B	1.77	B	0.49	A	3.04	C

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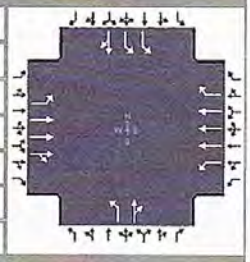
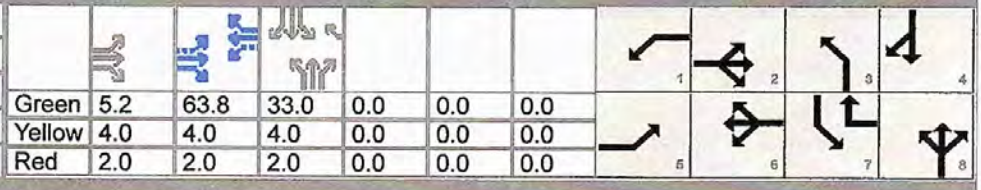
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - AM Peak Hour - 7.21.20...		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	57	1851	0	0	2845	1207	0	0	0	1002	0	15

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	5.2	63.8	33.0	0.0	0.0	0.0						
Yellow	4.0	4.0	4.0	0.0	0.0	0.0						
Red	2.0	2.0	2.0	0.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	57	1851	0	0	2845	1207	0	0	0	1002	0	15
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0	0	0	0		0	0	
Ped / Bike / RTOR, /h	0	0		0	0	475	0	0		0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0	0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	12.0	57.0	12.0	57.0	12.0	12.0	39.0	39.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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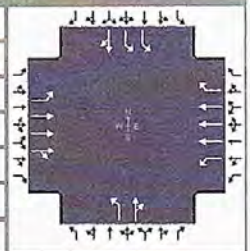
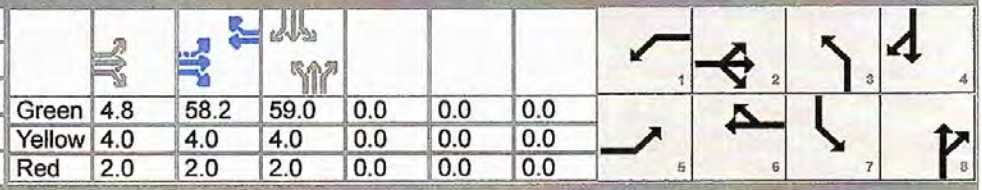
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - PM Peak Hour - 7.21.20...		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	40	2317	0	0	1701	915	0	0	0	1427	0	45

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	4.8	58.2	59.0	0.0	0.0	0.0						
Yellow	4.0	4.0	4.0	0.0	0.0	0.0						
Red	2.0	2.0	2.0	0.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	40	2317	0	0	1701	915	0	0	0	1427	0	45
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0	0	0	0		0	0	
Ped / Bike / RTOR, /h	0	0		0	0	400	0	0		0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0	0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	17.0	51.0	12.0	46.0	23.0	12.0	65.0	65.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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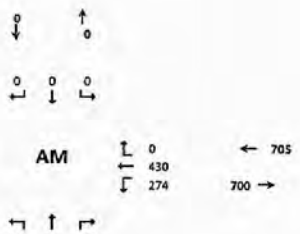
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Arterial A
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

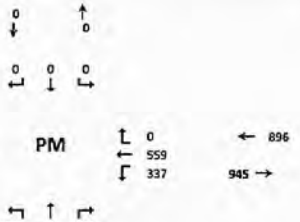
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	0	0	0	0	63	0	0	49	0	112	496
7:15-7:30	0	0	0	0	0	0	0	57	0	0	50	0	107	497
7:30-7:45	0	0	0	0	0	0	0	81	0	0	67	0	148	489
7:45-8:00	0	0	0	0	0	0	0	63	0	0	66	0	129	446
8:00-8:15	0	0	0	0	0	0	0	55	0	0	58	0	113	419
8:15-8:30	0	0	0	0	0	0	0	41	0	0	58	0	99	
8:30-8:45	0	0	0	0	0	0	0	44	0	0	61	0	105	
8:45-9:00	0	0	0	0	0	0	0	67	0	0	35	0	102	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	0	0	0	0	0	0	0	256	0	0	241	0	497	
Season Factor	0	0	0	0	0	0	0	256	0	0	241	0	497	
Growth	0	0	0	0	0	0	0	276	0	0	260	0	536	
In/Out	-	-	IN	OUT	OUT	OUT	-	IN	OUT	OUT	OUT	IN		
Percentage	0%	0%	2%	0%	0%	0%	0%	2%	0%	2%	2%	0%		
PROJECT	0	0	39	0	0	0	0	39	0	33	33	0	145	
LTC Ranch %	6.9%		13.2%						6.9%	13.2%				
LTC Ranch Volume	112		214						126	241			693	
Southern Grove %								0.8%			0.8%			
Southern Grove								50			42		92	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								31			30		61	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								38			45		83	
Western Grove %								0.8%			0.8%			
Western Grove								11			17		28	
Ravinia %								5.0%			5.0%			
Ravinia								1			3		5	
Total	112	0	254	0	0	0	0	446	126	274	430	0	1642	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,962	1,670
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	68

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	0	0	0	0	0	0	54	0	0	71	0	125	537
4:15-4:30	0	0	0	0	0	0	0	51	0	0	77	0	128	572
4:30-4:45	0	0	0	0	0	0	0	75	0	0	73	0	148	582
4:45-5:00	0	0	0	0	0	0	0	60	0	0	76	0	136	564
5:00-5:15	0	0	0	0	0	0	0	88	0	0	72	0	160	545
5:15-5:30	0	0	0	0	0	0	0	57	0	0	81	0	138	
5:30-5:45	0	0	0	0	0	0	0	65	0	0	65	0	130	
5:45-6:00	0	0	0	0	0	0	0	61	0	0	56	0	117	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	0	0	0	0	0	0	0	280	0	0	302	0	582	
Season Factor	0	0	0	0	0	0	0	280	0	0	302	0	582	
Growth	0	0	0	0	0	0	0	302	0	0	325	0	627	
In/Out	-	-	IN	OUT	OUT	OUT	-	IN	OUT	OUT	OUT	IN		
Percentage	0%	0%	2%	0%	0%	0%	0%	2%	0%	2%	2%	0%		
PROJECT	0	0	39	0	0	0	0	39	0	33	33	0	139	
LTC Ranch %	6.9%		13.2%						6.9%	13.2%				
LTC Ranch Volume	205		392						160	306			1063	
Southern Grove %								0.8%			0.8%			
Southern Grove								56			81		136	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								36			45		81	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								57			58		115	
Western Grove %								0.8%			0.8%			
Western Grove								20			16		37	
Ravinia %								5.0%			5.0%			
Ravinia								4			2		6	
Total	205	0	431	0	0	0	0	514	160	337	559	0	2205	

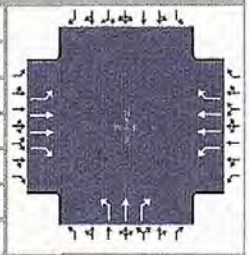


Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,946	1,533
LTC Ranch	2,320	2,970
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	3,061
Ravinia	77	44

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - AM Peak Hour - w.o. Arteri...		
Project Description	Willow Lakes w.o. Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	446	126	274	430	0	112	0	254			

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	0.0	21.1	59.1	21.8	0.0	0.0	1	2	3	4		
Yellow	4.0	4.0	4.0	4.0	0.0	0.0	5	6	7	8		
Red	2.0	2.0	2.0	2.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		
Case Number	2.0	3.0	2.0	3.0		9.0		
Phase Duration, s	0.0	65.1	27.1	92.2		27.8		
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0		6.0		
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0		3.3		
Queue Clearance Time (g_s), s			20.7			21.6		
Green Extension Time (g_e), s	0.0	0.0	0.4	0.0		0.2		
Phase Call Probability			1.00			1.00		
Max Out Probability			0.01			1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18			
Adjusted Flow Rate (*v*), veh/h	0	469	133	288	453	0	118	0	267			
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1610	1810	1809	1610	1810	1900	1610			
Queue Service Time (g_s), s	0.0	6.5	3.5	18.7	0.8	0.0	6.8	0.0	19.6			
Cycle Queue Clearance Time (g_c), s	0.0	6.5	3.5	18.7	0.8	0.0	6.8	0.0	19.6			
Green Ratio (*g/C*)		0.49	0.67	0.18	0.72	0.72	0.18	0.18	0.18			
Capacity (*c*), veh/h	2	1780	1085	319	2599	1157	329	345	293			
Volume-to-Capacity Ratio (*X*)	0.000	0.264	0.122	0.905	0.174	0.000	0.359	0.000	0.914			
Back of Queue (*Q*), ft/ln (95 th percentile)	0	112.3	53.5	365	12.2	0	138.1	0	376.8			
Back of Queue (*Q*), veh/ln (95 th percentile)	0.0	4.5	2.1	14.6	0.5	0.0	5.5	0.0	15.1			
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Uniform Delay (d_1), s/veh	0.0	11.6	7.0	48.4	0.7	0.0	43.0	0.0	48.2			
Incremental Delay (d_2), s/veh	0.0	0.4	0.2	13.3	0.1	0.0	0.2	0.0	26.6			
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Control Delay (*d*), s/veh	0.0	11.9	7.2	61.8	0.9	0.0	43.2	0.0	74.8			
Level of Service (LOS)		B	A	E	A		D		E			
Approach Delay, s/veh / LOS	10.9	B		24.6	C		65.2	E		0.0		
Intersection Delay, s/veh / LOS	28.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.10	B	1.34	A	2.48	B	2.48	B
Bicycle LOS Score / LOS	0.98	A	1.10	A	1.12	A		

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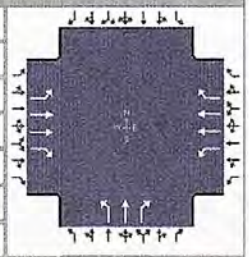
HCS7 Signalized Intersection Input Data

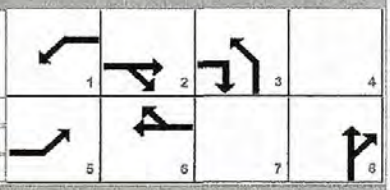
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - AM Peak Hour - w.o. Arteri...		
Project Description	Willow Lakes w.o. Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	446	126	274	430	0	112	0	254			

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	0.0	21.1	59.1	21.8	0.0	0.0						
Yellow	4.0	4.0	4.0	4.0	0.0	0.0						
Red	2.0	2.0	2.0	2.0	0.0	0.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	446	126	274	430	0	112	0	254			
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0			
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0			
Ped / Bike / RTOR, /h	0	0	0	0	0		0	0	0	0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3			
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0			
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0			
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35			

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	56.0	34.0	77.0	30.0	30.0		
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0		
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0		
Minimum Green (G_{min}), s	6	6	6	6	6	6		
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0		
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0		
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0		
Recall Mode	Off	Min	Off	Min	Off	Off		
Dual Entry	No	Yes	No	Yes	No	Yes		
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0		
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

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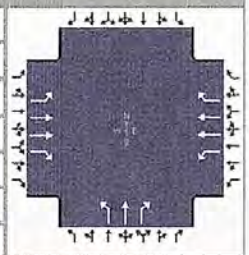
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - PM Peak Hour - w.o. Arteri...		
Project Description	Willow Lakes w.o. Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	514	160	337	559	0	205	0	431			

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.0	29.6	59.6	32.8	0.0	0.0
Yellow	4.0	4.0	4.0	4.0	0.0	0.0
Red	2.0	2.0	2.0	2.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		
Case Number	2.0	3.0	2.0	3.0		9.0		
Phase Duration, s	0.0	65.6	35.6	101.2		38.8		
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0		6.0		
Max Allow Headway (*MAH*), s	0.0	0.0	3.1	0.0		3.3		
Queue Clearance Time (g_s), s			28.9			31.6		
Green Extension Time (g_e), s	0.0	0.0	0.7	0.0		1.2		
Phase Call Probability			1.00			1.00		
Max Out Probability			0.00			0.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18			
Adjusted Flow Rate (*v*), veh/h	0	541	168	355	588	0	216	0	348			
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1610	1810	1809	1610	1810	1900	1610			
Queue Service Time (g_s), s	0.0	11.3	5.6	26.9	2.7	0.0	14.5	0.0	29.6			
Cycle Queue Clearance Time (g_c), s	0.0	11.3	5.6	26.9	2.7	0.0	14.5	0.0	29.6			
Green Ratio (*g/C*)		0.43	0.66	0.21	0.68	0.68	0.23	0.23	0.23			
Capacity (*c*), veh/h	1	1539	1063	383	2459	1095	424	446	378			
Volume-to-Capacity Ratio (*X*)	0.000	0.352	0.158	0.927	0.239	0.000	0.509	0.000	0.923			
Back of Queue (*Q*), ft/ln (95 th percentile)	0	201.2	89.7	460.6	41.5	0	269.3	0	450.8			
Back of Queue (*Q*), veh/ln (95 th percentile)	0.0	8.0	3.6	18.4	1.7	0.0	10.8	0.0	18.0			
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Uniform Delay (d_1), s/veh	0.0	19.9	9.0	54.1	2.2	0.0	46.6	0.0	52.3			
Incremental Delay (d_2), s/veh	0.0	0.6	0.3	4.2	0.2	0.0	0.4	0.0	4.1			
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Control Delay (*d*), s/veh	0.0	20.5	9.4	58.4	2.5	0.0	46.9	0.0	56.4			
Level of Service (LOS)		C	A	E	A		D		E			
Approach Delay, s/veh / LOS	17.8	B		23.5	C		52.8	D		0.0		
Intersection Delay, s/veh / LOS	29.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.26	B	1.36	A	2.48	B	2.48	B
Bicycle LOS Score / LOS	1.07	A	1.27	A	1.42	A		

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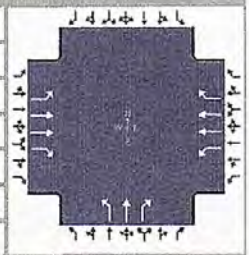
HCS7 Signalized Intersection Input Data

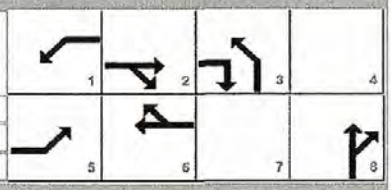
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - PM Peak Hour - w.o. Arteri...		
Project Description	Willow Lakes w.o. Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	0	514	160	337	559	0	205	0	431			

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	0.0	29.6	59.6	32.8	0.0	0.0	
Yellow	4.0	4.0	4.0	4.0	0.0	0.0	
Red	2.0	2.0	2.0	2.0	0.0	0.0	



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	0	514	160	337	559	0	205	0	431			
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0			
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0			
Ped / Bike / RTOR, /h	0	0	0	0	0		0	0	100	0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4	3	3	4	3	3	3	3			
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0			
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0			
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35			

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	13.0	30.0	30.0	97.0	97.0		
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0		
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0		
Minimum Green (G_{min}), s	6	6	6	6	6	6		
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0		
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0		
Recall Mode	Off	Min	Off	Min	Off	Off		
Dual Entry	No	Yes	No	Yes	No	Yes		
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

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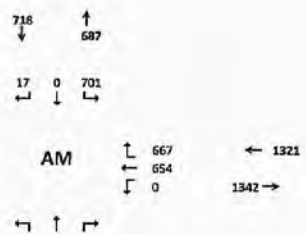
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Pier Ave
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

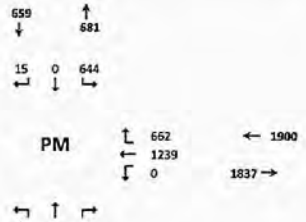
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	0	0	0	0	63	0	0	49	0	112	496
7:15-7:30	0	0	0	0	0	0	0	57	0	0	50	0	107	497
7:30-7:45	0	0	0	0	0	0	0	81	0	0	67	0	148	489
7:45-8:00	0	0	0	0	0	0	0	63	0	0	66	0	129	446
8:00-8:15	0	0	0	0	0	0	0	55	0	0	58	0	113	419
8:15-8:30	0	0	0	0	0	0	0	41	0	0	58	0	99	
8:30-8:45	0	0	0	0	0	0	0	44	0	0	61	0	105	
8:45-9:00	0	0	0	0	0	0	0	67	0	0	35	0	102	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	0	0	0	0	0	0	0	256	0	0	241	0	497	
Season Factor	0	0	0	0	0	0	0	256	0	0	241	0	497	
Growth	0	0	0	0	0	0	0	278	0	0	260	0	538	
In/Out	-	-	-	OUT	OUT	OUT	IN	IN	-	-	OUT	IN		
Percentage	0%	0%	0%	42%	0%	1%	1%	1%		0%	1%	34%		
PROJECT	0	0	0	701	0	17	20	20	0	0	17	667	1441	
LTC Ranch %								13.2%			13.2%			
LTC Ranch Volume								214			241		455	
Southern Grove %								0.8%			0.8%			
Southern Grove								50			42		92	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								31			30		61	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								38			45		83	
Western Grove %								0.8%			0.8%			
Western Grove								11			17		28	
Ravinia %								5.0%			5.0%			
Ravinia								1			3		5	
Total	0	0	0	701	0	17	20	641	0	0	654	667	2700	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,962	1,670
LTC Ranch	1,803	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	58

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	0	0	0	0	0	0	54	0	0	71	0	125	537
4:15-4:30	0	0	0	0	0	0	0	51	0	0	77	0	128	572
4:30-4:45	0	0	0	0	0	0	0	75	0	0	73	0	148	582
4:45-5:00	0	0	0	0	0	0	0	60	0	0	76	0	136	564
5:00-5:15	0	0	0	0	0	0	0	88	0	0	72	0	160	545
5:15-5:30	0	0	0	0	0	0	0	57	0	0	81	0	138	
5:30-5:45	0	0	0	0	0	0	0	65	0	0	65	0	130	
5:45-6:00	0	0	0	0	0	0	0	61	0	0	56	0	117	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	0	0	0	0	0	0	0	280	0	0	302	0	582	
Season Factor	0	0	0	0	0	0	0	280	0	0	302	0	582	
Growth	0	0	0	0	0	0	0	302	0	0	325	0	627	
In/Out	-	-	-	OUT	OUT	OUT	IN	IN	0	-	OUT	IN		
Percentage	0%	0%	0%	42%	0%	1%	1%	1%	0%	0%	1%	34%		
PROJECT	0	0	0	644	0	15	19	316	0	0	405	662	2071	
LTC Ranch %								13.2%			13.2%			
LTC Ranch Volume								392			306		698	
Southern Grove %								0.8%			0.8%			
Southern Grove								55			81		136	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								36			45		81	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								57			58		115	
Western Grove %								0.8%			0.8%			
Western Grove								20			16		37	
Ravinia %								5.0%			5.0%			
Ravinia								4			2		6	
Total	0	0	0	644	0	15	19	1193	0	0	1239	662	3772	

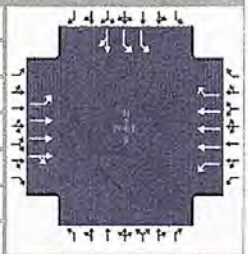


Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,946	1,533
LTC Ranch	2,320	2,970
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,095	7,277
Western Grove	2,530	2,061
Ravinia	77	44

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - AM Peak Hour - w.o. Arteria...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	20	641	0	0	654	667				701	0	17

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.0	7.0	36.0	59.0	0.0	0.0	1	2	3	4	
Yellow	4.0	4.0	4.0	4.0	0.0	0.0	5	6	7	8	
Red	0.0	2.0	2.0	2.0	0.0	0.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6				4
Case Number	2.0	4.0	2.0	3.0				10.0
Phase Duration, s	13.0	55.0	0.0	42.0				65.0
Change Period, (*Y+R c*), s	6.0	6.0	4.0	6.0				6.0
Max Allow Headway (*MAH*), s	3.1	0.0	0.0	0.0				3.1
Queue Clearance Time (*g s*), s	3.3							18.2
Green Extension Time (*g e*), s	0.0	0.0	0.0	0.0				2.0
Phase Call Probability	1.00							1.00
Max Out Probability	0.32							0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	21	675	0	0	688	492				738	18	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1810	1725	1610				1757	1610	
Queue Service Time (*g s*), s	1.3	7.7	0.0	0.0	11.6	36.0				16.2	0.7	
Cycle Queue Clearance Time (*g c*), s	1.3	7.7	0.0	0.0	11.6	36.0				16.2	0.7	
Green Ratio (*g/C*)	0.06	0.41			0.30	0.30				0.49	0.49	
Capacity (*c*), veh/h	106	2327		2	1553	483				1728	792	
Volume-to-Capacity Ratio (*X*)	0.199	0.290	0.000	0.000	0.443	1.018				0.427	0.023	
Back of Queue (*Q*), ft/ln (95 th percentile)	27.5	145.7	0	0	203.6	692.9				266.1	11.3	
Back of Queue (*Q*), veh/ln (95 th percentile)	1.1	5.8	0.0	0.0	8.1	27.7				10.6	0.5	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	
Uniform Delay (*d 1*), s/veh	53.8	17.9		0.0	28.7	42.0				19.6	15.7	
Incremental Delay (*d 2*), s/veh	0.3	0.3	0.0	0.0	0.9	45.5				0.1	0.0	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	54.2	18.2		0.0	29.6	87.5				19.7	15.7	
Level of Service (LOS)	D	B			C	F				B	B	
Approach Delay, s/veh / LOS	19.3	B		53.7	D		0.0			19.6	B	
Intersection Delay, s/veh / LOS	34.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	2.12	B	3.03	C	2.62	C
Bicycle LOS Score / LOS	0.87	A	1.14	A			1.73	B

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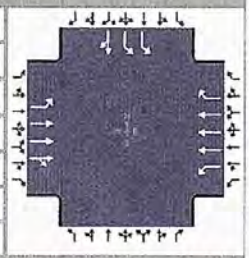
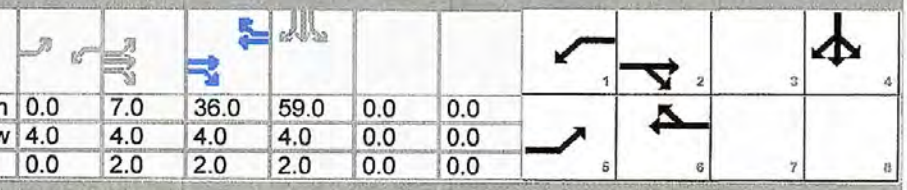
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - AM Peak Hour - w.o. Arteria...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	20	641	0	0	654	667				701	0	17

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	0.0	7.0		36.0	59.0	0.0	0.0					
Yellow	4.0	4.0		4.0	4.0	0.0	0.0					
Red	0.0	2.0		2.0	2.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	20	641	0	0	654	667				701	0	17
Initial Queue (Q_b), veh/h	0	0	0	0	0	0				0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900				1900	1900	1900
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %	0	0		0	0	0				0	0	
Ped / Bike / RTOR, /h	0	0		0	0	200	0	0		0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3				3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0				12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0				0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35				35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	42.0	13.0	42.0				65.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0				4.0
Red Clearance Interval (R_c), s	2.0	2.0	0.0	2.0				2.0
Minimum Green (G_{min}), s	6	6	6	6				6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0				2.0
Recall Mode	Off	Min	Off	Min				Off
Dual Entry	No	Yes	No	Yes				Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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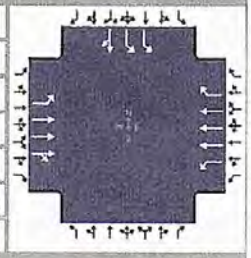
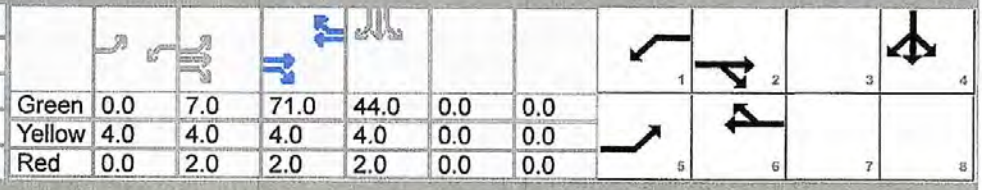
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - PM Peak Hour - w.o. Arteria...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	19	1193	0	0	1239	662				644	0	15

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.0	7.0		71.0	44.0	0.0	0.0					
Yellow	4.0	4.0		4.0	4.0	0.0	0.0					
Red	0.0	2.0		2.0	2.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	19	1193	0	0	1239	662				644	0	15
Initial Queue (Q_b), veh/h	0	0	0	0	0	0				0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900				1900	1900	1900
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %	0	0		0	0	0				0	0	
Ped / Bike / RTOR, /h	0	0		0	0	200	0	0		0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3				3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0				12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0				0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35				35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	77.0	13.0	77.0				50.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0				4.0
Red Clearance Interval (R_c), s	2.0	2.0	0.0	2.0				2.0
Minimum Green (G_{min}), s	6	6	6	6				6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0				2.0
Recall Mode	Off	Min	Off	Min				Off
Dual Entry	No	Yes	No	Yes				Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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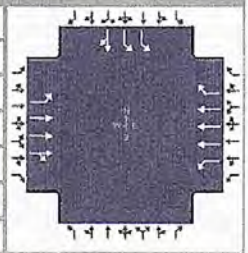
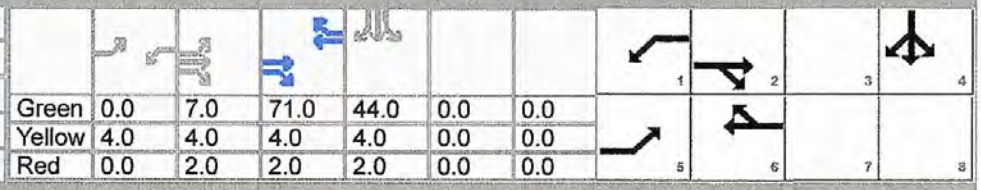
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - PM Peak Hour - w.o. Arteria...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	19	1193	0	0	1239	662				644	0	15

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	0.0	7.0		71.0	44.0	0.0	0.0					
Yellow	4.0	4.0		4.0	4.0	0.0	0.0					
Red	0.0	2.0		2.0	2.0	0.0	0.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6				4
Case Number	2.0	4.0	2.0	3.0				10.0
Phase Duration, s	13.0	90.0	0.0	77.0				50.0
Change Period, (*Y+R c*), s	6.0	6.0	4.0	6.0				6.0
Max Allow Headway (*MAH*), s	3.1	0.0	0.0	0.0				3.1
Queue Clearance Time (*g s*), s	3.5							24.9
Green Extension Time (*g e*), s	0.0	0.0	0.0	0.0				1.7
Phase Call Probability	1.00							1.00
Max Out Probability	0.44							0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16				7	4	14
Adjusted Flow Rate (*v*), veh/h	20	1256	0	0	1304	486				678	16	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1810	1725	1610				1757	1610	
Queue Service Time (*g s*), s	1.5	8.7	0.0	0.0	17.2	29.9				22.9	1.0	
Cycle Queue Clearance Time (*g c*), s	1.5	8.7	0.0	0.0	17.2	29.9				22.9	1.0	
Green Ratio (*g/C*)	0.05	0.60			0.51	0.51				0.31	0.31	
Capacity (*c*), veh/h	90	3420		1	2625	817				1104	506	
Volume-to-Capacity Ratio (*X*)	0.221	0.367	0.000	0.000	0.497	0.596				0.614	0.031	
Back of Queue (*Q*), ft/ln (95 th percentile)	31.3	136.2	0	0	239.9	439.2				379.7	17	
Back of Queue (*Q*), veh/ln (95 th percentile)	1.3	5.4	0.0	0.0	9.6	17.6				15.2	0.7	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	
Uniform Delay (*d 1*), s/veh	63.9	6.5		0.0	14.0	24.4				40.8	33.2	
Incremental Delay (*d 2*), s/veh	0.5	0.3	0.0	0.0	0.7	3.2				0.7	0.0	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	
Control Delay (*d*), s/veh	64.3	6.8		0.0	14.6	27.6				41.5	33.3	
Level of Service (LOS)	E	A			B	C				D	C	
Approach Delay, s/veh / LOS	7.7	A		18.1	B		0.0			41.3	D	
Intersection Delay, s/veh / LOS	18.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.38	A	2.10	B	3.04	C	2.63	C
Bicycle LOS Score / LOS	1.19	A	1.47	A			1.63	B

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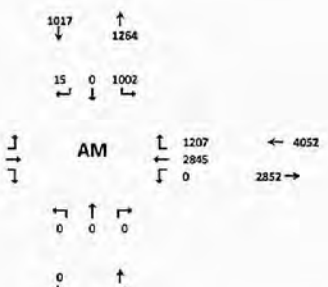
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Gordy Rd
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
REPORT DATE:
DAY: Tuesday
ANALYSIS YEAR: 2035
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: Signalized

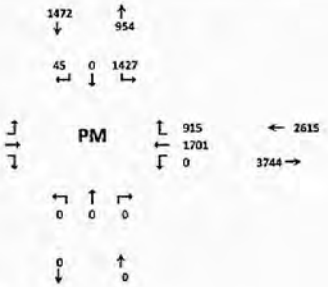
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	0	0	0	0	63	0	0	49	0	112	496
7:15-7:30	0	0	0	0	0	0	0	57	0	0	50	0	107	497
7:30-7:45	0	0	0	0	0	0	0	81	0	0	67	0	148	489
7:45-8:00	0	0	0	0	0	0	0	63	0	0	66	0	129	446
8:00-8:15	0	0	0	0	0	0	0	55	0	0	58	0	113	419
8:15-8:30	0	0	0	0	0	0	0	41	0	0	58	0	99	
8:30-8:45	0	0	0	0	0	0	0	44	0	0	61	0	105	
8:45-9:00	0	0	0	0	0	0	0	67	0	0	35	0	102	
AM PEAK HOUR IS FROM:				7:15AM TO 8:15AM										
Volumes	0	0	0	0	0	0	0	256	0	0	241	0	497	
Season Factor	0	0	0	0	0	0	0	256	0	0	241	0	497	
Growth	0	0	0	0	0	0	0	276	0	0	260	0	536	
In/Out	-	-	-	OUT	OUT	OUT	IN	OUT		-	IN	IN		
Percentage	0%	0%	0%	45%	0%	0%	1%	51%		0%	66%	30%		
PROJECT	0	0	0	752	0	0	20	852	0	0	1295	589	3506	
Midway %				33%		2%	2%	49%			49%	33%		
Village at Midway				250		15	37	371			918	618	2211	
LTC Ranch %								13.2%			13.2%			
LTC Ranch Volume								214			241		455	
Southern Grove %								0.8%			0.8%			
Southern Grove								42			50		92	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								30			31		61	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								45			38		83	
Western Grove %								0.8%			0.8%			
Western Grove								17			11		28	
Ravinia %								5.0%			5.0%			
Ravinia								3			1		5	
Total	0	0	0	1002	0	15	57	1851	0	0	2845	1207	6976	



	Seasonal Factor	Growth Rate	Years Grown
	1	1.005	15

	Trips In	Trips Out
Willow Lakes	1,962	1,630
Village at Midway	1,874	758
LTC Ranch	1,823	1,614
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,607
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	68

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
Lanes														
4:00-4:15	0	0	0	0	0	0	0	54	0	0	71	0	125	537
4:15-4:30	0	0	0	0	0	0	0	51	0	0	77	0	128	572
4:30-4:45	0	0	0	0	0	0	0	75	0	0	73	0	148	582
4:45-5:00	0	0	0	0	0	0	0	60	0	0	76	0	136	564
5:00-5:15	0	0	0	0	0	0	0	88	0	0	72	0	160	545
5:15-5:30	0	0	0	0	0	0	0	57	0	0	81	0	138	
5:30-5:45	0	0	0	0	0	0	0	65	0	0	65	0	130	
5:45-6:00	0	0	0	0	0	0	0	61	0	0	56	0	117	
PM PEAK HOUR IS FROM:				4:30 PM TO 5:30PM										
Volumes	0	0	0	0	0	0	0	280	0	0	302	0	582	
Season Factor	0	0	0	0	0	0	0	280	0	0	302	0	582	
Growth	0	0	0	0	0	0	0	302	0	0	325	0	627	
In/Out	-	-	-	OUT	OUT	OUT	IN	OUT	0	-	IN	IN		
Percentage	0%	0%	0%	45%	0%	0%	1%	51%	0%	0%	66%	30%		
PROJECT	0	0	0	690	0	0	19	376	0	0	405	584	2074	
Midway %				33.0%		2.0%	2.0%	49.0%			49.0%	33.0%		
Village at Midway				737		45	20	1095			491	331	2719	
LTC Ranch %								13.2%			13.2%			
LTC Ranch Volume								392			306		698	
Southern Grove %								0.8%			0.8%			
Southern Grove								81			55		135	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								45			36		81	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								58			57		115	
Western Grove %								0.8%			0.8%			
Western Grove								15			20		37	
Ravinia %								5.0%			5.0%			
Ravinia								2			4		6	
Total	0	0	0	1427	0	45	40	2317	0	0	1701	915	6444	

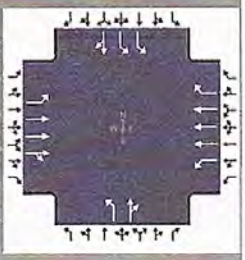


	Seasonal Factor	Growth Rate	Years Grown
	1	1.005	15

	Trips In	Trips Out
Willow Lakes	1,946	1,513
Village at Midway	1,001	2,224
LTC Ranch	2,320	2,970
Southern Grove	6,990	10,071
Wilson Groves	4,541	5,679
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	2,061
Ravinia	77	44

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - AM Peak Hour - w.o. Art...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	20	1329	0	0	1750	785	0	0	0	935	0	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	3.0	65.0	34.0	0.0	0.0	0.0	5	6	7	8
Yellow	4.0	4.0	4.0	0.0	0.0	0.0				
Red	2.0	2.0	2.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	2.0	3.0		10.0		10.0
Phase Duration, s	9.0	80.0	0.0	71.0		0.0		40.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0		6.0		6.0
Max Allow Headway (MAH), s	3.1	0.0	0.0	0.0		0.0		3.1
Queue Clearance Time (g_s), s	2.6							34.6
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0		0.0		0.0
Phase Call Probability	0.50							1.00
Max Out Probability	0.00							1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	21	1399	0	0	1842	511	0	0		984	0	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	0	1810	1725	1610	1810	0		1792	0	
Queue Service Time (g_s), s	0.6	7.8	0.0	0.0	22.6	25.5	0.0	0.0		32.6	0.0	
Cycle Queue Clearance Time (g_c), s	0.6	7.8	0.0	0.0	22.6	25.5	0.0	0.0		32.6	0.0	
Green Ratio (g/C)	0.58	0.62			0.54	0.54				0.28		
Capacity (c), veh/h	196	3515		2	2802	872	2			1016		
Volume-to-Capacity Ratio (X)	0.108	0.398	0.000	0.000	0.657	0.586	0.000	0.000		0.969	0.000	
Back of Queue (Q), ft/ln (95 th percentile)	10.5	111.2	0	0	260.8	373	0	0		595.4	0	
Back of Queue (Q), veh/ln (95 th percentile)	0.4	4.4	0.0	0.0	10.4	14.9	0.0	0.0		23.8	0.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	13.3	4.8		0.0	10.8	18.5	0.0			42.5		
Incremental Delay (d_2), s/veh	0.1	0.3	0.0	0.0	1.2	2.9	0.0	0.0		20.9	0.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	13.4	5.1		0.0	12.0	21.3	0.0			63.4		
Level of Service (LOS)	B	A			B	C				E		
Approach Delay, s/veh / LOS	5.2	A		14.0	B		0.0			63.4	E	
Intersection Delay, s/veh / LOS	21.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	2.09	B	3.18	C	2.62	C
Bicycle LOS Score / LOS	1.27	A	1.78	B	0.49	A	2.11	B

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HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
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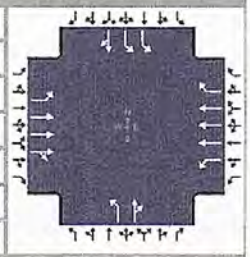
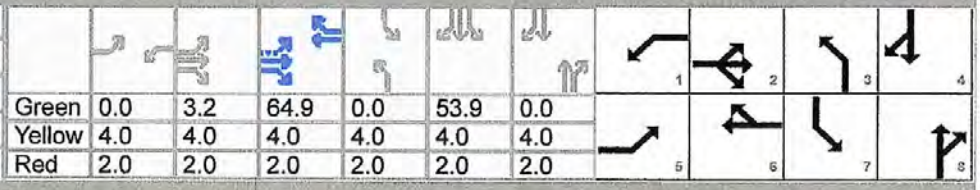
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Gordy Rd	File Name	Midway Rd Gordy Rd - PM Peak Hour - w.o. Arte...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	19	1222	0	0	1209	778	0	0	0	858	0	0

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Float	Simult. Gap N/S	On



Green	0.0	3.2	64.9	0.0	53.9	0.0		
Yellow	4.0	4.0	4.0	4.0	4.0	4.0		
Red	2.0	2.0	2.0	2.0	2.0	2.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	2.0	3.0	2.0	4.0	2.0	4.0
Phase Duration, s	9.2	80.1	0.0	70.9	0.0	0.0	59.9	59.9
Change Period, (*Y+R c*), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.1	0.0	0.0	0.0	0.0	0.0	3.1	0.0
Queue Clearance Time (g_s), s	2.8						53.8	
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Phase Call Probability	0.54						1.00	
Max Out Probability	0.00						1.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	20	1286	0	0	1273	503	0	0		903	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	0	1810	1725	1610	1810	0		1202	0	
Queue Service Time (g_s), s	0.8	13.3	0.0	0.0	19.6	34.2	0.0	0.0		51.8	0.0	
Cycle Queue Clearance Time (g_c), s	0.8	13.3	0.0	0.0	19.6	34.2	0.0	0.0		51.8	0.0	
Green Ratio (*g/C*)	0.50	0.53			0.46	0.46				0.38		
Capacity (*c*), veh/h	236	3017		1	2398	746	1			925		
Volume-to-Capacity Ratio (*X*)	0.085	0.426	0.000	0.000	0.531	0.675	0.000	0.000		0.976	0.000	
Back of Queue (*Q*), ft/ln (95 th percentile)	15	211.9	0	0	282	503.2	0	0		627.1	0	
Back of Queue (*Q*), veh/ln (95 th percentile)	0.6	8.5	0.0	0.0	11.3	20.1	0.0	0.0		25.1	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	19.4	11.7		0.0	18.1	29.3	0.0			42.4		
Incremental Delay (d_2), s/veh	0.1	0.4	0.0	0.0	0.8	4.8	0.0	0.0		23.7	0.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	19.4	12.1		0.0	19.0	34.2	0.0			66.1		
Level of Service (LOS)	B	B			B	C				E		
Approach Delay, s/veh / LOS	12.2	B		23.3	C		0.0			66.1	E	
Intersection Delay, s/veh / LOS	29.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	2.11	B	3.18	C	2.58	C
Bicycle LOS Score / LOS	1.21	A	1.46	A	0.49	A	1.98	B

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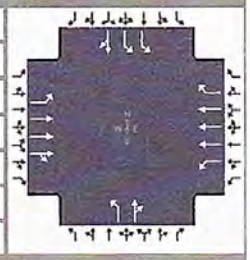
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - AM Peak Hour - w.o. Art...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	20	1329	0	0	1750	785	0	0	0	935	0	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.0	65.0	34.0	0.0	0.0	0.0	1	2	3	4		
Yellow	4.0	4.0	4.0	0.0	0.0	0.0	5	6	7	8		
Red	2.0	2.0	2.0	0.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	20	1329	0	0	1750	785	0	0	0	935	0	0
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0	0	0	0		0	0	
Ped / Bike / RTOR, /h	0	0		0	0	300	0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0	0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	55.0	13.0	55.0	12.0	12.0	40.0	40.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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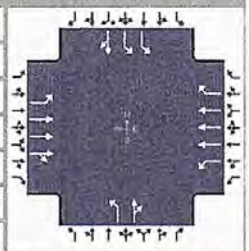
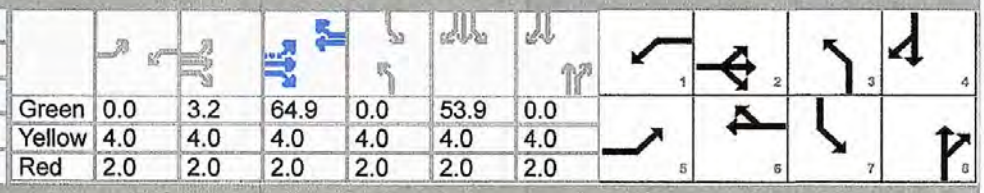
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Gordy Rd	File Name	Midway Rd Gordy Rd - PM Peak Hour - w.o. Arte...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	19	1222	0	0	1209	778	0	0	0	858	0	0

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Float	Simult. Gap N/S	On



Green	0.0	3.2		64.9	0.0	53.9	0.0					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	19	1222	0	0	1209	778	0	0	0	858	0	0
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0	0	0	0		0	0	
Ped / Bike / RTOR, /h	0	0		0	0	300	0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0	0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	17.0	51.0	14.0	48.0	23.0	15.0	60.0	52.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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APPENDIX F

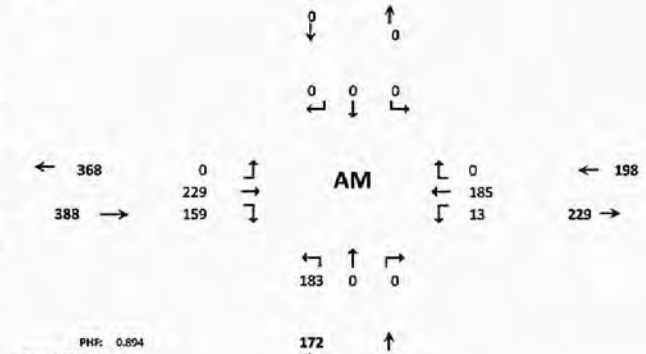
2035 Intersection Data

2035 Intersection Worksheet
HCS
Timing Sheets

TURNING MOVEMENT VOLUME COUNTS

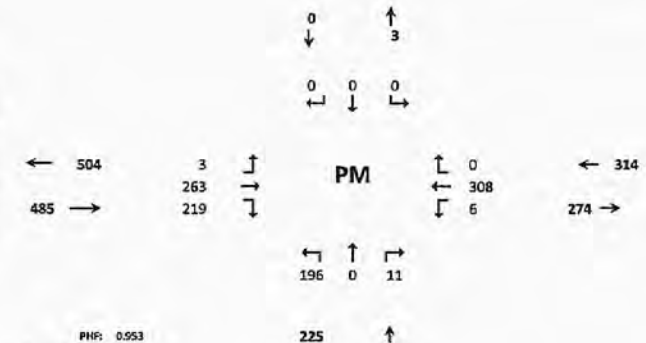
N/S STREET: Midway Rd
FILENAME: Willow Lakes
COUNT DATE: 2/20/2020
REPORT DATE:
DAY: Thursday
ANALYSIS YEAR: 2020
E/W STREET: Okeechobee Rd
CITY: St Lucie
CONTROL: TWSC

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NST	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	27	0	2	0	0	0	0	49	40	3	47	0	168	768
7:15-7:30	34	0	1	0	0	0	0	51	42	0	58	0	186	767
7:30-7:45	48	0	0	0	0	0	0	65	55	2	45	0	215	769
7:45-8:00	47	0	0	0	0	0	0	55	39	5	53	0	199	737
8:00-8:15	38	0	0	0	0	0	0	55	31	5	38	0	167	715
8:15-8:30	50	0	0	0	0	0	0	54	34	1	49	0	188	
8:30-8:45	46	0	0	0	0	0	0	59	30	2	46	0	183	
8:45-9:00	26	0	0	0	0	0	0	64	44	4	39	0	177	
AM PEAK HOUR IS FROM:	7:30 AM TO 8:30AM													
Volumes	183	0	0	0	0	0	0	229	159	13	185	0	769	
Season Factor	183	0	0	0	0	0	0	229	159	13	185	0	769	
Growth	183	0	0	0	0	0	0	229	159	13	185	0	769	
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	183	0	0	0	0	0	0	229	159	13	185	0	769	



	Trips In	Trips Out
Willow Lakes	1,327	1,052

15 Min Period lanes	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NST	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	42	0	2	0	0	0	0	67	44	0	81	0	236	979
4:15-4:30	45	0	2	0	0	0	0	67	51	0	67	0	232	988
4:30-4:45	45	0	2	0	0	0	0	73	40	0	87	0	247	997
4:45-5:00	59	0	1	0	0	0	1	74	44	1	84	0	264	1006
5:00-5:15	48	0	6	0	0	0	0	59	52	1	79	0	245	941
5:15-5:30	49	0	0	0	0	0	0	69	48	2	73	0	241	
5:30-5:45	40	0	4	0	0	0	2	61	75	2	72	0	256	
5:45-6:00	35	0	0	0	0	0	0	70	46	1	47	0	199	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	196	0	11	0	0	0	3	263	219	6	308	0	1006	
Season Factor	196	0	11	0	0	0	3	263	219	6	308	0	1006	
Growth	196	0	11	0	0	0	3	263	219	6	308	0	1006	
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	0.0%								0.0%					
Village at Midway	0								0				0	
LTC Ranch %	0.0%		0.0%						0.0%	0.0%				
LTC Ranch Volume	0		0						0	0			0	
Shinn Road 251 %								0.0%			0.0%			
Shinn Road 251								0			0		0	
Shinn Road Equestrian Estates %								0.0%			0.0%			
Shinn Road Equestrian Estates								0			0		0	
Total	196	0	11	0	0	0	3	263	219	6	308	0	1006	



	Trips In	Trips Out
Willow Lakes	1,441	1,027
Village at Midway	726	1,824
LTC Ranch	2,457	3,776
Shinn Road 251	351	341
Shinn Road Equestrian Estates	71	42

F-1

HCS7 Two-Way Stop-Control Report

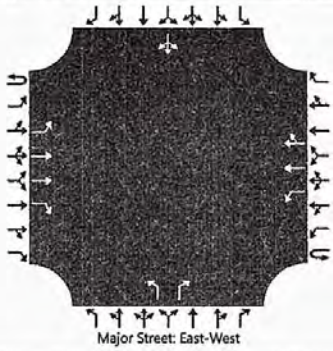
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2020
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Existing

Site Information

Intersection	Midway & Okeechobee
Jurisdiction	St. Lucie
East/West Street	Okeechobee Rd
North/South Street	Midway Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	0	1		0	1	0
Configuration		L	T	R		L	T	TR		L		R			LTR	
Volume (veh/h)	0	0	229	159	0	13	185	0		183		0		0	0	0
Percent Heavy Vehicles (%)	3	3			3	3				3		3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No								No						
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				14				193		0			0	
Capacity, c (veh/h)		1368				1140				611		905				
v/c Ratio		0.00				0.01				0.32		0.00				
95% Queue Length, Q_{95} (veh)		0.0				0.0				1.3		0.0				
Control Delay (s/veh)		7.6				8.2				13.6		9.0				
Level of Service (LOS)		A				A				B		A				
Approach Delay (s/veh)		0.0				0.5				13.6						
Approach LOS										B						

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HCS7 Two-Way Stop-Control Report

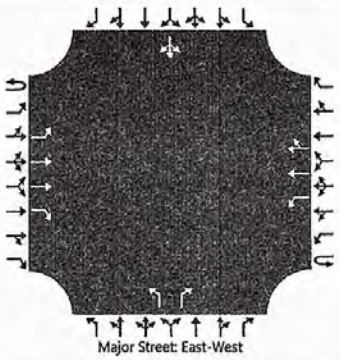
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2020
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Existing

Site Information

Intersection	Midway & Okeechobee
Jurisdiction	St. Lucie
East/West Street	Okeechobee Rd
North/South Street	Midway Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	0	1		0	1	0
Configuration		L	T	R		L	T	TR		L		R			LTR	
Volume (veh/h)	0	3	263	219	0	6	308	0		196		11		0	0	0
Percent Heavy Vehicles (%)	3	3			3	3				3		3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No								No						
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3				6				206		12			0	
Capacity, c (veh/h)		1225				1047				556		881				
v/c Ratio		0.00				0.01				0.37		0.01				
95% Queue Length, Q_{95} (veh)		0.0				0.0				1.7		0.0				
Control Delay (s/veh)		7.9				8.5				15.2		9.1				
Level of Service (LOS)		A				A				C		A				
Approach Delay (s/veh)		0.0				0.2				14.9						
Approach LOS										B						

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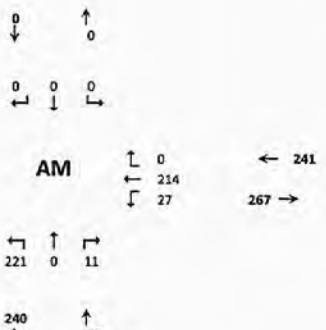
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Midway Rd
E/W STREET: Okeechobee Rd
CONTROL: TWSC
FILENAME: Willow Lakes
COUNT DATE: 2/20/2020
DAY: Thursday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

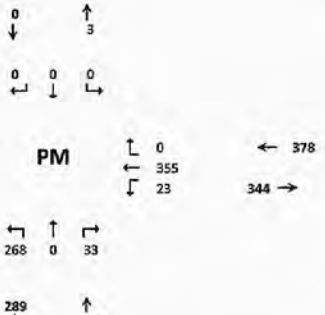
15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	27	0	2	0	0	0	0	49	40	3	47	0	168	768
7:15-7:30	34	0	1	0	0	0	0	51	42	0	58	0	186	767
7:30-7:45	48	0	0	0	0	0	0	65	55	2	45	0	215	769
7:45-8:00	47	0	0	0	0	0	0	55	39	5	53	0	199	737
8:00-8:15	38	0	0	0	0	0	0	55	31	5	38	0	167	715
8:15-8:30	50	0	0	0	0	0	0	54	34	1	49	0	188	
8:30-8:45	46	0	0	0	0	0	0	59	30	2	46	0	183	
8:45-9:00	26	0	0	0	0	0	0	64	44	4	39	0	177	
AM PEAK HOUR IS FROM:	7:30 AM TO 8:30AM													
Volumes	183	0	0	0	0	0	0	229	159	13	185	0	769	
Season Factor	183	0	0	0	0	0	0	229	159	13	185	0	769	
Growth	197	0	0	0	0	0	0	247	171	14	199	0	829	
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	2%								2%					
Village at Midway	12								29				41	
LTC Ranch %	0.7%		0.7%						0.7%	0.7%				
LTC Ranch Volume	11		11						13	13			48	
Shinn Road 251 %								5.0%			5.0%			
Shinn Road 251								6			5		11	
Shinn Road Equestrian Estates %								15.0%			15.0%			
Shinn Road Equestrian Estates								3			9		13	
Total	221	0	11	0	0	0	0	256	213	27	214	0	942	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,327	1,052
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Shinn Road 251	113	109
Shinn Road Equestrian Estates	21	63

15 Min Period lanes	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	42	0	2	0	0	0	0	67	44	0	81	0	236	979
4:15-4:30	45	0	2	0	0	0	0	67	51	0	67	0	232	988
4:30-4:45	45	0	2	0	0	0	0	73	40	0	87	0	247	997
4:45-5:00	59	0	1	0	0	0	1	74	44	1	84	0	264	1006
5:00-5:15	48	0	6	0	0	0	0	59	52	1	79	0	245	941
5:15-5:30	49	0	0	0	0	0	0	69	48	2	73	0	241	
5:30-5:45	40	0	4	0	0	0	2	61	75	2	72	0	256	
5:45-6:00	35	0	0	0	0	0	0	70	46	1	47	0	199	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	196	0	11	0	0	0	3	263	219	6	308	0	1006	
Season Factor	196	0	11	0	0	0	3	263	219	6	308	0	1006	
Growth	211	0	12	0	0	0	3	283	236	6	332	0	1084	
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	2.0%								2.0%					
Village at Midway	36								15				51	
LTC Ranch %	0.7%		0.7%						0.7%	0.7%				
LTC Ranch Volume	21		21						16	16			74	
Shinn Road 251 %								5.0%			5.0%			
Shinn Road 251								18			17		35	
Shinn Road Equestrian Estates %								15.0%			15.0%			
Shinn Road Equestrian Estates								11			6		17	
Total	268	0	33	0	0	0	3	312	267	23	355	0	1261	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,441	1,027
Village at Midway	726	1,824
LTC Ranch	2,320	2,970
Shinn Road 251	351	341
Shinn Road Equestrian Estates	71	42

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F-4

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HCS7 Two-Way Stop-Control Report

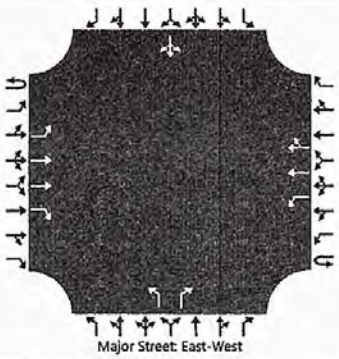
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	with Project

Site Information

Intersection	Midway & Okeechobee
Jurisdiction	St. Lucie
East/West Street	Okeechobee Rd
North/South Street	Midway Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	0	1		0	1	0
Configuration		L	T	R		L	T	TR		L		R			LTR	
Volume (veh/h)	0	0	256	240	0	27	214	0		242		11		0	0	0
Percent Heavy Vehicles (%)	3	3			3	3				3		3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No								No						
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				28				255		12			0	
Capacity, c (veh/h)		1333				1034				563		886				
v/c Ratio		0.00				0.03				0.45		0.01				
95% Queue Length, Q_{95} (veh)		0.0				0.1				2.3		0.0				
Control Delay (s/veh)		7.7				8.6				16.6		9.1				
Level of Service (LOS)		A				A				C		A				
Approach Delay (s/veh)		0.0				1.0				16.3						
Approach LOS										C						

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HCS7 Two-Way Stop-Control Report

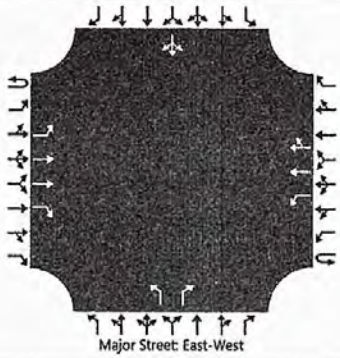
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	without Project

Site Information

Intersection	Midway & Okeechobee
Jurisdiction	St. Lucie
East/West Street	Okeechobee Rd
North/South Street	Midway Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	0	1		0	1	0
Configuration		L	T	R		L	T	TR		L		R			LTR	
Volume (veh/h)	3	0	312	267	0	23	355	0		268		33		0	0	0
Percent Heavy Vehicles (%)	3	3			3	3				3		3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No								No						
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)	6.4	4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)	6.46	4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)	2.5	2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)	2.53	2.23				2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3				24				282		35			0	
Capacity, c (veh/h)		827				958				490		848				
v/c Ratio		0.00				0.03				0.58		0.04				
95% Queue Length, Q_{95} (veh)		0.0				0.1				3.6		0.1				
Control Delay (s/veh)		9.4				8.9				21.9		9.4				
Level of Service (LOS)		A				A				C		A				
Approach Delay (s/veh)		0.0				0.5				20.5						
Approach LOS										C						

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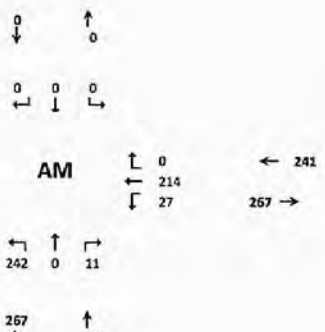
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Midway Rd
E/W STREET: Okeechobee Rd
CONTROL: TWSC
FILENAME: Willow Lakes
COUNT DATE: 2/20/2020
DAY: Thursday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

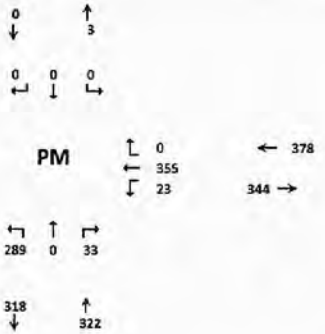
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	27	0	2	0	0	0	0	49	40	3	47	0	168	768
7:15-7:30	34	0	1	0	0	0	0	51	42	0	58	0	186	767
7:30-7:45	48	0	0	0	0	0	0	65	55	2	45	0	215	769
7:45-8:00	47	0	0	0	0	0	0	55	39	5	53	0	199	737
8:00-8:15	38	0	0	0	0	0	0	55	31	5	38	0	167	715
8:15-8:30	50	0	0	0	0	0	0	54	34	1	49	0	188	
8:30-8:45	46	0	0	0	0	0	0	59	30	2	46	0	183	
8:45-9:00	26	0	0	0	0	0	0	64	44	4	39	0	177	
AM PEAK HOUR IS FROM:	7:30 AM TO 8:30AM													
Volumes	183	0	0	0	0	0	0	229	159	13	185	0	769	
Season Factor	183	0	0	0	0	0	0	229	159	13	185	0	769	
Growth	197	0	0	0	0	0	0	247	171	14	199	0	829	
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Percentage	2%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%		
PROJECT	21	0	0	0	0	0	0	0	27	0	0	0	48	
Midway %	2%								2%					
Village at Midway	12								19				41	
LTC Ranch %	0.7%		0.7%						0.7%	0.7%				
LTC Ranch Volume	11		11						13	13			48	
Shinn Road 251 %								5.0%			5.0%			
Shinn Road 251								6			5		11	
Shinn Road Equestrian Estates %								15.0%			15.0%			
Shinn Road Equestrian Estates								3			9		13	
Total	242	0	11	0	0	0	0	256	240	27	214	0	900	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,355	1,065
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Shinn Road 251	113	109
Shinn Road Equestrian Estates	21	63

15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	42	0	2	0	0	0	0	67	44	0	81	0	236	979
4:15-4:30	45	0	2	0	0	0	0	67	51	0	67	0	232	988
4:30-4:45	45	0	2	0	0	0	0	73	40	0	87	0	247	997
4:45-5:00	59	0	1	0	0	0	1	74	44	1	84	0	264	1006
5:00-5:15	48	0	6	0	0	0	0	59	52	1	79	0	245	941
5:15-5:30	49	0	0	0	0	0	0	69	48	2	73	0	241	
5:30-5:45	40	0	4	0	0	0	2	61	75	2	72	0	256	
5:45-6:00	35	0	0	0	0	0	0	70	46	1	47	0	199	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	196	0	11	0	0	0	3	263	219	6	308	0	1006	
Season Factor	196	0	11	0	0	0	3	263	219	6	308	0	1006	
Growth	211	0	12	0	0	0	3	283	236	6	332	0	1084	
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Percentage	2%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%		
PROJECT	21	0	0	0	0	0	0	0	29	0	0	0	50	
Midway %	2.0%								2.0%					
Village at Midway	36								15				51	
LTC Ranch %	0.7%		0.7%						0.7%	0.7%				
LTC Ranch Volume	21		21						16	16			74	
Shinn Road 251 %								5.0%			5.0%			
Shinn Road 251								18			17		35	
Shinn Road Equestrian Estates %								15.0%			15.0%			
Shinn Road Equestrian Estates								11			6		17	
Total	289	0	33	0	0	0	3	312	296	23	355	0	1310	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,450	1,036
Village at Midway	726	1,824
LTC Ranch	2,320	2,970
Shinn Road 251	351	341
Shinn Road Equestrian Estates	71	42

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HCS7 Two-Way Stop-Control Report

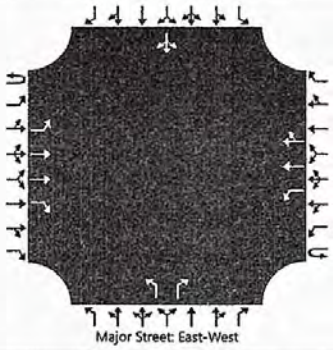
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	with Project

Site Information

Intersection	Midway & Okeechobee
Jurisdiction	St. Lucie
East/West Street	Okeechobee Rd
North/South Street	Midway Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	0	1		0	1	0
Configuration		L	T	R		L	T	TR		L		R			LTR	
Volume (veh/h)	0	0	267	252	0	40	225	0		253		23		0	0	0
Percent Heavy Vehicles (%)	3	3			3	3				3		3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No								No						
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				42				266		24			0	
Capacity, c (veh/h)		1320				1012				534		879				
v/c Ratio		0.00				0.04				0.50		0.03				
95% Queue Length, Q_{95} (veh)		0.0				0.1				2.8		0.1				
Control Delay (s/veh)		7.7				8.7				18.3		9.2				
Level of Service (LOS)		A				A				C		A				
Approach Delay (s/veh)		0.0				1.3				17.5						
Approach LOS										C						

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HCS7 Two-Way Stop-Control Report

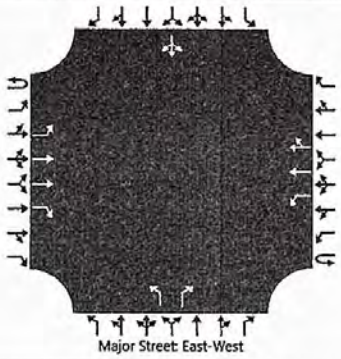
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	with Project

Site Information

Intersection	Midway & Okeechobee
Jurisdiction	St. Lucie
East/West Street	Okeechobee Rd
North/South Street	Midway Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	0	1		0	1	0
Configuration		L	T	R		L	T	TR		L		R			LTR	
Volume (veh/h)	3	0	312	296	0	23	355	0		289		33		0	0	0
Percent Heavy Vehicles (%)	3	3			3	3				3		3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No								No						
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)	6.4	4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)	6.46	4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)	2.5	2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)	2.53	2.23				2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3				24				304		35			0	
Capacity, c (veh/h)		827				933				490		848				
v/c Ratio		0.00				0.03				0.62		0.04				
95% Queue Length, Q_{95} (veh)		0.0				0.1				4.2		0.1				
Control Delay (s/veh)		9.4				9.0				23.7		9.4				
Level of Service (LOS)		A				A				C		A				
Approach Delay (s/veh)		0.0				0.5				22.2						
Approach LOS										C						

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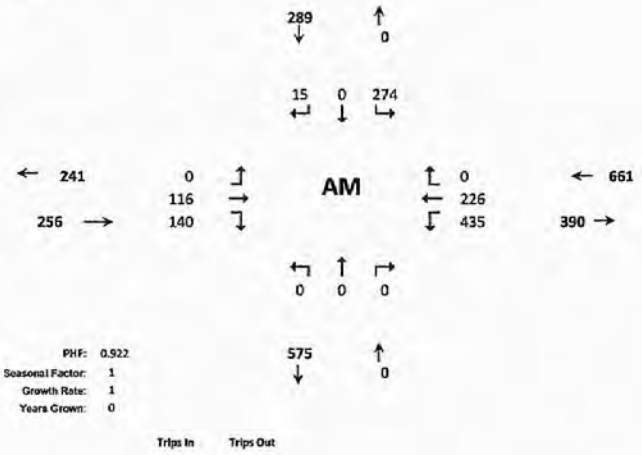
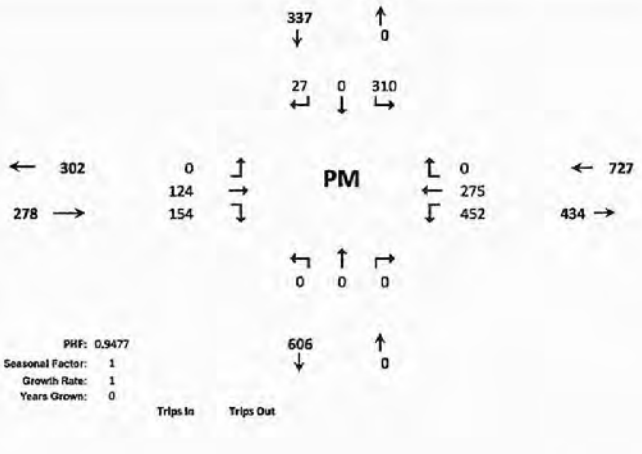
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: I95 SB Ramp
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2020

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	0	0	0	53	0	5	0	23	40	101	44	0	266	1203
7:15-7:30	0	0	0	75	0	1	0	24	33	126	49	0	308	1206
7:30-7:45	0	0	0	71	0	5	0	38	43	108	62	0	327	1159
7:45-8:00	0	0	0	71	0	5	0	31	32	102	61	0	302	1067
8:00-8:15	0	0	0	57	0	4	0	23	32	99	54	0	269	984
8:15-8:30	0	0	0	72	0	6	0	19	22	90	52	0	261	
8:30-8:45	0	0	0	51	0	9	0	25	19	79	52	0	235	
8:45-9:00	0	0	0	44	0	5	0	32	30	78	30	0	219	
AM PEAK HOUR IS FROM:	7:15AM TO 8:15AM													
Volumes	0	0	0	274	0	15	0	116	140	435	226	0	1206	
Season Factor	0	0	0	274	0	15	0	116	140	435	226	0	1206	
Growth	0	0	0	274	0	15	0	116	140	435	226	0	1206	
In/Out	-	-	-	-	-	-	-	Out	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	274	0	15	0	116	140	435	226	0	1206	



15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	0	0	0	71	0	3	0	21	33	111	68	0	307	1274
4:15-4:30	0	0	0	68	0	6	0	32	25	125	71	0	327	1321
4:30-4:45	0	0	0	62	0	11	0	37	38	115	62	0	325	1342
4:45-5:00	0	0	0	74	0	4	0	29	31	105	72	0	315	1310
5:00-5:15	0	0	0	89	0	5	0	40	48	105	67	0	354	1272
5:15-5:30	0	0	0	85	0	7	0	18	37	127	74	0	348	
5:30-5:45	0	0	0	66	0	4	0	32	33	97	61	0	293	
5:45-6:00	0	0	0	75	0	7	0	30	31	85	49	0	277	
PM PEAK HOUR IS FROM:	4:30 PM TO 5:30PM													
Volumes	0	0	0	310	0	27	0	124	154	452	275	0	1342	
Season Factor	0	0	0	310	0	27	0	124	154	452	275	0	1342	
Growth	0	0	0	310	0	27	0	124	154	452	275	0	1342	
In/Out	-	-	-	-	-	-	-	Out	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	310	0	27	0	124	154	452	275	0	1342	



F-10

#2 E

#2

ECONOLITE

St. Lucie County

00024 - MIDWAY RD @ I-95 SB RAMP - - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

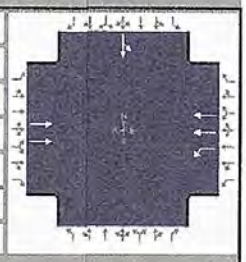
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	WB-T	E-L	W-T	WB-L	EB-T	W-L	SB	N	N	N	N	N	N	N	N
Min Green	0	8	0	0	7	8	0	6	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	0.0	3.0	0.0	0.0	5.0	3.0	0.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	0	45	0	0	30	45	0	25	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	5.0	0.0	0.0	5.0	5.0	0.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Q in use

#2

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - Existing.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		116		435	226					274	0	

Signal Information			
Cycle, s	56.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4		
Green	14.4	8.0	11.4	0.0	0.0	0.0	5	6	7	8		
Yellow	5.0	5.0	4.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				12.0
Phase Duration, s		16.0	22.4	38.4				18.4
Change Period, ($Y+R_c$), s		8.0	8.0	8.0				7.0
Max Allow Headway (*MAH*), s		2.9	3.0	2.9				3.0
Queue Clearance Time (g_s), s		3.8	13.5	3.9				11.0
Green Extension Time (g_e), s		0.8	0.9	0.8				0.5
Phase Call Probability		1.00	1.00	1.00				0.99
Max Out Probability		0.00	0.00	0.00				0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (*v*), veh/h		126		473	246						298	
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1809		1810	1809						1810	
Queue Service Time (g_s), s		1.8		11.5	1.9						9.0	
Cycle Queue Clearance Time (g_c), s		1.8		11.5	1.9						9.0	
Green Ratio (*g/C*)		0.14		0.43	0.54						0.20	
Capacity (*c*), veh/h		509		726	1936						364	
Volume-to-Capacity Ratio (*X*)		0.248		0.651	0.127						0.819	
Back of Queue (*Q*), ft/ln (95 th percentile)		29.7		160	22.4						153.2	
Back of Queue (*Q*), veh/ln (95 th percentile)		1.2		6.4	0.9						6.1	
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.00						0.00	
Uniform Delay (d_1), s/veh		21.8		12.7	6.6						21.7	
Incremental Delay (d_2), s/veh		0.1		0.4	0.0						1.8	
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0						0.0	
Control Delay (*d*), s/veh		21.8		13.1	6.6						23.5	
Level of Service (LOS)		C		B	A						C	
Approach Delay, s/veh / LOS	21.8	C		10.9	B		0.0			23.5	C	
Intersection Delay, s/veh / LOS	15.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.35	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	0.59	A	1.08	A			0.98	A

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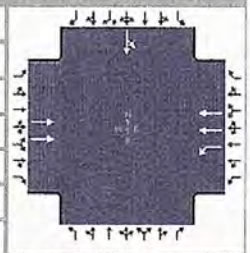
HCS7 Signalized Intersection Input Data

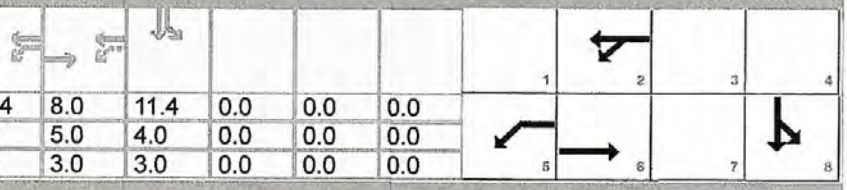
#2 EAM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - Existing - 6.2....		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		116		435	226					274	0	

Signal Information			
Cycle, s	56.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	14.4	8.0		11.4	0.0	0.0	0.0					
Yellow	5.0	5.0		4.0	0.0	0.0	0.0					
Red	3.0	3.0		3.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		116		435	226					274	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0						0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		3		3	3					3	3	
Upstream Filtering (I)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0						12.0	
Turn Bay Length, ft		0		0	0						0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		40.0	40.0	40.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (l_1), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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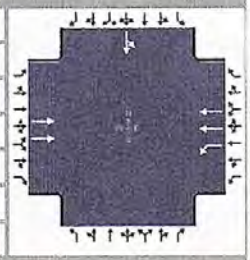
HCS7 Signalized Intersection Results Summary

#2 AM PM

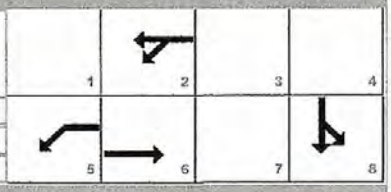
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - Existing - 6.2.2...		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		124		452	275					310	0	

Signal Information			
Cycle, s	58.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	14.9	8.0	12.7	0.0	0.0	0.0	
Yellow	5.0	5.0	4.0	0.0	0.0	0.0	
Red	3.0	3.0	3.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				12.0
Phase Duration, s		16.0	22.9	38.9				19.7
Change Period, ($Y+R_c$), s		8.0	8.0	8.0				7.0
Max Allow Headway (*MAH*), s		2.9	3.0	2.9				3.0
Queue Clearance Time (g_s), s		3.9	14.0	4.4				12.1
Green Extension Time (g_e), s		0.9	0.9	0.9				0.6
Phase Call Probability		1.00	1.00	1.00				1.00
Max Out Probability		0.00	0.00	0.00				0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (*v*), veh/h		131		476	289						326	
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1809		1810	1809						1810	
Queue Service Time (g_s), s		1.9		12.0	2.4						10.1	
Cycle Queue Clearance Time (g_c), s		1.9		12.0	2.4						10.1	
Green Ratio (*g/C*)		0.14		0.43	0.53						0.22	
Capacity (*c*), veh/h		493		717	1910						392	
Volume-to-Capacity Ratio (*X*)		0.265		0.663	0.152						0.833	
Back of Queue (Q), ft/ln (95 th percentile)		32.4		171.9	29.5						174	
Back of Queue (Q), veh/ln (95 th percentile)		1.3		6.9	1.2						7.0	
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.00						0.00	
Uniform Delay (d_1), s/veh		22.7		13.3	7.1						22.0	
Incremental Delay (d_2), s/veh		0.1		0.4	0.0						1.8	
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0						0.0	
Control Delay (*d*), s/veh		22.8		13.7	7.1						23.8	
Level of Service (LOS)		C		B	A						C	
Approach Delay, s/veh / LOS	22.8	C		11.2	B		0.0			23.8	C	
Intersection Delay, s/veh / LOS	15.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.36	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	0.60	A	1.12	A			1.03	A

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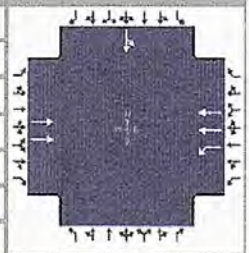
HCS7 Signalized Intersection Input Data

#2EPM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - Existing - 6.2....		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		124		452	275					310	0	

Signal Information			
Cycle, s	58.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4		
Green	14.9	8.0	12.7	0.0	0.0	0.0	5	6	7	8		
Yellow	5.0	5.0	4.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		124		452	275					310	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0						0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)		3		3	3					3	3	
Upstream Filtering (*I*)		1.00		1.00	1.00					1.00	1.00	
Lane Width (*W*), ft		12.0		12.0	12.0						12.0	
Turn Bay Length, ft		0		0	0						0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		40.0	40.0	40.0				40.0
Yellow Change Interval (*Y*), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (*l1*), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s		2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (*Walk*), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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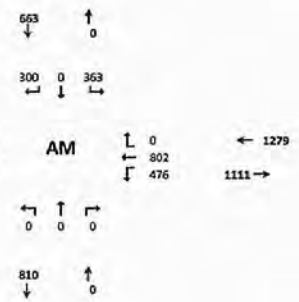
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: I95 SB Ramp
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 1/28/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035 w/o Project

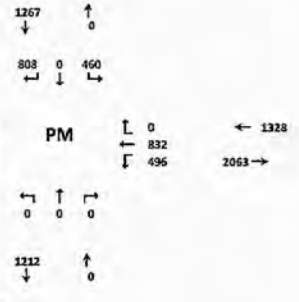
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	53	0	5	0	21	40	101	44	0	266	1203
7:15-7:30	0	0	0	75	0	1	0	24	33	126	49	0	308	1206
7:30-7:45	0	0	0	71	0	5	0	18	41	108	62	0	327	1159
7:45-8:00	0	0	0	71	0	5	0	31	31	102	61	0	302	1067
8:00-8:15	0	0	0	57	0	4	0	23	31	99	54	0	269	984
8:15-8:30	0	0	0	72	0	6	0	19	22	90	52	0	261	
8:30-8:45	0	0	0	51	0	9	0	25	19	79	52	0	235	
8:45-9:00	0	0	0	44	0	5	0	32	30	78	30	0	219	
AM PEAK HOUR IS FROM:				7:15AM TO 8:15AM										
Volumes	0	0	0	274	0	15	0	116	140	435	226	0	1206	
Season Factor	0	0	0	274	0	15	0	116	140	435	226	0	1206	
Growth	0	0	0	295	0	16	0	125	151	469	244	0	1300	
In/Out	-	-	-	-	-	-	-	Out	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %						36%		57%	30%		16%			
Village at Midway						217		334	181		232		944	
LTC Ranch %				4.1%		4.1%		10.8%	0.1%	0.2%	10.8%			
LTC Ranch Volume				67		67		175	2	3	197		510	
Southern Grove %								0.8%			0.8%			
Southern Grove								42			50		92	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								30			31		61	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								45			38		83	
Western Grove %								0.8%			0.8%			
Western Grove								17			11		28	
Ravinia %				5.0%						6.0%				
Ravinia				1						4			5	
Total	0	0	0	353	0	300	0	748	333	476	802	0	3023	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,327	1,052
Village at Midway	1,451	601
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,558
Western Grove	1,352	2,135
Ravinia	22	68

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	0	0	71	0	3	0	21	31	111	68	0	307	1274
4:15-4:30	0	0	0	68	0	6	0	32	25	125	71	0	327	1321
4:30-4:45	0	0	0	82	0	11	0	37	38	115	62	0	325	1342
4:45-5:00	0	0	0	74	0	4	0	29	31	105	72	0	315	1310
5:00-5:15	0	0	0	89	0	5	0	40	48	105	67	0	354	1272
5:15-5:30	0	0	0	85	0	7	0	18	37	127	74	0	348	
5:30-5:45	0	0	0	66	0	4	0	32	31	97	61	0	293	
5:45-6:00	0	0	0	75	0	7	0	30	31	85	49	0	277	
PM PEAK HOUR IS FROM:				4:30 PM TO 5:30PM										
Volumes	0	0	0	310	0	27	0	124	154	452	275	0	1342	
Season Factor	0	0	0	310	0	27	0	124	154	452	275	0	1342	
Growth	0	0	0	334	0	29	0	134	166	487	296	0	1446	
In/Out	-	-	-	-	-	-	-	Out	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %						36.0%		57.0%	30.0%		16.0%			
Village at Midway						657		948	547		116		2268	
LTC Ranch %				4.1%		4.1%		10.8%	0.1%	0.2%	10.8%			
LTC Ranch Volume				122		122		321	3	6	251		824	
Southern Grove %								0.8%		0.0%	0.8%			
Southern Grove								81		0	55		136	
Wilson Groves %								0.8%		0.0%	0.8%			
Wilson Groves								45		0	36		81	
Riverland/Kennedy %								0.8%		0.0%	0.8%			
Riverland/Kennedy								58		0	57		115	
Western Grove %								0.8%		0.0%	0.8%			
Western Grove								15		0	20		37	
Ravinia %				5.0%						6.0%				
Ravinia				6						1			6	
Total	0	0	0	460	0	808	0	1503	716	496	832	0	4914	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,441	1,027
Village at Midway	726	1,824
LTC Ranch	2,320	2,970
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	2,061
Ravinia	77	44

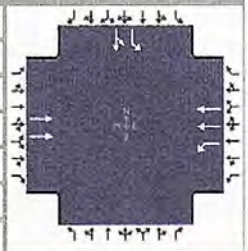
F-16

2 w/o/p

HCS7 Signalized Intersection Results Summary

#2 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - AM - 2035 w.o. Proje...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		748		476	802					363	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4		
Green	17.0	52.0	28.0	0.0	0.0	0.0	5	6	7	8		
Yellow	5.0	5.0	4.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		60.0	25.0	85.0				35.0
Change Period, (*Y+R c*), s		8.0	8.0	8.0				7.0
Max Allow Headway (*MAH*), s		0.0	3.0	0.0				3.0
Queue Clearance Time (*g s*), s			19.0					27.6
Green Extension Time (*g e*), s		0.0	0.0	0.0				0.4
Phase Call Probability			1.00					1.00
Max Out Probability			1.00					0.18

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (*v*), veh/h		813		517	872					395	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1809		1810	1809					1810	1900	
Queue Service Time (*g s*), s		16.3		17.0	6.2					25.6	0.0	
Cycle Queue Clearance Time (*g c*), s		16.3		17.0	6.2					25.6	0.0	
Green Ratio (*g/C*)		0.43		0.59	0.64					0.23	0.23	
Capacity (*c*), veh/h		1568		519	2320					423	444	
Volume-to-Capacity Ratio (*X*)		0.519		0.997	0.376					0.933	0.000	
Back of Queue (*Q*), ft/ln (95 th percentile)		245		467.8	80.3					491.2	0	
Back of Queue (*Q*), veh/ln (95 th percentile)		9.8		18.7	3.2					19.6	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (*d 1*), s/veh		17.8		22.1	3.6					45.1	0.0	
Incremental Delay (*d 2*), s/veh		1.2		38.7	0.5					21.4	0.0	
Initial Queue Delay (*d 3*), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (*d*), s/veh		19.0		60.8	4.0					66.5	0.0	
Level of Service (LOS)		B		E	A					E		
Approach Delay, s/veh / LOS	19.0	B		25.2	C		0.0			66.5	E	
Intersection Delay, s/veh / LOS	29.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.65	B	2.32	B	2.16	B
Bicycle LOS Score / LOS	1.16	A	1.63	B			1.14	A

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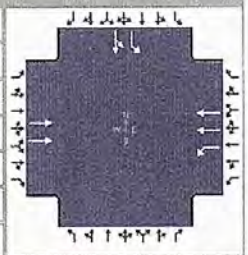
HCS7 Signalized Intersection Input Data

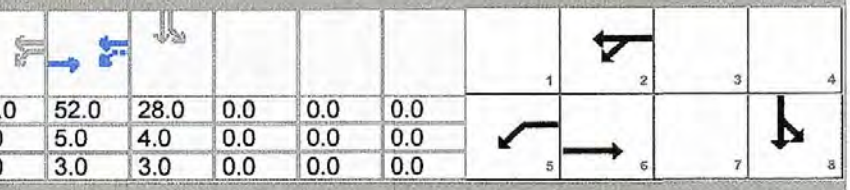
#2 W/O AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		748		476	802					363	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	17.0	52.0		28.0	0.0	0.0	0.0					
Yellow	5.0	5.0		4.0	0.0	0.0	0.0					
Red	3.0	3.0		3.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		748		476	802					363	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (I)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		60.0	20.0	80.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (l_1), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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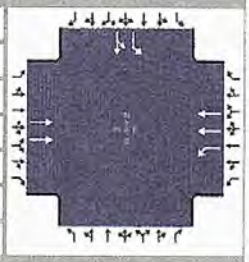
HCS7 Signalized Intersection Results Summary

#2 w/o PM

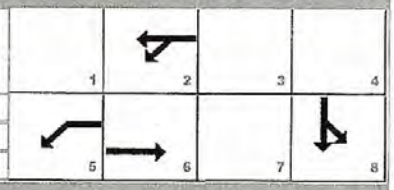
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - 2035 w.o. Proje...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1603		496	832					460	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	12.0	52.0	33.0	0.0	0.0	0.0	
Yellow	5.0	5.0	4.0	0.0	0.0	0.0	
Red	3.0	3.0	3.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		60.0	20.0	80.0				40.0
Change Period, (*Y+R c*), s		8.0	8.0	8.0				7.0
Max Allow Headway (*MAH*), s		0.0	3.0	0.0				3.0
Queue Clearance Time (*g s*), s			14.0					35.0
Green Extension Time (*g e*), s		0.0	0.0	0.0				0.0
Phase Call Probability			1.00					1.00
Max Out Probability			1.00					1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (*v*), veh/h		1742		539	904					500	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1809		1810	1809					1810	1900	
Queue Service Time (*g s*), s		52.0		12.0	9.0					33.0	0.0	
Cycle Queue Clearance Time (*g c*), s		52.0		12.0	9.0					33.0	0.0	
Green Ratio (*g/C*)		0.43		0.55	0.60					0.28	0.28	
Capacity (*c*), veh/h		1568		241	2171					498	523	
Volume-to-Capacity Ratio (*X*)		1.111		2.237	0.417					1.005	0.000	
Back of Queue (*Q*), ft/ln (95 th percentile)		1060.8		1595.3	121.6					681.5	0	
Back of Queue (*Q*), veh/ln (95 th percentile)		42.4		63.8	4.9					27.3	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (*d 1*), s/veh		25.3		39.1	5.7					43.5	0.0	
Incremental Delay (*d 2*), s/veh		59.8		570.1	0.6					41.5	0.0	
Initial Queue Delay (*d 3*), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (*d*), s/veh		85.1		609.1	6.3					85.0	0.0	
Level of Service (LOS)		F		F	A					F		
Approach Delay, s/veh / LOS	85.1	F		231.4	F		0.0			85.0	F	
Intersection Delay, s/veh / LOS	142.4						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.66	B	2.32	B	2.16	B
Bicycle LOS Score / LOS	1.93	B	1.68	B			1.31	A

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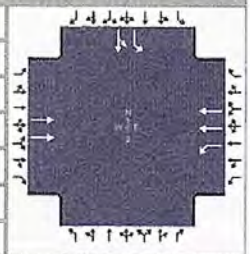
HCS7 Signalized Intersection Input Data

#2 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - 2035 w.o. Proj...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1603		496	832					460	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	12.0	52.0	33.0	0.0	0.0	0.0	5	6	7	8	
Yellow	5.0	5.0	4.0	0.0	0.0	0.0					
Red	3.0	3.0	3.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1603		496	832					460	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)		4		3	4					3	3	
Upstream Filtering (*I*)		1.00		1.00	1.00					1.00	1.00	
Lane Width (*W*), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		60.0	20.0	80.0				40.0
Yellow Change Interval (*Y*), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (*l1*), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s		2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (*Walk*), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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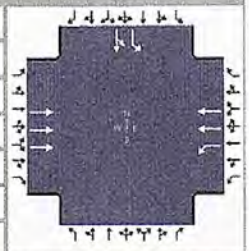
HCS7 Signalized Intersection Results Summary #2 w/o AM+Proj

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - AM - 2035 w.o. Proje...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		748		476	802					363	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4		
Green	21.4	48.4	27.2	0.0	0.0	0.0	5	6	7	8		
Yellow	5.0	5.0	4.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		56.4	29.4	85.8				34.2
Change Period, ($Y+R_c$), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g_s), s			20.5					26.8
Green Extension Time (g_e), s		0.0	0.9	0.0				0.4
Phase Call Probability			1.00					1.00
Max Out Probability			0.00					0.10

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		787		501	844					382	0	
Adjusted Saturation Flow Rate (s), veh/h/ln		1725		1810	1809					1810	1900	
Queue Service Time (g_s), s		10.6		18.5	5.5					24.8	0.0	
Cycle Queue Clearance Time (g_c), s		10.6		18.5	5.5					24.8	0.0	
Green Ratio (g/C)		0.40		0.60	0.65					0.23	0.23	
Capacity (c), veh/h		2087		602	2344					411	431	
Volume-to-Capacity Ratio (X)		0.377		0.832	0.360					0.930	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		173.8		296.1	72.2					475.2	0	
Back of Queue (Q), veh/ln (95 th percentile)		7.0		11.8	2.9					19.0	0.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d_1), s/veh		19.0		15.8	3.3					45.4	0.0	
Incremental Delay (d_2), s/veh		0.5		3.5	0.4					20.3	0.0	
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (d), s/veh		19.5		19.2	3.7					65.7	0.0	
Level of Service (LOS)		B		B	A					E		
Approach Delay, s/veh / LOS	19.5	B		9.5	A		0.0			65.7	E	
Intersection Delay, s/veh / LOS	21.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.65	B	2.48	B	2.33	B
Bicycle LOS Score / LOS	0.92	A	1.60	B			1.12	A

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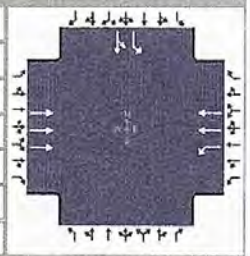
HCS7 Signalized Intersection Input Data

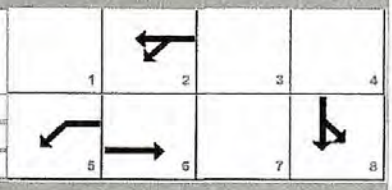
2 w/o AM+TMP

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		748		476	802					363	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	21.4	48.4		27.2	0.0	0.0	0.0					
Yellow	5.0	5.0		4.0	0.0	0.0	0.0					
Red	3.0	3.0		3.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		748		476	802					363	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)		4		3	4					3	3	
Upstream Filtering (*I*)		1.00		1.00	1.00					1.00	1.00	
Lane Width (*W*), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		40.0	40.0	80.0				40.0
Yellow Change Interval (*Y*), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (*l*t), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s		2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (*Walk*), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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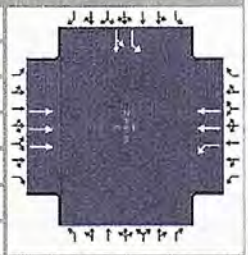
HCS7 Signalized Intersection Results Summary #2 w/o PM + imp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - 2035 w.o. Proje...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1603		496	832					460	0	

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB		WB									
Green	32.0	52.0	33.0	0.0	0.0	0.0						
Yellow	5.0	5.0	4.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		60.0	40.0	100.0				40.0
Change Period, ($Y+R_c$), s		8.0	8.0	8.0				7.0
Max Allow Headway (*MAH*), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g_s), s			34.0					35.0
Green Extension Time (g_e), s		0.0	0.0	0.0				0.0
Phase Call Probability			1.00					1.00
Max Out Probability			1.00					1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (*v*), veh/h		1687		522	876					484	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1725		1810	1809					1810	1900	
Queue Service Time (g_s), s		40.8		32.0	6.2					33.0	0.0	
Cycle Queue Clearance Time (g_c), s		40.8		32.0	6.2					33.0	0.0	
Green Ratio (*g/C*)		0.37		0.61	0.66					0.24	0.24	
Capacity (*c*), veh/h		1922		489	2377					427	448	
Volume-to-Capacity Ratio (*X*)		0.878		1.068	0.368					1.135	0.000	
Back of Queue (*Q*), ft/ln (95 th percentile)		560.3		833.9	82.7					885.1	0	
Back of Queue (*Q*), veh/ln (95 th percentile)		22.4		33.4	3.3					35.4	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d_1), s/veh		32.5		42.9	3.4					53.5	0.0	
Incremental Delay (d_2), s/veh		6.1		60.1	0.4					85.9	0.0	
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (*d*), s/veh		38.6		103.0	3.8					139.4	0.0	
Level of Service (LOS)		D		F	A					F		
Approach Delay, s/veh / LOS	38.6	D		40.9	D		0.0			139.4	F	
Intersection Delay, s/veh / LOS	53.1						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.66	B	2.48	B	2.33	B
Bicycle LOS Score / LOS	1.42	A	1.64	B			1.29	A

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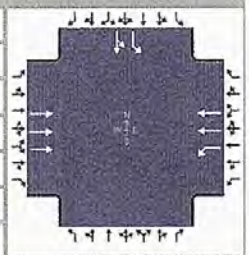
HCS7 Signalized Intersection Input Data #2 w/o PM ramp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1603		496	832					460	0	

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	32.0	52.0	33.0	0.0	0.0	0.0						
Yellow	5.0	5.0	4.0	0.0	0.0	0.0	5	6	7	8		
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1603		496	832					460	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (I)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		60.0	40.0	100.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (l_t), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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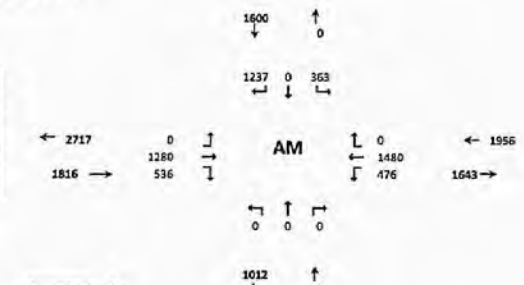
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: I55 SB Ramp
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

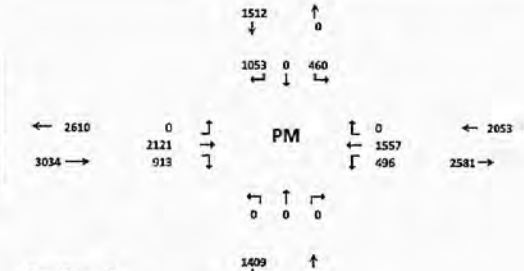
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	53	0	5	0	23	40	101	44	0	266	1203
7:15-7:30	0	0	0	75	0	1	0	24	31	126	49	0	308	1206
7:30-7:45	0	0	0	71	0	5	0	38	41	108	62	0	327	1199
7:45-8:00	0	0	0	71	0	5	0	31	32	102	61	0	302	1067
8:00-8:15	0	0	0	57	0	4	0	23	32	99	54	0	269	984
8:15-8:30	0	0	0	72	0	6	0	19	22	90	52	0	261	
8:30-8:45	0	0	0	51	0	9	0	25	19	79	53	0	235	
8:45-9:00	0	0	0	44	0	5	0	32	30	78	30	0	219	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	0	0	0	274	0	15	0	116	140	435	226	0	1206	
Season Factor	0	0	0	274	0	15	0	116	140	435	226	0	1206	
Growth	0	0	0	295	0	16	0	125	151	469	244	0	1300	
In/Out	-	-	-	-	-	IN	-	Out	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	46%	0%	50%	19%	0%	50%	0%		
PROJECT	0	0	0	0	0	623	0	533	202	0	678	0	2036	
Midway %						38%		52%	30%		10%			
Village at Midway						522		314	181		232		1249	
LTC Ranch %				4.1%		4.1%		10.8%	0.1%	0.2%	10.8%			
LTC Ranch Volume				67		75		175	2	3	197		518	
Southern Grove %								0.8%			0.8%			
Southern Grove								42			50		92	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								30			31		61	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								45			38		83	
Western Grove %								0.8%			0.8%			
Western Grove								17			11		28	
Raviola %				5.0%						6.0%				
Raviola				1						4			5	
Total	0	0	0	163	0	1237	0	1280	536	476	1480	0	5372	



	Trips In	Trips Out
Willow Lakes	1,355	1,066
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Southern Grove	6,238	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,115
Raviola	22	68

Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	0	0	71	0	3	0	21	33	111	68	0	307	1224
4:15-4:30	0	0	0	68	0	6	0	32	25	125	71	0	327	1321
4:30-4:45	0	0	0	62	0	11	0	37	38	115	62	0	325	1342
4:45-5:00	0	0	0	74	0	4	0	29	31	105	72	0	315	1310
5:00-5:15	0	0	0	89	0	5	0	40	48	105	67	0	354	1272
5:15-5:30	0	0	0	85	0	7	0	18	37	137	74	0	348	
5:30-5:45	0	0	0	66	0	4	0	32	33	97	61	0	293	
5:45-6:00	0	0	0	75	0	7	0	30	31	85	48	0	277	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	0	0	0	310	0	27	0	124	154	452	275	0	1342	
Season Factor	0	0	0	310	0	27	0	124	154	452	275	0	1342	
Growth	0	0	0	334	0	29	0	134	166	487	296	0	1446	
In/Out	-	-	-	-	-	IN	-	Out	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	46%	0%	50%	19%	0%	50%	0%		
PROJECT	0	0	0	0	0	667	0	518	197	0	725	0	2107	
Midway %						38.0%		52.0%	30.0%		16.0%			
Village at Midway						261		948	547		116		1873	
LTC Ranch %				4.1%		4.1%		10.8%	0.1%	0.2%	10.8%			
LTC Ranch Volume				122		95		321	3	6	251		797	
Southern Grove %								0.8%		0.0%	0.8%			
Southern Grove								81		0	58		135	
Wilson Groves %								0.8%		0.0%	0.8%			
Wilson Groves								45		0	36		81	
Riverland/Kennedy %								0.8%		0.0%	0.8%			
Riverland/Kennedy								58		0	57		115	
Western Grove %								0.8%		0.0%	0.8%			
Western Grove								16		0	20		37	
Ravinia %				5.0%						6.0%				
Ravinia				4						3			6	
Total	0	0	0	460	0	1053	0	2121	913	496	1557	0	6599	



	Trips In	Trips Out
Willow Lakes	1,450	1,036
Village at Midway	715	1,834
LTC Ranch	2,320	2,970
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	2,061
Raviola	77	44

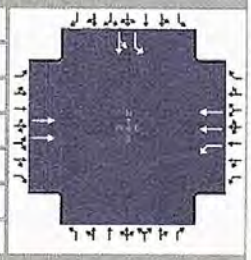
Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

#2 w/p

HCS7 Signalized Intersection Results Summary

#2 w/P AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - AM - 2035 with Proje...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1280		476	1480					363	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	31.2	38.6	27.2	0.0	0.0	0.0						
Yellow	5.0	5.0	4.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0		5	6	7	8	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		46.6	39.2	85.8				34.2
Change Period, ($Y+R_c$), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g_s), s			30.5					26.8
Green Extension Time (g_e), s		0.0	0.7	0.0				0.4
Phase Call Probability			1.00					1.00
Max Out Probability			0.08					0.10

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		1347		501	1558					382	0	
Adjusted Saturation Flow Rate (s), veh/h/ln		1809		1810	1809					1810	1900	
Queue Service Time (g_s), s		38.6		28.5	16.5					24.8	0.0	
Cycle Queue Clearance Time (g_c), s		38.6		28.5	16.5					24.8	0.0	
Green Ratio (g/C)		0.32		0.60	0.65					0.23	0.23	
Capacity (c), veh/h		1163		530	2344					411	431	
Volume-to-Capacity Ratio (X)		1.159		0.945	0.665					0.930	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		995.3		589.4	154.6					475.2	0	
Back of Queue (Q), veh/ln (95 th percentile)		39.8		23.6	6.2					19.0	0.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d_1), s/veh		34.3		35.9	4.0					45.4	0.0	
Incremental Delay (d_2), s/veh		81.3		20.2	1.5					20.3	0.0	
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (d), s/veh		115.6		56.1	5.5					65.7	0.0	
Level of Service (LOS)		F		E	A					E		
Approach Delay, s/veh / LOS	115.6	F		17.8	B		0.0			65.7	E	
Intersection Delay, s/veh / LOS	57.4						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.65	B	2.32	B	2.16	B
Bicycle LOS Score / LOS	1.60	B	2.19	B			1.12	A

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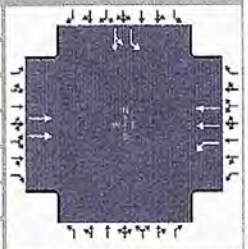
HCS7 Signalized Intersection Input Data

#2 w/P AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - 2035 with Proj...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1280		476	1480					363	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	31.2	38.6	27.2	0.0	0.0	0.0	5	6	7	8	
Yellow	5.0	5.0	4.0	0.0	0.0	0.0					
Red	3.0	3.0	3.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1280		476	1480					363	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (I)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		40.0	40.0	80.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (l1), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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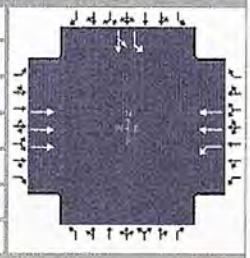
HCS7 Signalized Intersection Results Summary #2 w/PM tmp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - AM - 2035 with Proje...		
Project Description	with Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1280		476	1480					363	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	27.4	42.3	27.2	0.0	0.0	0.0						
Yellow	5.0	5.0	4.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0	5	6	7	8		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		50.3	35.4	85.8				34.2
Change Period, (*Y+R c*), s		8.0	8.0	8.0				7.0
Max Allow Headway (*MAH*), s		0.0	3.0	0.0				3.0
Queue Clearance Time (*g s*), s			26.6					26.8
Green Extension Time (*g e*), s		0.0	0.8	0.0				0.4
Phase Call Probability			1.00					1.00
Max Out Probability			0.01					0.10

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (*v*), veh/h		1347		501	1558					382	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1725		1810	1809					1810	1900	
Queue Service Time (*g s*), s		25.3		24.6	16.5					24.8	0.0	
Cycle Queue Clearance Time (*g c*), s		25.3		24.6	16.5					24.8	0.0	
Green Ratio (*g/C*)		0.35		0.60	0.65					0.23	0.23	
Capacity (*c*), veh/h		1826		532	2344					411	431	
Volume-to-Capacity Ratio (*X*)		0.738		0.942	0.665					0.930	0.000	
Back of Queue (*Q*), ft/ln (95 th percentile)		358.5		574.1	154.6					475.2	0	
Back of Queue (*Q*), veh/ln (95 th percentile)		14.3		23.0	6.2					19.0	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (*d 1*), s/veh		27.3		29.9	4.0					45.4	0.0	
Incremental Delay (*d 2*), s/veh		2.7		16.8	1.5					20.3	0.0	
Initial Queue Delay (*d 3*), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (*d*), s/veh		30.0		46.8	5.5					65.7	0.0	
Level of Service (LOS)		C		D	A					E		
Approach Delay, s/veh / LOS	30.0	C		15.6	B		0.0			65.7	E	
Intersection Delay, s/veh / LOS	25.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.65	B	2.48	B	2.33	B
Bicycle LOS Score / LOS	1.23	A	2.19	B			1.12	A

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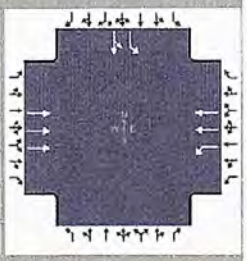
HCS7 Signalized Intersection Input Data

#2 w/P AM+Imp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - 2035 with Proj...		
Project Description	with Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1280		476	1480					363	0	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	27.4	42.3		27.2	0.0	0.0	0.0					
Yellow	5.0	5.0		4.0	0.0	0.0	0.0					
Red	3.0	3.0		3.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1280		476	1480					363	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)		4		3	4					3	3	
Upstream Filtering (*I*)		1.00		1.00	1.00					1.00	1.00	
Lane Width (*W*), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		40.0	40.0	80.0				40.0
Yellow Change Interval (*Y*), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (*l1*), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s		2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (*Walk*), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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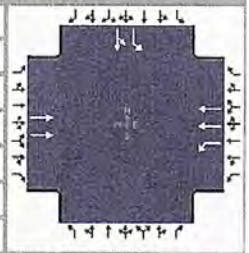
HCS7 Signalized Intersection Results Summary #2 w/P PM

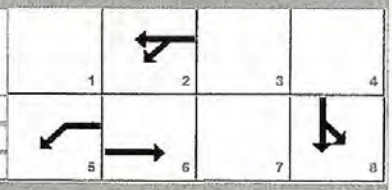
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - 2035 with Proje...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		2121		496	1557					460	0	

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	38.3	57.9	20.8	0.0	0.0	0.0	
Yellow	5.0	5.0	4.0	0.0	0.0	0.0	
Red	3.0	3.0	3.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		65.9	46.3	112.2				27.8
Change Period, (*Y+R c*), s		8.0	8.0	8.0				7.0
Max Allow Headway (*MAH*), s		0.0	3.0	0.0				3.0
Queue Clearance Time (*g s*), s			37.6					20.4
Green Extension Time (*g e*), s		0.0	0.7	0.0				0.3
Phase Call Probability			1.00					1.00
Max Out Probability			0.12					0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (*v*), veh/h		2233		522	1639					242	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1809		1810	1809					1810	1900	
Queue Service Time (*g s*), s		57.9		35.6	1.1					18.4	0.0	
Cycle Queue Clearance Time (*g c*), s		57.9		35.6	1.1					18.4	0.0	
Green Ratio (*g/C*)		0.41		0.70	0.74					0.15	0.15	
Capacity (*c*), veh/h		1497		547	2694					268	282	
Volume-to-Capacity Ratio (*X*)		1.491		0.955	0.608					0.903	0.000	
Back of Queue (*Q*), ft/ln (95 th percentile)		2571.9		706.3	24					348.8	0	
Back of Queue (*Q*), veh/ln (95 th percentile)		102.9		28.3	1.0					14.0	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (*d 1*), s/veh		31.4		44.0	0.1					58.6	0.0	
Incremental Delay (*d 2*), s/veh		224.7		23.0	1.0					10.3	0.0	
Initial Queue Delay (*d 3*), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (*d*), s/veh		256.1		67.0	1.2					68.9	0.0	
Level of Service (LOS)		F		E	A					E		
Approach Delay, s/veh / LOS	256.1	F		17.1	B		0.0			68.9	E	
Intersection Delay, s/veh / LOS	134.9						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.63	B	2.33	B	2.16	B
Bicycle LOS Score / LOS	2.33	B	2.27	B			1.29	A

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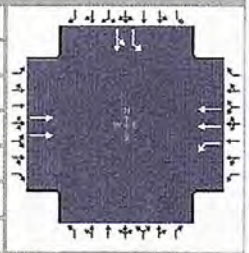
HCS7 Signalized Intersection Input Data

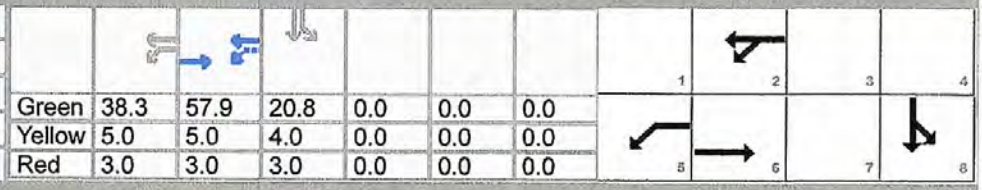
#2 w/ P PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - 2035 with Proj...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		2121		496	1557					460	0	

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	38.3	57.9		20.8	0.0	0.0	0.0					
Yellow	5.0	5.0		4.0	0.0	0.0	0.0					
Red	3.0	3.0		3.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		2121		496	1557					460	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)		4		3	4					3	3	
Upstream Filtering (*I*)		1.00		1.00	1.00					1.00	1.00	
Lane Width (*W*), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		60.0	40.0	100.0				40.0
Yellow Change Interval (*Y*), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (*l1*), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s		2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (*Walk*), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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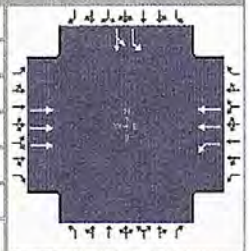
HCS7 Signalized Intersection Results Summary

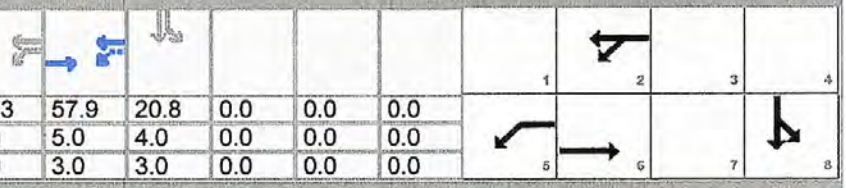
#2 w/P PM+imp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - 2035 with Proje...		
Project Description	with Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		2121		496	1557					460	0	

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB		WB			NB			SB		
Green	38.3	57.9	20.8	0.0	0.0	0.0					
Yellow	5.0	5.0	4.0	0.0	0.0	0.0					
Red	3.0	3.0	3.0	0.0	0.0	0.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		65.9	46.3	112.2				27.8
Change Period, ($Y+R_c$), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g_s), s			37.6					20.4
Green Extension Time (g_e), s		0.0	0.7	0.0				0.3
Phase Call Probability			1.00					1.00
Max Out Probability			0.12					0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		2233		522	1639					242	0	
Adjusted Saturation Flow Rate (s), veh/h/ln		1725		1810	1809					1810	1900	
Queue Service Time (g_s), s		57.9		35.6	1.1					18.4	0.0	
Cycle Queue Clearance Time (g_c), s		57.9		35.6	1.1					18.4	0.0	
Green Ratio (g/C)		0.41		0.70	0.74					0.15	0.15	
Capacity (c), veh/h		2142		547	2694					268	282	
Volume-to-Capacity Ratio (X)		1.042		0.955	0.608					0.903	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		899.8		706.4	24					348.8	0	
Back of Queue (Q), veh/ln (95 th percentile)		36.0		28.3	1.0					14.0	0.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d_1), s/veh		31.4		44.0	0.1					58.6	0.0	
Incremental Delay (d_2), s/veh		31.6		23.0	1.0					10.3	0.0	
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (d), s/veh		62.9		67.0	1.2					68.9	0.0	
Level of Service (LOS)		F		E	A					E		
Approach Delay, s/veh / LOS	62.9	E		17.1	B		0.0			68.9	E	
Intersection Delay, s/veh / LOS	41.9						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.63	B	2.48	B	2.33	B
Bicycle LOS Score / LOS	1.72	B	2.27	B			1.29	A

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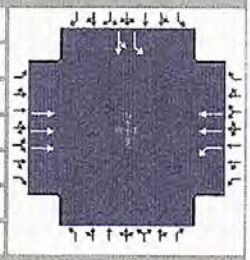
HCS7 Signalized Intersection Input Data

2 w/P PM temp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - 2035 with Proj...		
Project Description	with Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		2121		496	1557					460	0	

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	38.3	57.9	20.8	0.0	0.0	0.0						
Yellow	5.0	5.0	4.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0	5	6	7	8		

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		2121		496	1557					460	0	
Initial Queue (Q_b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s_o), veh/h		1900		1900	1900					1900	1900	
Parking (N_m), man/h		None			None						None	
Heavy Vehicles (P_{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (*AT*)		4		3	4					3	3	
Upstream Filtering (*I*)		1.00		1.00	1.00					1.00	1.00	
Lane Width (*W*), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		60.0	40.0	100.0				40.0
Yellow Change Interval (*Y*), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R_c), s		3.0	3.0	3.0				3.0
Minimum Green (G_{min}), s		8	7	8				6
Start-Up Lost Time (*l1*), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (*e*), s		2.0	2.0	2.0			2.0	2.0
Passage (*PT*), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (*Walk*), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (*PC*), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

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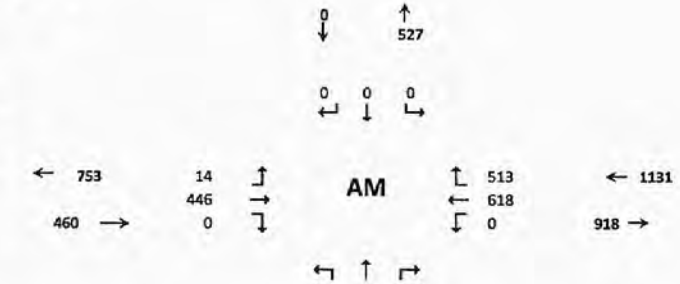
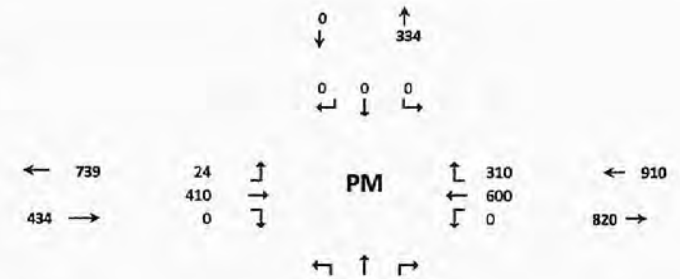
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: I95 NB Ramp
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2020

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	35	0	99	0	0	0	1	82	0	0	125	88	430	2147
7:15-7:30	31	0	115	0	0	0	4	102	0	0	169	145	566	2198
7:30-7:45	40	0	122	0	0	0	4	140	0	0	172	150	628	2074
7:45-8:00	32	0	125	0	0	0	2	119	0	0	140	105	523	1865
8:00-8:15	32	0	110	0	0	0	4	85	0	0	137	113	481	1681
8:15-8:30	31	0	114	0	0	0	3	75	0	0	119	100	442	
8:30-8:45	28	0	111	0	0	0	3	86	0	0	100	91	419	
8:45-9:00	21	0	82	0	0	0	7	73	0	0	90	66	339	
AM PEAK HOUR IS FROM:	7:15AM TO 8:15AM													
Volumes	135	0	472	0	0	0	14	446	0	0	618	513	2198	
Season Factor	135	0	472	0	0	0	14	446	0	0	618	513	2198	
Growth	135	0	472	0	0	0	14	446	0	0	618	513	2198	
In/Out	-	-	IN	-	-	-	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	135	0	472	0	0	0	14	446	0	0	618	513	2198	



15 Min Period lanes	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	28	0	111	0	0	0	3	89	0	0	132	70	433	1778
4:15-4:30	26	0	105	0	0	0	7	91	0	0	165	81	475	1893
4:30-4:45	34	0	112	0	0	0	12	93	0	0	134	68	453	1836
4:45-5:00	42	0	103	0	0	0	3	97	0	0	110	62	417	1805
5:00-5:15	37	0	90	0	0	0	2	129	0	0	191	99	548	1744
5:15-5:30	41	0	108	0	0	0	1	101	0	0	111	56	418	
5:30-5:45	25	0	102	0	0	0	1	95	0	0	130	69	422	
5:45-6:00	29	0	80	0	0	0	5	93	0	0	100	49	356	
PM PEAK HOUR IS FROM:	4:15PM TO 5:15PM													
Volumes	139	0	410	0	0	0	24	410	0	0	600	310	1893	
Season Factor	139	0	410	0	0	0	24	410	0	0	600	310	1893	
Growth	139	0	410	0	0	0	24	410	0	0	600	310	1893	
In/Out	-	-	IN	-	-	-	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	139	0	410	0	0	0	24	410	0	0	600	310	1893	



St. Lucie County

ECONOLITE

00023 - MIDWAY RD @ I-95 NB RAMP - - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

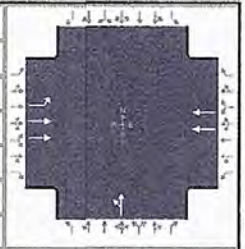
Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	EBL	WB	N	NB	N	N	N	N	N	N	N	N	N	N	N	N
Min Green	7	15	5	7	5	15	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	18	45	0	25	0	45	0	25	35	35	35	35	35	35	35	35
Max2	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40
Max3	28	55	0	35	0	55	0	35	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	5.0	4.0	5.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	3.0	3.0	1.0	3.0	1.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Ø inuse

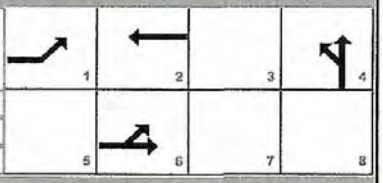
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - Existing.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	14	446			618		135	0				

Signal Information			
Cycle, s	46.2	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	1.2	15.0		5.9	0.0	0.0	0.0					
Yellow	5.0	5.0		5.0	0.0	0.0	0.0					
Red	3.0	3.0		3.0	0.0	0.0	0.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		12.0		
Phase Duration, s	9.2	32.2		23.0		13.9		
Change Period, ($Y+R_c$), s	8.0	8.0		8.0		8.0		
Max Allow Headway (*MAH*), s	3.0	2.9		2.9		3.0		
Queue Clearance Time (g_s), s	2.2	5.4		9.1		5.6		
Green Extension Time (g_e), s	0.0	2.7		2.7		0.2		
Phase Call Probability	0.18	1.00		1.00		0.85		
Max Out Probability	0.00	0.00		0.00		0.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (*v*), veh/h	15	485			672			147				
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809			1809			1810				
Queue Service Time (g_s), s	0.2	3.4			7.1			3.6				
Cycle Queue Clearance Time (g_c), s	0.2	3.4			7.1			3.6				
Green Ratio (*g/C*)	0.40	0.52			0.32			0.13				
Capacity (*c*), veh/h	337	1899			1175			233				
Volume-to-Capacity Ratio (*X*)	0.045	0.255			0.572			0.630				
Back of Queue (Q), ft/ln (95 th percentile)	3	32.4			95.6			57.9				
Back of Queue (Q), veh/ln (95 th percentile)	0.1	1.3			3.8			2.3				
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00			0.00				
Uniform Delay (d_1), s/veh	9.4	6.0			12.9			19.1				
Incremental Delay (d_2), s/veh	0.0	0.0			0.2			1.1				
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0			0.0				
Control Delay (*d*), s/veh	9.5	6.0			13.1			20.1				
Level of Service (LOS)	A	A			B			C				
Approach Delay, s/veh / LOS	6.1	A		13.1	B		20.1	C		0.0		
Intersection Delay, s/veh / LOS	11.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.35	A	1.38	A	2.13	B	2.29	B
Bicycle LOS Score / LOS	0.90	A	1.04	A	0.73	A		

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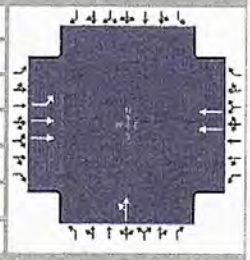
HCS7 Signalized Intersection Input Data

#3 E AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - Existing - 6.2....		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	14	446			618		135	0				

Signal Information			
Cycle, s	46.3	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	1.3	15.0	6.0	0.0	0.0	0.0					
Yellow	5.0	5.0	5.0	0.0	0.0	0.0					
Red	3.0	3.0	3.0	0.0	0.0	0.0	5	6	7	8	

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	14	446			618		135	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0			0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	3			3		3	3				
Upstream Filtering (I)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0			12.0				
Turn Bay Length, ft	0	0			0			0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	28.0	55.0		55.0		35.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (l_1), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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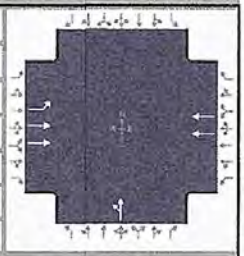
HCS7 Signalized Intersection Results Summary

#3 E PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - Existing.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	24	410			600		139	0				

Signal Information			
Cycle, s	47.1	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

	1	2	3	4	5	6	7	8				
Green	2.0	15.0	6.0	0.0	0.0	0.0						
Yellow	5.0	5.0	5.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		12.0		
Phase Duration, s	10.0	33.0		23.0		14.0		
Change Period, (*Y+R c*), s	8.0	8.0		8.0		8.0		
Max Allow Headway (*MAH*), s	3.0	2.9		2.9		3.0		
Queue Clearance Time (*g s*), s	2.4	5.1		9.1		5.7		
Green Extension Time (*g e*), s	0.0	2.5		2.5		0.2		
Phase Call Probability	0.29	1.00		1.00		0.86		
Max Out Probability	0.00	0.00		0.00		0.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (*v*), veh/h	26	446			652			151				
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809			1809			1810				
Queue Service Time (*g s*), s	0.4	3.1			7.1			3.7				
Cycle Queue Clearance Time (*g c*), s	0.4	3.1			7.1			3.7				
Green Ratio (*g/C*)	0.40	0.53			0.32			0.13				
Capacity (*c*), veh/h	365	1924			1153			232				
Volume-to-Capacity Ratio (*X*)	0.072	0.232			0.566			0.651				
Back of Queue (Q), ft/ln (95 th percentile)	5.1	29.7			96.8			61.5				
Back of Queue (Q), veh/ln (95 th percentile)	0.2	1.2			3.9			2.5				
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00			0.00				
Uniform Delay (*d 1*), s/veh	9.4	5.9			13.3			19.5				
Incremental Delay (*d 2*), s/veh	0.0	0.0			0.2			1.2				
Initial Queue Delay (*d 3*), s/veh	0.0	0.0			0.0			0.0				
Control Delay (*d*), s/veh	9.4	5.9			13.5			20.7				
Level of Service (LOS)	A	A			B			C				
Approach Delay, s/veh / LOS	6.1	A		13.5	B		20.7	C		0.0		
Intersection Delay, s/veh / LOS	11.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.35	A	1.38	A	2.13	B	2.29	B
Bicycle LOS Score / LOS	0.88	A	1.03	A	0.74	A		

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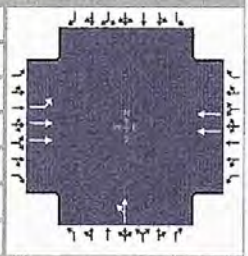
HCS7 Signalized Intersection Input Data

#3 PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.86
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - Existing - 6.2....		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	24	410			600		139	0				

Signal Information			
Cycle, s	47.3	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	2.2	15.0	6.2	0.0	0.0	0.0						
Yellow	5.0	5.0	5.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0		5	6	7	8	

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	24	410			600		139	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0			0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (*AT*)	3	3			3		3	3				
Upstream Filtering (*I*)	1.00	1.00			1.00		1.00	1.00				
Lane Width (*W*), ft	12.0	12.0			12.0			12.0				
Turn Bay Length, ft	0	0			0			0				
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	28.0	55.0		55.0		35.0		
Yellow Change Interval (*Y*), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (*l1*), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (*e*), s	2.0	2.0		2.0	2.0	2.0		
Passage (*PT*), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (*Walk*), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (*PC*), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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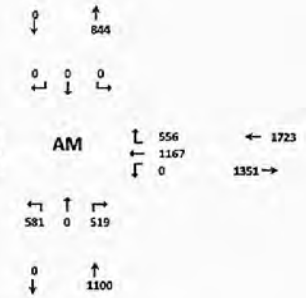
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: I95 NB Ramp
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

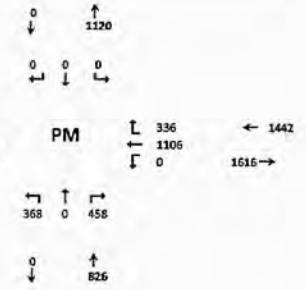
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	35	0	99	0	0	0	1	82	0	0	125	88	430	2147
7:15-7:30	31	0	115	0	0	0	4	102	0	0	169	145	566	2198
7:30-7:45	48	0	122	0	0	0	4	140	0	0	172	150	624	2074
7:45-8:00	32	0	125	0	0	0	2	119	0	0	140	105	523	1865
8:00-8:15	32	0	110	0	0	0	4	85	0	0	137	113	481	1681
8:15-8:30	31	0	114	0	0	0	3	75	0	0	119	100	442	
8:30-8:45	28	0	111	0	0	0	3	86	0	0	100	91	419	
8:45-9:00	21	0	82	0	0	0	7	73	0	0	90	66	339	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	135	0	472	0	0	0	14	446	0	0	618	513	2198	
Season Factor	1.35	0	472	0	0	0	14	446	0	0	618	513	2198	
Growth	1.45	0	509	0	0	0	15	481	0	0	666	553	2369	
In/Out	IN	-	IN	-	-	-	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	30%						30%	15%			15%			
Village at Midway	435						217	96			232		981	
LTC Ranch %			0.5%				3.4%	7.4%			7.4%			
LTC Ranch Volume			9				55	120			135		319	
Southern Grove %								0.8%			0.8%			
Southern Grove								42			50		92	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								30			31		61	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								45			38		83	
Western Grove %								0.8%			0.8%			
Western Grove								17			11		28	
Ravinia %			5.0%					5.0%			5.0%	5.0%		
Ravinia			1					1			4	3	10	
Total	581	0	519	0	0	0	287	832	0	0	1167	556	3943	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,727	1,052
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	66

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	28	0	111	0	0	0	3	89	0	0	132	70	433	1775
4:15-4:30	16	0	105	0	0	0	7	91	0	0	165	81	475	1893
4:30-4:45	34	0	112	0	0	0	12	93	0	0	134	68	453	1836
4:45-5:00	42	0	103	0	0	0	3	97	0	0	110	62	417	1805
5:00-5:15	37	0	90	0	0	0	2	129	0	0	191	99	548	1744
5:15-5:30	41	0	108	0	0	0	1	101	0	0	111	56	418	
5:30-5:45	25	0	102	0	0	0	1	95	0	0	130	69	422	
5:45-6:00	29	0	80	0	0	0	5	93	0	0	103	49	356	
PM PEAK HOUR IS FROM:			4:15PM TO 5:15PM											
Volumes	135	0	410	0	0	0	24	419	0	0	600	318	1893	
Season Factor	1.35	0	410	0	0	0	24	410	0	0	600	318	1893	
Growth	1.50	0	442	0	0	0	25	442	0	0	647	334	2040	
In/Out	IN	-	IN	-	-	-	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	30.0%						30.0%	15.0%			15.0%			
Village at Midway	218						657	292			116		1292	
LTC Ranch %			0.5%				3.4%	7.4%			7.4%			
LTC Ranch Volume			12				101	220			122		504	
Southern Grove %								0.8%			0.8%			
Southern Grove								81			56		136	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								45			36		81	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								58			57		115	
Western Grove %								0.8%			0.8%			
Western Grove								15			20		37	
Ravinia %			6.0%					5.0%			5.0%	5.0%		
Ravinia			5					4			3	2	15	
Total	368	0	458	0	0	0	783	1158	0	0	1196	336	4309	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,441	1,027
Village at Midway	726	1,814
LTC Ranch	2,328	2,910
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,619
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	2,061
Ravinia	77	44

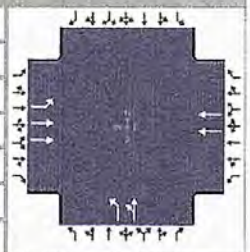
F-40

3 w/o Project

HCS7 Signalized Intersection Results Summary

#3 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	287	832			1167		581	0				

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	17.0	37.0	42.0	0.0	0.0	0.0					
Yellow	5.0	5.0	5.0	0.0	0.0	0.0					
Red	3.0	3.0	3.0	0.0	0.0	0.0	5	6	7	8	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	25.0	70.0		45.0		50.0		
Change Period, (*Y+R c*), s	8.0	8.0		8.0		8.0		
Max Allow Headway (*MAH*), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (*g s*), s	18.6					43.8		
Green Extension Time (*g e*), s	0.0	0.0		0.0		0.0		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (*v*), veh/h	312	904			1268		632	0				
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809			1809		1810	1900				
Queue Service Time (*g s*), s	16.6	14.0			37.0		41.8	0.0				
Cycle Queue Clearance Time (*g c*), s	16.6	14.0			37.0		41.8	0.0				
Green Ratio (*g/C*)	0.47	0.52			0.31		0.35	0.35				
Capacity (*c*), veh/h	316	1869			1115		633	665				
Volume-to-Capacity Ratio (*X*)	0.986	0.484			1.137		0.997	0.000				
Back of Queue (*Q*), ft/ln (95 th percentile)	476.6	202.4			911.2		792	0				
Back of Queue (*Q*), veh/ln (95 th percentile)	19.1	8.1			36.4		31.7	0.0				
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (*d 1*), s/veh	37.4	11.2			35.3		38.9	0.0				
Incremental Delay (*d 2*), s/veh	46.6	0.9			73.1		35.0	0.0				
Initial Queue Delay (*d 3*), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (*d*), s/veh	84.0	12.1			108.4		73.9	0.0				
Level of Service (LOS)	F	B			F		E					
Approach Delay, s/veh / LOS	30.5	C		108.4	F		73.9	E		0.0		
Intersection Delay, s/veh / LOS	71.0						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.68	B	1.42	A	2.16	B	2.32	B
Bicycle LOS Score / LOS	1.49	A	1.53	B	1.53	B		

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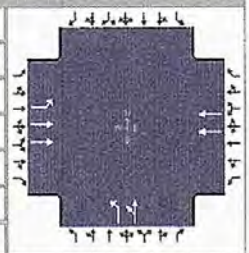
HCS7 Signalized Intersection Input Data

#3 w/o AM

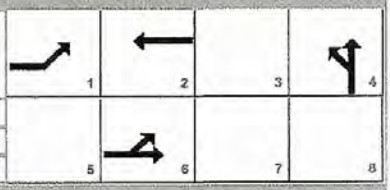
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	287	832			1167		581	0				

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	17.0	37.0	42.0	0.0	0.0	0.0	
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	
Red	3.0	3.0	3.0	0.0	0.0	0.0	



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	287	832			1167		581	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (I)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	25.0	70.0		45.0		50.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (l_1), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk ($Walk$), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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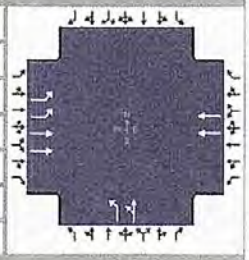
HCS7 Signalized Intersection Results Summary

#3 w/o AM+ Imp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	287	832			1167		581	0				

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	8.5	44.9	42.6	0.0	0.0	0.0						
Yellow	5.0	5.0	5.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0		5	6	7	8	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	16.5	69.4		52.9		50.6		
Change Period, (Y+R c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g s), s	8.1					41.5		
Green Extension Time (g e), s	0.5	0.0		0.0		1.0		
Phase Call Probability	1.00					1.00		
Max Out Probability	0.00					0.02		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (v), veh/h	302	876			1228		612	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809			1809		1810	1900				
Queue Service Time (g s), s	6.1	13.6			37.3		39.5	0.0				
Cycle Queue Clearance Time (g c), s	6.1	13.6			37.3		39.5	0.0				
Green Ratio (g/C)	0.46	0.51			0.37		0.35	0.35				
Capacity (c), veh/h	429	1852			1354		642	674				
Volume-to-Capacity Ratio (X)	0.705	0.473			0.907		0.953	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	108.6	199.8			544.9		678.3	0				
Back of Queue (Q), veh/ln (95 th percentile)	4.3	8.0			21.8		27.1	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d 1), s/veh	27.4	11.4			28.2		37.8	0.0				
Incremental Delay (d 2), s/veh	0.8	0.9			10.4		18.2	0.0				
Initial Queue Delay (d 3), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (d), s/veh	28.2	12.3			38.6		56.0	0.0				
Level of Service (LOS)	C	B			D		E					
Approach Delay, s/veh / LOS	16.4	B		38.6	D		56.0	E		0.0		
Intersection Delay, s/veh / LOS	33.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.68	B	1.70	B	2.16	B	2.48	B
Bicycle LOS Score / LOS	1.46	A	1.50	B	1.50	A		

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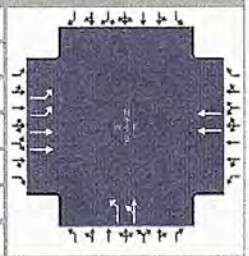
HCS7 Signalized Intersection Input Data

#3 w/o AM+ mp

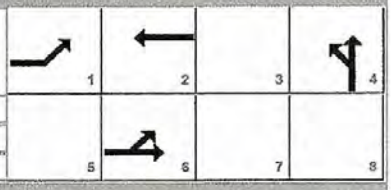
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	287	832			1167		581	0				

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.5	44.9	42.6	0.0	0.0	0.0	
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	
Red	3.0	3.0	3.0	0.0	0.0	0.0	



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	287	832			1167		581	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (*AT*)	3	4			4		3	3				
Upstream Filtering (*I*)	1.00	1.00			1.00		1.00	1.00				
Lane Width (*W*), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	16.0	60.0		44.0		60.0		
Yellow Change Interval (*Y*), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (*l1*), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (*e*), s	2.0	2.0		2.0	2.0	2.0		
Passage (*PT*), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (*Walk*), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (*PC*), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

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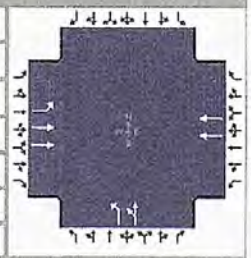
HCS7 Signalized Intersection Results Summary

3 w/o PM

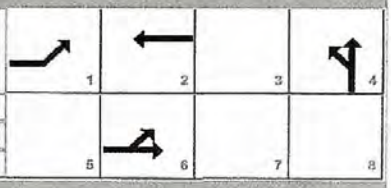
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 w.o. Proj...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	783	1158			1106		368	0				

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	35.4	32.0	28.6	0.0	0.0	0.0	
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	
Red	3.0	3.0	3.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	43.4	83.4		40.0		36.6		
Change Period, ($Y+R_c$), s	8.0	8.0		8.0		8.0		
Max Allow Headway (*MAH*), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g_s), s	37.4					27.9		
Green Extension Time (g_e), s	0.0	0.0		0.0		0.6		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (*v*), veh/h	851	1259			1202		400	0				
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809			1809		1810	1900				
Queue Service Time (g_s), s	35.4	12.6			32.0		25.9	0.0				
Cycle Queue Clearance Time (g_c), s	35.4	12.6			32.0		25.9	0.0				
Green Ratio (*g/C*)	0.58	0.63			0.27		0.24	0.24				
Capacity (*c*), veh/h	593	2273			966		431	453				
Volume-to-Capacity Ratio (*X*)	1.434	0.554			1.244		0.928	0.000				
Back of Queue (*Q*), ft/ln (95 th percentile)	1882.2	141.9			1050.5		463.9	0				
Back of Queue (*Q*), veh/ln (95 th percentile)	75.3	5.7			42.0		18.6	0.0				
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d_1), s/veh	35.4	4.6			38.6		44.7	0.0				
Incremental Delay (d_2), s/veh	205.0	1.0			118.8		12.5	0.0				
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (*d*), s/veh	240.4	5.6			157.4		57.2	0.0				
Level of Service (LOS)	F	A			F		E					
Approach Delay, s/veh / LOS	100.3	F		157.4	F		57.2	E		0.0		
Intersection Delay, s/veh / LOS	114.2						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.66	B	1.42	A	2.16	B	2.32	B
Bicycle LOS Score / LOS	2.23	B	1.48	A	1.15	A		

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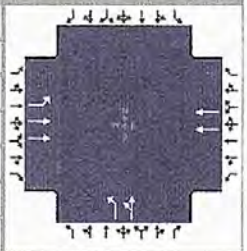
HCS7 Signalized Intersection Input Data

#3 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 w.o. Proj...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	783	1158			1106		368	0				

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	35.4	32.0	28.6	0.0	0.0	0.0						
Yellow	5.0	5.0	5.0	0.0	0.0	0.0		5	6	7	8	
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	783	1158			1106		368	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (*AT*)	3	4			4		3	3				
Upstream Filtering (*I*)	1.00	1.00			1.00		1.00	1.00				
Lane Width (*W*), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	30.0	70.0		40.0		50.0		
Yellow Change Interval (*Y*), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (*l1*), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (*e*), s	2.0	2.0		2.0	2.0	2.0		
Passage (*PT*), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (*Walk*), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (*PC*), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

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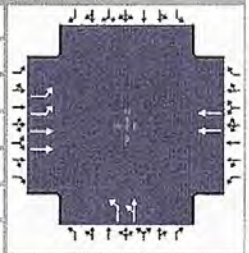
HCS7 Signalized Intersection Results Summary

#3 w/o PM+ IMP

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	783	1158			1106		368	0				

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	20.0	49.0	27.0	0.0	0.0	0.0						
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	5	6	7	8		
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	28.0	85.0		57.0		35.0		
Change Period, ($Y+R_c$), s	8.0	8.0		8.0		8.0		
Max Allow Headway (*MAH*), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g_s), s	20.7					27.3		
Green Extension Time (g_e), s	0.0	0.0		0.0		0.0		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6		7	4				
Adjusted Flow Rate (*v*), veh/h	824	1219			1164		387	0				
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1809			1809		1810	1900				
Queue Service Time (g_s), s	18.7	10.6			30.8		25.3	0.0				
Cycle Queue Clearance Time (g_c), s	18.7	10.6			30.8		25.3	0.0				
Green Ratio (*g/C*)	0.59	0.64			0.41		0.22	0.22				
Capacity (*c*), veh/h	854	2321			1477		407	428				
Volume-to-Capacity Ratio (*X*)	0.965	0.525			0.788		0.951	0.000				
Back of Queue (*Q*), ft/ln (95 th percentile)	374.8	119.3			426.7		521.5	0				
Back of Queue (*Q*), veh/ln (95 th percentile)	15.0	4.8			17.1		20.9	0.0				
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d_1), s/veh	28.8	3.9			23.2		45.9	0.0				
Incremental Delay (d_2), s/veh	22.4	0.9			4.3		32.0	0.0				
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (*d*), s/veh	51.2	4.7			27.5		77.9	0.0				
Level of Service (LOS)	D	A			C		E					
Approach Delay, s/veh / LOS	23.5	C		27.5	C		77.9	E		0.0		
Intersection Delay, s/veh / LOS	30.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.65	B	1.69	B	2.16	B	2.48	B
Bicycle LOS Score / LOS	2.17	B	1.45	A	1.13	A		

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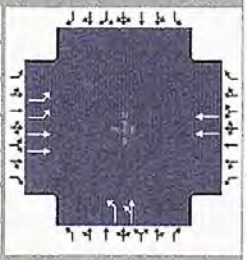
HCS7 Signalized Intersection Input Data

#3 w/o PM+ Imp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	783	1158			1106		368	0				

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	20.0	49.0	27.0	0.0	0.0	0.0	5	6	7	8	
Yellow	5.0	5.0	5.0	0.0	0.0	0.0					
Red	3.0	3.0	3.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	783	1158			1106		368	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (I)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	28.0	85.0		57.0		35.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (l_t), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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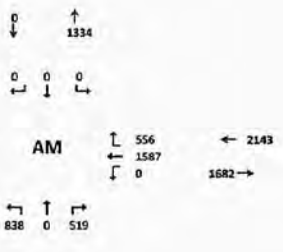
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: I95 NB Ramp
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

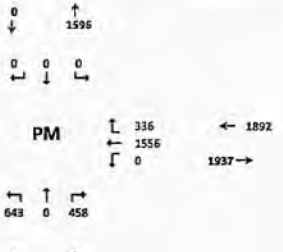
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	35	0	99	0	0	0	1	82	0	0	125	83	430	2147
7:15-7:30	31	0	115	0	0	0	4	102	0	0	169	145	566	2198
7:30-7:45	40	0	122	0	0	0	4	140	0	0	172	150	628	2074
7:45-8:00	32	0	125	0	0	0	2	119	0	0	140	105	523	1865
8:00-8:15	32	0	110	0	0	0	4	85	0	0	137	113	481	1681
8:15-8:30	31	0	114	0	0	0	3	75	0	0	119	100	442	
8:30-8:45	28	0	111	0	0	0	3	86	0	0	100	91	419	
8:45-9:00	21	0	82	0	0	0	7	73	0	0	90	66	339	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	135	0	472	0	0	0	14	446	0	0	618	513	2198	
Season Factor	135	0	472	0	0	0	14	446	0	0	618	513	2198	
Growth	145	0	509	0	0	0	15	481	0	0	666	553	2369	
In/Out	IN	-	IN	-	-	-	OUT	OUT	-	-	IN	-		
Percentage	19%	0%	0%	0%	0%	0%	46%	31%	0%	0%	31%	0%		
PROJECT	257	0	0	0	0	0	490	330	0	0	420	0	1498	
Midway %	30%						50%	10%			16%			
Village at Midway	435						217	96			232		981	
LTC Ranch %			0.5%				3.4%	7.4%			7.4%			
LTC Ranch Volume			9				55	120			135		319	
Southern Grove %								0.8%			0.8%			
Southern Grove								42			50		92	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								33			31		64	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								45			38		83	
Western Grove %								0.8%			0.8%			
Western Grove								17			11		28	
Ravinia %			6.0%					5.0%			6.0%	5.0%		
Ravinia			3					1			4	3	10	
Total	838	0	519	0	0	0	777	1162	0	0	1587	556	5440	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,355	1,065
Village at Midway	1,455	603
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,701	5,568
Western Grove	1,352	2,135
Ravinia	22	68

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	28	0	111	0	0	0	3	89	0	0	132	70	433	1778
4:15-4:30	26	0	106	0	0	0	7	91	0	0	165	81	475	1893
4:30-4:45	34	0	112	0	0	0	12	93	0	0	136	68	453	1836
4:45-5:00	42	0	103	0	0	0	3	97	0	0	110	62	417	1805
5:00-5:15	37	0	90	0	0	0	2	129	0	0	191	99	548	1744
5:15-5:30	41	0	108	0	0	0	1	101	0	0	111	56	418	
5:30-5:45	25	0	103	0	0	0	1	95	0	0	130	69	422	
5:45-6:00	29	0	80	0	0	0	5	93	0	0	100	49	356	
PM PEAK HOUR IS FROM:			4:15PM TO 5:15PM											
Volumes	139	0	410	0	0	0	24	410	0	0	600	310	1893	
Season Factor	139	0	410	0	0	0	24	410	0	0	600	310	1893	
Growth	150	0	442	0	0	0	26	442	0	0	647	334	2040	
In/Out	IN	-	IN	-	-	-	OUT	OUT	-	-	IN	-		
Percentage	19%	0%	0%	0%	0%	0%	46%	31%	0%	0%	31%	0%		
PROJECT	226	0	0	0	0	0	477	321	0	0	450	0	1523	
Midway %	30.0%						30.0%	10.0%			10.0%			
Village at Midway	218						657	292			136		1282	
LTC Ranch %			0.5%				3.4%	7.4%			7.4%			
LTC Ranch Volume			12				101	220			172		504	
Southern Grove %								0.8%			0.8%			
Southern Grove								81			56		136	
Wilson Groves %								0.8%			0.8%			
Wilson Groves								45			36		81	
Riverland/Kennedy %								0.8%			0.8%			
Riverland/Kennedy								58			57		115	
Western Grove %								0.8%			0.8%			
Western Grove								16			20		37	
Ravinia %			6.0%					5.0%			6.0%	5.0%		
Ravinia			5					4			3	2	13	
Total	643	0	458	0	0	0	1260	1479	0	0	1556	336	5732	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

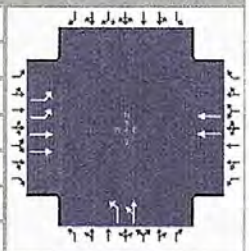
	Trips In	Trips Out
Willow Lakes	1,450	1,035
Village at Midway	726	1,824
LTC Ranch	2,320	3,970
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	2,061
Ravinia	77	44

#2 w/ Project

HCS7 Signalized Intersection Results Summary

#3 w/P AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 with Proj...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	777	1162			1587		838	0				

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	15.9	64.0	36.1	0.0	0.0	0.0				
Yellow	5.0	5.0	5.0	0.0	0.0	0.0				
Red	3.0	3.0	3.0	0.0	0.0	0.0	5	6	7	8

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	23.9	95.9		72.0		44.1		
Change Period, ($Y+R_c$), s	8.0	8.0		8.0		8.0		
Max Allow Headway (*MAH*), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g_s), s	17.9					35.5		
Green Extension Time (g_e), s	0.0	0.0		0.0		0.6		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.01		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (*v*), veh/h	818	1223			1671		441	0				
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1809			1809		1810	1900				
Queue Service Time (g_s), s	15.9	14.1			64.0		33.5	0.0				
Cycle Queue Clearance Time (g_c), s	15.9	14.1			64.0		33.5	0.0				
Green Ratio (*g/C*)	0.58	0.63			0.46		0.26	0.26				
Capacity (*c*), veh/h	501	2271			1654		467	490				
Volume-to-Capacity Ratio (*X*)	1.631	0.539			1.010		0.945	0.000				
Back of Queue (*Q*), ft/ln (95 th percentile)	1120.7	167.4			916.9		605.2	0				
Back of Queue (*Q*), veh/ln (95 th percentile)	44.8	6.7			36.7		24.2	0.0				
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d_1), s/veh	48.5	5.4			27.3		51.0	0.0				
Incremental Delay (d_2), s/veh	292.9	0.9			24.6		20.2	0.0				
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (*d*), s/veh	341.4	6.3			51.9		71.2	0.0				
Level of Service (LOS)	F	A			F		E					
Approach Delay, s/veh / LOS	140.6	F		51.9	D		71.2	E		0.0		
Intersection Delay, s/veh / LOS	97.6						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.66	B	1.69	B	2.16	B	2.48	B
Bicycle LOS Score / LOS	2.17	B	1.87	B	1.94	B		

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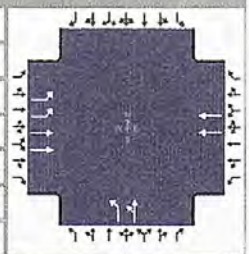
HCS7 Signalized Intersection Input Data

#3 W/P AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 with Proj...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	777	1162			1587		838	0				

Signal Information					EB		WB			NB			
Cycle, s	140.0	Reference Phase	2								1	2	3	4
Offset, s	0	Reference Point	End	Green	15.9	64.0	36.1	0.0	0.0	0.0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0	5	6	7	8

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	777	1162			1587		838	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (I)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	15.0	87.0		72.0		53.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (l_1), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk ($Walk$), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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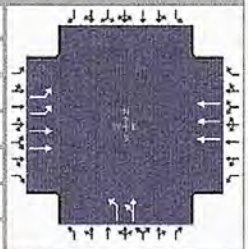
HCS7 Signalized Intersection Results Summary

#3 w/PM imp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 with Proj...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	777	1162			1587		838	0				

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	15.9	64.0	36.1	0.0	0.0	0.0					
Yellow	5.0	5.0	5.0	0.0	0.0	0.0					
Red	3.0	3.0	3.0	0.0	0.0	0.0	5	6	7	8	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	23.9	95.9		72.0		44.1		
Change Period, (Y+R c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g s), s	17.9					35.5		
Green Extension Time (g e), s	0.0	0.0		0.0		0.6		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.01		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (v), veh/h	818	1223			1671		441	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809			1725		1810	1900				
Queue Service Time (g s), s	15.9	14.1			31.0		33.5	0.0				
Cycle Queue Clearance Time (g c), s	15.9	14.1			31.0		33.5	0.0				
Green Ratio (g/C)	0.58	0.63			0.46		0.26	0.26				
Capacity (c), veh/h	644	2271			2366		467	490				
Volume-to-Capacity Ratio (X)	1.270	0.539			0.706		0.945	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	695.1	167.4			398.2		605.2	0				
Back of Queue (Q), veh/ln (95 th percentile)	27.8	6.7			15.9		24.2	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d 1), s/veh	33.2	5.4			20.9		51.0	0.0				
Incremental Delay (d 2), s/veh	133.5	0.9			1.8		20.2	0.0				
Initial Queue Delay (d 3), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (d), s/veh	166.7	6.3			22.7		71.2	0.0				
Level of Service (LOS)	F	A			C		E					
Approach Delay, s/veh / LOS	70.6	E		22.7	C		71.2	E		0.0		
Intersection Delay, s/veh / LOS	51.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.66	B	1.69	B	2.33	B	2.62	C
Bicycle LOS Score / LOS	2.17	B	1.41	A	1.94	B		

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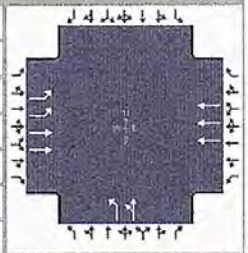
HCS7 Signalized Intersection Input Data

#3 WP AM with

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 with Proj...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	777	1162			1587		838	0				

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	15.9	64.0	36.1	0.0	0.0	0.0						
Yellow	5.0	5.0	5.0	0.0	0.0	0.0						
Red	3.0	3.0	3.0	0.0	0.0	0.0	5	6	7	8		

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	777	1162			1587		838	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (I)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	15.0	87.0		72.0		53.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (l_1), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

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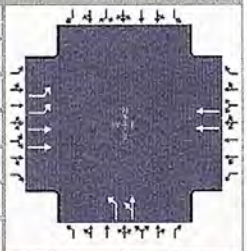
HCS7 Signalized Intersection Results Summary

#3 w/P PM

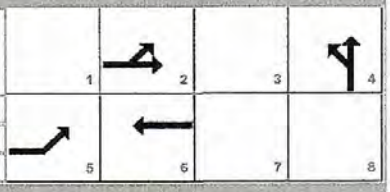
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 with Proj...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	1260	1479			1556		643	0				

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	43.8	44.0	28.2	0.0	0.0	0.0	
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	
Red	3.0	3.0	3.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	51.8	103.8		52.0		36.2		
Change Period, (*Y+R c*), s	8.0	8.0		8.0		8.0		
Max Allow Headway (*MAH*), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (*g s*), s	45.8					27.7		
Green Extension Time (*g e*), s	0.0	0.0		0.0		0.5		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6		7	4				
Adjusted Flow Rate (*v*), veh/h	1326	1557			1638		338	0				
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809			1809		1810	1900				
Queue Service Time (*g s*), s	43.8	12.4			44.0		25.7	0.0				
Cycle Queue Clearance Time (*g c*), s	43.8	12.4			44.0		25.7	0.0				
Green Ratio (*g/C*)	0.64	0.68			0.31		0.20	0.20				
Capacity (*c*), veh/h	1234	2475			1137		365	383				
Volume-to-Capacity Ratio (*X*)	1.075	0.629			1.440		0.928	0.000				
Back of Queue (*Q*), ft/ln (95 th percentile)	990.4	115.3			1861		470.1	0				
Back of Queue (*Q*), veh/ln (95 th percentile)	39.6	4.6			74.4		18.8	0.0				
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (*d 1*), s/veh	42.1	2.5			40.7		54.9	0.0				
Incremental Delay (*d 2*), s/veh	48.3	1.2			203.1		14.6	0.0				
Initial Queue Delay (*d 3*), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (*d*), s/veh	90.4	3.7			243.8		69.5	0.0				
Level of Service (LOS)	F	A			F		E					
Approach Delay, s/veh / LOS	43.6	D		243.8	F		69.5	E		0.0		
Intersection Delay, s/veh / LOS	112.9						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.65	B	1.71	B	2.16	B	2.48	B
Bicycle LOS Score / LOS	2.87	C	1.84	B	1.60	B		

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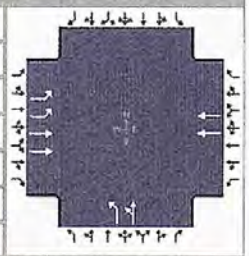
HCS7 Signalized Intersection Input Data

#3 WIP PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 with Proj...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	1260	1479			1556		643	0				

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	43.8	44.0	28.2	0.0	0.0	0.0	1	2	3	4		
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	5	6	7	8		
Red	3.0	3.0	3.0	0.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	1260	1479			1556		643	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (*AT*)	3	4			4		3	3				
Upstream Filtering (*I*)	1.00	1.00			1.00		1.00	1.00				
Lane Width (*W*), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	39.0	91.0		52.0		49.0		
Yellow Change Interval (*Y*), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (*l1*), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (*e*), s	2.0	2.0		2.0	2.0	2.0		
Passage (*PT*), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (*Walk*), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (*PC*), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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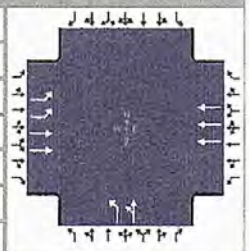
HCS7 Signalized Intersection Results Summary

#3 WP + IMP

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 with Proj...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	1260	1479			1556		643	0				

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	43.8	44.0	28.2	0.0	0.0	0.0	5	6	7	8	
Yellow	5.0	5.0	5.0	0.0	0.0	0.0					
Red	3.0	3.0	3.0	0.0	0.0	0.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	51.8	103.8		52.0		36.2		
Change Period, ($Y+R_c$), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g_s), s	45.8					27.7		
Green Extension Time (g_e), s	0.0	0.0		0.0		0.5		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6		7	4				
Adjusted Flow Rate (v), veh/h	1326	1557			1638		338	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809			1725		1810	1900				
Queue Service Time (g_s), s	43.8	12.4			44.0		25.7	0.0				
Cycle Queue Clearance Time (g_c), s	43.8	12.4			44.0		25.7	0.0				
Green Ratio (g/C)	0.64	0.68			0.31		0.20	0.20				
Capacity (c), veh/h	1234	2475			1627		365	383				
Volume-to-Capacity Ratio (X)	1.075	0.629			1.007		0.928	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	989.5	115.3			693.6		470.1	0				
Back of Queue (Q), veh/ln (95 th percentile)	39.6	4.6			27.7		18.8	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d_1), s/veh	42.1	2.5			40.7		54.9	0.0				
Incremental Delay (d_2), s/veh	48.2	1.2			23.9		14.6	0.0				
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (d), s/veh	90.3	3.7			64.6		69.5	0.0				
Level of Service (LOS)	F	A			F		E					
Approach Delay, s/veh / LOS	43.5	D		64.6	E		69.5	E		0.0		
Intersection Delay, s/veh / LOS	52.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.65	B	1.71	B	2.33	B	2.62	C
Bicycle LOS Score / LOS	2.87	C	1.39	A	1.60	B		

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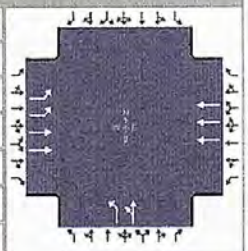
HCS7 Signalized Intersection Input Data

#3 w/p + imp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 with Proj...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	1260	1479			1556		643	0				

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	43.8	44.0	28.2	0.0	0.0	0.0	5	6	7	8	
Yellow	5.0	5.0	5.0	0.0	0.0	0.0					
Red	3.0	3.0	3.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	1260	1479			1556		643	0				
Initial Queue (Q_b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s_o), veh/h	1900	1900			1900		1900	1900				
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (I)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	39.0	91.0		52.0		49.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R_c), s	3.0	3.0		3.0		3.0		
Minimum Green (G_{min}), s	7	15		15		7		
Start-Up Lost Time (l_1), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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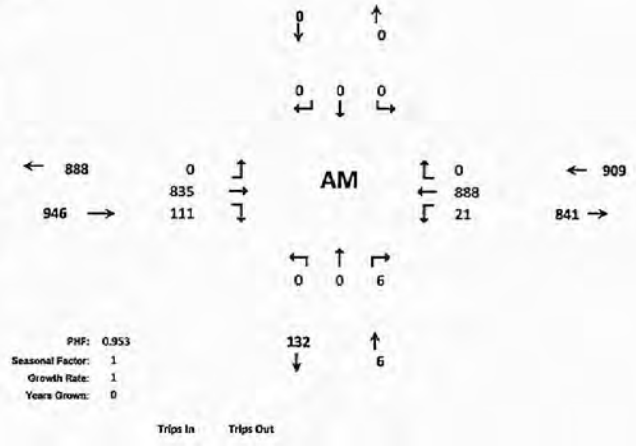
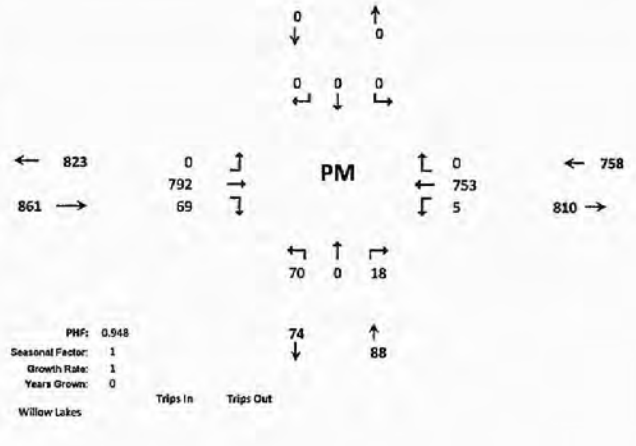
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: LTC Pkwy
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
REPORT DATE:
DAY: Tuesday
ANALYSIS YEAR: 2020
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: TWSC

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	1	0	0	0	0	159	30	5	203	0	398	1804
7:15-7:30	0	0	3	0	0	0	0	158	24	7	243	0	435	1861
7:30-7:45	0	0	1	0	0	0	0	217	27	2	236	0	483	1856
7:45-8:00	0	0	2	0	0	0	0	226	30	6	224	0	488	1700
8:00-8:15	0	0	0	0	0	0	0	234	30	6	185	0	455	1513
8:15-8:30	0	0	2	0	0	0	0	223	22	2	181	0	430	
8:30-8:45	0	0	0	0	0	0	0	143	8	3	173	0	327	
8:45-9:00	0	0	0	0	0	0	0	140	13	7	141	0	301	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	0	0	6	0	0	0	0	835	111	21	888	0	1861	
Season Factor	0	0	6	0	0	0	0	835	111	21	888	0	1861	
Growth	0	0	6	0	0	0	0	835	111	21	888	0	1861	
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	6	0	0	0	0	835	111	21	888	0	1861	



15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	15	0	3	0	0	0	0	185	7	2	224	0	436	1672
4:15-4:30	15	0	1	0	0	0	0	151	16	1	211	0	395	1686
4:30-4:45	15	0	3	0	0	0	0	188	16	0	194	0	416	1707
4:45-5:00	18	0	3	0	0	0	0	220	22	3	159	0	425	1677
5:00-5:15	25	0	9	0	0	0	0	175	19	1	221	0	450	1622
5:15-5:30	12	0	3	0	0	0	0	209	12	1	179	0	416	
5:30-5:45	17	0	0	0	0	0	0	182	12	0	175	0	386	
5:45-6:00	6	0	2	0	0	0	0	194	9	0	159	0	370	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	70	0	18	0	0	0	0	792	69	5	753	0	1707	
Season Factor	70	0	18	0	0	0	0	792	69	5	753	0	1707	
Growth	70	0	18	0	0	0	0	792	69	5	753	0	1707	
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	70	0	18	0	0	0	0	792	69	5	753	0	1707	



F-58

#43

#4E

HCS7 Two-Way Stop-Control Report

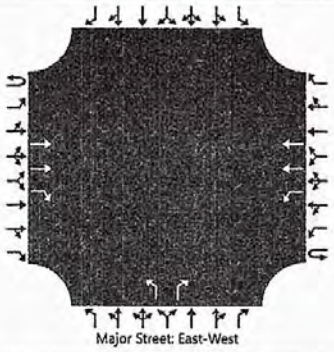
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2020
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Existing

Site Information

Intersection	Midway & LTC Pkwy
Jurisdiction	St. Lucie County
East/West Street	Midway Road
North/South Street	LTC Parkway
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			835	111	0	21	888			0		6				
Percent Heavy Vehicles (%)					3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							1						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.16				6.86		6.96				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						22				0		6				
Capacity, c (veh/h)						684				254		563				
v/c Ratio						0.03				0.00		0.01				
95% Queue Length, Q_{95} (veh)						0.1				0.0		0.0				
Control Delay (s/veh)						10.4				19.2		11.5				
Level of Service (LOS)						B				C		B				
Approach Delay (s/veh)						0.2				11.5						
Approach LOS										B						

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HCS7 Two-Way Stop-Control Report

/

General Information

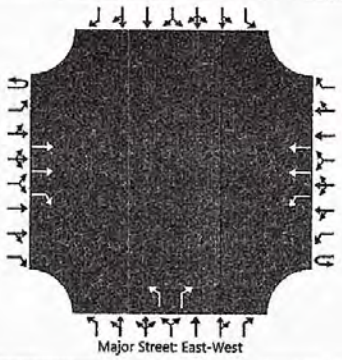
Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2020
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Existing

Site Information

#4E

Intersection	Midway & LTC Pkwy
Jurisdiction	St. Lucie County
East/West Street	Midway Road
North/South Street	LTC Parkway
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			792	69	0	5	753			70		18				
Percent Heavy Vehicles (%)					3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No								No							
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.16				6.86		6.96				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						5				74		19				
Capacity, c (veh/h)						740				287		582				
v/c Ratio						0.01				0.26		0.03				
95% Queue Length, Q_{95} (veh)						0.0				1.0		0.1				
Control Delay (s/veh)						9.9				21.8		11.4				
Level of Service (LOS)						A				C		B				
Approach Delay (s/veh)					0.1				19.7							
Approach LOS									C							

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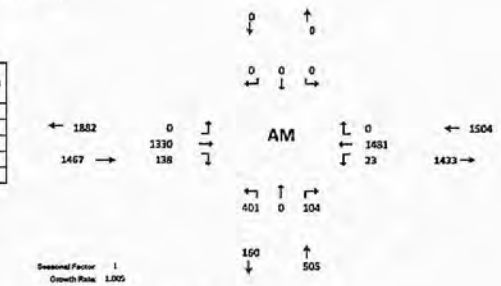
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: LTC Pkwy
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
REPORT DATE:
DAY: Tuesday
ANALYSIS YEAR 2035
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: TWSC

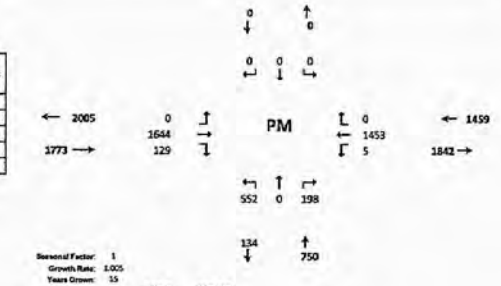
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	3	0	1	0	0	0	0	159	30	5	203	0	398	1804
7:15-7:30	0	0	3	0	0	0	0	158	24	7	243	0	435	1861
7:30-7:45	0	0	1	0	0	0	0	217	27	2	236	0	483	1856
7:45-8:00	0	0	2	0	0	0	0	226	20	6	224	0	488	1709
8:00-8:15	0	0	0	0	0	0	0	134	30	6	185	0	455	1543
8:15-8:30	0	0	2	0	0	0	0	223	22	2	181	0	430	
8:30-8:45	0	0	0	0	0	0	0	143	8	3	173	0	327	
8:45-9:00	0	0	0	0	0	0	0	140	13	7	141	0	301	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	3	0	6	0	0	0	0	835	111	21	888	0	1861	
Season Factor	0	0	6	0	0	0	0	835	111	21	888	0	1861	
Growth	0	0	6	0	0	0	0	900	120	23	957	0	2006	
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	3%							13%	3%		13%			
Village at Midway	44							78	18		189		329	
LTC Ranch %	19.6%		6.0%					8.0%			8.0%			
LTC Ranch Volume	357		97					146			130		731	
Southern Grove %								1.0%			1.0%			
Southern Grove								62			53		115	
Wilson Groves %								1.0%			1.0%			
Wilson Groves								39			38		77	
Riverland/Kennedy %								1.0%			1.0%			
Riverland/Kennedy								48			56		104	
Western Grove %								1.0%			1.0%			
Western Grove								14			21		35	
Ravina %								5.0%			5.0%			
Ravina								1			3		5	
Shinn Road 251 %								27.0%			27.0%			
Shinn Road 251								29			31		60	
Shinn Road Equestrian Estates %								20.0%			20.0%			
Shinn Road Equestrian Estates								13			4		17	
Total	403	0	104	0	0	0	0	1159	138	21	1481	0	3476	



	Seasonal Factor: 1	Growth Rate: 1.005	Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,327	1,052
Village at Midway	1,451	601
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravina	32	68
Shinn Road 251	113	105
Shinn Road Equestrian Estates	21	63

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	15	0	3	0	0	0	0	835	7	1	224	0	426	1672
4:15-4:30	15	0	1	0	0	0	0	851	16	1	211	0	395	1686
4:30-4:45	15	0	3	0	0	0	0	858	16	0	194	0	416	1707
4:45-5:00	18	0	3	0	0	0	0	220	22	3	159	0	425	1677
5:00-5:15	25	0	9	0	0	0	0	175	19	1	221	0	450	1622
5:15-5:30	12	0	3	0	0	0	0	209	12	1	175	0	416	
5:30-5:45	17	0	0	0	0	0	0	182	12	0	175	0	386	
5:45-6:00	6	0	2	0	0	0	0	194	5	0	159	0	370	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	70	0	18	0	0	0	0	792	69	5	753	0	1707	
Season Factor	70	0	18	0	0	0	0	792	69	5	753	0	1707	
Growth	75	0	19	0	0	0	0	854	74	5	831	0	1849	
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	3.0%							13.0%	3.0%		13.0%			
Village at Midway	23							237	55		94		408	
LTC Ranch %	19.0%		6.0%					9.0%			8.0%			
LTC Ranch Volume	453		178					238			186		1056	
Southern Grove %								1.0%			1.0%			
Southern Grove								70			101		171	
Wilson Groves %								1.0%			1.0%			
Wilson Groves								45			56		102	
Riverland/Kennedy %								1.0%			1.0%			
Riverland/Kennedy								71			73		144	
Western Grove %								1.0%			1.0%			
Western Grove								25			21		46	
Ravina %								5.0%			5.0%			
Ravina								4			2		6	
Shinn Road 251 %								27.0%			27.0%			
Shinn Road 251								92			95		187	
Shinn Road Equestrian Estates %								20.0%			20.0%			
Shinn Road Equestrian Estates								8			14		22	
Total	552	0	198	0	0	0	0	1644	129	5	1453	0	3981	



	Seasonal Factor: 1	Growth Rate: 1.005	Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,441	1,037
Village at Midway	726	1,824
LTC Ranch	2,330	2,970
Southern Grove	6,990	13,071
Wilson Groves	4,543	5,619
Riverland/Kennedy	7,995	7,279
Western Grove	2,520	2,063
Ravina	77	44
Shinn Road 251	151	341
Shinn Road Equestrian Estates	71	43

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#4 w/o Page 8

7/10/2020

#4 w/o AM

HCS7 Two-Way Stop-Control Report

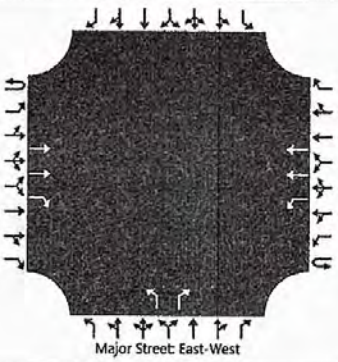
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	without Project

Site Information

Intersection	Midway & LTC Pkwy
Jurisdiction	St. Lucie County
East/West Street	Midway Road
North/South Street	LTC Parkway
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			1330	138	0	23	1481			401		104				
Percent Heavy Vehicles (%)					3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							1						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.16				6.86		6.96				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						24				422		109				
Capacity, c (veh/h)						421				129		379				
v/c Ratio						0.06				3.28		0.29				
95% Queue Length, Q_{95} (veh)						0.2				40.6		1.2				
Control Delay (s/veh)						14.1				1098.9		18.3				
Level of Service (LOS)						B				F		C				
Approach Delay (s/veh)						0.2				876.3						
Approach LOS										F						

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4 W/O AM

HCS7 Two-Way Stop-Control Report

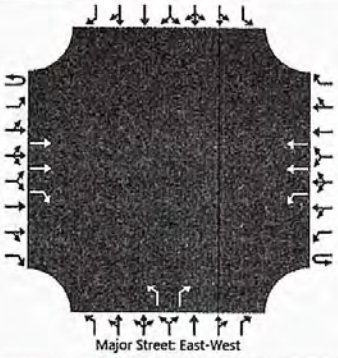
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	without Project

Site Information

Intersection	Midway & LTC Pkwy
Jurisdiction	St. Lucie County
East/West Street	Midway Road
North/South Street	LTC Parkway
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			1644	129	0	5	1453			552		198				
Percent Heavy Vehicles (%)					3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							1						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.16				6.86		6.96				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						5				581		208				
Capacity, c (veh/h)						315				95		295				
v/c Ratio						0.02				6.09		0.71				
95% Queue Length, Q_{95} (veh)						0.1				64.1		5.0				
Control Delay (s/veh)						16.6				2378.8		42.0				
Level of Service (LOS)						C				F		E				
Approach Delay (s/veh)						0.1				1761.9						
Approach LOS										F						

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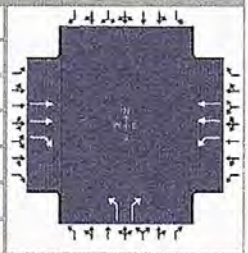
HCS7 Signalized Intersection Results Summary #4 w/o AM + imp

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	LTC Parkway	File Name	LTC Pkwy Midway - AM - 2035 w.o. Project + Imp...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1330	138	23	1481		401		104			

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4		
Green	3.3	74.7	24.0	0.0	0.0	0.0						
Yellow	4.0	4.0	4.0	0.0	0.0	0.0						
Red	2.0	2.0	2.0	0.0	0.0	0.0	5	6	7	8		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		80.7	9.3	90.0		30.0		
Change Period, ($Y+R_c$), s		6.0	6.0	6.0		6.0		
Max Allow Headway (*MAH*), s		0.0	3.0	0.0		3.1		
Queue Clearance Time (g_s), s			2.5			26.0		
Green Extension Time (g_e), s		0.0	0.0	0.0		0.0		
Phase Call Probability			0.55			1.00		
Max Out Probability			0.00			1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate (*v*), veh/h		1400	145	24	1559		422		109			
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1809	1610	1810	1809		1810		1610			
Queue Service Time (g_s), s		28.6	4.5	0.5	27.3		24.0		7.0			
Cycle Queue Clearance Time (g_c), s		28.6	4.5	0.5	27.3		24.0		7.0			
Green Ratio (*g/C*)		0.62	0.62	0.67	0.70		0.20		0.20			
Capacity (*c*), veh/h		2251	1002	260	2532		362		322			
Volume-to-Capacity Ratio (*X*)		0.622	0.145	0.093	0.616		1.166		0.340			
Back of Queue (Q), ft/ln (95 th percentile)		402.6	68.6	8.5	354		758.2		123			
Back of Queue (Q), veh/ln (95 th percentile)		16.1	2.7	0.3	14.2		30.3		4.9			
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d_1), s/veh		14.0	9.4	10.9	9.5		48.0		41.2			
Incremental Delay (d_2), s/veh		1.3	0.3	0.1	1.1		100.8		0.2			
Initial Queue Delay (d_3), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (*d*), s/veh		15.3	9.7	11.0	10.6		148.8		41.4			
Level of Service (LOS)		B	A	B	B		F		D			
Approach Delay, s/veh / LOS	14.7	B		10.6	B		126.7	F		0.0		
Intersection Delay, s/veh / LOS	29.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	0.67	A	2.33	B	2.32	B
Bicycle LOS Score / LOS	1.76	B	1.79	B		F		

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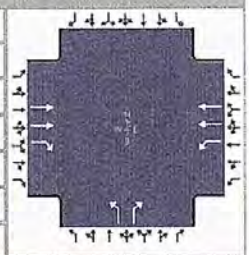
HCS7 Signalized Intersection Input Data

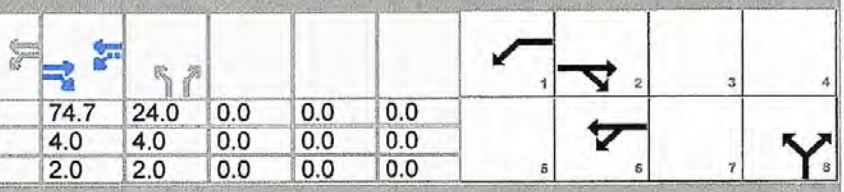
#4 w/o AM + imp

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	LTC Parkway	File Name	LTC Pkwy & Midway - AM - 2035 w.o. Project + I...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1330	138	23	1481		401		104			

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	3.3	74.7		24.0	0.0	0.0	0.0					
Yellow	4.0	4.0		4.0	0.0	0.0	0.0					
Red	2.0	2.0		2.0	0.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1330	138	23	1481		401		104			
Initial Queue (Q_b), veh/h		0	0	0	0		0		0			
Base Saturation Flow Rate (s_o), veh/h		1900	1900	1900	1900		1900		1900			
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %		0	0	0	0		0		0			
Ped / Bike / RTOR, /h	0	0	0	0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)		3	3	3	3		3		3			
Upstream Filtering (I)		1.00	1.00	1.00	1.00		1.00		1.00			
Lane Width (W), ft		12.0	12.0	12.0	12.0		12.0		12.0			
Turn Bay Length, ft		0	0	0	0		0		0			
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45	45	45	45		45		45			

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		70.0	20.0	90.0		30.0		
Yellow Change Interval (Y), s		4.0	4.0	4.0		4.0		
Red Clearance Interval (R_c), s		2.0	2.0	2.0		2.0		
Minimum Green (G_{min}), s		6	6	6		6		
Start-Up Lost Time (l_1), s		2.0	2.0	2.0	2.0			
Extension of Effective Green (e), s		2.0	2.0	2.0	2.0			
Passage (PT), s		2.0	2.0	2.0		2.0		
Recall Mode		Min	Off	Min		Off		
Dual Entry		Yes	No	Yes		Yes		
Walk (Walk), s		0.0	0.0	0.0	0.0			
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0	0.0			

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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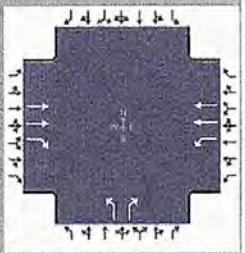
HCS7 Signalized Intersection Results Summary #4 w/o PM timp

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	LTC Parkway	File Name	LTC Pkwy Midway - PM - 2035 w.o. Project + Im...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1644	129	5	1453		552		198			

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	1.0	67.0	34.0	0.0	0.0	0.0						
Yellow	4.0	4.0	4.0	0.0	0.0	0.0		5	6	7	8	
Red	2.0	2.0	2.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		73.0	7.0	80.0		40.0		
Change Period, (*Y+R c*), s		6.0	6.0	6.0		6.0		
Max Allow Headway (*MAH*), s		0.0	3.0	0.0		3.1		
Queue Clearance Time (*g s*), s			2.1			36.0		
Green Extension Time (*g e*), s		0.0	0.0	0.0		0.0		
Phase Call Probability			0.16			1.00		
Max Out Probability			0.00			1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate (*v*), veh/h		1731	136	5	1529		581		208			
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1809	1610	1810	1809		1810		1610			
Queue Service Time (*g s*), s		48.6	1.7	0.1	33.7		34.0		12.8			
Cycle Queue Clearance Time (*g c*), s		48.6	1.7	0.1	33.7		34.0		12.8			
Green Ratio (*g/C*)		0.56	0.84	0.58	0.62		0.28		0.28			
Capacity (*c*), veh/h		2021	1356	118	2231		513		456			
Volume-to-Capacity Ratio (*X*)		0.856	0.100	0.044	0.686		1.133		0.457			
Back of Queue (Q), ft/ln (95 th percentile)		679.4	13.7	2.6	464.6		932.7		213.2			
Back of Queue (Q), veh/ln (95 th percentile)		27.2	0.5	0.1	18.6		37.3		8.5			
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (*d 1*), s/veh		22.4	1.6	21.3	15.3		43.0		35.4			
Incremental Delay (*d 2*), s/veh		4.9	0.1	0.1	1.7		81.9		0.3			
Initial Queue Delay (*d 3*), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (*d*), s/veh		27.3	1.8	21.4	17.0		124.9		35.7			
Level of Service (LOS)		C	A	C	B		F		D			
Approach Delay, s/veh / LOS	25.5	C		17.0	B		101.3	F		0.0		
Intersection Delay, s/veh / LOS	36.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	0.69	A	2.33	B	2.32	B
Bicycle LOS Score / LOS	2.03	B	1.75	B		F		

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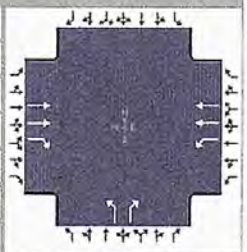
HCS7 Signalized Intersection Input Data

#4 w/o PM + MD

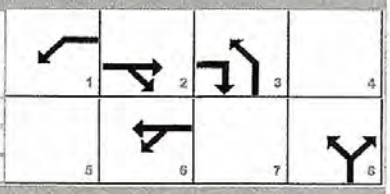
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	LTC Parkway	File Name	LTC Pkwy & Midway - PM - 2035 w.o. Project + I...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1644	129	5	1453		552		198			

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.0	67.0	34.0	0.0	0.0	0.0	
Yellow	4.0	4.0	4.0	0.0	0.0	0.0	
Red	2.0	2.0	2.0	0.0	0.0	0.0	



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1644	129	5	1453		552		198			
Initial Queue (Q_b), veh/h		0	0	0	0		0		0			
Base Saturation Flow Rate (s_o), veh/h		1900	1900	1900	1900		1900		1900			
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %		0	0	0	0		0		0			
Ped / Bike / RTOR, /h	0	0	0	0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)		3	3	3	3		3		3			
Upstream Filtering (I)		1.00	1.00	1.00	1.00		1.00		1.00			
Lane Width (W), ft		12.0	12.0	12.0	12.0		12.0		12.0			
Turn Bay Length, ft		0	0	0	0		0		0			
Grade (P_g), %		0			0			0			0	
Speed Limit, mi/h		45	45	45	45		45		45			

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		60.0	20.0	80.0	20.0	40.0		
Yellow Change Interval (Y), s		4.0	4.0	4.0	4.0	4.0		
Red Clearance Interval (R_c), s		2.0	2.0	2.0	2.0	2.0		
Minimum Green (G_{min}), s		6	6	6	6	6		
Start-Up Lost Time (l_t), s		2.0	2.0	2.0	2.0			
Extension of Effective Green (e), s		2.0	2.0	2.0	2.0			
Passage (PT), s		2.0	2.0	2.0	2.0	2.0		
Recall Mode		Min	Off	Min	Off	Off		
Dual Entry		Yes	No	Yes	No	Yes		
Walk (Walk), s		0.0	0.0	0.0	0.0			
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0	0.0			

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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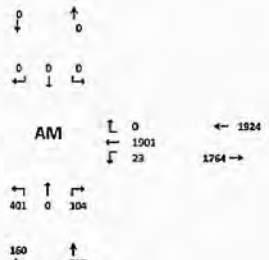
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: LTC Pkwy
FILENAME: Willow Lakes
COUNT DATE: 1/14/2020
REPORT DATE:
DAY: Tuesday
ANALYSIS YEAR: 2035
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: TWSC

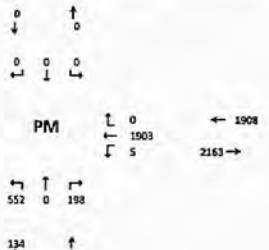
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	1	0	0	0	0	159	30	5	201	6	308	1804
7:15-7:30	0	0	3	0	0	0	0	158	24	7	243	8	435	1801
7:30-7:45	0	0	1	0	0	0	0	217	27	2	236	0	483	1856
7:45-8:00	0	0	2	0	0	0	0	226	30	6	224	0	488	1709
8:00-8:15	0	0	0	0	0	0	0	234	30	6	185	0	455	1513
8:15-8:30	0	0	2	0	0	0	0	223	22	2	181	0	430	
8:30-8:45	0	0	0	0	0	0	0	143	8	3	173	0	327	
8:45-9:00	0	0	0	0	0	0	0	143	13	7	141	0	301	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	0	0	6	0	0	0	0	835	111	21	888	0	1861	
Season Factor	0	0	6	0	0	0	0	835	111	21	888	0	1861	
Growth	0	0	6	0	0	0	0	900	120	23	957	0	2006	
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	31%	0%	0%	31%	0%		
PROJECT	0	0	0	0	0	0	0	330	0	0	420	0	750	
Midway %	3%							13%	3%		13%			
Village at Midway	44							78	18		189		329	
LTC Ranch %	19.6%		6.0%					8.0%			8.0%			
LTC Ranch Volume	157		97					141			130		731	
Southern Grove %								1.0%			1.0%			
Southern Grove								62			53		115	
Wilson Groves %								1.0%			1.0%			
Wilson Groves								39			38		77	
Riverland/Kennedy %								1.0%			1.0%			
Riverland/Kennedy								48			56		104	
Western Grove %								1.0%			1.0%			
Western Grove								14			21		35	
Ravina %								5.0%			5.0%			
Ravina								1			3		5	
Shinn Road 251 %								27.0%			27.0%			
Shinn Road 251								29			31		60	
Shinn Road Equestrian Estates %								20.0%			20.0%			
Shinn Road Equestrian Estates								13			4		17	
Total	401	0	104	0	0	0	0	1660	138	23	1901	0	4226	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,155	1,065
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Southern Grove	6,118	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravina	72	68
Shinn Road 251	133	109
Shinn Road Equestrian Estates	21	63

15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	15	0	3	0	0	0	0	185	7	2	224	0	436	1672
4:15-4:30	15	0	1	0	0	0	0	151	16	1	211	0	395	1685
4:30-4:45	15	0	1	0	0	0	0	188	16	0	194	0	416	1707
4:45-5:00	18	0	3	0	0	0	0	220	22	3	159	0	425	1673
5:00-5:15	25	0	9	0	0	0	0	175	19	1	221	0	450	1633
5:15-5:30	12	0	3	0	0	0	0	209	12	1	179	0	416	
5:30-5:45	17	0	0	0	0	0	0	182	12	0	175	0	386	
5:45-6:00	6	0	2	0	0	0	0	194	9	0	159	0	370	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	70	0	18	0	0	0	0	792	69	5	753	0	1707	
Season Factor	70	0	18	0	0	0	0	792	69	5	753	0	1707	
Growth	75	0	19	0	0	0	0	854	74	5	811	0	1840	
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	31%	0%	0%	31%	0%		
PROJECT	0	0	0	0	0	0	0	321	0	0	450	0	771	
Midway %	3.0%							13.0%	3.0%		13.0%			
Village at Midway	32							237	55		84		408	
LTC Ranch %	19.6%		6.0%					8.0%			8.0%			
LTC Ranch Volume	455		378					338			286		1056	
Southern Grove %								1.0%			1.0%			
Southern Grove								70			101		171	
Wilson Groves %								1.0%			1.0%			
Wilson Groves								45			56		102	
Riverland/Kennedy %								1.0%			1.0%			
Riverland/Kennedy								71			73		144	
Western Grove %								1.0%			1.0%			
Western Grove								15			23		46	
Ravina %								5.0%			5.0%			
Ravina								4			2		6	
Shinn Road 251 %								27.0%			27.0%			
Shinn Road 251								92			95		187	
Shinn Road Equestrian Estates %								20.0%			20.6%			
Shinn Road Equestrian Estates								8			14		23	
Total	552	0	198	0	0	0	0	1965	179	5	1903	0	4752	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,450	1,834
Village at Midway	716	1,824
LTC Ranch	2,320	2,970
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,055	7,277
Western Grove	2,513	2,063
Ravina	77	44
Shinn Road 251	353	344
Shinn Road Equestrian Estates	71	42

F-68

4 WIP

#4 w/P AM

HCS7 Two-Way Stop-Control Report

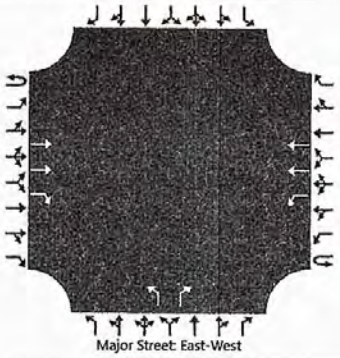
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	with Project

Site Information

Intersection	Midway & LTC Pkwy
Jurisdiction	St. Lucie County
East/West Street	Midway Road
North/South Street	LTC Parkway
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			1660	138	0	23	1901			401		104				
Percent Heavy Vehicles (%)					3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							1						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.16				6.86		6.96				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						24				422		109				
Capacity, c (veh/h)						308				83		291				
v/c Ratio						0.08				5.09		0.38				
95% Queue Length, Q_{95} (veh)						0.3				45.8		1.7				
Control Delay (s/veh)						17.7				1939.7		24.6				
Level of Service (LOS)						C				F		C				
Approach Delay (s/veh)						0.2				1545.3						
Approach LOS										F						

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#4 w/P PM

HCS7 Two-Way Stop-Control Report

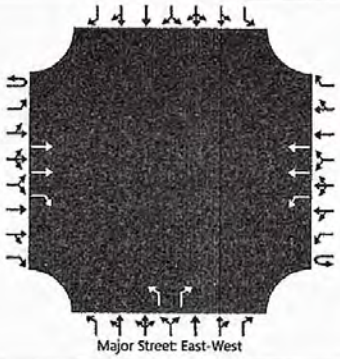
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	with Project

Site Information

Intersection	Midway & LTC Pkwy
Jurisdiction	St. Lucie County
East/West Street	Midway Road
North/South Street	LTC Parkway
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			1965	129	0	5	1903			552		198				
Percent Heavy Vehicles (%)					3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							1						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.16				6.86		6.96				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						5				581		208				
Capacity, c (veh/h)						232				62		227				
v/c Ratio						0.02				9.42		0.92				
95% Queue Length, Q_{95} (veh)						0.1				68.1		7.7				
Control Delay (s/veh)						20.9				3918.5		85.0				
Level of Service (LOS)						C				F		F				
Approach Delay (s/veh)						0.1				2906.5						
Approach LOS										F						

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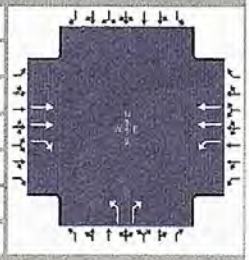
HCS7 Signalized Intersection Results Summary

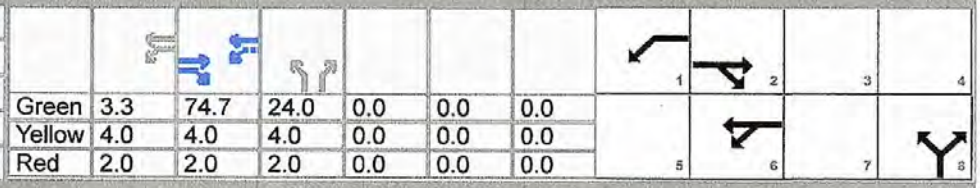
#4 w/P AM + Imp

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	LTC Parkway	File Name	LTC Pkwy Midway - AM - 2035 with Project + Imp...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1660	138	23	1901		401		104			

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.3	74.7	24.0	0.0	0.0	0.0						
Yellow	4.0	4.0	4.0	0.0	0.0	0.0						
Red	2.0	2.0	2.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		80.7	9.3	90.0		30.0		
Change Period, ($Y+R_c$), s		6.0	6.0	6.0		6.0		
Max Allow Headway (MAH), s		0.0	3.0	0.0		3.1		
Queue Clearance Time (g_s), s			2.5			26.0		
Green Extension Time (g_e), s		0.0	0.0	0.0		0.0		
Phase Call Probability			0.55			1.00		
Max Out Probability			0.00			1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate (v), veh/h		1747	145	24	2001		422		109			
Adjusted Saturation Flow Rate (s), veh/h/ln		1809	1610	1810	1809		1810		1610			
Queue Service Time (g_s), s		42.3	4.5	0.5	44.6		24.0		7.0			
Cycle Queue Clearance Time (g_c), s		42.3	4.5	0.5	44.6		24.0		7.0			
Green Ratio (g/C)		0.62	0.62	0.67	0.70		0.20		0.20			
Capacity (c), veh/h		2251	1002	185	2532		362		322			
Volume-to-Capacity Ratio (X)		0.776	0.145	0.131	0.790		1.166		0.340			
Back of Queue (Q), ft/ln (95 th percentile)		567.3	68.6	10.7	543.3		758.2		123			
Back of Queue (Q), veh/ln (95 th percentile)		22.7	2.7	0.4	21.7		30.3		4.9			
Queue Storage Ratio (RQ) (95 th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d_1), s/veh		16.6	9.4	15.7	12.1		48.0		41.2			
Incremental Delay (d_2), s/veh		2.7	0.3	0.1	2.6		100.8		0.2			
Initial Queue Delay (d_3), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh		19.3	9.7	15.8	14.7		148.8		41.4			
Level of Service (LOS)		B	A	B	B		F		D			
Approach Delay, s/veh / LOS	18.5	B		14.7	B		126.7	F		0.0		
Intersection Delay, s/veh / LOS	29.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	0.67	A	2.33	B	2.32	B
Bicycle LOS Score / LOS	2.05	B	2.16	B		F		

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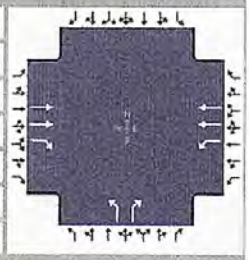
HCS7 Signalized Intersection Input Data

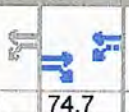
#4 w/p AM+imp

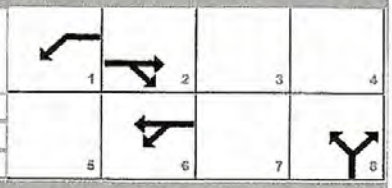
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	LTC Parkway	File Name	LTC Pkwy & Midway - AM - 2035 with Project + I...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1660	138	23	1901		401		104			

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On





Green	3.3	74.7	24.0	0.0	0.0	0.0						
Yellow	4.0	4.0	4.0	0.0	0.0	0.0						
Red	2.0	2.0	2.0	0.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1660	138	23	1901		401		104			
Initial Queue (Q_b), veh/h		0	0	0	0		0		0			
Base Saturation Flow Rate (s_o), veh/h		1900	1900	1900	1900		1900		1900			
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %		0	0	0	0		0		0			
Ped / Bike / RTOR, /h	0	0	0	0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)		3	3	3	3		3		3			
Upstream Filtering (I)		1.00	1.00	1.00	1.00		1.00		1.00			
Lane Width (W), ft		12.0	12.0	12.0	12.0		12.0		12.0			
Turn Bay Length, ft		0	0	0	0		0		0			
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45	45	45	45		45		45			

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		70.0	20.0	90.0		30.0		
Yellow Change Interval (Y), s		4.0	4.0	4.0		4.0		
Red Clearance Interval (R_c), s		2.0	2.0	2.0		2.0		
Minimum Green (G_{min}), s		6	6	6		6		
Start-Up Lost Time (l1), s		2.0	2.0	2.0	2.0			
Extension of Effective Green (e), s		2.0	2.0	2.0	2.0			
Passage (PT), s		2.0	2.0	2.0		2.0		
Recall Mode		Min	Off	Min		Off		
Dual Entry		Yes	No	Yes		Yes		
Walk (Walk), s		0.0	0.0	0.0	0.0			
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0	0.0			

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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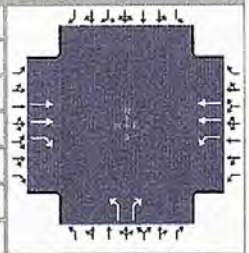
HCS7 Signalized Intersection Results Summary #4 w/p PM+imp

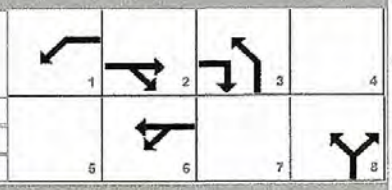
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	LTC Parkway	File Name	LTC Pkwy Midway - PM - 2035 with Project + Im...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1965	129	5	1903		552		198			

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.1	86.9	34.0	0.0	0.0	0.0	
Yellow	4.0	4.0	4.0	0.0	0.0	0.0	
Red	2.0	2.0	2.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		92.9	7.1	100.0		40.0		
Change Period, ($Y+R_c$), s		6.0	6.0	6.0		6.0		
Max Allow Headway (MAH), s		0.0	3.0	0.0		3.1		
Queue Clearance Time (g_s), s			2.1			36.0		
Green Extension Time (g_e), s		0.0	0.0	0.0		0.0		
Phase Call Probability			0.19			1.00		
Max Out Probability			0.00			1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate (v), veh/h		2068	136	5	2003		581		208			
Adjusted Saturation Flow Rate (s), veh/h/ln		1809	1610	1810	1809		1810		1610			
Queue Service Time (g_s), s		70.9	1.8	0.1	57.1		34.0		15.8			
Cycle Queue Clearance Time (g_c), s		70.9	1.8	0.1	57.1		34.0		15.8			
Green Ratio (g/C)		0.62	0.86	0.64	0.67		0.24		0.24			
Capacity (c), veh/h		2245	1390	89	2429		439		391			
Volume-to-Capacity Ratio (X)		0.921	0.098	0.059	0.825		1.322		0.533			
Back of Queue (Q), ft/ln (95 th percentile)		960	14	4.2	736.4		1278.8		259.6			
Back of Queue (Q), veh/ln (95 th percentile)		38.4	0.6	0.2	29.5		51.2		10.4			
Queue Storage Ratio (RQ) (95 th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d_1), s/veh		23.5	1.4	28.5	16.9		53.0		46.1			
Incremental Delay (d_2), s/veh		7.7	0.1	0.1	3.3		160.2		0.7			
Initial Queue Delay (d_3), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh		31.2	1.6	28.6	20.3		213.2		46.8			
Level of Service (LOS)		C	A	C	C		F		D			
Approach Delay, s/veh / LOS	29.4	C		20.3	C		169.3	F		0.0		
Intersection Delay, s/veh / LOS	47.8						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.89	B	0.68	A	2.33	B	2.33	B
Bicycle LOS Score / LOS	2.31	B	2.14	B		F		

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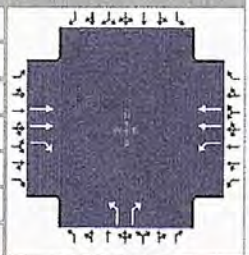
HCS7 Signalized Intersection Input Data

#4 w/P PM temp

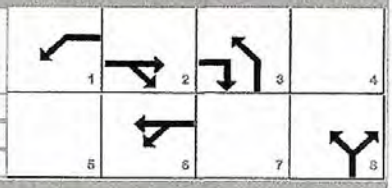
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	LTC Parkway	File Name	LTC Pkwy Midway - PM - 2035 with Project + Im...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1965	129	5	1903		552		198			

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.1	86.9	34.0	0.0	0.0	0.0						
Yellow	4.0	4.0	4.0	0.0	0.0	0.0						
Red	2.0	2.0	2.0	0.0	0.0	0.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h		1965	129	5	1903		552		198			
Initial Queue (Q_b), veh/h		0	0	0	0		0		0			
Base Saturation Flow Rate (s_o), veh/h		1900	1900	1900	1900		1900		1900			
Parking (N_m), man/h		None			None			None				
Heavy Vehicles (P_{HV}), %		0	0	0	0		0		0			
Ped / Bike / RTOR, /h	0	0	0	0	0		0	0		0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (*AT*)		3	3	3	3		3		3			
Upstream Filtering (*I*)		1.00	1.00	1.00	1.00		1.00		1.00			
Lane Width (*W*), ft		12.0	12.0	12.0	12.0		12.0		12.0			
Turn Bay Length, ft		0	0	0	0		0		0			
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h		45	45	45	45		45		45			

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		80.0	20.0	100.0	20.0	40.0		
Yellow Change Interval (*Y*), s		4.0	4.0	4.0	4.0	4.0		
Red Clearance Interval (R_c), s		2.0	2.0	2.0	2.0	2.0		
Minimum Green (G_{min}), s		6	6	6	6	6		
Start-Up Lost Time (*l1*), s		2.0	2.0	2.0	2.0			
Extension of Effective Green (*e*), s		2.0	2.0	2.0	2.0			
Passage (*PT*), s		2.0	2.0	2.0	2.0	2.0		
Recall Mode		Min	Off	Min	Off	Off		
Dual Entry		Yes	No	Yes	No	Yes		
Walk (*Walk*), s		0.0	0.0	0.0	0.0			
Pedestrian Clearance Time (*PC*), s		0.0	0.0	0.0	0.0			

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

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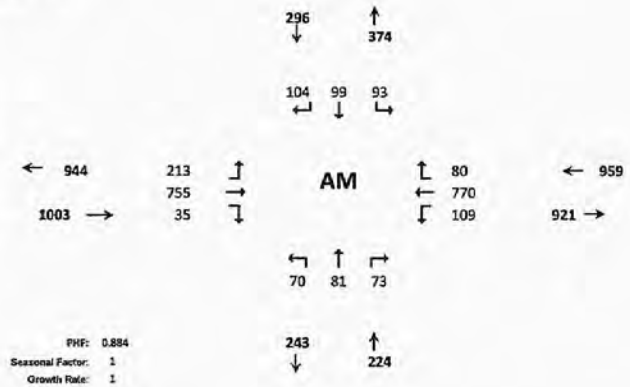
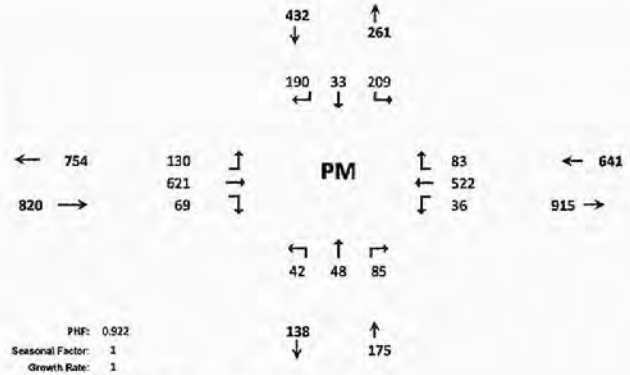
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Glades Cut Off
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2020

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	17	25	9	16	12	22	28	148	5	40	169	27	518	2438
7:15-7:30	17	25	13	24	16	31	52	156	8	43	214	19	628	2482
7:30-7:45	26	20	29	22	18	27	29	170	13	24	196	16	590	2330
7:45-8:00	18	20	25	29	37	22	51	261	9	25	187	18	702	2200
8:00-8:15	9	16	6	18	18	24	81	168	5	17	173	27	562	1880
8:15-8:30	7	4	4	15	5	33	40	139	9	17	170	33	476	
8:30-8:45	8	11	15	25	8	22	43	119	5	16	173	15	460	
8:45-9:00	3	12	12	17	7	22	37	110	1	17	131	13	382	
AM PEAK HOUR IS FROM:	7:15AM TO 8:15AM													
Volumes	70	81	73	93	99	104	213	755	35	109	770	80	2482	
Season Factor	70	81	73	93	99	104	213	755	35	109	770	80	2482	
Growth	70	81	73	93	99	104	213	755	35	109	770	80	2482	
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	70	81	73	93	99	104	213	755	35	109	770	80	2482	



15 Min Period lanes	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	6	8	32	56	9	61	46	127	10	14	128	27	524	2068
4:15-4:30	10	20	11	56	11	61	44	161	16	3	135	33	561	2035
4:30-4:45	15	13	25	58	6	40	19	162	25	12	142	14	531	1962
4:45-5:00	11	7	17	39	7	28	21	171	18	7	117	9	452	1966
5:00-5:15	5	13	18	43	10	27	23	145	10	14	175	8	491	1923
5:15-5:30	11	10	12	46	7	21	23	159	18	15	152	14	488	
5:30-5:45	6	7	11	45	16	27	18	227	10	15	133	20	535	
5:45-6:00	1	10	12	23	7	27	17	175	2	9	115	11	409	
PM PEAK HOUR IS FROM:	4:00PM TO 5:00PM													
Volumes	42	48	85	209	33	190	130	621	69	36	522	83	2068	
Season Factor	42	48	85	209	33	190	130	621	69	36	522	83	2068	
Growth	42	48	85	209	33	190	130	621	69	36	522	83	2068	
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	42	48	85	209	33	190	130	621	69	36	522	83	2068	



F-75

#9E

#5

ECONOLITE

St. Lucie County

00022 - MIDWAY RD @ GLADES CUT OFF - - Econolite Type - Cobalt

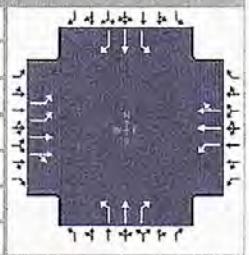
Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	15	10	7	7	10	10	7	7	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	0	0	0	0	7	0	0	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	20	0	0	0	0	0	20	0	0	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	60	20	25	25	60	10	25	35	35	35	35	35	35	35	35
Max2	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

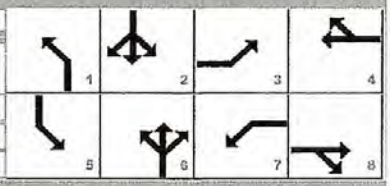
HCS7 Signalized Intersection Results Summary #5 EAM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - Existing - 6.2.202...		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	213	755	35	109	770	80	70	81	73	93	99	104

Signal Information					EB			WB			NB			SB		
Cycle, s	85.0	Reference Phase	2													
Offset, s	0	Reference Point	End	Green	9.2	3.5		10.0	7.3	0.8	24.2					
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	5.0	0.0		5.0	4.0	0.0	4.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	0.0		3.0	3.0	0.0	3.0					



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	15.1	32.0	14.3	31.2	20.7	21.5	17.2	18.0
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	3.2	3.1	3.2
Queue Clearance Time (g_s), s	7.7	20.8	7.7	23.2	4.9	5.9	6.1	7.9
Green Extension Time (g_e), s	0.4	2.0	0.0	1.0	0.1	0.8	0.1	0.8
Phase Call Probability	1.00	1.00	0.95	1.00	0.85	1.00	0.92	1.00
Max Out Probability	0.00	0.83	1.00	1.00	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	242	452	445	124	491	475	80	92	83	106	113	118
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1870	1810	1900	1837	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	5.7	18.8	18.8	5.7	21.2	21.2	2.9	3.6	3.9	4.1	4.7	5.9
Cycle Queue Clearance Time (g_c), s	5.7	18.8	18.8	5.7	21.2	21.2	2.9	3.6	3.9	4.1	4.7	5.9
Green Ratio (g/C)	0.10	0.29	0.29	0.09	0.28	0.28	0.27	0.16	0.16	0.23	0.12	0.12
Capacity (c), veh/h	335	558	549	156	541	523	436	302	256	403	223	189
Volume-to-Capacity Ratio (X)	0.722	0.811	0.811	0.793	0.908	0.908	0.182	0.304	0.324	0.262	0.503	0.624
Back of Queue (Q), ft/ln (95 th percentile)	109.1	358.4	354.3	128.6	436.5	426.3	53.4	73.7	66.7	77	97.3	104.6
Back of Queue (Q), veh/ln (95 th percentile)	4.4	14.3	14.2	5.1	17.5	17.1	2.1	2.9	2.7	3.1	3.9	4.2
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	37.4	27.8	27.8	38.1	29.3	29.3	24.0	31.6	31.7	27.1	35.2	35.7
Incremental Delay (d_2), s/veh	1.1	8.2	8.3	9.3	17.8	18.3	0.1	0.2	0.3	0.1	0.7	1.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	38.5	36.0	36.2	47.4	47.2	47.6	24.1	31.8	32.0	27.2	35.8	37.0
Level of Service (LOS)	D	D	D	D	D	D	C	C	C	C	D	D
Approach Delay, s/veh / LOS	36.6	D		47.4	D		29.4	C		33.5	C	
Intersection Delay, s/veh / LOS	39.8						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.28	B	2.29	B	2.45	B
Bicycle LOS Score / LOS	1.43	A	1.39	A	0.91	A	1.04	A

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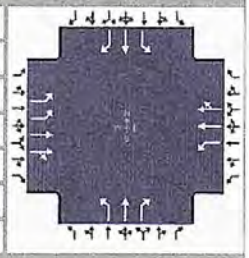
HCS7 Signalized Intersection Input Data

#5E AM

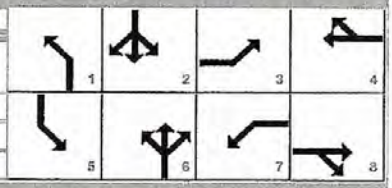
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - Existing - 6.2.202...		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	213	755	35	109	770	80	70	81	73	93	99	104

Signal Information			
Cycle, s	85.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.2	3.5		10.0	7.3	0.8	24.2					
Yellow	5.0	0.0		5.0	4.0	0.0	4.0					
Red	3.0	0.0		3.0	3.0	0.0	3.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	213	755	35	109	770	80	70	81	73	93	99	104
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	25.0	10.0	25.0	25.0	60.0	25.0	60.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	15	10	10	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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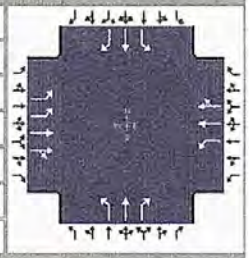
HCS7 Signalized Intersection Results Summary

#5 E.PM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off Midway - PM - Existing - 6.2.2020...		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	130	621	69	36	522	83	42	48	85	209	33	190

Signal Information			
Cycle, s	74.9	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.2	0.8	11.3	3.9	2.7	17.0	1	2	3	4		
Yellow	5.0	0.0	5.0	4.0	0.0	4.0	5	6	7	8		
Red	3.0	0.0	3.0	3.0	0.0	3.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	13.6	26.7	10.9	24.0	17.2	19.3	18.0	20.1
Change Period, (*Y+R c*), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (*MAH*), s	3.1	3.1	3.1	3.1	3.1	3.3	3.1	3.3
Queue Clearance Time (g_s), s	4.9	15.9	3.6	14.5	3.4	5.9	9.7	11.2
Green Extension Time (g_e), s	0.2	2.3	0.0	2.4	0.0	0.8	0.4	0.8
Phase Call Probability	0.95	1.00	0.56	1.00	0.61	1.00	0.99	1.00
Max Out Probability	0.00	0.23	0.00	0.17	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	141	381	369	39	336	322	46	52	92	227	36	207
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1833	1810	1900	1809	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	2.9	13.9	13.9	1.6	12.5	12.5	1.4	1.8	3.9	7.7	1.2	9.2
Cycle Queue Clearance Time (g_c), s	2.9	13.9	13.9	1.6	12.5	12.5	1.4	1.8	3.9	7.7	1.2	9.2
Green Ratio (*g/C*)	0.09	0.26	0.26	0.05	0.23	0.23	0.27	0.15	0.15	0.28	0.16	0.16
Capacity (*c*), veh/h	311	499	482	95	430	410	486	287	244	514	307	260
Volume-to-Capacity Ratio (*X*)	0.454	0.764	0.765	0.414	0.781	0.785	0.094	0.181	0.379	0.442	0.117	0.794
Back of Queue (*Q*), ft/ln (95 th percentile)	53.3	259	253	31.2	235	228	25.4	35.6	65.2	138.6	23.8	159.9
Back of Queue (*Q*), veh/ln (95 th percentile)	2.1	10.4	10.1	1.2	9.4	9.1	1.0	1.4	2.6	5.5	1.0	6.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	32.4	25.5	25.5	34.4	27.2	27.3	20.3	27.8	28.6	22.0	26.9	30.2
Incremental Delay (d_2), s/veh	0.4	3.0	3.2	1.1	2.0	2.2	0.0	0.1	0.4	0.2	0.1	2.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	32.8	28.5	28.7	35.5	29.2	29.5	20.3	27.9	29.0	22.2	26.9	32.3
Level of Service (LOS)	C	C	C	D	C	C	C	C	C	C	C	C
Approach Delay, s/veh / LOS	29.3	C		29.7	C		26.6	C		27.0	C	
Intersection Delay, s/veh / LOS	28.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.28	B	2.29	B	2.44	B
Bicycle LOS Score / LOS	1.22	A	1.06	A	0.80	A	1.26	A

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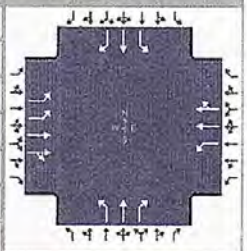
HCS7 Signalized Intersection Input Data

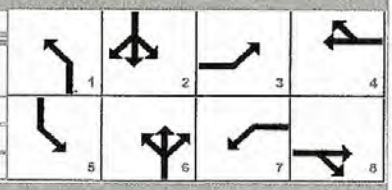
#5 E PM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - Existing - 6.2.20...		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	130	621	69	36	522	83	42	48	85	209	33	190

Signal Information			
Cycle, s	74.9	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.2	0.8	11.3	3.9	2.7	17.0						
Yellow	5.0	0.0	5.0	4.0	0.0	4.0						
Red	3.0	0.0	3.0	3.0	0.0	3.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	130	621	69	36	522	83	42	48	85	209	33	190
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	25.0	10.0	25.0	25.0	60.0	25.0	60.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	15	10	10	10
Start-Up Lost Time (*l*$_t$), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Glades Cut Off
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	17	25	9	16	12	22	28	148	5	40	169	27	518	2438
7:15-7:30	17	25	13	24	26	31	52	156	8	43	214	19	628	2482
7:30-7:45	26	20	29	22	18	27	29	170	13	24	196	16	590	2330
7:45-8:00	18	20	25	29	37	22	51	261	9	25	187	18	702	2200
8:00-8:15	9	16	6	18	18	24	81	168	5	17	173	27	562	1880
8:15-8:30	7	4	4	15	5	33	40	139	9	17	170	33	476	
8:30-8:45	8	11	15	25	8	22	43	119	5	16	173	15	460	
8:45-9:00	3	12	12	17	7	22	37	110	1	17	131	13	382	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	70	81	73	93	99	104	213	755	35	109	770	80	2482	
Season Factor	70	81	73	93	99	104	213	755	35	109	770	80	2482	
Growth	75	87	79	100	107	112	230	814	38	117	830	86	2675	
In/Out	-	-	-	-	-	IN	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	1%					1%	1%	10%	1%		10%			
Village at Midway	15					44	18	60	6		145		288	
LTC Ranch %		2.5%	6.2%		2.5%			10.8%		6.2%	10.8%			
LTC Ranch Volume		41	101		46			175		113	197		672	
Southern Grove %							0.2%	0.8%			0.8%			
Southern Grove							12	50			50		115	
Wilson Groves %		0.1%			0.1%			0.7%			0.7%			
Wilson Groves		11			12			27			27		77	
Riverland/Kennedy %		0.1%			0.1%			0.7%			0.7%			
Riverland/Kennedy		17			14			39			34		104	
Western Grove %		0.5%	0.6%		0.5%			0.4%		0.6%	0.4%			
Western Grove		11	13		7			9		8	5		52	
Ravinia %			2.0%					11.0%		2.0%	11.0%			
Ravinia			0					2		1	7		12	
Frontera %								30.0%			30.0%			
Frontera								17			52		70	
Total	90	167	193	100	185	168	258	1185	44	240	1347	86	4063	

Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,327	1,052
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	1,907
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	68
Frontera	58	174

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	6	8	32	56	9	61	46	127	10	14	128	27	524	2068
4:15-4:30	10	20	31	55	11	61	44	161	15	3	135	33	561	2035
4:30-4:45	15	13	25	58	6	40	19	162	25	12	142	14	531	1961
4:45-5:00	11	7	17	39	7	28	21	171	18	7	137	9	452	1966
5:00-5:15	5	13	16	43	10	27	23	145	10	14	125	8	491	1933
5:15-5:30	11	10	11	46	7	21	23	159	18	15	152	14	488	
5:30-5:45	6	7	11	45	16	27	18	227	10	15	133	10	535	
5:45-6:00	3	10	12	23	7	27	17	175	2	9	115	11	409	
PM PEAK HOUR IS FROM:			4:00PM TO 5:00PM											
Volumes	42	48	85	209	33	190	130	621	69	35	522	83	2068	
Season Factor	42	48	85	209	33	190	130	621	69	35	522	83	2068	
Growth	45	51	92	225	36	205	140	669	74	39	563	89	2229	
In/Out	-	-	-	-	-	IN	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	1.0%					3.0%	3.0%	10.0%	1.0%		10.0%			
Village at Midway	7					22	55	182	18		73		357	
LTC Ranch %		2.5%	6.2%		2.5%			10.8%		6.2%	10.8%			
LTC Ranch Volume		74	184		58			228		148	255		1513	
Southern Grove %							0.2%	0.8%			0.8%			
Southern Grove							14	20	81		56		171	
Wilson Groves %		0.1%			0.1%			0.7%			0.7%			
Wilson Groves		17			14			39			32		102	
Riverland/Kennedy %		0.1%			0.1%			0.7%			0.7%			
Riverland/Kennedy		22			21			51			50		144	
Western Grove %		0.5%	0.6%		0.5%			0.4%		0.6%	0.4%			
Western Grove		10	12		10			8		12	10		64	
Ravinia %			2.0%					11.0%		2.0%	11.0%			
Ravinia			2					8		1	5		16	
Frontera %								30.0%			30.0%			
Frontera								62			27		90	
Total	53	175	290	225	139	241	255	1422	93	196	1075	89	4211	

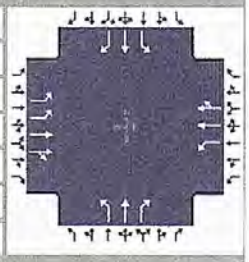
Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,441	1,027
Village at Midway	716	1,824
LTC Ranch	2,320	2,970
Southern Grove	6,990	10,072
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,005	7,277
Western Grove	2,510	2,061
Ravinia	77	44
Frontera	207	122

#5 w/o

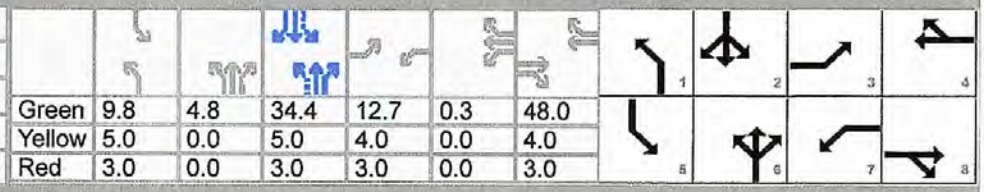
HCS7 Signalized Intersection Results Summary #5 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 w.o. Project...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	258	1185	44	240	137	86	90	167	193	100	185	168

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.8	4.8	34.4	12.7	0.3	48.0	
Yellow	5.0	0.0	5.0	4.0	0.0	4.0	
Red	3.0	0.0	3.0	3.0	0.0	3.0	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	19.7	55.0	20.0	55.3	22.6	47.2	17.8	42.4
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (*MAH*), s	3.1	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	12.7	50.0	15.0	8.7	7.0		7.9	
Green Extension Time (g_e), s	0.0	0.0	0.0	3.4	0.1	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		0.98	
Max Out Probability	1.00	1.00	1.00	0.00	0.00		1.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	272	651	643	253	121	114	95	176	203	105	195	177
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1876	1810	1900	1662	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	10.7	47.9	48.0	13.0	6.2	6.7	5.0	10.3	14.6	5.9	12.1	13.0
Cycle Queue Clearance Time (g_c), s	10.7	47.9	48.0	13.0	6.2	6.7	5.0	10.3	14.6	5.9	12.1	13.0
Green Ratio (*g/C*)	0.09	0.34	0.34	0.09	0.35	0.35	0.35	0.28	0.28	0.32	0.25	0.25
Capacity (*c*), veh/h	318	651	643	168	656	574	433	532	450	414	467	395
Volume-to-Capacity Ratio (*X*)	0.853	0.999	1.000	1.504	0.184	0.199	0.219	0.331	0.451	0.254	0.417	0.447
Back of Queue (*Q*), ft/ln (95 th percentile)	234.9	931.5	925.5	707.1	130.1	123.5	100.1	219.1	256.8	118.6	251.9	237.3
Back of Queue (*Q*), veh/ln (95 th percentile)	9.4	37.3	37.0	28.3	5.2	4.9	4.0	8.8	10.3	4.7	10.1	9.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	62.7	46.0	46.0	63.5	32.1	32.2	31.8	40.0	41.6	35.0	44.4	44.8
Incremental Delay (d_2), s/veh	17.8	34.9	35.5	255.0	0.0	0.1	0.1	1.7	3.2	0.1	2.7	3.6
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	80.6	80.9	81.5	318.5	32.1	32.3	31.9	41.7	44.8	35.1	47.1	48.4
Level of Service (LOS)	F	F	F	F	C	C	C	D	D	D	D	D
Approach Delay, s/veh / LOS	81.1	F		180.6	F		41.1	D		44.9	D	
Intersection Delay, s/veh / LOS	85.2						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.29	B	2.30	B	2.46	B
Bicycle LOS Score / LOS	1.78	B	0.89	A	1.27	A	1.27	A

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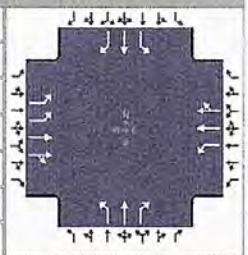
HCS7 Signalized Intersection Input Data #5 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 w.o. Project...		
Project Description	without Project				

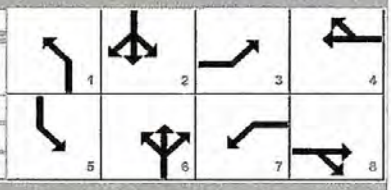


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	258	1185	44	240	137	86	90	167	193	100	185	168

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.8	4.8		34.4	12.7	0.3	48.0					
Yellow	5.0	0.0		5.0	4.0	0.0	4.0					
Red	3.0	0.0		3.0	3.0	0.0	3.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	258	1185	44	240	137	86	90	167	193	100	185	168
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	55.0	20.0	55.0	24.0	46.0	19.0	41.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	15	10	10	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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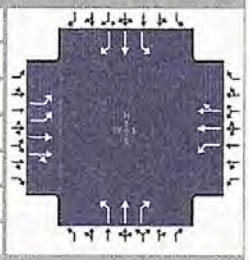
HCS7 Signalized Intersection Results Summary #5 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 w.o. Project...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	190	1413	93	195	1156	69	51	180	273	211	140	204

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	10.0	3.1	35.9	10.0	3.0	48.0	1	2	3	4	
Yellow	5.0	0.0	5.0	4.0	0.0	4.0	5	6	7	8	
Red	3.0	0.0	3.0	3.0	0.0	3.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	17.0	55.0	20.0	58.0	21.1	47.0	18.0	43.9
Change Period, (*Y+R c*), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (*MAH*), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (*g s*), s	9.8	50.0	15.0	47.7	4.8		12.0	
Green Extension Time (*g e*), s	0.1	0.0	0.0	2.4	0.0	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.88		1.00	
Max Out Probability	0.96	1.00	1.00	0.98	0.00		1.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	200	798	787	205	651	639	54	189	287	222	147	215
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1858	1810	1900	1862	1810	1900	1610	1810	1900	1610
Queue Service Time (*g s*), s	7.8	48.0	48.0	13.0	45.3	45.7	2.8	11.2	21.9	10.0	8.8	16.0
Cycle Queue Clearance Time (*g c*), s	7.8	48.0	48.0	13.0	45.3	45.7	2.8	11.2	21.9	10.0	8.8	16.0
Green Ratio (*g/C*)	0.07	0.34	0.34	0.09	0.36	0.36	0.35	0.28	0.28	0.33	0.26	0.26
Capacity (*c*), veh/h	250	651	637	168	692	679	465	529	449	404	487	412
Volume-to-Capacity Ratio (*X*)	0.799	1.225	1.236	1.222	0.940	0.942	0.115	0.358	0.641	0.549	0.303	0.521
Back of Queue (Q), ft/ln (95 th percentile)	169.4	1465.7	1478.8	493.8	768.7	770.6	55.3	234.5	366.4	77.9	194	281.1
Back of Queue (Q), veh/ln (95 th percentile)	6.8	58.6	59.2	19.8	30.7	30.8	2.2	9.4	14.7	3.1	7.8	11.2
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh	64.0	38.0	39.0	63.5	34.5	35.5	30.8	40.5	44.3	38.7	42.0	44.7
Incremental Delay (*d 2*), s/veh	7.6	114.5	119.2	141.4	20.5	21.1	0.0	1.9	6.9	0.9	1.6	4.6
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	71.6	152.5	158.2	204.9	55.0	56.7	30.8	42.4	51.2	39.6	43.6	49.3
Level of Service (LOS)	E	F	F	F	E	E	C	D	D	D	D	D
Approach Delay, s/veh / LOS	146.0	F		76.3	E		46.0	D		44.2	D	
Intersection Delay, s/veh / LOS	96.7						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.29	B	2.30	B	2.46	B
Bicycle LOS Score / LOS	1.96	B	1.72	B	1.36	A	1.45	A

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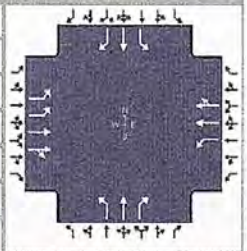
HCS7 Signalized Intersection Input Data

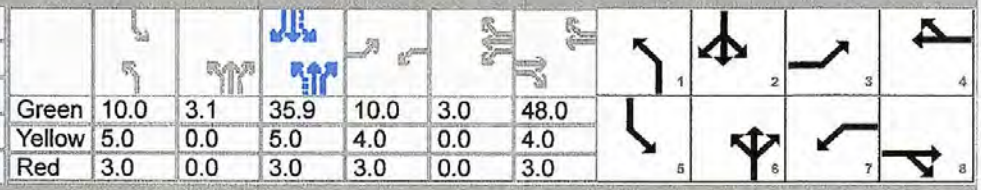
#5 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 w.o. Project...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	190	1413	93	195	1156	69	51	180	273	211	140	204

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	10.0	3.1		35.9	10.0	3.0	48.0					
Yellow	5.0	0.0		5.0	4.0	0.0	4.0					
Red	3.0	0.0		3.0	3.0	0.0	3.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	190	1413	93	195	1156	69	51	180	273	211	140	204
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	55.0	20.0	55.0	24.0	47.0	18.0	41.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	15	10	10	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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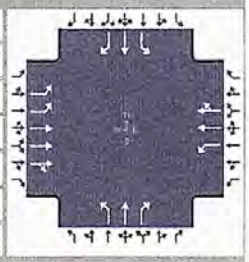
HCS7 Signalized Intersection Results Summary #5 w/o AM+IMP

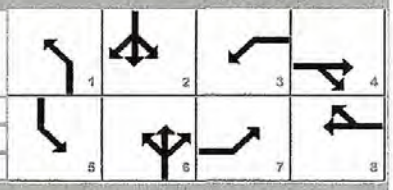
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 w.o. Project...		
Project Description	without Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	258	1185	44	240	1347	86	90	167	193	100	185	168

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.7	24.9	13.1	1.6	53.6	0.0	
Yellow	5.0	5.0	4.0	4.0	4.0	0.0	
Red	3.0	3.0	3.0	3.0	3.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.1	60.6	28.7	69.2	17.7	32.8	17.8	32.9
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (*MAH*), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	12.6	27.6	21.2	54.4	7.8		8.5	
Green Extension Time (g_e), s	0.4	8.8	0.5	7.9	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		0.98	
Max Out Probability	0.00	0.06	0.00	0.23	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	272	868	426	253	760	749	95	176	203	105	195	177
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1864	1810	1900	1860	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	10.6	25.6	25.6	19.2	51.8	52.4	5.8	11.7	16.6	6.5	13.1	14.2
Cycle Queue Clearance Time (g_c), s	10.6	25.6	25.6	19.2	51.8	52.4	5.8	11.7	16.6	6.5	13.1	14.2
Green Ratio (*g/C*)	0.09	0.38	0.38	0.15	0.44	0.44	0.25	0.18	0.18	0.25	0.18	0.18
Capacity (*c*), veh/h	328	1456	714	280	845	827	262	337	286	293	338	287
Volume-to-Capacity Ratio (*X*)	0.828	0.596	0.596	0.902	0.900	0.905	0.362	0.521	0.711	0.359	0.576	0.617
Back of Queue (*Q*), ft/ln (95 th percentile)	210.6	434.9	429	350.3	838.9	835.2	118.5	254.6	310.2	132.3	280.6	266.8
Back of Queue (*Q*), veh/ln (95 th percentile)	8.4	17.4	17.2	14.0	33.6	33.4	4.7	10.2	12.4	5.3	11.2	10.7
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	62.4	34.5	34.5	58.1	36.0	36.1	42.7	52.2	54.2	42.6	52.7	53.1
Incremental Delay (d_2), s/veh	2.1	0.1	0.3	4.3	8.1	8.8	0.3	5.7	14.0	0.3	7.0	9.6
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	64.4	34.7	34.8	62.4	44.1	44.9	43.1	57.8	68.2	42.9	59.6	62.7
Level of Service (LOS)	E	C	C	E	D	D	D	E	E	D	E	E
Approach Delay, s/veh / LOS	39.9	D		47.1	D		59.3	E		57.1	E	
Intersection Delay, s/veh / LOS	46.9						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	2.28	B	2.46	B	2.61	C
Bicycle LOS Score / LOS	1.35	A	1.94	B	1.27	A	1.27	A

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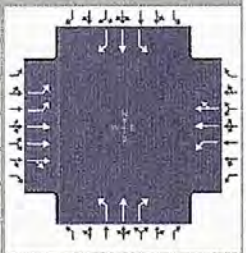
HCS7 Signalized Intersection Input Data #5 w/o AM + Imp

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 w.o. Project...		
Project Description	without Project + Imp				

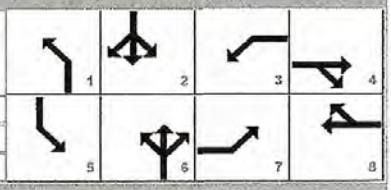


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	258	1185	44	240	1347	86	90	167	193	100	185	168

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.7	24.9	13.1	1.6	53.6	0.0						
Yellow	5.0	5.0	4.0	4.0	4.0	0.0						
Red	3.0	3.0	3.0	3.0	3.0	0.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	258	1185	44	240	1347	86	90	167	193	100	185	168
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	29.0	17.0	87.0	75.0	18.0	18.0	18.0	18.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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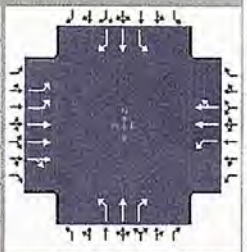
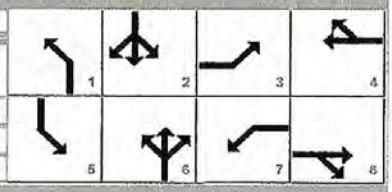
HCS7 Signalized Intersection Results Summary #5 w/o PM + MP

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off Midway - PM - 2035 w.o. Project...		
Project Description	without Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	215	1422	93	196	1075	89	53	175	290	225	139	241

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	8.9	7.5		28.7	11.3	6.7	46.9					
Yellow	5.0	0.0		5.0	4.0	0.0	4.0					
Red	3.0	0.0		3.0	3.0	0.0	3.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	18.3	53.9	25.0	60.6	16.9	36.7	24.4	44.3
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (*MAH*), s	3.1	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	10.9	38.7	17.7	44.0	5.3		16.1	
Green Extension Time (g_e), s	0.4	8.1	0.3	8.3	0.1	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.89		1.00	
Max Out Probability	0.00	0.19	0.00	0.17	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	226	1075	520	206	620	605	56	184	305	237	146	254
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1838	1810	1900	1848	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	8.9	36.7	36.7	15.7	41.9	42.0	3.3	11.9	26.0	14.1	8.7	19.4
Cycle Queue Clearance Time (g_c), s	8.9	36.7	36.7	15.7	41.9	42.0	3.3	11.9	26.0	14.1	8.7	19.4
Green Ratio (*g/C*)	0.08	0.33	0.33	0.13	0.38	0.38	0.27	0.21	0.21	0.33	0.26	0.26
Capacity (*c*), veh/h	283	1272	615	233	728	708	397	390	331	409	492	417
Volume-to-Capacity Ratio (*X*)	0.800	0.845	0.845	0.887	0.853	0.854	0.141	0.472	0.923	0.579	0.297	0.608
Back of Queue (Q), ft/ln (95 th percentile)	181.2	608.4	603.5	298.2	690	676.5	65.8	254.1	489	259.3	192.1	331.7
Back of Queue (Q), veh/ln (95 th percentile)	7.2	24.3	24.1	11.9	27.6	27.1	2.6	10.2	19.6	10.4	7.7	13.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	63.3	43.2	43.2	60.0	39.6	39.6	38.7	48.9	54.5	36.6	41.6	45.6
Incremental Delay (d_2), s/veh	2.0	2.4	4.7	4.5	4.9	5.1	0.1	4.1	33.3	0.5	1.5	6.5
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	65.3	45.5	47.9	64.5	44.5	44.7	38.7	53.0	87.9	37.1	43.2	52.1
Level of Service (LOS)	E	D	D	E	D	D	D	D	F	D	D	D
Approach Delay, s/veh / LOS	48.7	D		47.5	D		71.1	E		44.5	D	
Intersection Delay, s/veh / LOS	50.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.29	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	1.49	A	1.67	B	1.39	A	1.54	B

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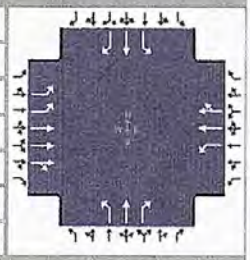
HCS7 Signalized Intersection Input Data

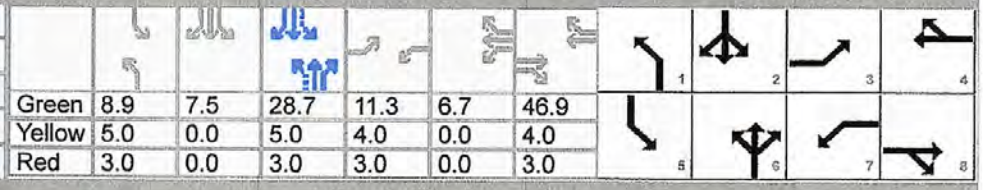
#5 w/c PM + Imp

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 w.o. Project...		
Project Description	without Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	215	1422	93	196	1075	89	53	175	290	225	139	241

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	8.9	7.5		28.7	11.3	6.7	46.9					
Yellow	5.0	0.0		5.0	4.0	0.0	4.0					
Red	3.0	0.0		3.0	3.0	0.0	3.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	215	1422	93	196	1075	89	53	175	290	225	139	241
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	31.0	56.0	39.0	64.0	24.0	27.0	18.0	21.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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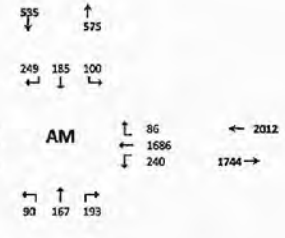
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Glades Cut Off
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
REPORT DATE:
DAY: Tuesday
ANALYSIS YEAR: 2035
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: Signalized

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	17	25	9	16	12	22	28	148	5	40	169	27	518	2430
7:15-7:30	17	25	13	24	26	31	52	156	8	42	214	19	628	2481
7:30-7:45	26	20	19	22	18	27	29	170	13	24	196	16	590	2330
7:45-8:00	18	30	25	19	37	22	51	261	9	25	187	16	700	2309
8:00-8:15	9	16	6	18	18	24	81	168	5	17	173	27	562	1880
8:15-8:30	7	4	4	15	5	33	40	139	9	17	170	31	476	
8:30-8:45	8	11	15	25	8	22	43	119	5	16	173	15	460	
8:45-9:00	3	12	12	17	7	22	37	110	1	17	131	13	382	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	70	81	73	93	99	104	213	755	35	109	770	80	2482	
Season Factor	70	81	73	93	99	104	213	755	35	109	770	80	2482	
Growth	75	87	79	100	107	112	230	814	38	117	830	86	2675	
In/Out	-	-	-	-	-	IN	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	6%	6%	25%	0%	0%	25%	0%		
PROJECT	0	0	0	0	0	81	64	265	0	0	339	0	750	
Midway %	1%					3%	3%	10%	1%		10%			
Village at Midway	15					44	18	60	6		145		288	
LTC Ranch %		2.5%	6.2%		2.5%			10.8%		6.2%	10.8%			
LTC Ranch Volume		41	101		46			175		113	197		672	
Southern Grove %							0.2%	0.8%			0.8%			
Southern Grove							12	49			50		115	
Wilson Groves %		0.3%			0.3%			0.7%			0.7%			
Wilson Groves		11			12			27			27		77	
Riverland/Kennedy %		0.3%			0.3%			0.7%			0.7%			
Riverland/Kennedy		17			16			39			34		104	
Western Grove %		0.5%	0.6%		0.5%			0.4%		0.6%	0.4%			
Western Grove		11	13		7			9		8	5		52	
Ravinia %			2.0%					11.0%		2.0%	11.0%			
Ravinia			8					2		1	7		12	
Frontera %								30.0%			30.0%			
Frontera								17			52		70	
Total	90	167	193	100	185	249	322	1451	44	340	1686	86	4813	

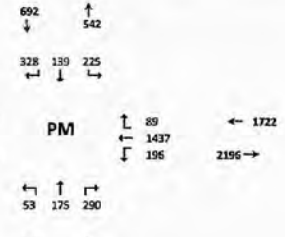


Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 25

	Trips In	Trips Out
Willow Lakes	1,355	1,005
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	72	68
Frontera	58	124

F-91

15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	6	8	32	56	9	61	46	127	16	14	128	27	524	2068
4:15-4:30	10	20	11	56	11	61	44	101	16	8	135	33	561	2035
4:30-4:45	15	13	25	58	6	40	19	152	25	11	142	14	531	1952
4:45-5:00	11	7	17	39	7	28	21	171	18	7	117	9	452	1866
5:00-5:15	5	13	16	43	10	27	23	145	10	14	175	8	491	1923
5:15-5:30	11	10	11	46	7	21	23	159	18	15	152	14	488	
5:30-5:45	6	7	11	45	16	27	18	227	10	15	143	20	535	
5:45-6:00	1	10	12	23	7	27	17	175	2	9	115	11	409	
PM PEAK HOUR IS FROM:			4:00PM TO 5:00PM											
Volumes	42	48	85	209	33	190	130	625	69	36	522	83	2068	
Season Factor	42	48	85	209	33	190	130	625	69	36	522	83	2068	
Growth	45	52	92	225	36	205	140	669	74	39	563	89	2228	
In/Out	-	-	-	-	-	IN	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	25%	0%		
PROJECT	0	0	0	0	0	87	62	259	0	0	363	0	771	
Midway %	1.0%					3.0%	3.0%	13.0%	1.0%		10.0%			
Village at Midway	7					22	55	182	18		73		357	
LTC Ranch %		2.5%	6.2%		2.5%			10.8%		6.2%	10.8%			
LTC Ranch Volume		74	184		59			321		144	251		1032	
Southern Grove %							0.2%	0.8%			0.8%			
Southern Grove							14	20	81		56		171	
Wilson Groves %		0.3%			0.3%			0.7%			0.7%			
Wilson Groves		17			14			39			32		102	
Riverland/Kennedy %		0.3%			0.3%			0.7%			0.7%			
Riverland/Kennedy		32			21			51			50		144	
Western Grove %		0.5%	0.6%		0.5%			0.4%		0.6%	0.4%			
Western Grove		10	12		10			8		12	10		64	
Ravinia %			2.0%					13.0%		2.0%	11.0%			
Ravinia			2					8		1	5		16	
Frontera %								30.0%			30.0%			
Frontera								62			37		99	
Total	53	175	290	225	139	328	277	1681	93	196	1437	89	4981	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

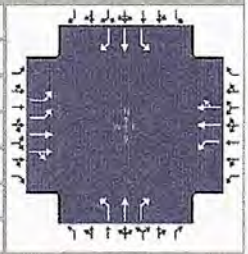
	Trips In	Trips Out
Willow Lakes	1,450	1,086
Village at Midway	726	1,824
LTC Ranch	2,330	2,970
Southern Grove	6,990	10,671
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	2,061
Ravinia	77	44
Frontera	307	122

E-5 w/p

HCS7 Signalized Intersection Results Summary

#5 w/ PAM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 with Project...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.7	19.3	13.0	1.6	59.4	0.0	1	2	3	4		
Yellow	5.0	5.0	4.0	4.0	4.0	0.0	5	6	7	8		
Red	3.0	3.0	3.0	3.0	3.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.0	66.4	28.6	75.0	17.7	27.2	17.8	27.3
Change Period, (Y+R c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g s), s	15.0	59.7	21.2	70.0	8.1		8.9	
Green Extension Time (g e), s	0.0	0.0	0.4	0.0	0.0	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		0.98	
Max Out Probability	1.00	1.00	0.00	1.00	0.37		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	339	789	784	253	934	931	95	176	203	105	195	262
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1880	1810	1900	1867	1810	1900	1610	1810	1900	1610
Queue Service Time (g s), s	13.0	57.3	57.7	19.2	68.0	68.0	6.1	12.3	17.4	6.9	13.8	19.3
Cycle Queue Clearance Time (g c), s	13.0	57.3	57.7	19.2	68.0	68.0	6.1	12.3	17.4	6.9	13.8	19.3
Green Ratio (g/C)	0.09	0.42	0.42	0.15	0.49	0.49	0.21	0.14	0.14	0.21	0.14	0.14
Capacity (c), veh/h	326	806	797	280	923	907	207	260	220	239	261	221
Volume-to-Capacity Ratio (X)	1.039	0.980	0.984	0.903	1.012	1.027	0.457	0.676	0.922	0.441	0.745	1.184
Back of Queue (Q), ft/ln (95 th percentile)	337.3	1032.8	1035	350.4	1233.7	1260.5	126.2	278.7	370.9	140.6	311.9	578.6
Back of Queue (Q), veh/ln (95 th percentile)	13.5	41.3	41.4	14.0	49.3	50.4	5.0	11.1	14.8	5.6	12.5	23.1
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d 1), s/veh	63.5	39.7	39.8	58.1	36.0	36.0	47.5	57.5	59.7	47.3	58.0	60.4
Incremental Delay (d 2), s/veh	60.2	26.6	27.7	4.4	32.6	36.9	0.6	13.2	43.2	0.5	17.5	119.1
Initial Queue Delay (d 3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	123.7	66.4	67.6	62.5	68.6	72.9	48.0	70.7	102.8	47.8	75.5	179.5
Level of Service (LOS)	F	E	E	E	F	F	D	E	F	D	E	F
Approach Delay, s/veh / LOS	77.0	E		69.8	E		80.0	E		118.8	F	
Intersection Delay, s/veh / LOS	78.9						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.27	B	2.32	B	2.47	B
Bicycle LOS Score / LOS	2.07	B	2.23	B	1.27	A	1.42	A

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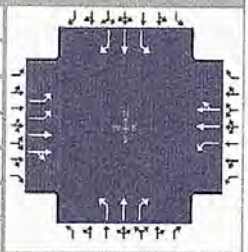
HCS7 Signalized Intersection Input Data

#5 w/P AM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 with Project...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.7	19.3	13.0	1.6	59.4	0.0	1	2	3	4		
Yellow	5.0	5.0	4.0	4.0	4.0	0.0	5	6	7	8		
Red	3.0	3.0	3.0	3.0	3.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	47.0	48.0	75.0	20.0	18.0	27.0	25.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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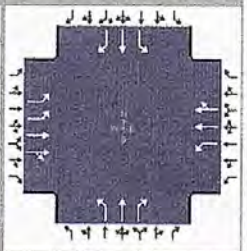
HCS7 Signalized Intersection Results Summary

#5 w/p PM

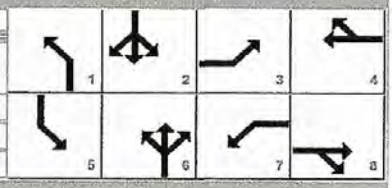
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 with Project...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.9	1.2	19.0	13.9	4.1	63.0	
Yellow	5.0	0.0	5.0	4.0	0.0	4.0	
Red	3.0	0.0	3.0	3.0	0.0	3.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.9	70.0	25.0	74.1	16.9	27.0	18.0	28.1
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (*MAH*), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	13.4	65.0	17.7	56.8	5.6		12.1	
Green Extension Time (g_e), s	0.5	0.0	0.3	6.8	0.0	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.89		1.00	
Max Out Probability	0.00	1.00	0.00	0.76	0.00		1.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	292	935	932	206	808	798	56	184	305	237	146	345
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1865	1810	1900	1861	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	11.4	63.0	63.0	15.7	54.0	54.8	3.6	13.0	19.0	10.1	10.0	20.1
Cycle Queue Clearance Time (g_c), s	11.4	63.0	63.0	15.7	54.0	54.8	3.6	13.0	19.0	10.1	10.0	20.1
Green Ratio (*g/C*)	0.10	0.45	0.45	0.13	0.48	0.48	0.20	0.14	0.14	0.21	0.14	0.14
Capacity (*c*), veh/h	349	855	839	233	910	891	240	257	218	233	273	232
Volume-to-Capacity Ratio (*X*)	0.834	1.094	1.111	0.887	0.888	0.896	0.233	0.716	1.400	1.018	0.535	1.490
Back of Queue (Q), ft/ln (95 th percentile)	222.4	1427.1	1466.1	298.2	880.3	881.8	73.1	294.8	784.3	298.3	228.2	925.5
Back of Queue (Q), veh/ln (95 th percentile)	8.9	57.1	58.6	11.9	35.2	35.3	2.9	11.8	31.4	11.9	9.1	37.0
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	61.9	38.5	38.5	60.0	33.0	33.3	46.8	57.9	60.5	56.0	55.6	59.9
Incremental Delay (d_2), s/veh	2.0	59.6	66.2	4.5	10.3	11.3	0.2	15.7	205.5	63.9	7.3	242.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	63.9	98.1	104.7	64.5	43.3	44.5	47.0	73.7	266.0	119.8	62.9	301.9
Level of Service (LOS)	E	F	F	E	D	D	D	E	F	F	E	F
Approach Delay, s/veh / LOS	96.3	F		46.3	D		178.6	F		194.7	F	
Intersection Delay, s/veh / LOS	101.3						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.28	B	2.32	B	2.47	B
Bicycle LOS Score / LOS	2.27	B	1.98	B	1.39	A	1.69	B

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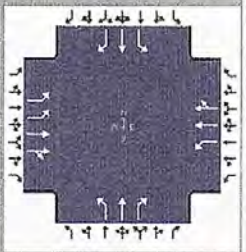
HCS7 Signalized Intersection Input Data

#5 wP PM

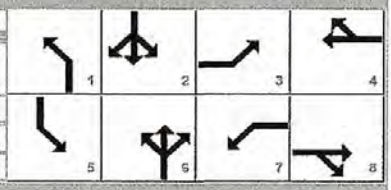
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 with Project...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.9	1.2	19.0	13.9	4.1	63.0	
Yellow	5.0	0.0	5.0	4.0	0.0	4.0	
Red	3.0	0.0	3.0	3.0	0.0	3.0	



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	31.0	56.0	39.0	64.0	24.0	27.0	18.0	21.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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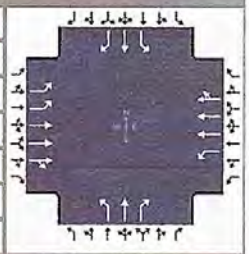
HCS7 Signalized Intersection Results Summary

#5 w/PAM+TMP

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 with Project...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4	
Green	8.9	0.3	21.2	13.9	4.1	53.7	5	6	7	8	
Yellow	5.0	5.0	5.0	4.0	0.0	4.0					
Red	3.0	3.0	3.0	3.0	0.0	3.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.9	60.7	25.0	64.8	16.9	29.2	25.1	37.5
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (*MAH*), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	13.4	43.0	17.7	31.7	5.5		17.0	
Green Extension Time (g_e), s	0.5	10.7	0.3	13.5	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.89		1.00	
Max Out Probability	0.00	0.44	0.00	0.21	0.00		1.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	292	1256	612	206	1082	524	56	184	305	237	146	345
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1847	1810	1900	1841	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	11.4	40.4	41.0	15.7	28.9	29.7	3.5	12.8	21.2	15.0	9.2	26.4
Cycle Queue Clearance Time (g_c), s	11.4	40.4	41.0	15.7	28.9	29.7	3.5	12.8	21.2	15.0	9.2	26.4
Green Ratio (*g/C*)	0.10	0.38	0.38	0.13	0.41	0.41	0.21	0.15	0.28	0.29	0.21	0.31
Capacity (*c*), veh/h	349	1457	708	233	1568	760	330	288	451	346	400	499
Volume-to-Capacity Ratio (*X*)	0.834	0.862	0.864	0.887	0.690	0.690	0.169	0.640	0.677	0.684	0.366	0.692
Back of Queue (Q), ft/ln (95 th percentile)	222.4	607.3	631.5	298.2	435.1	448.4	71.4	281.4	391.1	284.5	205	426.3
Back of Queue (Q), veh/ln (95 th percentile)	8.9	24.3	25.3	11.9	17.4	17.9	2.9	11.3	15.6	11.4	8.2	17.1
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	61.9	31.0	32.4	60.0	25.0	26.6	44.6	55.8	44.8	41.8	47.3	42.4
Incremental Delay (d_2), s/veh	2.0	3.7	7.4	4.5	0.6	1.3	0.1	10.5	7.9	3.5	2.6	7.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	63.9	34.7	39.8	64.5	25.6	27.9	44.7	66.3	52.7	45.3	49.9	50.1
Level of Service (LOS)	E	C	D	E	C	C	D	E	D	D	D	D
Approach Delay, s/veh / LOS	40.1	D		30.7	C		56.5	E		48.5	D	
Intersection Delay, s/veh / LOS	39.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	2.28	B	2.61	C	2.73	C
Bicycle LOS Score / LOS	1.68	B	1.48	A	1.39	A	1.69	B

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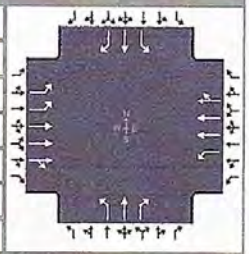
HCS7 Signalized Intersection Input Data

#5 w/PAM + mip

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 with Project...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	8.9	0.3	21.2	13.9	4.1	53.7						
Yellow	5.0	5.0	5.0	4.0	0.0	4.0						
Red	3.0	3.0	3.0	3.0	0.0	3.0						
							5	6	7	8		

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	31.0	56.0	39.0	64.0	24.0	27.0	18.0	21.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (*l*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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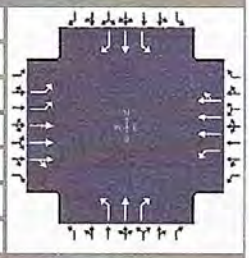
HCS7 Signalized Intersection Results Summary

#5 WIP PM+imp

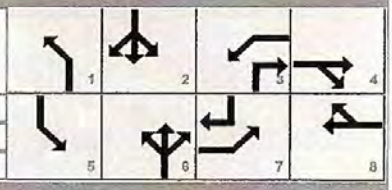
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 with Project...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.7	31.2	13.0	1.6	47.4	0.0	
Yellow	5.0	5.0	4.0	4.0	4.0	0.0	
Red	3.0	3.0	3.0	3.0	3.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.0	54.4	28.6	63.0	17.7	39.2	17.8	39.2
Change Period, ($Y+R_c$), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (*MAH*), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s	15.0	36.0	21.2	41.1	7.5		8.1	
Green Extension Time (g_e), s	0.0	11.3	0.4	12.0	0.1	0.0	0.2	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		0.98	
Max Out Probability	1.00	0.36	0.00	0.30	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	339	1055	519	253	1254	612	95	176	203	105	195	262
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1870	1810	1900	1851	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	13.0	33.9	34.0	19.2	38.5	39.1	5.5	11.1	12.6	6.1	12.4	18.6
Cycle Queue Clearance Time (g_c), s	13.0	33.9	34.0	19.2	38.5	39.1	5.5	11.1	12.6	6.1	12.4	18.6
Green Ratio (*g/C*)	0.09	0.34	0.34	0.15	0.40	0.40	0.29	0.22	0.38	0.29	0.22	0.32
Capacity (*c*), veh/h	326	1286	633	280	1520	740	322	423	607	354	424	509
Volume-to-Capacity Ratio (*X*)	1.039	0.820	0.820	0.903	0.825	0.826	0.294	0.416	0.335	0.297	0.459	0.515
Back of Queue (*Q*), ft/ln (95 th percentile)	337.3	528.1	539.3	350.4	567.4	587.3	110.4	237.2	221.9	123.3	260.4	311.8
Back of Queue (*Q*), veh/ln (95 th percentile)	13.5	21.1	21.6	14.0	22.7	23.5	4.4	9.5	8.9	4.9	10.4	12.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	63.5	34.7	35.4	58.1	28.6	29.9	37.8	46.6	31.1	37.7	47.1	39.1
Incremental Delay (d_2), s/veh	60.2	2.3	4.5	4.4	2.2	4.5	0.2	3.0	1.5	0.2	3.6	3.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	123.7	37.0	39.9	62.5	30.8	34.4	38.0	49.6	32.6	37.8	50.6	42.8
Level of Service (LOS)	F	D	D	E	C	C	D	D	C	D	D	D
Approach Delay, s/veh / LOS	53.1	D		35.6	D		40.0	D		44.6	D	
Intersection Delay, s/veh / LOS	43.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.29	B	2.60	C	2.73	C
Bicycle LOS Score / LOS	1.54	B	1.65	B	1.27	A	1.42	A

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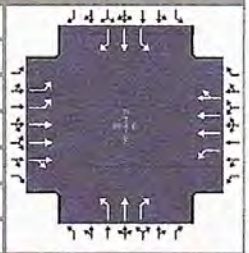
HCS7 Signalized Intersection Input Data

#5 w/p PM+ITP

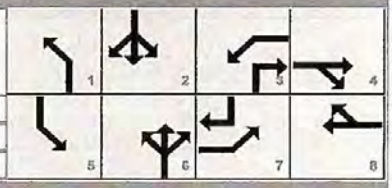
General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 with Project...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.7	31.2	13.0	1.6	47.4	0.0						
Yellow	5.0	5.0	4.0	4.0	4.0	0.0						
Red	3.0	3.0	3.0	3.0	3.0	0.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	47.0	48.0	75.0	20.0	18.0	27.0	25.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R_c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G_{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (PC), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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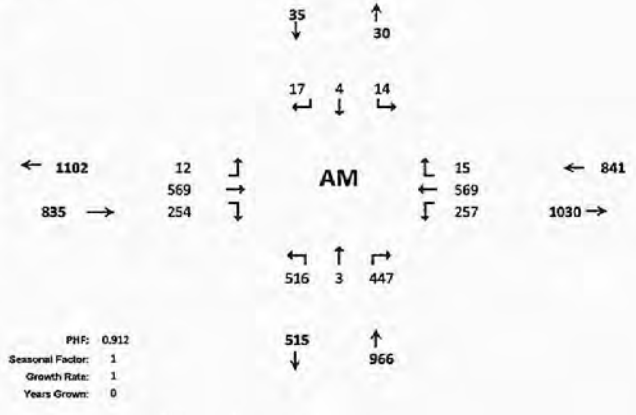
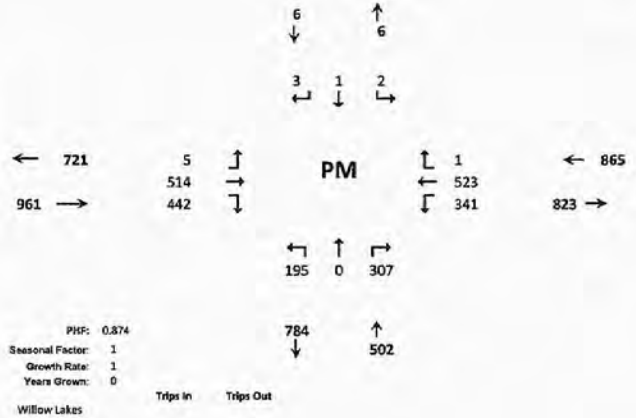
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Torino Pkwy
FILENAME: Willow Lakes
COUNT DATE: 2/20/2020
REPORT DATE:
DAY: Thursday
ANALYSIS YEAR: 2020
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: TWSC

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	136	1	126	3	2	1	3	117	52	45	124	5	615	2677
7:15-7:30	103	0	85	1	2	5	4	110	55	64	162	3	594	2623
7:30-7:45	135	1	108	6	0	7	1	161	77	92	145	1	734	2605
7:45-8:00	142	1	128	4	0	4	4	181	70	56	138	6	734	2311
8:00-8:15	110	1	101	2	0	3	8	123	41	49	121	2	561	1969
8:15-8:30	81	0	93	1	0	8	11	134	47	55	143	3	576	
8:30-8:45	82	1	67	3	1	5	4	93	35	48	99	2	440	
8:45-9:00	34	0	57	0	0	3	5	92	52	43	104	2	392	
AM PEAK HOUR IS FROM:	7:00AM TO 8:00AM													
Volumes	516	3	447	14	4	17	12	569	254	257	569	15	2677	
Season Factor	516	3	447	14	4	17	12	569	254	257	569	15	2677	
Growth	516	3	447	14	4	17	12	569	254	257	569	15	2677	
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	516	3	447	14	4	17	12	569	254	257	569	15	2677	



15 Min Period Lanes	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	50	1	59	0	2	0	1	143	71	58	98	0	483	2137
4:15-4:30	41	0	76	0	1	0	0	92	95	106	183	1	595	2230
4:30-4:45	54	0	76	0	1	3	1	117	69	63	128	0	512	2303
4:45-5:00	53	0	66	0	0	0	1	141	103	85	98	0	547	2334
5:00-5:15	43	0	63	0	1	2	3	94	98	86	185	1	576	2280
5:15-5:30	57	0	107	0	0	0	1	153	137	89	124	0	668	
5:30-5:45	42	0	71	2	0	1	0	126	104	81	116	0	543	
5:45-6:00	61	1	74	0	0	0	1	107	82	70	95	2	493	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	195	0	307	2	1	3	5	514	442	341	523	1	2334	
Season Factor	195	0	307	2	1	3	5	514	442	341	523	1	2334	
Growth	195	0	307	2	1	3	5	514	442	341	523	1	2334	
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	195	0	307	2	1	3	5	514	442	341	523	1	2334	



F-100

#6 E

#6 MIDWAY/TORINO

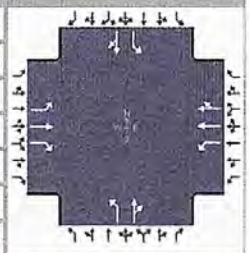
By-Phase Timing Data

	Phase											
	1	2	3	4	5	6	7	8	9	10	11	12
Direction	EBL	W/B	S/BL	N/B	W/BL	E/B	N/BL	S/B				
Minimum Green	7	7	7	7	7	7	7	7	5	5	5	5
Bike Min Green	0	0	0	0	0	0	0	0	0	0	0	0
Cond Serv Min Grn	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10
Ped Clearance	0	16	0	16	0	16	0	16	0	16	0	16
Veh Extension	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Alt Veh Exten	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Extension	0	0	0	25	0	0	0	0	0	0	0	0
Max 1	15	60	15	40	35	60	40	35	35	35	35	35
Max 2	40	40	40	40	40	40	40	40	40	40	40	40
Max 3	0	0	0	50	0	0	0	0	0	0	0	0
Det. Fail Max	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Change	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0
Red Clearance	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act. B4 Init	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Actuation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	30	30	30	30	30	30	30	30	30	30	30	30
Time B4 Reduction	0	0	0	0	0	0	0	0	0	0	0	0
Cars Waiting	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCS7 Signalized Intersection Results Summary

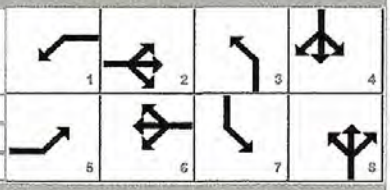
#6 E AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - Existing - 7.22.20.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	12	569	254	257	569	15	516	3	447	14	4	17

Signal Information					EB		WB			NB			SB		
Cycle, s	103.9	Reference Phase	2												
Offset, s	0	Reference Point	End	Green	1.8	4.0	36.0	2.1	11.9	12.1					
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0					



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	7.8	42.0	17.8	52.0	26.0	36.0	8.1	18.1
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.5	33.3	11.5	13.2	22.0	32.0	2.7	3.2
Green Extension Time (g_e), s	0.0	2.7	0.3	2.9	0.0	0.0	0.0	1.1
Phase Call Probability	0.31	1.00	1.00	1.00	1.00	1.00	0.35	1.00
Max Out Probability	0.00	0.04	0.01	0.00	1.00	1.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	13	599	267	271	309	306	543	474		15	22	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1883	1810	1612		1810	1658	
Queue Service Time (g_s), s	0.5	31.3	13.5	9.5	11.2	11.2	20.0	30.0		0.7	1.2	
Cycle Queue Clearance Time (g_c), s	0.5	31.3	13.5	9.5	11.2	11.2	20.0	30.0		0.7	1.2	
Green Ratio (g/C)	0.36	0.35	0.35	0.48	0.44	0.44	0.33	0.29		0.14	0.12	
Capacity (c), veh/h	360	658	558	314	841	833	565	465		106	193	
Volume-to-Capacity Ratio (X)	0.035	0.910	0.479	0.863	0.367	0.367	0.961	1.018		0.140	0.115	
Back of Queue (Q), ft/ln (95 th percentile)	8.5	531.4	214.5	193.6	204.1	202.9	308.4	603.6		14.6	22.3	
Back of Queue (Q), veh/ln (95 th percentile)	0.3	21.3	8.6	7.7	8.2	8.1	12.3	24.1		0.6	0.9	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	21.2	32.4	26.6	23.2	19.3	19.3	35.0	37.0		39.8	41.1	
Incremental Delay (d_2), s/veh	0.0	8.3	0.2	8.1	0.1	0.1	28.2	46.4		0.2	0.1	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	21.2	40.7	26.8	31.2	19.4	19.4	63.2	83.3		40.0	41.2	
Level of Service (LOS)	C	D	C	C	B	B	E	F		D	D	
Approach Delay, s/veh / LOS	36.2	D		23.0	C		72.6	E		40.7	D	
Intersection Delay, s/veh / LOS	45.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.92	B	1.91	B	2.12	B	2.31	B
Bicycle LOS Score / LOS	1.94	B	1.22	A	2.17	B	0.55	A

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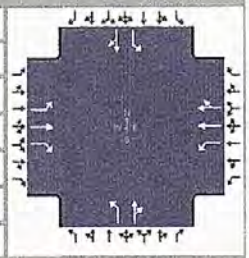
HCS7 Signalized Intersection Input Data

#6 EAM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - Existing - 7.22.20.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	12	569	254	257	569	15	516	3	447	14	4	17

Signal Information			
Cycle, s	103.9	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.8	4.0	36.0	2.1	11.9	12.1	1	2	3	4		
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	5	6	7	8		
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	12	569	254	257	569	15	516	3	447	14	4	17
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	50.0	20.0	50.0	20.0	30.0	20.0	30.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*l*$_1$), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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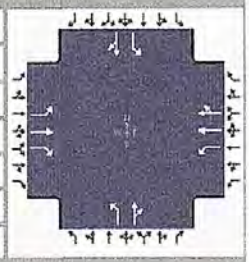
HCS7 Signalized Intersection Results Summary

#6 EPM

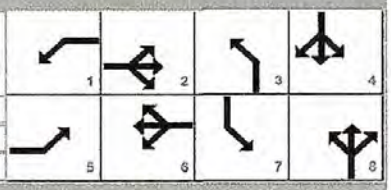
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - Existing 7.22.20.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	514	442	341	523	1	195	0	307	2	1	3

Signal Information			
Cycle, s	84.2	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	0.7	6.0		28.1	0.3	4.0	9.1					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	6.7	34.1	18.7	46.1	16.3	25.0	6.3	15.1
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.2	24.8	12.3	9.5	10.1	18.4	2.1	2.2
Green Extension Time (g_e), s	0.0	3.1	0.4	3.2	0.2	0.6	0.0	0.7
Phase Call Probability	0.12	1.00	1.00	1.00	0.99	1.00	0.05	1.00
Max Out Probability	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	5	541	465	359	276	276	205	323		2	4	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1899	1810	1610		1810	1674	
Queue Service Time (g_s), s	0.2	22.4	22.8	10.3	7.5	7.5	8.1	16.4		0.1	0.2	
Cycle Queue Clearance Time (g_c), s	0.2	22.4	22.8	10.3	7.5	7.5	8.1	16.4		0.1	0.2	
Green Ratio (g/C)	0.34	0.33	0.33	0.51	0.48	0.48	0.25	0.23		0.11	0.11	
Capacity (c), veh/h	391	635	538	420	907	906	460	365		101	181	
Volume-to-Capacity Ratio (X)	0.013	0.852	0.865	0.854	0.304	0.304	0.447	0.886		0.021	0.023	
Back of Queue (Q), ft/ln (95 th percentile)	2.8	359.1	320.3	194.6	127	126.9	146.4	269.1		1.7	3.3	
Back of Queue (Q), veh/ln (95 th percentile)	0.1	14.4	12.8	7.8	5.1	5.1	5.9	10.8		0.1	0.1	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	18.3	26.2	26.3	17.6	13.5	13.5	26.5	31.6		33.8	33.7	
Incremental Delay (d_2), s/veh	0.0	1.3	1.7	7.0	0.1	0.1	0.3	6.7		0.0	0.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	18.3	27.4	28.0	24.6	13.6	13.6	26.8	38.3		33.8	33.7	
Level of Service (LOS)	B	C	C	C	B	B	C	D		C	C	
Approach Delay, s/veh / LOS	27.6	C		17.9	B		33.8	C		33.7	C	
Intersection Delay, s/veh / LOS	25.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.90	B	2.12	B	2.30	B
Bicycle LOS Score / LOS	2.16	B	1.24	A	1.36	A	0.50	A

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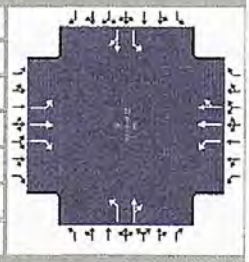
HCS7 Signalized Intersection Input Data

#6 E PM

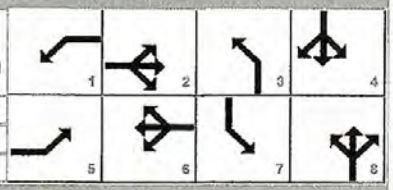
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - Existing 7.22.20.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	514	442	341	523	1	195	0	307	2	1	3

Signal Information			
Cycle, s	84.2	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

	EB			WB			NB			SB		
Green	0.7	6.0		28.1	0.3	4.0	9.1					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	514	442	341	523	1	195	0	307	2	1	3
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	50.0	20.0	50.0	20.0	30.0	20.0	30.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk ($Walk$), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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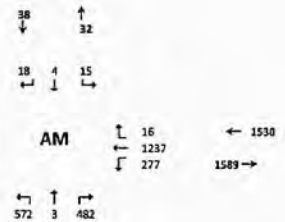
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Torino Pkwy
E/W STREET: Midway Rd
CONTROL: TWSC
FILENAME: Willow Lakes
COUNT DATE: 1/20/2010
DAY: Thursday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

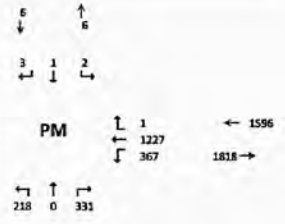
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	136	1	126	3	2	1	3	117	52	45	124	5	615	2677
7:15-7:30	103	0	85	1	2	5	4	110	55	64	152	3	584	2623
7:30-7:45	135	1	108	6	0	7	1	161	77	91	145	1	734	2605
7:45-8:00	142	1	128	4	8	4	4	181	70	56	138	6	734	2311
8:00-8:15	110	1	101	2	0	3	8	123	41	49	121	2	561	1969
8:15-8:30	81	0	93	1	0	8	11	134	47	55	143	3	576	
8:30-8:45	82	1	67	3	1	5	4	93	35	48	99	2	440	
8:45-9:00	34	0	57	0	0	3	5	92	52	43	104	2	392	
AM PEAK HOUR IS FROM:	7:00AM TO 8:00AM													
Volumes	516	3	447	14	4	17	12	569	254	257	569	15	2677	
Season Factor	516	3	447	14	4	17	12	569	254	257	569	15	2677	
Growth	556	3	482	15	4	18	13	613	274	277	613	16	2885	
In/Out	-	-	-	-	-	IN	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	1%							0%	1%		0%			
Village at Midway	15							54	6		131		205	
LTC Ranch %								17.0%			17.0%			
LTC Ranch Volume								276			310		586	
Southern Grove %								0.8%			0.8%			
Southern Grove								42			50		92	
Wilson Groves %								0.7%			0.7%			
Wilson Groves								27			27		54	
Riverland/Kennedy %								0.7%			0.7%			
Riverland/Kennedy								39			34		73	
Western Grove %								1.0%			1.0%			
Western Grove								21			14		35	
Ravinia %	2.0%							11.0%	2.0%		11.0%			
Ravinia	1							2	0		7		12	
Frontera %								30.0%			30.0%			
Frontera								17			52		70	
Total	572	3	482	15	4	18	13	1092	289	277	1237	16	4010	



Seasonal Factor:	1
Growth Rate:	1.005
Years Grown:	15

	Trips In	Trips Out
Willow Lakes	1,327	1,052
Village at Midway	1,451	663
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,333
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	68
Frontera	58	174

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	50	1	59	0	2	0	1	143	71	58	98	0	483	2137
4:15-4:30	41	0	76	0	1	0	0	92	95	106	183	1	595	2230
4:30-4:45	54	0	76	0	1	3	1	117	69	63	128	0	512	2363
4:45-5:00	53	0	66	0	0	0	1	141	103	85	98	0	547	2334
5:00-5:15	43	0	63	0	1	2	3	94	98	86	185	1	576	2280
5:15-5:30	57	0	107	0	0	0	1	153	137	89	124	0	668	
5:30-5:45	42	0	71	2	0	1	0	126	104	81	116	0	543	
5:45-6:00	61	1	74	0	0	0	1	107	82	70	95	2	493	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	195	0	307	2	1	3	5	514	442	341	523	1	2334	
Season Factor	195	0	307	2	1	3	5	514	442	341	523	1	2334	
Growth	219	0	331	2	1	3	5	554	476	367	564	1	2515	
In/Out	-	-	-	-	-	IN	OUT	OUT	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	1.0%							9.0%	1.0%		9.0%			
Village at Midway	7							164	18		65		255	
LTC Ranch %								17.0%			17.0%			
LTC Ranch Volume								505			394		899	
Southern Grove %								0.8%			0.8%			
Southern Grove								81			55		136	
Wilson Groves %								0.7%			0.7%			
Wilson Groves								39			32		71	
Riverland/Kennedy %								0.7%			0.7%			
Riverland/Kennedy								51			50		101	
Western Grove %								1.0%			1.0%			
Western Grove								21			25		46	
Ravinia %	2.0%							11.0%	2.0%		11.0%			
Ravinia	1							8	2		5		16	
Frontera %								30.0%			30.0%			
Frontera								63			37		99	
Total	218	0	331	2	1	3	5	1485	496	367	1227	1	4138	



Seasonal Factor:	1
Growth Rate:	1.005
Years Grown:	15

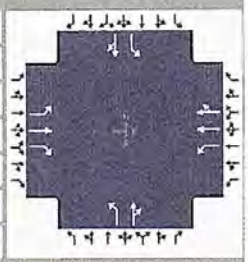
	Trips In	Trips Out
Willow Lakes	1,441	1,027
Village at Midway	725	1,824
LTC Ranch	2,330	2,970
Southern Grove	6,990	10,673
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,055	7,277
Western Grove	2,530	2,061
Ravinia	73	44
Frontera	207	122

F-106

#6 W/O

HCS7 Signalized Intersection Results Summary #6 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 w.o. Project - 7....		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	2.2	2.8	55.0	2.5	15.5	6.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0		5	6	7	8	
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	8.2	61.0	17.0	69.8	30.0	33.5	8.5	12.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.5		13.0		26.0	29.5	3.0	3.6
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.10	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	14	1149	295	292	661	658	602	511		16	23	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1610	1810	1900	1891	1810	1612		1810	1656	
Queue Service Time (g_s), s	0.5	55.0	14.6	11.0	30.0	30.0	24.0	27.5		1.0	1.6	
Cycle Queue Clearance Time (g_c), s	0.5	55.0	14.6	11.0	30.0	30.0	24.0	27.5		1.0	1.6	
Green Ratio (*g/C*)	0.48	0.46	0.46	0.57	0.53	0.53	0.27	0.23		0.07	0.05	
Capacity (*c*), veh/h	205	871	738	226	1010	1006	473	370		97	83	
Volume-to-Capacity Ratio (*X*)	0.067	1.320	0.399	1.289	0.654	0.654	1.272	1.380		0.163	0.280	
Back of Queue (Q), ft/ln (95 th percentile)	8.7	2193	235.5	638.6	476.3	475.4	773.5	1135.8		20	30.4	
Back of Queue (Q), veh/ln (95 th percentile)	0.3	87.7	9.4	25.5	19.1	19.0	30.9	45.4		0.8	1.2	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	18.9	32.5	21.6	39.2	20.2	20.2	44.5	46.2		52.5	54.9	
Incremental Delay (d_2), s/veh	0.1	152.2	1.6	159.2	3.3	3.3	138.2	187.2		0.3	0.7	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	18.9	184.7	23.2	198.4	23.5	23.5	182.7	233.4		52.7	55.6	
Level of Service (LOS)	B	F	C	F	C	C	F	F		D	E	
Approach Delay, s/veh / LOS	150.5	F		55.2	E		206.0	F		54.4	D	
Intersection Delay, s/veh / LOS	127.8						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.90	B	2.13	B	2.32	B
Bicycle LOS Score / LOS	2.89	C	1.82	B	2.32	B	0.55	A

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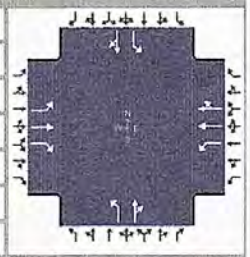
HCS7 Signalized Intersection Input Data

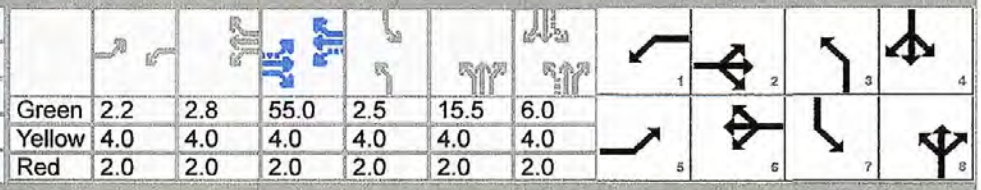
#6 W/O AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 w.o. Project - 7....		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	2.2	2.8		55.0	2.5	15.5	6.0					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	14.0	61.0	17.0	64.0	30.0	29.0	13.0	12.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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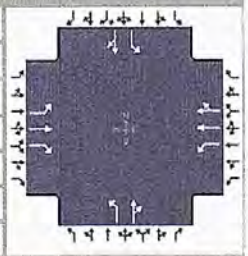
HCS7 Signalized Intersection Results Summary

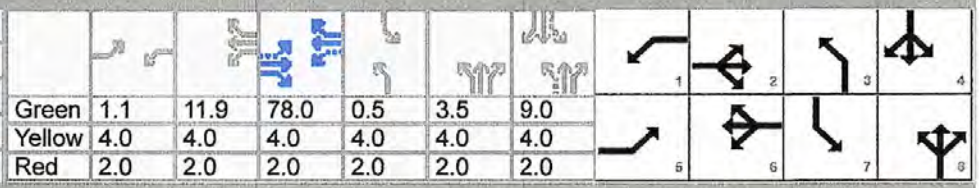
#6 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project - 7....		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.1	11.9	78.0	0.5	3.5	9.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	7.1	84.0	25.0	101.9	16.0	24.5	6.5	15.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.2		21.0		12.0	20.5	2.2	2.3
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.00	0.09

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	5	1563	522	386	646	646	229	348		2	4	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1610	1810	1900	1899	1810	1610		1810	1674	
Queue Service Time (g_s), s	0.2	78.0	29.8	19.0	22.7	22.7	10.0	18.5		0.2	0.3	
Cycle Queue Clearance Time (g_c), s	0.2	78.0	29.8	19.0	22.7	22.7	10.0	18.5		0.2	0.3	
Green Ratio (*g/C*)	0.56	0.56	0.56	0.71	0.68	0.68	0.15	0.13		0.07	0.06	
Capacity (*c*), veh/h	286	1058	897	298	1301	1301	269	213		58	108	
Volume-to-Capacity Ratio (*X*)	0.018	1.477	0.582	1.298	0.497	0.497	0.852	1.636		0.037	0.039	
Back of Queue (Q), ft/ln (95 th percentile)	3.2	3669.9	418.7	870.7	348.6	348.5	203	1004.7		3.2	6.3	
Back of Queue (Q), veh/ln (95 th percentile)	0.1	146.8	16.7	34.8	13.9	13.9	8.1	40.2		0.1	0.3	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	13.5	31.0	20.3	51.7	10.5	10.5	59.3	60.7		61.2	61.5	
Incremental Delay (d_2), s/veh	0.0	219.9	2.8	156.8	1.4	1.4	21.2	306.3		0.1	0.1	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	13.5	250.9	23.1	208.5	11.9	11.9	80.6	367.0		61.3	61.5	
Level of Service (LOS)	B	F	C	F	B	B	F	F		E	E	
Approach Delay, s/veh / LOS	193.4	F		57.1	E		253.3	F		61.4	E	
Intersection Delay, s/veh / LOS	148.6						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	1.88	B	2.15	B	2.32	B
Bicycle LOS Score / LOS	3.94	D	1.87	B	1.44	A	0.50	A

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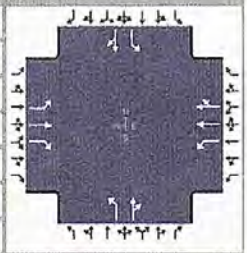
HCS7 Signalized Intersection Input Data

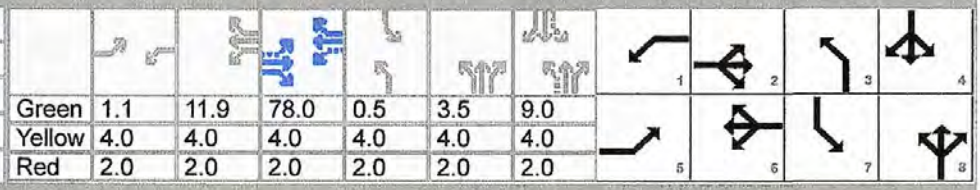
#6 W/O PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project - 7....		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.1	11.9	78.0	0.5	3.5	9.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	84.0	84.0	25.0	25.0	16.0	18.0	13.0	15.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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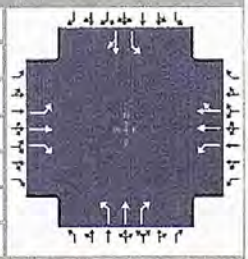
HCS7 Signalized Intersection Results Summary

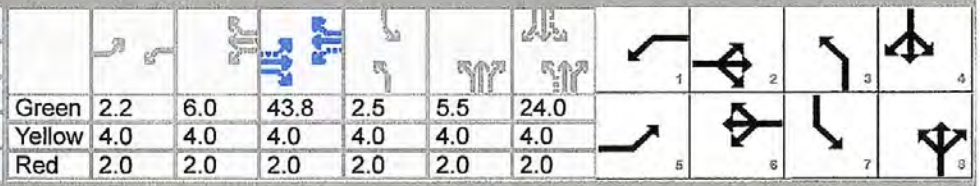
#6 W/O +NBR AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy & Midway - AM - 2035 w.o. Project -...		
Project Description	without Project +NB2				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	2.2	6.0	43.8	2.5	5.5	24.0	
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	
Red	2.0	2.0	2.0	2.0	2.0	2.0	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.2	49.8	20.2	61.8	20.0	41.5	8.5	30.0
Change Period, (Y+R c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g s), s	2.6		16.3		16.0	37.5	2.8	3.4
Green Extension Time (g e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	14	1149	295	292	661	658	602	3	507	16	23	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1891	1810	1900	1610	1810	1656	
Queue Service Time (g s), s	0.6	43.7	17.1	14.3	34.2	34.2	14.0	0.1	35.5	0.8	1.4	
Cycle Queue Clearance Time (g c), s	0.6	43.7	17.1	14.3	34.2	34.2	14.0	0.1	35.5	0.8	1.4	
Green Ratio (g/C)	0.38	0.37	0.37	0.50	0.47	0.47	0.33	0.30	0.30	0.22	0.20	
Capacity (c), veh/h	163	692	587	277	884	880	535	562	476	382	331	
Volume-to-Capacity Ratio (X)	0.084	1.661	0.502	1.052	0.747	0.748	1.126	0.006	1.065	0.041	0.070	
Back of Queue (Q), ft/ln (95 th percentile)	10.7	2989.7	278.8	494.3	559.6	558.5	737.6	2.8	753.4	16.1	24.6	
Back of Queue (Q), veh/ln (95 th percentile)	0.4	119.6	11.2	19.8	22.4	22.3	29.5	0.1	30.1	0.6	1.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d 1), s/veh	25.5	38.1	29.7	38.1	26.3	26.3	41.5	29.8	42.3	36.8	39.0	
Incremental Delay (d 2), s/veh	0.1	303.7	3.1	68.5	5.7	5.8	78.5	0.0	59.7	0.0	0.0	
Initial Queue Delay (d 3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	25.6	341.8	32.7	106.6	32.0	32.1	119.9	29.8	102.0	36.8	39.0	
Level of Service (LOS)	C	F	C	F	C	C	F	C	F	D	D	
Approach Delay, s/veh / LOS	276.4	F		45.5	D		111.5	F		38.1	D	
Intersection Delay, s/veh / LOS	142.6						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.91	B	2.12	B	2.30	B
Bicycle LOS Score / LOS	2.89	C	1.82	B	2.32	B	0.55	A

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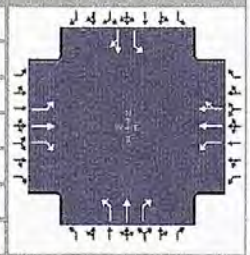
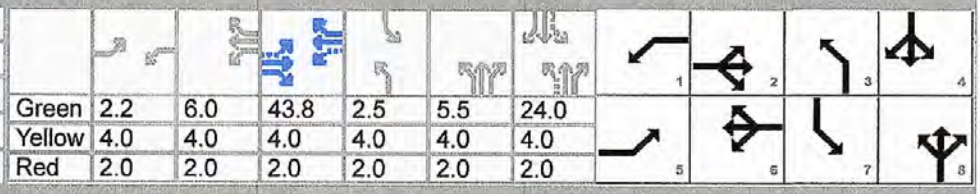
HCS7 Signalized Intersection Input Data #6 w/o +NBR AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy & Midway - AM - 2035 w.o. Project -...		
Project Description	without Project + NBR				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	2.2	6.0		43.8	2.5	5.5	24.0					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	50.0	20.0	50.0	20.0	30.0	20.0	30.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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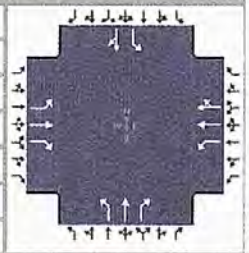
HCS7 Signalized Intersection Results Summary #6 w/o +N BR PM

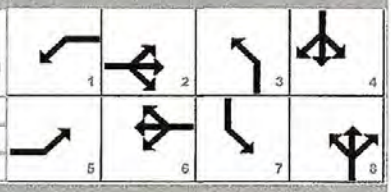
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project - 7....		
Project Description	without Project +N BR				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.1	12.2		64.0	0.5	7.5	18.7					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.1	70.0	25.3	88.2	20.0	38.2	6.5	24.7
Change Period, (*Y+R c*), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (*g s*), s	2.2		21.4		16.0	31.8	2.1	2.3
Green Extension Time (*g e*), s	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.7
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	0.18	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	5	1563	522	386	646	646	229	0	348	2	4	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1610	1810	1900	1899	1810	1900	1610	1810	1674	
Queue Service Time (*g s*), s	0.2	64.0	36.5	19.4	29.8	29.8	14.0	0.0	29.8	0.1	0.3	
Cycle Queue Clearance Time (*g c*), s	0.2	64.0	36.5	19.4	29.8	29.8	14.0	0.0	29.8	0.1	0.3	
Green Ratio (*g/C*)	0.46	0.46	0.46	0.61	0.59	0.59	0.25	0.23	0.23	0.14	0.13	
Capacity (*c*), veh/h	222	868	736	302	1116	1116	420	437	370	249	223	
Volume-to-Capacity Ratio (*X*)	0.024	1.800	0.710	1.280	0.579	0.579	0.546	0.000	0.941	0.008	0.019	
Back of Queue (Q), ft/ln (95 th percentile)	4.1	4551.4	525.7	856.5	470.6	470.5	278.3	0	514.2	2.9	5.8	
Back of Queue (Q), veh/ln (95 th percentile)	0.2	182.1	21.0	34.3	18.8	18.8	11.1	0.0	20.6	0.1	0.2	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (*d 1*), s/veh	20.8	38.0	30.5	49.3	18.1	18.1	45.6	0.0	53.0	52.2	52.7	
Incremental Delay (*d 2*), s/veh	0.0	364.8	5.7	149.1	2.2	2.2	0.8	0.0	25.5	0.0	0.0	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	20.8	402.8	36.3	198.4	20.3	20.3	46.4	0.0	78.5	52.2	52.7	
Level of Service (LOS)	C	F	D	F	C	C	D		E	D	D	
Approach Delay, s/veh / LOS	310.3	F		61.3	E		65.8	E		52.6	D	
Intersection Delay, s/veh / LOS	181.4						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	1.90	B	2.14	B	2.32	B
Bicycle LOS Score / LOS	3.94	D	1.87	B	1.44	A	0.50	A

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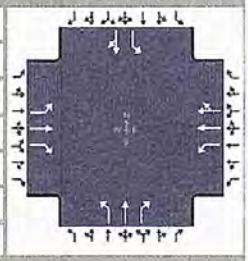
HCS7 Signalized Intersection Input Data

#6 w/o +NBR PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project - 7....		
Project Description	without Project + NBR				

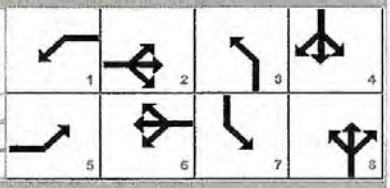


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.1	12.2	64.0	0.5	7.5	18.7	
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	
Red	2.0	2.0	2.0	2.0	2.0	2.0	



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	70.0	20.0	70.0	20.0	30.0	20.0	30.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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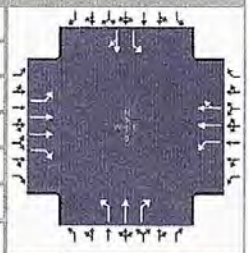
HCS7 Signalized Intersection Results Summary #6 w/o AM + Imp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy & Midway - AM - 2035 w.o. Project +...		
Project Description	without Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB		WB			NB			SB		
Green	2.2	2.5	43.5	2.5	15.5	17.8					
Yellow	4.0	4.0	4.0	4.0	4.0	4.0					
Red	2.0	2.0	2.0	2.0	2.0	2.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.2	49.5	16.7	58.0	30.0	45.3	8.5	23.8
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.6		13.1		26.0	39.1	2.9	3.5
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.1
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	14	1149	295	292	661	658	602	3	507	16	23	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809	1610	1810	1900	1891	1810	1900	1610	1810	1656	
Queue Service Time (g_s), s	0.6	35.8	17.2	11.1	36.2	36.3	24.0	0.1	37.1	0.9	1.5	
Cycle Queue Clearance Time (g_c), s	0.6	35.8	17.2	11.1	36.2	36.3	24.0	0.1	37.1	0.9	1.5	
Green Ratio (g/C)	0.38	0.36	0.36	0.47	0.43	0.43	0.36	0.33	0.33	0.17	0.15	
Capacity (c), veh/h	145	1301	579	257	824	821	607	622	527	303	245	
Volume-to-Capacity Ratio (X)	0.094	0.883	0.509	1.135	0.802	0.802	0.991	0.005	0.963	0.052	0.095	
Back of Queue (Q), ft/ln (95 th percentile)	10.8	581.9	281	446.3	604.9	603.7	423.6	2.7	628.4	17.4	26.4	
Back of Queue (Q), veh/ln (95 th percentile)	0.4	23.3	11.2	17.9	24.2	24.1	16.9	0.1	25.1	0.7	1.1	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	26.9	36.1	30.1	29.9	29.5	29.5	38.5	27.2	39.6	41.9	44.2	
Incremental Delay (d_2), s/veh	0.1	9.0	3.2	97.6	8.1	8.1	34.2	0.0	28.5	0.0	0.1	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	27.0	45.0	33.3	127.5	37.6	37.6	72.6	27.2	68.2	41.9	44.3	
Level of Service (LOS)	C	D	C	F	D	D	E	C	E	D	D	
Approach Delay, s/veh / LOS	42.5	D		53.9	D		70.5	E		43.3	D	
Intersection Delay, s/veh / LOS	54.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.29	B	2.46	B
Bicycle LOS Score / LOS	1.69	B	1.82	B	2.32	B	0.55	A

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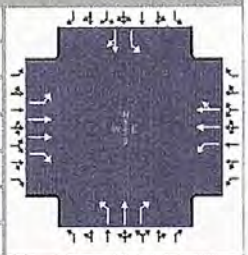
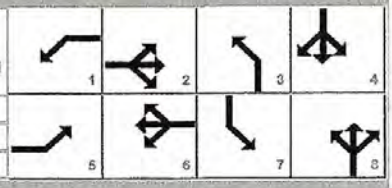
HCS7 Signalized Intersection Input Data #6 w/o AM Pump

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy & Midway - AM - 2035 w.o. Project +...		
Project Description	without Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	2.2	2.5		43.5	2.5	15.5	17.8					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	15.0	50.0	15.0	50.0	30.0	25.0	30.0	25.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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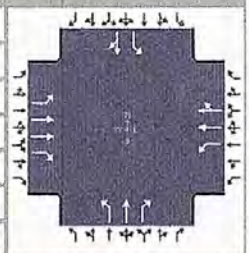
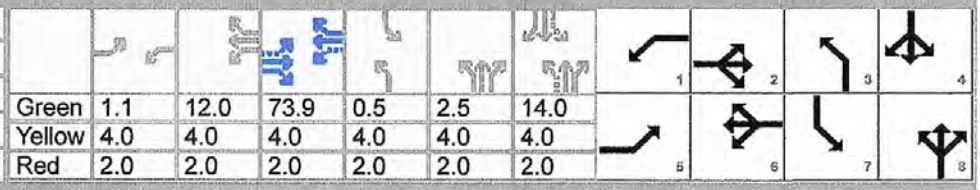
HCS7 Signalized Intersection Results Summary #6 w/o PM + Imp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project + I...		
Project Description	without Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.1	12.0	73.9	0.5	2.5	14.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.1	79.9	25.1	97.9	15.0	28.5	6.5	20.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.2		21.1		11.0	24.5	2.1	2.3
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	5	1563	522	386	646	646	229	0	348	2	4	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1610	1810	1900	1899	1810	1900	1610	1810	1674	
Queue Service Time (g_s), s	0.2	50.3	31.7	19.1	24.8	24.8	9.0	0.0	22.5	0.1	0.3	
Cycle Queue Clearance Time (g_c), s	0.2	50.3	31.7	19.1	24.8	24.8	9.0	0.0	22.5	0.1	0.3	
Green Ratio (*g/C*)	0.54	0.53	0.53	0.68	0.66	0.66	0.18	0.16	0.16	0.10	0.10	
Capacity (*c*), veh/h	268	1909	850	354	1247	1247	307	305	259	201	167	
Volume-to-Capacity Ratio (*X*)	0.020	0.819	0.614	1.090	0.518	0.518	0.747	0.000	1.346	0.010	0.025	
Back of Queue (*Q*), ft/ln (95 th percentile)	3.5	727.1	448.6	697.3	384.1	384	178.6	0	838.7	3	6	
Back of Queue (*Q*), veh/ln (95 th percentile)	0.1	29.1	17.9	27.9	15.4	15.4	7.1	0.0	33.5	0.1	0.2	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	15.4	27.5	23.1	42.1	12.5	12.5	55.7	0.0	58.7	56.4	56.9	
Incremental Delay (d_2), s/veh	0.0	4.1	3.3	74.2	1.5	1.5	8.6	0.0	179.1	0.0	0.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	15.4	31.5	26.4	116.4	14.1	14.1	64.3	0.0	237.9	56.4	56.9	
Level of Service (LOS)	B	C	C	F	B	B	E		F	E	E	
Approach Delay, s/veh / LOS	30.2	C		37.6	D		168.9	F		56.7	E	
Intersection Delay, s/veh / LOS	51.5						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.10	B	1.88	B	2.31	B	2.47	B
Bicycle LOS Score / LOS	2.21	B	1.87	B	1.44	A	0.50	A

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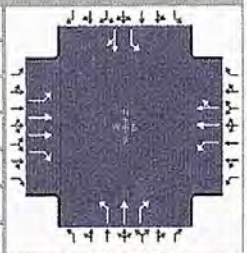
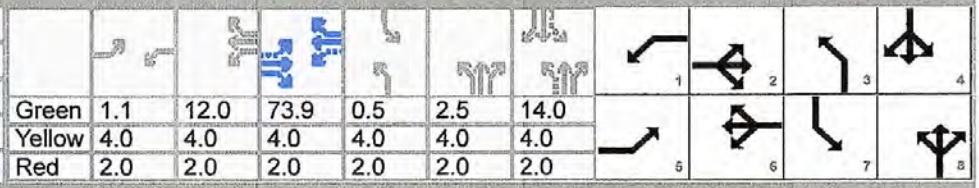
HCS7 Signalized Intersection Input Data #6 w/o AM turn

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project + I...		
Project Description	without Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	1.1	12.0		73.9	0.5	2.5	14.0					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	80.0	25.0	85.0	15.0	20.0	15.0	20.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*l*t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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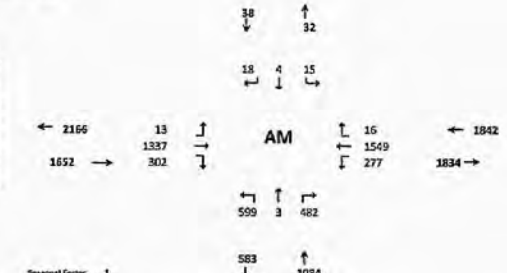
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Tolino Pkwy
FILENAME: Willow Lakes
COUNT DATE: 7/20/2020
REPORT DATE:
DAY: Thursday
ANALYSIS YEAR: 2025
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: TWSC

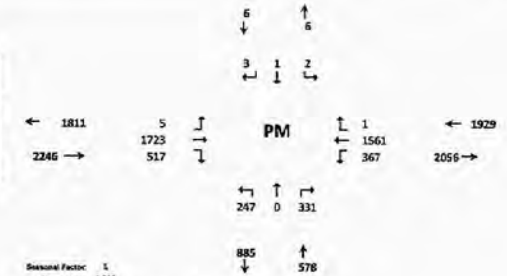
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	136	1	126	3	2	1	3	117	53	45	124	5	615	2677
7:15-7:30	103	0	83	1	2	5	4	110	56	64	162	3	594	2633
7:30-7:45	135	1	108	6	0	7	1	161	77	92	145	1	734	2605
7:45-8:00	142	1	128	4	0	4	4	181	70	56	138	6	734	2311
8:00-8:15	110	1	101	2	0	3	8	123	41	89	121	2	561	1969
8:15-8:30	81	0	93	1	0	0	11	134	47	55	143	3	576	
8:30-8:45	82	1	67	3	1	5	4	93	35	48	99	2	440	
8:45-9:00	34	0	57	0	0	3	5	92	52	63	104	2	392	
AM PEAK HOUR IS FROM:			7:00AM TO 8:00AM											
Volumes	516	3	447	14	4	17	13	569	254	257	569	15	2677	
Season Factor	516	3	447	14	4	17	12	560	254	257	569	15	2677	
Growth	556	3	482	15	4	18	13	613	274	277	613	16	2885	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	2%	0%	0%	0%	0%	0%	0%	23%	2%	0%	23%	0%		
PROJECT	27	0	0	0	0	0	0	245	21	0	312	0	606	
Midway %	1%							9%	1%		9%			
Village at Midway	15							54	6		181		205	
LTC Ranch %								17.0%			17.0%			
LTC Ranch Volume								276			310		586	
Southern Grove %								0.8%			0.8%			
Southern Grove								42			50		92	
Wilson Groves %								0.7%			0.7%			
Wilson Groves								27			27		54	
Riverland/Kennedy %								0.7%			0.7%			
Riverland/Kennedy								39			34		73	
Western Grove %								1.0%			1.0%			
Western Grove								21			14		35	
Ravinia %	2.0%							11.0%	2.0%		11.0%			
Ravinia	1							2	0		7		12	
Frontera %								30.0%			30.0%			
Frontera								17			52		70	
Total	599	3	482	15	4	18	13	1307	301	277	1549	16	4615	



Seasonal Factor:	1
Growth Rate:	1.005
Years Grown:	15

	Trips In	Trips Out
Willow Lakes	1,355	1,065
Village at Midway	1,451	603
LTC Ranch	1,623	1,624
Southern Grove	6,218	5,333
Wilson Groves	3,675	3,867
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	68
Frontera	58	174

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	50	1	59	0	2	0	1	143	71	58	98	0	483	2137
4:15-4:30	41	0	76	0	1	0	0	92	95	106	163	1	595	2230
4:30-4:45	54	0	76	0	1	3	1	117	69	63	128	0	512	2363
4:45-5:00	53	0	66	0	0	0	1	141	103	85	98	0	547	2334
5:00-5:15	43	0	63	0	1	2	3	94	98	86	185	1	576	2280
5:15-5:30	57	0	107	0	0	0	1	153	137	89	124	0	668	
5:30-5:45	42	0	71	2	0	1	0	126	104	81	116	0	543	
5:45-6:00	61	1	74	0	0	0	1	107	82	70	95	2	493	
PM PEAK HOUR IS FROM:			4:45PM TO 5:45PM											
Volumes	195	0	307	2	1	3	5	514	442	341	523	1	2334	
Season Factor	195	0	307	2	1	3	5	514	442	341	523	1	2334	
Growth	210	0	331	2	1	3	5	554	476	367	564	1	2515	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	2%	0%	0%	0%	0%	0%	0%	23%	2%	0%	23%	0%		
PROJECT	29	0	0	0	0	0	0	238	21	0	334	0	622	
Midway %	1.0%							9.0%	1.0%		9.0%			
Village at Midway	7							164	18		65		255	
LTC Ranch %								17.0%			17.0%			
LTC Ranch Volume								505			394		899	
Southern Grove %								0.8%			0.8%			
Southern Grove								81			55		136	
Wilson Groves %								0.7%			0.7%			
Wilson Groves								39			32		71	
Riverland/Kennedy %								0.7%			0.7%			
Riverland/Kennedy								51			50		101	
Western Grove %								1.0%			1.0%			
Western Grove								21			25		46	
Ravinia %	2.0%							11.0%	2.0%		13.0%			
Ravinia	1							8	2		5		16	
Frontera %								30.0%			30.0%			
Frontera								62			37		99	
Total	247	0	331	2	1	3	5	1723	517	367	1561	1	4760	



Seasonal Factor:	1
Growth Rate:	1.005
Years Grown:	15

	Trips In	Trips Out
Willow Lakes	1,490	1,009
Village at Midway	716	1,824
LTC Ranch	2,320	2,970
Southern Grove	5,990	10,071
Wilson Groves	4,541	1,639
Riverland/Kennedy	7,095	7,177
Western Grove	2,510	2,061
Ravinia	77	44
Frontera	207	122

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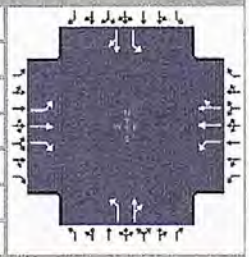
#6 w/p

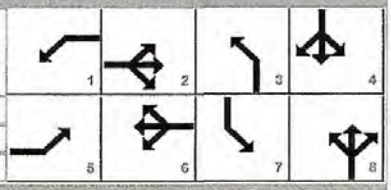
HCS7 Signalized Intersection Results Summary #6 w/ PAM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project - 7....		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Green	2.2	1.8	62.0	2.5	9.5	6.0		
Yellow	4.0	4.0	4.0	4.0	4.0	4.0		
Red	2.0	2.0	2.0	2.0	2.0	2.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	8.2	68.0	16.0	75.8	24.0	27.5	8.5	12.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.4		12.0		22.0	18.9	3.0	3.6
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		1.00		1.00	0.06	0.00	0.07

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	14	1407	318	292	824	823	631	237		16	23	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1610	1810	1899	1893	1810	1613		1810	1656	
Queue Service Time (g_s), s	0.4	63.0	14.3	10.0	37.7	37.9	20.0	16.9		1.0	1.6	
Cycle Queue Clearance Time (g_c), s	0.4	63.0	14.3	10.0	37.7	37.9	20.0	16.9		1.0	1.6	
Green Ratio (*g/C*)	0.54	0.53	0.53	0.62	0.59	0.59	0.25	0.18		0.07	0.05	
Capacity (*c*), veh/h	170	998	832	211	1120	1101	437	290		122	83	
Volume-to-Capacity Ratio (*X*)	0.081	1.411	0.382	1.383	0.736	0.748	1.444	0.818		0.129	0.280	
Back of Queue (*Q*), ft/ln (95 th percentile)	7.5	2932	226.2	690.5	566.6	569.3	1095.7	298.4		19.9	30.4	
Back of Queue (*Q*), veh/ln (95 th percentile)	0.3	117.3	9.0	27.6	22.7	22.8	43.8	11.9		0.8	1.2	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	17.6	28.5	17.5	40.5	18.1	17.9	45.6	47.3		52.3	54.9	
Incremental Delay (d_2), s/veh	0.1	190.9	1.3	199.3	4.3	4.7	212.5	10.6		0.2	0.7	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	17.6	219.4	18.8	239.7	22.4	22.5	258.1	57.9		52.5	55.6	
Level of Service (LOS)	B	F	B	F	C	C	F	E		D	E	
Approach Delay, s/veh / LOS	181.1	F		55.1	E		203.4	F		54.3	D	
Intersection Delay, s/veh / LOS	131.0						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.27	B	1.89	B	2.14	B	2.32	B
Bicycle LOS Score / LOS	3.36	C	2.09	B	1.92	B	0.55	A

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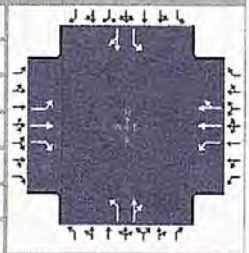
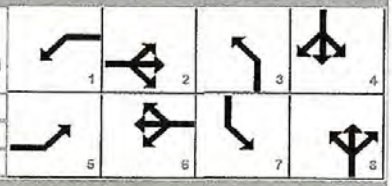
HCS7 Signalized Intersection Input Data #6 w/P AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project - 7....		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	2.2	1.8		62.0	2.5	9.5	6.0					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	260	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	68.0	68.0	12.0	12.0	24.0	21.0	19.0	16.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	3.0	2.0	3.0	4.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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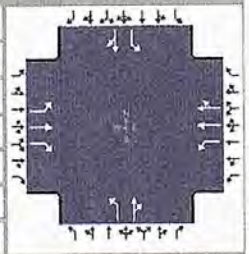
HCS7 Signalized Intersection Results Summary #6 w/P PM

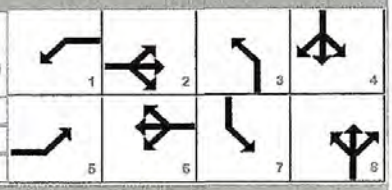
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project - 7....		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.1	7.9		89.0	0.5	5.5	6.0					
Yellow	4.0	4.0		4.0	4.0	0.0	4.0					
Red	2.0	2.0		2.0	2.0	0.0	2.0					



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	7.1	95.0	21.0	108.9	12.0	17.5	6.5	12.0
Change Period, (*Y+R c*), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (*g s*), s	2.1		17.0		8.0	13.5	2.2	2.3
Green Extension Time (*g e*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.06	0.64

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	5	1814	544	386	822	822	260	138		2	4	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1610	1810	1900	1900	1810	1610		1810	1674	
Queue Service Time (*g s*), s	0.1	89.0	26.0	15.0	28.3	28.3	6.0	11.5		0.2	0.3	
Cycle Queue Clearance Time (*g c*), s	0.1	89.0	26.0	15.0	28.3	28.3	6.0	11.5		0.2	0.3	
Green Ratio (*g/C*)	0.64	0.64	0.64	0.76	0.73	0.73	0.10	0.08		0.05	0.04	
Capacity (*c*), veh/h	226	1208	1023	245	1396	1396	187	133		58	72	
Volume-to-Capacity Ratio (*X*)	0.023	1.502	0.532	1.574	0.589	0.589	1.391	1.040		0.037	0.059	
Back of Queue (Q), ft/ln (95 th percentile)	2.5	4282.8	357.1	1051.5	396.3	396.2	557.3	318.2		3.2	6.5	
Back of Queue (Q), veh/ln (95 th percentile)	0.1	171.3	14.3	42.1	15.9	15.8	22.3	12.7		0.1	0.3	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (*d 1*), s/veh	9.9	25.5	14.0	53.8	8.7	8.7	64.8	64.2		63.9	64.3	
Incremental Delay (*d 2*), s/veh	0.0	230.2	2.0	276.9	1.8	1.8	205.3	89.3		0.1	0.1	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	9.9	255.7	16.0	330.7	10.5	10.5	270.1	153.5		64.0	64.4	
Level of Service (LOS)	A	F	B	F	B	B	F	F		E	E	
Approach Delay, s/veh / LOS	199.9	F		71.4	E		229.7	F		64.3	E	
Intersection Delay, s/veh / LOS	147.8						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.17	B	1.86	B	2.15	B	2.32	B
Bicycle LOS Score / LOS	4.39	D	2.16	B	1.14	A	0.50	A

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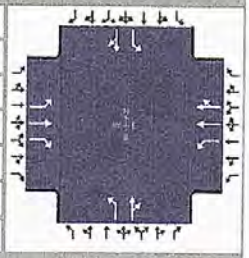
HCS7 Signalized Intersection Input Data

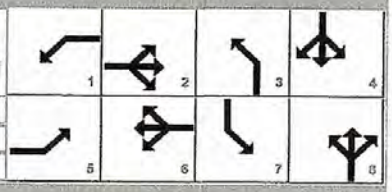
#6 W/P PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project - 7....		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	1.1	7.9		89.0	0.5	5.5	6.0					
Yellow	4.0	4.0		4.0	4.0	0.0	4.0					
Red	2.0	2.0		2.0	2.0	0.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None		0	L			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	200	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	84.0	95.0	21.0	32.0	12.0	12.0	12.0	12.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk ($Walk$), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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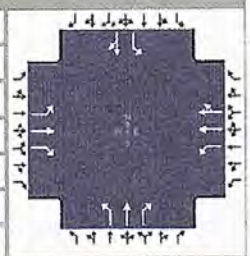
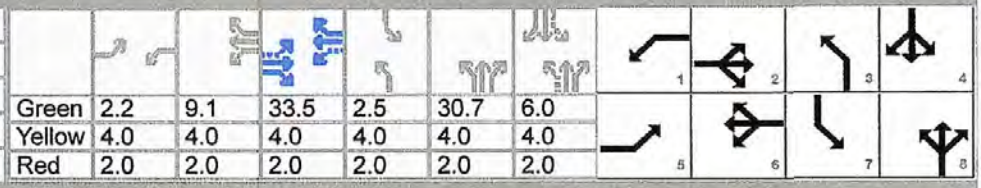
HCS7 Signalized Intersection Results Summary # 6 w/P +NBR AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project - 7....		
Project Description	with Project +NBR				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	2.2	9.1	33.5	2.5	30.7	6.0			
Yellow	4.0	4.0	4.0	4.0	4.0	4.0			
Red	2.0	2.0	2.0	2.0	2.0	2.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.2	39.5	23.3	54.6	45.2	48.7	8.5	12.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.6		17.0		38.8	15.1	3.0	3.6
Green Extension Time (g_e), s	0.0	0.0	0.3	0.0	0.4	0.5	0.0	0.3
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		0.02		1.00	0.00	0.00	0.02

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	14	1407	318	292	824	823	631	3	234	16	23	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1610	1810	1899	1893	1810	1900	1610	1810	1656	
Queue Service Time (g_s), s	0.6	34.5	21.3	15.0	49.6	49.6	36.8	0.1	13.1	1.0	1.6	
Cycle Queue Clearance Time (g_c), s	0.6	34.5	21.3	15.0	49.6	49.6	36.8	0.1	13.1	1.0	1.6	
Green Ratio (*g/C*)	0.30	0.29	0.29	0.44	0.41	0.41	0.43	0.36	0.36	0.07	0.05	
Capacity (*c*), veh/h	93	546	449	321	785	767	756	677	573	169	83	
Volume-to-Capacity Ratio (*X*)	0.147	2.577	0.707	0.908	1.050	1.074	0.834	0.005	0.407	0.094	0.280	
Back of Queue (*Q*), ft/ln (95 th percentile)	12.6	4883.3	355.6	306.5	1052.7	1112.3	579.5	2.6	213.9	19.8	30.4	
Back of Queue (*Q*), veh/ln (95 th percentile)	0.5	195.3	14.2	12.3	42.1	44.5	23.2	0.1	8.6	0.8	1.2	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	34.5	42.8	38.9	35.0	35.2	35.2	30.4	24.9	29.1	52.3	54.9	
Incremental Delay (d_2), s/veh	0.3	715.1	9.1	15.9	46.0	54.1	7.0	0.0	0.2	0.1	0.7	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	34.8	757.9	47.9	50.8	81.2	89.3	37.4	24.9	29.3	52.4	55.6	
Level of Service (LOS)	C	F	D	D	F	F	D	C	C	D	E	
Approach Delay, s/veh / LOS	622.4	F		80.1	F		35.1	D		54.3	D	
Intersection Delay, s/veh / LOS	277.1						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.50	B	1.92	B	2.12	B	2.32	B
Bicycle LOS Score / LOS	3.36	C	2.09	B	1.92	B	0.55	A

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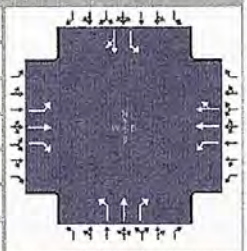
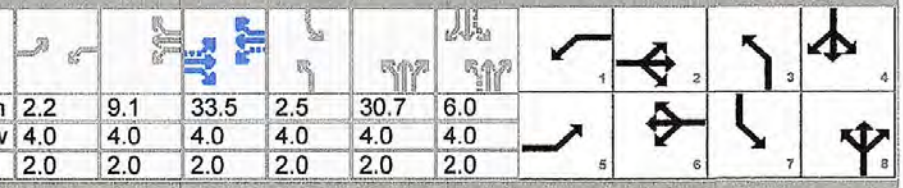
HCS7 Signalized Intersection Input Data #6 w/p +NBR AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project - 7....		
Project Description	with Project + NBR				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	2.2	9.1		33.5	2.5	30.7	6.0					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	260	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	14.0	32.0	25.0	43.0	47.0	30.0	33.0	16.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	3.0	2.0	3.0	4.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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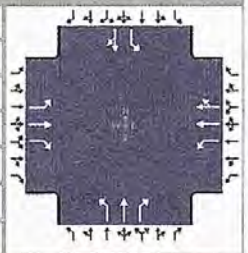
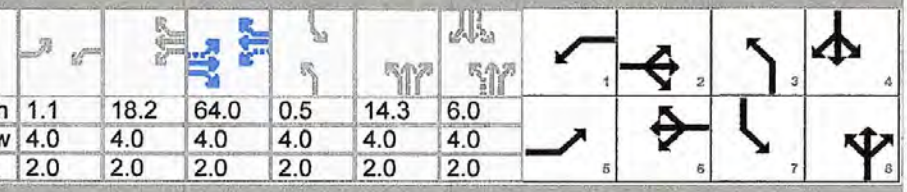
HCS7 Signalized Intersection Results Summary #6 w/P+NBR PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project - 7....		
Project Description	with Project + NBR				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.1	18.2	64.0	0.5	14.3	6.0		
Yellow	4.0	4.0	4.0	4.0	4.0	4.0		
Red	2.0	2.0	2.0	2.0	2.0	2.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.1	70.0	31.3	94.2	26.7	32.2	6.5	12.0
Change Period, (*Y+R c*), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.2		27.3		20.7	12.7	2.2	2.3
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	0.00	0.00	0.16

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	5	1814	544	386	822	822	260	0	138	2	4	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1610	1810	1900	1900	1810	1900	1610	1810	1674	
Queue Service Time (g_s), s	0.2	64.0	38.8	25.3	39.5	39.5	18.7	0.0	10.7	0.2	0.3	
Cycle Queue Clearance Time (g_c), s	0.2	64.0	38.8	25.3	39.5	39.5	18.7	0.0	10.7	0.2	0.3	
Green Ratio (*g/C*)	0.47	0.46	0.46	0.65	0.63	0.63	0.21	0.19	0.19	0.05	0.04	
Capacity (*c*), veh/h	169	869	736	378	1197	1196	377	356	302	119	71	
Volume-to-Capacity Ratio (*X*)	0.031	2.088	0.739	1.022	0.687	0.687	0.689	0.000	0.457	0.018	0.059	
Back of Queue (*Q*), ft/ln (95 th percentile)	4.1	5878	556.9	645	588.3	588.3	338.5	0	191.1	3.2	6.5	
Back of Queue (*Q*), veh/ln (95 th percentile)	0.2	235.1	22.3	25.8	23.5	23.5	13.5	0.0	7.6	0.1	0.3	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	21.2	38.0	31.2	49.0	16.9	16.9	51.7	0.0	50.5	63.8	64.3	
Incremental Delay (d_2), s/veh	0.0	493.6	6.6	51.9	3.2	3.2	3.9	0.0	0.4	0.0	0.1	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	21.2	531.6	37.7	100.9	20.1	20.1	55.5	0.0	50.9	63.8	64.4	
Level of Service (LOS)	C	F	D	F	C	C	E		D	E	E	
Approach Delay, s/veh / LOS	416.7	F		35.5	D		53.9	D		64.2	E	
Intersection Delay, s/veh / LOS	224.8						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.39	B	1.89	B	2.14	B	2.32	B
Bicycle LOS Score / LOS	4.39	D	2.16	B	1.14	A	0.50	A

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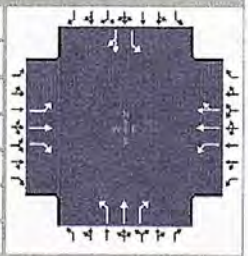
HCS7 Signalized Intersection Input Data

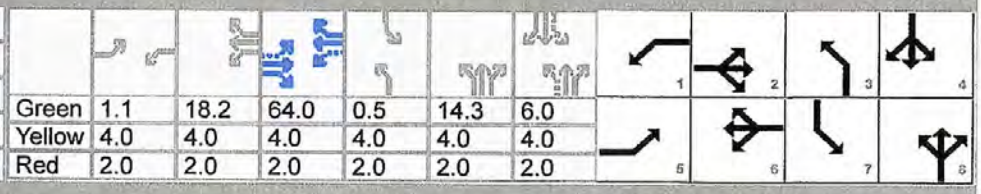
#6 WP +NBR PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project - 7....		
Project Description	with Project +NBR				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.1	18.2	64.0	0.5	14.3	6.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None		0	L			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	200	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	70.0	30.0	80.0	28.0	27.0	13.0	12.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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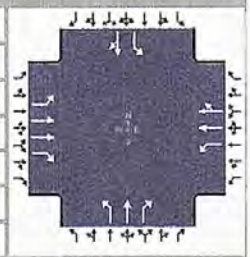
HCS7 Signalized Intersection Results Summary

#6 W/P + imp AM

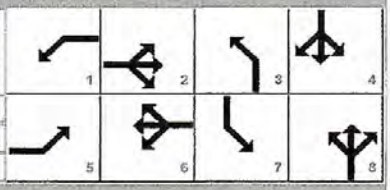
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project + I...		
Project Description	with Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	2.2	7.4	49.4	2.5	16.5	6.0	
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	
Red	2.0	2.0	2.0	2.0	2.0	2.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.2	55.4	21.6	68.8	31.0	34.5	8.5	12.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.5		15.2		29.0	17.5	3.0	3.6
Green Extension Time (g_e), s	0.0	0.0	0.4	0.0	0.0	0.5	0.0	0.4
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		0.00		1.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	14	1407	318	292	824	823	631	3	234	16	23	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1899	1610	1810	1899	1893	1810	1900	1610	1810	1656	
Queue Service Time (g_s), s	0.5	41.0	17.4	13.2	43.1	43.2	27.0	0.2	15.5	1.0	1.6	
Cycle Queue Clearance Time (g_c), s	0.5	41.0	17.4	13.2	43.1	43.2	27.0	0.2	15.5	1.0	1.6	
Green Ratio (g/C)	0.43	0.42	0.42	0.56	0.53	0.53	0.31	0.24	0.24	0.07	0.05	
Capacity (c), veh/h	138	1594	663	322	1010	991	542	452	383	169	83	
Volume-to-Capacity Ratio (X)	0.099	0.883	0.480	0.905	0.816	0.831	1.163	0.007	0.610	0.094	0.280	
Back of Queue (Q), ft/ln (95 th percentile)	9.8	663.2	277.4	358.5	670.9	677	625.4	3.1	251.5	19.8	30.4	
Back of Queue (Q), veh/ln (95 th percentile)	0.4	26.5	11.1	14.3	26.8	27.1	25.0	0.1	10.1	0.8	1.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	24.1	32.5	25.9	33.0	23.6	23.3	41.9	34.9	40.8	52.3	54.9	
Incremental Delay (d_2), s/veh	0.1	7.4	2.5	11.7	7.3	8.1	92.2	0.0	0.6	0.1	0.7	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	24.2	40.0	28.4	44.7	30.9	31.4	134.1	34.9	41.4	52.4	55.6	
Level of Service (LOS)	C	D	C	D	C	C	F	C	D	D	E	
Approach Delay, s/veh / LOS	37.7	D		33.2	C		108.7	F		54.3	D	
Intersection Delay, s/veh / LOS	49.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	1.90	B	2.30	B	2.47	B
Bicycle LOS Score / LOS	1.92	B	2.09	B	1.92	B	0.55	A

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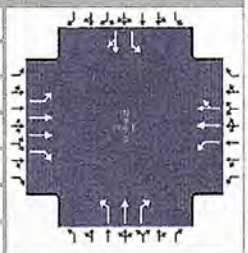
HCS7 Signalized Intersection Input Data

#6 WIP+IMP PM

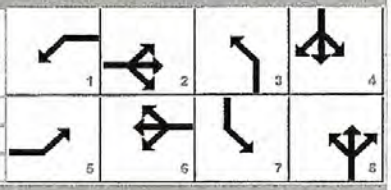
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project + I...		
Project Description	with Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	2.2	7.4		49.4	2.5	16.5	6.0					
Yellow	4.0	4.0		4.0	4.0	4.0	4.0					
Red	2.0	2.0		2.0	2.0	2.0	2.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	260	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	31.0	45.0	20.0	34.0	31.0	16.0	39.0	24.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	3.0	2.0	3.0	4.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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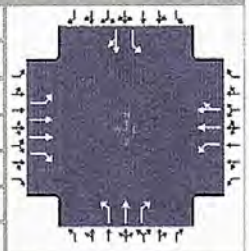
HCS7 Signalized Intersection Results Summary

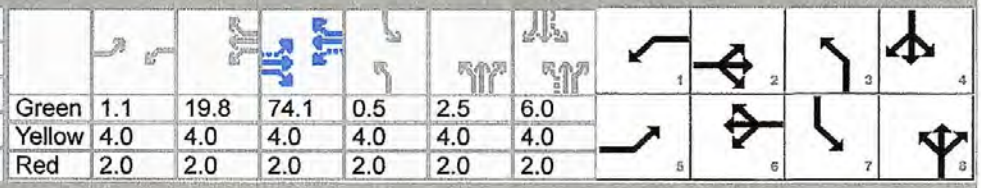
#6 WP Imp PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project + I...		
Project Description	with Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.1	19.8	74.1	0.5	2.5	6.0
Yellow	4.0	4.0	4.0	4.0	4.0	4.0
Red	2.0	2.0	2.0	2.0	2.0	2.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.1	80.1	32.9	105.9	15.0	20.5	6.5	12.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g_s), s	2.2		26.2		11.0	13.8	2.2	2.3
Green Extension Time (g_e), s	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.2
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		0.00		1.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	5	1814	544	386	822	822	260	0	138	2	4	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1610	1810	1900	1900	1810	1900	1610	1810	1674	
Queue Service Time (g_s), s	0.2	66.2	33.6	24.2	30.6	30.6	9.0	0.0	11.8	0.2	0.3	
Cycle Queue Clearance Time (g_c), s	0.2	66.2	33.6	24.2	30.6	30.6	9.0	0.0	11.8	0.2	0.3	
Green Ratio (*g/C*)	0.54	0.53	0.53	0.74	0.71	0.71	0.12	0.10	0.10	0.05	0.04	
Capacity (*c*), veh/h	214	1915	852	414	1356	1356	226	197	167	119	71	
Volume-to-Capacity Ratio (*X*)	0.025	0.947	0.638	0.933	0.606	0.606	1.152	0.000	0.827	0.018	0.059	
Back of Queue (*Q*), ft/ln (95 th percentile)	3.5	968.9	472.4	487.1	434.2	434.1	403.2	0	213.3	3.2	6.5	
Back of Queue (*Q*), veh/ln (95 th percentile)	0.1	38.8	18.9	19.5	17.4	17.4	16.1	0.0	8.5	0.1	0.3	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	15.2	31.1	23.4	46.9	10.1	10.1	62.8	0.0	61.5	63.8	64.3	
Incremental Delay (d_2), s/veh	0.0	11.4	3.6	4.3	2.0	2.0	107.2	0.0	3.9	0.0	0.1	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	15.2	42.5	27.1	51.2	12.1	12.1	170.0	0.0	65.4	63.8	64.4	
Level of Service (LOS)	B	D	C	D	B	B	F		E	E	E	
Approach Delay, s/veh / LOS	38.9		D	19.6		B	133.8		F	64.2		E
Intersection Delay, s/veh / LOS	38.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.38	B	1.87	B	2.32	B	2.48	B
Bicycle LOS Score / LOS	2.44	B	2.16	B	1.14	A	0.50	A

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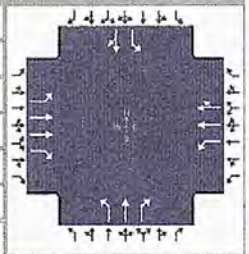
HCS7 Signalized Intersection Input Data

#6 WP+imp PM

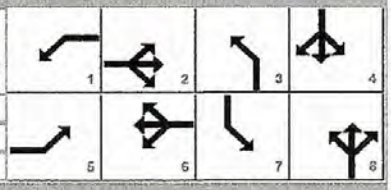
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project + I...		
Project Description	with Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	1.1	19.8	74.1	0.5	2.5	6.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	2.0	2.0	2.0	2.0	2.0	2.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None		0	L			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	200	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	27.0	74.0	88.0	15.0	22.0	17.0	24.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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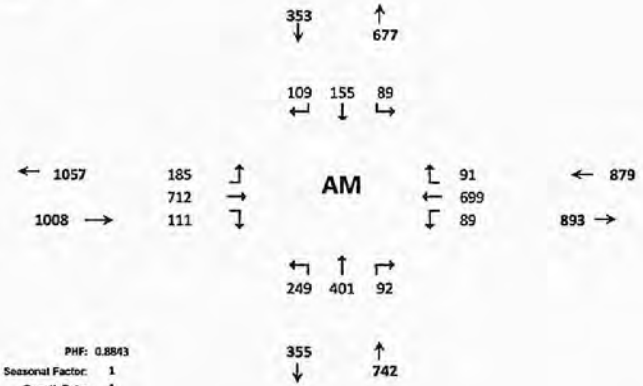
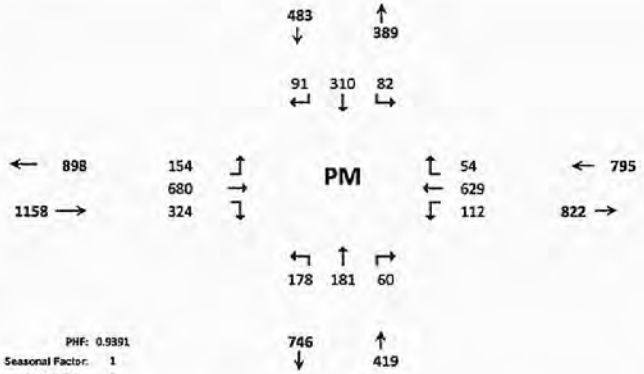
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Selvitz Rd
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2020

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	45	71	24	18	24	32	30	196	33	9	148	21	651	2982
7:15-7:30	63	81	22	15	32	27	44	183	28	18	145	23	681	2958
7:30-7:45	67	122	22	37	39	22	59	151	32	22	213	21	807	2853
7:45-8:00	74	127	24	19	60	28	52	182	18	40	193	26	843	2606
8:00-8:15	54	52	11	21	31	20	40	173	28	16	168	13	627	2265
8:15-8:30	52	59	23	13	28	20	34	127	26	17	167	10	576	
8:30-8:45	60	57	23	12	33	25	30	151	29	7	111	22	560	
8:45-9:00	38	39	23	19	15	15	30	150	30	10	116	17	502	
AM PEAK HOUR IS FROM:	7:00AM TO 8:00AM													
Volumes	249	401	92	89	155	109	185	712	111	89	699	91	2982	
Season Factor	249	401	92	89	155	109	185	712	111	89	699	91	2982	
Growth	249	401	92	89	155	109	185	712	111	89	699	91	2982	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	249	401	92	89	155	109	185	712	111	89	699	91	2982	



15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	52	57	12	24	55	39	31	186	58	35	173	10	732	2810
4:15-4:30	72	56	17	15	66	27	36	159	44	37	154	16	699	2794
4:30-4:45	48	49	22	20	69	21	52	151	74	26	162	8	702	2855
4:45-5:00	57	40	13	16	73	22	35	157	75	29	144	16	677	2762
5:00-5:15	24	48	7	33	86	23	26	190	85	23	157	14	716	2635
5:15-5:30	49	44	18	13	82	25	41	182	90	34	166	16	760	
5:30-5:45	30	46	6	14	55	22	29	159	64	28	143	13	609	
5:45-6:00	44	42	11	11	53	12	25	122	59	29	129	13	550	
PM PEAK HOUR IS FROM:	4:30 PM TO 5:30PM													
Volumes	178	181	60	82	310	91	154	680	324	112	629	54	2855	
Season Factor	178	181	60	82	310	91	154	680	324	112	629	54	2855	
Growth	178	181	60	82	310	91	154	680	324	112	629	54	2855	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	178	181	60	82	310	91	154	680	324	112	629	54	2855	



F-132

3 of 3

St. Lucie County

ECONOLITE

00026 - MIDWAY RD @ SELVITZ RD - - Econolite Type - Cobalt

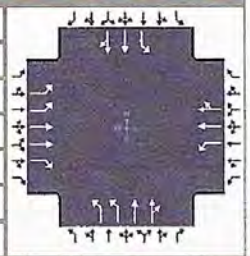
Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	10	10	12	10	10	10	10	10	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	24	0	26	0	26	0	29	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	3.0	5.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	14	60	22	24	13	60	16	24	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCS7 Signalized Intersection Results Summary

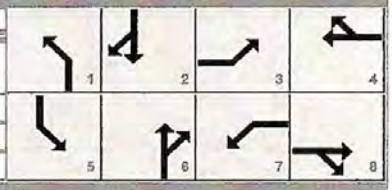
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - Existing - 6.2.2020.xus		
Project Description	Existing + Committed				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	185	712	111	89	699	91	249	401	92	89	155	109

Signal Information			
Cycle, s	82.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.0	1.0	14.7	9.0	2.9	22.0	
Yellow	4.0	0.0	4.0	4.0	0.0	4.0	
Red	2.0	0.0	2.0	2.0	0.0	2.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	17.9	30.9	15.0	28.0	16.0	21.6	15.0	20.7
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g_s), s	6.5	18.6	6.4	21.3	8.4	14.1	6.4	8.5
Green Extension Time (g_e), s	0.4	2.3	0.1	0.7	0.3	1.5	0.1	1.5
Phase Call Probability	0.99	1.00	0.90	1.00	1.00	1.00	0.90	1.00
Max Out Probability	0.00	0.63	0.00	1.00	0.07	0.00	0.01	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	210	809	126	101	458	440	283	288	272	101	156	144
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1809	1610	1810	1900	1823	1757	1900	1777	1810	1900	1646
Queue Service Time (g_s), s	4.5	16.6	4.9	4.4	19.2	19.3	6.4	11.9	12.1	4.4	6.1	6.5
Cycle Queue Clearance Time (g_c), s	4.5	16.6	4.9	4.4	19.2	19.3	6.4	11.9	12.1	4.4	6.1	6.5
Green Ratio (*g/C*)	0.14	0.30	0.30	0.11	0.27	0.27	0.12	0.19	0.19	0.11	0.18	0.18
Capacity (*c*), veh/h	507	1090	485	198	506	486	425	360	337	198	338	293
Volume-to-Capacity Ratio (*X*)	0.415	0.742	0.260	0.512	0.905	0.905	0.666	0.799	0.808	0.512	0.461	0.492
Back of Queue (Q), ft/ln (95 th percentile)	81.4	279.4	77.4	83.1	390.8	380.1	116.7	225.4	216.9	83.1	118.4	110.4
Back of Queue (Q), veh/ln (95 th percentile)	3.3	11.2	3.1	3.3	15.6	15.2	4.7	9.0	8.7	3.3	4.7	4.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	32.2	26.0	21.9	34.7	29.3	29.3	34.7	32.0	32.0	34.7	30.4	30.6
Incremental Delay (d_2), s/veh	0.2	2.5	0.1	0.8	16.7	17.3	0.7	1.6	1.8	0.8	0.4	0.5
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	32.4	28.4	22.0	35.5	46.0	46.6	35.4	33.5	33.8	35.5	30.8	31.1
Level of Service (LOS)	C	C	C	D	D	D	D	C	C	D	C	C
Approach Delay, s/veh / LOS	28.4	C		45.2	D		34.2	C		32.1	C	
Intersection Delay, s/veh / LOS	35.3						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.28	B	2.29	B	2.58	C
Bicycle LOS Score / LOS	1.43	A	1.31	A	1.18	A	0.82	A

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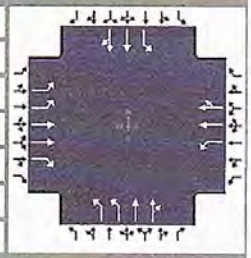
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - Existing - 6.2.2020.xus		
Project Description	Existing + Committed				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	185	712	111	89	699	91	249	401	92	89	155	109

Signal Information			
Cycle, s	82.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.0	1.0	14.7	9.0	2.9	22.0	1	2	3	4		
Yellow	4.0	0.0	4.0	4.0	0.0	4.0	5	6	7	8		
Red	2.0	0.0	2.0	2.0	0.0	2.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	185	712	111	89	699	91	249	401	92	89	155	109
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	22.0	24.0	16.0	24.0	14.0	60.0	13.0	60.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	12	10	10	10	10	10	10	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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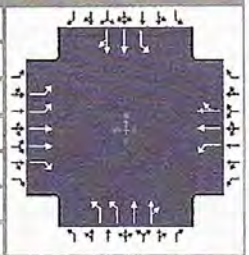
HCS7 Signalized Intersection Results Summary

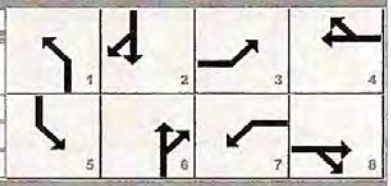
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - PM - Existing - 6.2.2020.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	154	680	324	112	629	54	178	181	60	82	310	91

Signal Information			
Cycle, s	76.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.4	1.4		11.8	9.2	2.4		18.7				
Yellow	4.0	0.0		4.0	4.0	0.0		4.0				
Red	2.0	0.0		2.0	2.0	0.0		2.0				



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	17.6	27.2	15.2	24.7	15.8	19.2	14.4	17.8
Change Period, (*Y+R c*), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (*g s*), s	5.1	16.9	6.7	15.8	5.8	6.9	5.4	10.6
Green Extension Time (*g e*), s	0.3	2.7	0.1	2.9	0.2	1.2	0.1	1.2
Phase Call Probability	0.97	1.00	0.92	1.00	0.98	1.00	0.84	1.00
Max Out Probability	0.00	0.46	0.00	0.37	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	164	723	345	119	368	358	189	131	126	87	219	207
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1809	1610	1810	1900	1847	1757	1900	1741	1810	1900	1753
Queue Service Time (*g s*), s	3.1	13.7	14.9	4.7	13.8	13.8	3.8	4.6	4.9	3.4	8.4	8.6
Cycle Queue Clearance Time (*g c*), s	3.1	13.7	14.9	4.7	13.8	13.8	3.8	4.6	4.9	3.4	8.4	8.6
Green Ratio (*g/C*)	0.15	0.28	0.28	0.12	0.25	0.25	0.13	0.17	0.17	0.11	0.16	0.16
Capacity (*c*), veh/h	538	1008	449	219	469	456	454	330	302	201	295	272
Volume-to-Capacity Ratio (*X*)	0.305	0.718	0.768	0.544	0.786	0.787	0.417	0.397	0.415	0.435	0.744	0.762
Back of Queue (Q), ft/ln (95 th percentile)	55.8	233.2	242.4	88.2	255.1	250.7	67.4	88.8	85.7	64.1	164.3	156.5
Back of Queue (Q), veh/ln (95 th percentile)	2.2	9.3	9.7	3.5	10.2	10.0	2.7	3.6	3.4	2.6	6.6	6.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh	28.6	24.7	25.2	31.4	26.7	26.8	30.4	27.9	28.0	31.6	30.6	30.7
Incremental Delay (*d 2*), s/veh	0.1	1.5	5.2	0.8	3.9	4.1	0.2	0.3	0.3	0.6	1.4	1.7
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	28.7	26.2	30.3	32.2	30.6	30.8	30.7	28.1	28.3	32.1	32.1	32.4
Level of Service (LOS)	C	C	C	C	C	C	C	C	C	C	C	C
Approach Delay, s/veh / LOS	27.7	C		30.9	C		29.3	C		32.2	C	
Intersection Delay, s/veh / LOS	29.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.28	B	2.29	B	2.58	C
Bicycle LOS Score / LOS	1.50	B	1.19	A	0.86	A	0.91	A

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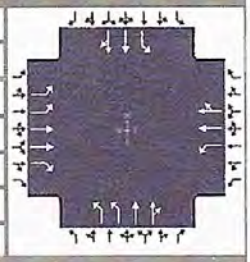
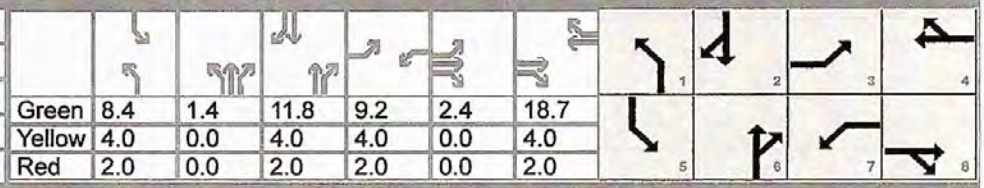
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - PM - Existing - 6.2.2020.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	154	680	324	112	629	54	178	181	60	82	310	91

Signal Information			
Cycle, s	76.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	8.4	1.4		11.8	9.2	2.4	18.7					
Yellow	4.0	0.0		4.0	4.0	0.0	4.0					
Red	2.0	0.0		2.0	2.0	0.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	154	680	324	112	629	54	178	181	60	82	310	91
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	22.0	24.0	16.0	24.0	14.0	60.0	13.0	60.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	12	10	10	10	10	10	10	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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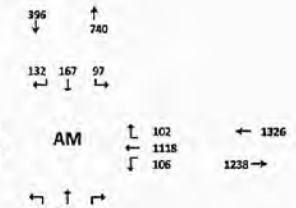
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Selvitz Rd
FILENAME: Willow Lakes
COUNT DATE: 7/18/2020
REPORT DATE:
DAY: Tuesday
ANALYSIS YEAR: 2035
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: Signalized

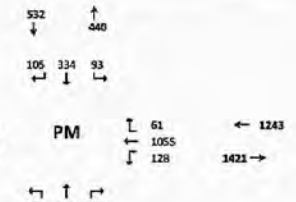
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	45	71	24	18	24	32	30	196	33	9	148	21	651	2982
7:15-7:30	63	81	22	15	32	27	44	183	28	18	145	23	681	2958
7:30-7:45	67	122	22	37	39	22	59	151	32	23	219	21	807	2853
7:45-8:00	74	127	24	19	60	28	52	182	18	40	193	26	843	2606
8:00-8:15	54	52	11	21	31	20	40	173	28	16	108	13	537	2265
8:15-8:30	52	55	23	13	28	20	34	127	25	17	167	10	576	
8:30-8:45	60	57	23	12	33	25	30	151	29	7	111	22	560	
8:45-9:00	38	35	23	19	15	15	30	150	30	10	116	17	501	
AM PEAK HOUR IS FROM:			7:00AM TO 8:00AM											
Volumes	249	401	92	89	155	109	185	712	111	89	699	91	2982	
Season Factor	249	401	92	89	155	109	185	712	111	89	699	91	2982	
Growth	268	432	99	96	167	117	199	767	120	96	753	98	3214	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	1%					1%	1%	5%	1%		5%			
Village at Midway	15					15	6	30	6		73		144	
LTC Ranch %	1.4%							6.3%	1.4%		6.3%			
LTC Ranch Volume	26							102	23		115		265	
Southern Grove %	0.1%							0.7%	0.1%		0.7%			
Southern Grove	6							37	5		44		92	
Wilson Groves %	0.1%							0.9%	0.1%		0.7%			
Wilson Groves	4							27	4		27		61	
Riverland/Kennedy %	0.1%							0.6%	0.1%		0.6%			
Riverland/Kennedy	5							23	6		29		73	
Western Grove %								1.1%			1.1%			
Western Grove								23			15		38	
Ravinia %			2.0%	6.0%				16.0%		2.0%	15.0%	6.0%		
Ravinia			0	1				4		1	11	4	22	
Frontera %			30.0%					20.0%		5.0%	30.0%			
Frontera			6					12		9	52		78	
Total	323	432	105	97	167	132	205	1035	163	106	1118	102	3387	

Seasonal Factor	1		
Growth Rate	1.005		
Years Grown	15		
		Trips In	Trips Out
Willow Lakes		1,317	1,052
Village at Midway		1,451	663
LTC Ranch		1,823	1,624
Southern Grove		6,218	5,333
Wilson Groves		3,675	3,607
Riverland/Kennedy		4,791	5,568
Western Grove		1,352	2,135
Ravinia		22	68
Frontera		58	134



15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	52	57	12	24	55	39	31	186	58	35	173	30	732	2810
4:15-4:30	72	56	17	15	65	27	36	159	44	37	154	16	699	2794
4:30-4:45	48	49	22	20	69	21	52	151	74	26	162	8	702	2855
4:45-5:00	57	60	13	16	73	22	35	157	75	29	144	16	677	2762
5:00-5:15	24	48	7	13	86	23	26	190	85	23	157	14	716	2635
5:15-5:30	49	44	18	13	82	25	41	181	90	34	156	16	750	
5:30-5:45	30	46	6	14	55	22	29	159	64	28	143	13	609	
5:45-6:00	44	42	11	11	53	12	35	121	59	29	129	13	550	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	178	181	60	82	310	91	154	680	324	152	629	54	2855	
Season Factor	178	181	60	82	310	91	154	680	324	152	629	54	2855	
Growth	192	195	65	88	334	98	166	733	349	121	678	58	3077	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	1.0%					1.0%	1.0%	5.0%	1.0%		5.0%			
Village at Midway	7					7	10	91	10		36		179	
LTC Ranch %	1.4%							6.3%	1.4%		6.2%			
LTC Ranch Volume	33							187	42		146		407	
Southern Grove %								0.7%			0.7%			
Southern Grove								70			49		119	
Wilson Groves %								0.7%			0.7%			
Wilson Groves								39			32		71	
Riverland/Kennedy %								0.6%			0.8%			
Riverland/Kennedy								44			43		86	
Western Grove %								1.1%			1.1%			
Western Grove								23			28		50	
Ravinia %			2.0%	6.0%				16.0%		2.0%	16.0%	6.0%		
Ravinia			2	5				12		1	7	3	29	
Frontera %			50.0%					30.0%		5.0%	30.0%			
Frontera			21					41		6	37		105	
Total	212	195	87	93	334	105	184	1241	409	128	1055	61	4124	

Seasonal Factor	1		
Growth Rate	1.005		
Years Grown	15		
		Trips In	Trips Out
Willow Lakes		1,441	1,027
Village at Midway		726	1,824
LTC Ranch		2,320	2,979
Southern Grove		6,990	10,671
Wilson Groves		4,543	5,639
Riverland/Kennedy		7,095	7,277
Western Grove		2,510	2,061
Ravinia		77	44
Frontera		207	122



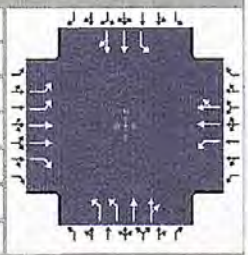
F-138

w/o

2/10/2020

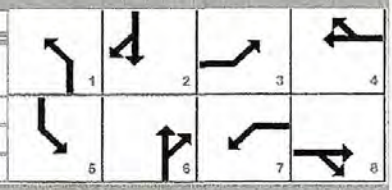
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - 2035 w.o. Project - 7.10.2...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	205	1035	163	106	1118	102	323	442	105	97	167	132

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.7	3.8	26.2	9.8	2.2	44.3	
Yellow	4.0	0.0	4.0	4.0	0.0	4.0	
Red	2.0	0.0	2.0	2.0	0.0	2.0	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	18.0	52.6	15.8	50.3	19.4	36.0	15.7	32.2
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g_s), s	9.1	33.6	9.2	41.6	13.4		8.6	
Green Extension Time (g_e), s	0.2	5.7	0.1	2.8	0.0	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	0.98	1.00	1.00		0.97	
Max Out Probability	0.11	0.30	0.10	0.86	1.00		0.06	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	216	1089	172	112	651	633	340	296	280	102	164	151
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1809	1610	1810	1900	1844	1757	1900	1774	1810	1900	1629
Queue Service Time (g_s), s	7.1	31.6	8.8	7.2	39.4	39.6	11.4	16.6	16.8	6.6	8.9	9.5
Cycle Queue Clearance Time (g_c), s	7.1	31.6	8.8	7.2	39.4	39.6	11.4	16.6	16.8	6.6	8.9	9.5
Green Ratio (*g/C*)	0.10	0.39	0.39	0.08	0.37	0.37	0.11	0.25	0.25	0.08	0.22	0.22
Capacity (*c*), veh/h	351	1404	625	147	702	681	394	475	443	146	415	356
Volume-to-Capacity Ratio (*X*)	0.615	0.776	0.275	0.758	0.927	0.930	0.864	0.624	0.631	0.700	0.395	0.423
Back of Queue (*Q*), ft/ln (95 th percentile)	139.1	490.9	146.1	153.9	701.4	691.1	243.8	326.3	314.1	136.1	194.6	184.2
Back of Queue (*Q*), veh/ln (95 th percentile)	5.6	19.6	5.8	6.2	28.1	27.6	9.8	13.1	12.6	5.4	7.8	7.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	51.8	32.1	25.1	54.0	36.3	36.3	52.4	40.0	40.1	53.8	40.1	40.4
Incremental Delay (d_2), s/veh	1.0	2.3	0.1	4.9	17.2	18.0	16.5	6.1	6.7	2.3	2.8	3.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	52.8	34.5	25.2	58.8	53.4	54.3	68.9	46.1	46.7	56.0	42.9	44.0
Level of Service (LOS)	D	C	C	E	D	D	E	D	D	E	D	D
Approach Delay, s/veh / LOS	36.1	D		54.3	D		54.8	D		46.5	D	
Intersection Delay, s/veh / LOS	47.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.28	B	2.30	B	2.60	C
Bicycle LOS Score / LOS	1.71	B	1.64	B	1.24	A	0.83	A

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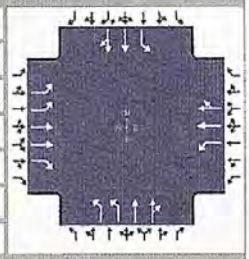
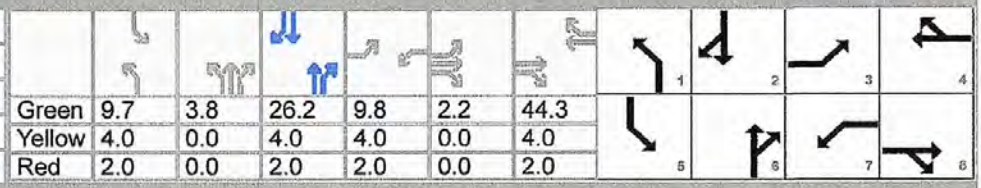
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - 2035 w.o. Project + Imp -...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	205	1035	163	106	1118	102	323	442	105	97	167	132

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	9.7	3.8		26.2	9.8	2.2	44.3					
Yellow	4.0	0.0		4.0	4.0	0.0	4.0					
Red	2.0	0.0		2.0	2.0	0.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	205	1035	163	106	1118	102	323	442	105	97	167	132
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	50.0	20.0	50.0	18.0	32.0	18.0	32.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	12	10	10	10	10	10	10	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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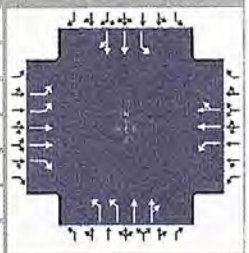
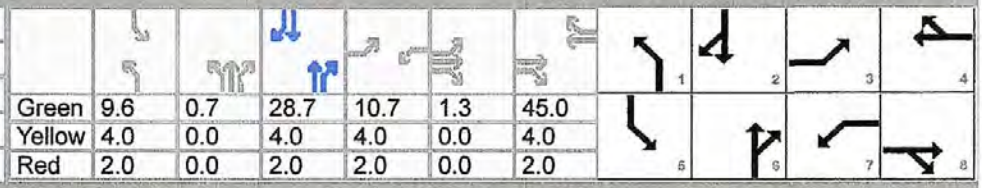
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - PM - 2035 w.o. Project - 7.10....		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	184	1241	409	128	1055	61	232	195	87	93	334	105

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.6	0.7		28.7	10.7	1.3	45.0					
Yellow	4.0	0.0		4.0	4.0	0.0	4.0					
Red	2.0	0.0		2.0	2.0	0.0	2.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	18.0	52.3	16.7	51.0	16.3	35.4	15.6	34.7
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g_s), s	8.3	43.7	10.8	36.1	10.2		8.3	
Green Extension Time (g_e), s	0.2	2.6	0.1	5.5	0.2	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.99	1.00	1.00		0.96	
Max Out Probability	0.04	0.95	0.79	0.58	1.00		0.10	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	194	1306	431	135	593	582	244	153	144	98	238	224
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1809	1610	1810	1900	1863	1757	1900	1705	1810	1900	1745
Queue Service Time (g_s), s	6.3	41.7	26.9	8.8	34.0	34.1	8.2	7.9	8.4	6.3	13.1	13.4
Cycle Queue Clearance Time (g_c), s	6.3	41.7	26.9	8.8	34.0	34.1	8.2	7.9	8.4	6.3	13.1	13.4
Green Ratio (*g/C*)	0.10	0.39	0.39	0.09	0.38	0.38	0.09	0.24	0.24	0.08	0.24	0.24
Capacity (*c*), veh/h	351	1395	621	162	713	699	303	465	418	145	454	417
Volume-to-Capacity Ratio (*X*)	0.552	0.937	0.693	0.833	0.832	0.833	0.807	0.328	0.345	0.675	0.525	0.537
Back of Queue (*Q*), ft/ln (95 th percentile)	123.1	669.6	392.1	202.7	575.1	566.9	173.5	172.6	164.9	129.7	266.5	256.1
Back of Queue (*Q*), veh/ln (95 th percentile)	4.9	26.8	15.7	8.1	23.0	22.7	6.9	6.9	6.6	5.2	10.7	10.2
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	51.5	35.5	30.9	53.8	34.1	34.1	53.8	37.2	37.4	53.7	39.7	39.9
Incremental Delay (d_2), s/veh	0.5	11.5	2.6	15.4	7.5	7.7	7.7	1.9	2.3	2.0	4.3	4.9
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	52.0	47.0	33.6	69.2	41.5	41.7	61.6	39.1	39.6	55.7	44.0	44.8
Level of Service (LOS)	D	D	C	E	D	D	E	D	D	E	D	D
Approach Delay, s/veh / LOS	44.5	D		44.5	D		49.4	D		46.4	D	
Intersection Delay, s/veh / LOS	45.3						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.44	B	2.28	B	2.30	B	2.59	C
Bicycle LOS Score / LOS	2.08	B	1.57	B	0.93	A	0.95	A

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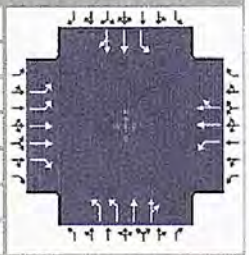
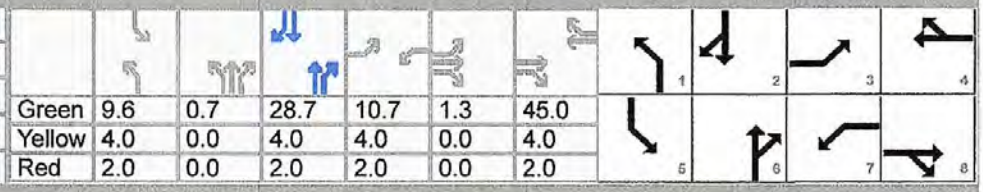
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - PM - 2035 w.o. Project - 7.10....		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	184	1241	409	128	1055	61	232	195	87	93	334	105

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.6	0.7		28.7	10.7	1.3	45.0					
Yellow	4.0	0.0		4.0	4.0	0.0	4.0					
Red	2.0	0.0		2.0	2.0	0.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	184	1241	409	128	1055	61	232	195	87	93	334	105
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	20.0	50.0	20.0	50.0	18.0	32.0	18.0	32.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	12	10	10	10	10	10	10	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Selvitz Rd
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	45	71	24	18	24	32	30	198	33	9	148	21	655	2982
7:15-7:30	63	81	22	15	32	27	44	183	28	18	145	23	681	2958
7:30-7:45	67	122	22	37	39	22	59	151	32	22	213	21	807	2953
7:45-8:00	74	127	24	19	60	28	52	182	18	40	193	26	843	2506
8:00-8:15	54	53	11	21	31	20	40	173	28	16	168	13	627	2265
8:15-8:30	51	59	23	13	28	20	34	127	16	17	157	10	576	
8:30-8:45	60	57	23	12	33	25	30	151	29	7	111	22	560	
8:45-9:00	38	29	23	19	15	15	30	150	30	10	116	17	502	
AM PEAK HOUR IS FROM:			7:00AM TO 8:00AM											
Volumes	249	401	92	89	155	109	185	712	111	89	699	91	2982	
Season Factor	249	401	92	89	155	109	185	712	111	89	699	91	2982	
Growth	268	432	99	96	167	117	199	767	120	96	753	98	3214	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	3%	0%	0%	0%	0%	1%	1%	19%	3%	0%	19%	0%		
PROJECT	41	0	0	0	0	14	11	202	32	0	257	0	557	
Midway %	1%					1%	1%	5%	1%		5%			
Village at Midway	15					15	6	30	6		73		144	
LTC Ranch %	1.4%							6.3%	1.4%		6.3%			
LTC Ranch Volume	26							162	28		115		265	
Southern Grove %	0.3%							0.7%	0.1%		0.7%			
Southern Grove	6							37	5		44		92	
Wilson Groves %	0.1%							0.7%	0.1%		0.7%			
Wilson Groves	4							27	4		27		61	
Riverland/Kennedy %	0.3%							0.6%	0.1%		0.6%			
Riverland/Kennedy	5							33	6		29		73	
Western Grove %								1.1%			1.1%			
Western Grove								23			15		38	
Ravinia %			2.0%	6.0%				16.0%		2.0%	16.0%	6.0%		
Ravinia			0	1				4		1	11	4	22	
Frontera %			10.0%					20.0%		5.0%	10.0%			
Frontera			5					12		9	52		78	
Total	364	432	105	97	167	146	216	1237	195	106	1375	192	4541	

	Trips In	Trips Out
Willow Lakes	1,355	1,065
Village at Midway	1,451	601
LTC Ranch	1,823	1,624
Southern Grove	5,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	68
Frontera	58	124

Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

15 Min Period Lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	51	57	12	24	55	39	31	166	58	35	173	30	732	2810
4:15-4:30	72	56	17	15	66	27	36	159	44	37	154	16	699	2794
4:30-4:45	68	49	22	20	69	21	52	151	74	26	162	8	702	2855
4:45-5:00	57	40	13	16	73	22	35	157	75	29	164	16	677	2762
5:00-5:15	24	48	7	33	86	23	28	190	85	23	157	14	716	2835
5:15-5:30	49	44	18	13	82	25	41	182	90	34	166	16	760	
5:30-5:45	30	46	6	14	55	22	29	159	64	28	143	13	609	
5:45-6:00	44	41	11	11	53	12	25	122	59	29	129	13	550	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	178	183	60	82	310	91	154	680	314	132	629	54	2855	
Season Factor	178	183	60	82	310	91	154	680	314	132	629	54	2855	
Growth	192	195	65	88	334	98	166	733	345	121	678	58	3077	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	3%	0%	0%	0%	0%	1%	1%	19%	3%	0%	19%	0%		
PROJECT	44	0	0	0	0	15	10	197	31	0	276	0	573	
Midway %	1.0%					1.0%	1.0%	5.0%	1.0%		5.0%			
Village at Midway	7					7	18	93	18		36		179	
LTC Ranch %	1.4%							6.3%	1.4%		6.3%			
LTC Ranch Volume	32							187	42		146		407	
Southern Grove %								0.7%			0.7%			
Southern Grove								78			49		119	
Wilson Groves %								0.7%			0.7%			
Wilson Groves								39			32		71	
Riverland/Kennedy %								0.6%			0.6%			
Riverland/Kennedy								84			43		86	
Western Grove %								1.1%			1.1%			
Western Grove								23			28		50	
Ravinia %			2.0%	6.0%				16.0%		2.0%	16.0%	6.0%		
Ravinia			3	5				12		1	7	3	29	
Frontera %			10.0%					20.0%		5.0%	30.0%			
Frontera			21					41		6	37		105	
Total	275	195	87	93	334	120	196	1438	440	128	1330	61	4599	

	Trips In	Trips Out
Willow Lakes	1,450	1,010
Village at Midway	726	1,824
LTC Ranch	2,130	2,970
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,539
Riverland/Kennedy	7,055	7,277
Western Grove	2,510	2,081
Ravinia	77	44
Frontera	207	122

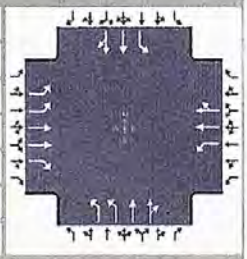
Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

F-144

#4 w/p

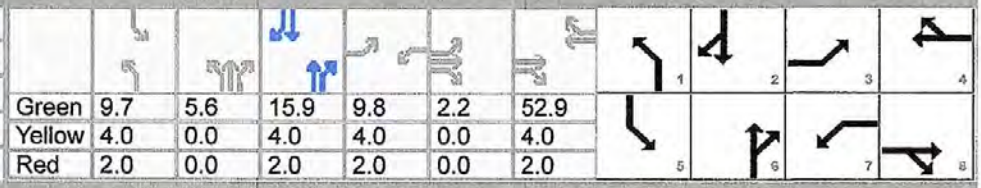
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - 2035 with Project - 7.9.20...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	216	1237	195	106	1375	102	364	432	105	97	167	146

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.7	5.6		15.9	9.8	2.2	52.9					
Yellow	4.0	0.0		4.0	4.0	0.0	4.0					
Red	2.0	0.0		2.0	2.0	0.0	2.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	18.0	61.1	15.8	58.9	21.3	27.5	15.7	21.9
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g_s), s	9.5	38.5	9.2	49.8	14.8		8.6	
Green Extension Time (g_e), s	0.2	8.0	0.1	3.0	0.5	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	0.98	1.00	1.00		0.97	
Max Out Probability	0.56	0.37	0.00	0.92	0.14		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	227	1302	205	112	784	771	383	291	274	102	173	157
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1809	1610	1810	1900	1854	1757	1900	1772	1810	1900	1615
Queue Service Time (g_s), s	7.5	36.5	9.5	7.2	47.1	47.8	12.8	17.8	18.1	6.6	10.4	11.2
Cycle Queue Clearance Time (g_c), s	7.5	36.5	9.5	7.2	47.1	47.8	12.8	17.8	18.1	6.6	10.4	11.2
Green Ratio (*g/C*)	0.10	0.46	0.46	0.08	0.44	0.44	0.13	0.18	0.18	0.08	0.13	0.13
Capacity (*c*), veh/h	351	1661	739	147	837	817	447	340	317	146	251	213
Volume-to-Capacity Ratio (*X*)	0.647	0.784	0.278	0.758	0.936	0.944	0.856	0.856	0.866	0.700	0.687	0.735
Back of Queue (*Q*), ft/ln (95 th percentile)	149.9	540.2	153.8	150.4	802	804.9	249.3	391	379.7	136.1	244	237.1
Back of Queue (*Q*), veh/ln (95 th percentile)	6.0	21.6	6.2	6.0	32.1	32.2	10.0	15.6	15.2	5.4	9.8	9.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	52.0	27.4	20.1	54.0	32.0	32.2	51.3	47.8	47.9	53.8	49.7	50.1
Incremental Delay (d_2), s/veh	2.4	2.2	0.1	3.0	16.8	18.5	7.6	23.2	25.7	2.3	14.3	20.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	54.4	29.6	20.2	57.0	48.8	50.6	58.9	70.9	73.6	56.0	64.0	70.1
Level of Service (LOS)	D	C	C	E	D	D	E	E	E	E	E	E
Approach Delay, s/veh / LOS	31.7	C		50.2	D		66.9	E		64.3	E	
Intersection Delay, s/veh / LOS	48.1						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.27	B	2.31	B	2.60	C
Bicycle LOS Score / LOS	1.92	B	1.86	B	1.27	A	0.84	A

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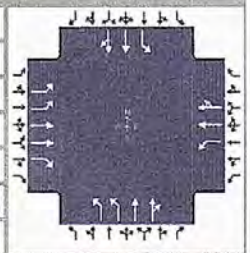
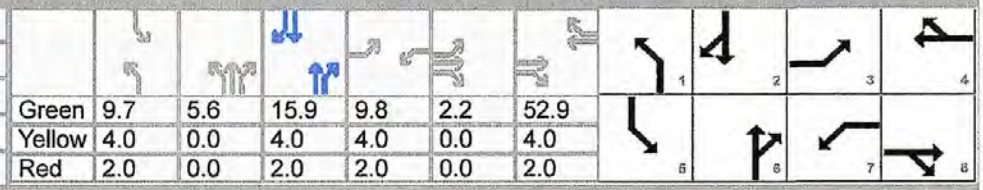
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - 2035 with Project - 7.9.20...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	216	1237	195	106	1375	102	364	432	105	97	167	146

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.7	5.6		15.9	9.8	2.2	52.9					
Yellow	4.0	0.0		4.0	4.0	0.0	4.0					
Red	2.0	0.0		2.0	2.0	0.0	2.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	216	1237	195	106	1375	102	364	432	105	97	167	146
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	19.0	44.0	34.0	59.0	25.0	16.0	26.0	17.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	12	10	10	10	10	10	10	10
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk ($Walk$), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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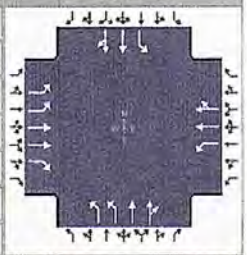
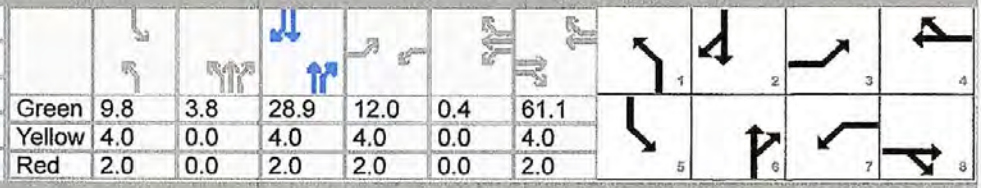
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz Midway - PM - 2035 with Project - 7.21.20...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	195	1438	440	128	1330	61	275	195	87	93	334	120

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	9.8	3.8		28.9	12.0	0.4	61.1					
Yellow	4.0	0.0		4.0	4.0	0.0	4.0					
Red	2.0	0.0		2.0	2.0	0.0	2.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	18.0	67.1	18.4	67.5	19.6	38.7	15.8	34.9
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g_s), s	9.9	58.8	12.3	52.0	13.4		9.4	
Green Extension Time (g_e), s	0.2	2.3	0.2	6.6	0.2	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.99	1.00	1.00		0.98	
Max Out Probability	0.01	1.00	0.00	0.71	0.87		0.95	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	205	1514	463	135	736	728	289	153	144	98	247	231
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1809	1610	1810	1900	1870	1757	1900	1705	1810	1900	1729
Queue Service Time (g_s), s	7.9	56.8	31.9	10.3	49.7	50.0	11.4	9.4	9.9	7.4	16.6	17.1
Cycle Queue Clearance Time (g_c), s	7.9	56.8	31.9	10.3	49.7	50.0	11.4	9.4	9.9	7.4	16.6	17.1
Green Ratio (*g/C*)	0.09	0.44	0.44	0.09	0.44	0.44	0.10	0.23	0.23	0.07	0.21	0.21
Capacity (*c*), veh/h	301	1578	703	160	835	822	341	444	399	126	393	358
Volume-to-Capacity Ratio (*X*)	0.682	0.959	0.659	0.840	0.882	0.886	0.850	0.344	0.362	0.775	0.630	0.645
Back of Queue (*Q*), ft/ln (95 th percentile)	158.8	886.4	450.5	211.2	812	808.4	234.4	203.5	196.5	170.8	334.6	319.9
Back of Queue (*Q*), veh/ln (95 th percentile)	6.4	35.5	18.0	8.4	32.5	32.3	9.4	8.1	7.9	6.8	13.4	12.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	62.1	38.2	31.2	62.8	35.9	36.0	62.2	44.7	44.9	64.0	50.6	50.8
Incremental Delay (d_2), s/veh	1.0	13.9	1.8	4.4	10.4	10.9	11.4	2.1	2.5	12.0	7.5	8.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	63.2	52.1	33.0	67.3	46.3	46.9	73.6	46.8	47.4	76.0	58.1	59.5
Level of Service (LOS)	E	D	C	E	D	D	E	D	D	E	E	E
Approach Delay, s/veh / LOS	49.1	D		48.4	D		60.2	E		61.7	E	
Intersection Delay, s/veh / LOS	51.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.28	B	2.31	B	2.60	C
Bicycle LOS Score / LOS	2.29	B	1.81	B	0.97	A	0.96	A

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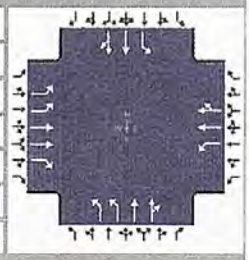
HCS7 Signalized Intersection Input Data

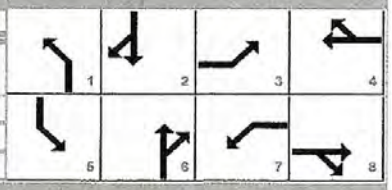
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz Midway - PM - 2035 with Project - 7.21.20...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	195	1438	440	128	1330	61	275	195	87	93	334	120

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.8	3.8		28.9	12.0	0.4	61.1					
Yellow	4.0	0.0		4.0	4.0	0.0	4.0					
Red	2.0	0.0		2.0	2.0	0.0	2.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	195	1438	440	128	1330	61	275	195	87	93	334	120
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	23.0	37.0	49.0	63.0	22.0	36.0	18.0	32.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	12	10	10	10	10	10	10	10
Start-Up Lost Time (*l*t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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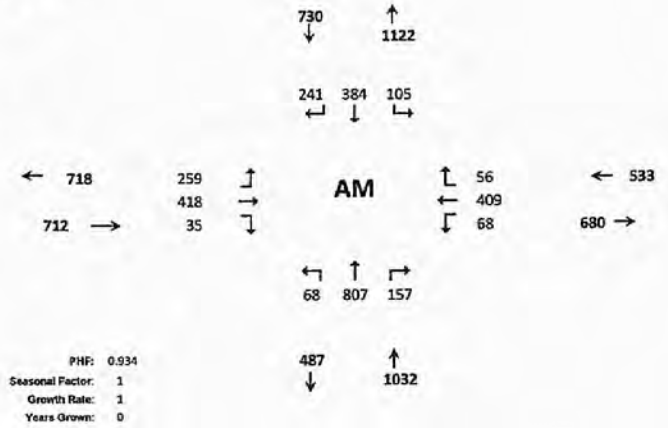
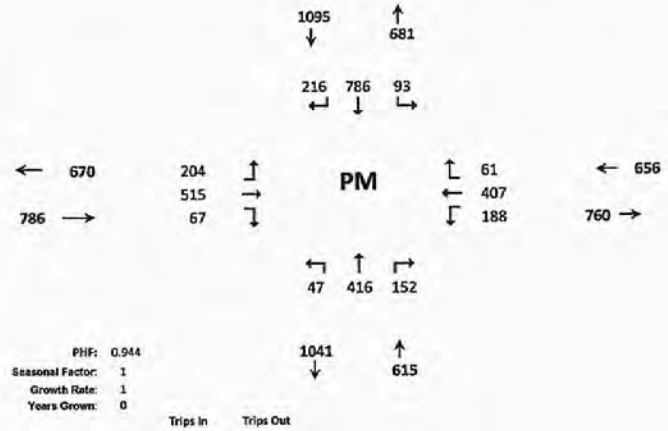
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: S 25th St
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
REPORT DATE:
DAY: Tuesday
ANALYSIS YEAR: 2020
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: Signalized

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	15	193	37	36	83	55	84	82	7	9	85	17	703	3007
7:15-7:30	15	201	35	23	101	68	91	104	9	20	104	19	790	2978
7:30-7:45	15	233	46	30	133	71	34	108	10	18	94	13	805	2883
7:45-8:00	23	180	39	16	67	47	50	124	9	21	126	7	709	2687
8:00-8:15	5	121	34	23	92	41	50	127	14	34	123	10	674	2595
8:15-8:30	18	159	55	25	87	39	50	91	18	40	101	12	695	
8:30-8:45	12	121	44	18	79	25	62	101	3	27	101	16	609	
8:45-9:00	12	133	35	21	104	36	58	103	4	23	72	16	617	
AM PEAK HOUR IS FROM:	7:00AM TO 8:00AM													
Volumes	68	807	157	105	384	241	259	418	35	68	409	56	3007	
Season Factor	68	807	157	105	384	241	259	418	35	68	409	56	3007	
Growth	68	807	157	105	384	241	259	418	35	68	409	56	3007	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	68	807	157	105	384	241	259	418	35	68	409	56	3007	



15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	11	97	42	22	122	56	42	132	19	43	114	15	715	2989
4:15-4:30	11	87	49	23	141	63	50	137	27	45	105	12	750	3009
4:30-4:45	20	114	48	20	171	62	41	110	14	31	98	14	743	3060
4:45-5:00	10	100	43	20	179	53	50	141	23	42	103	17	781	3152
5:00-5:15	14	90	24	25	166	48	42	148	16	50	106	6	735	3046
5:15-5:30	14	92	38	20	214	52	58	118	12	51	110	22	801	
5:30-5:45	9	134	47	28	227	63	54	108	16	45	88	16	835	
5:45-6:00	11	109	44	27	121	37	57	103	17	40	92	17	675	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	47	416	152	93	786	216	204	515	67	188	407	61	3152	
Season Factor	47	416	152	93	786	216	204	515	67	188	407	61	3152	
Growth	47	416	152	93	786	216	204	515	67	188	407	61	3152	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	47	416	152	93	786	216	204	515	67	188	407	61	3152	



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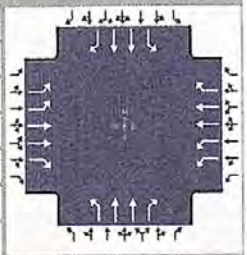
HCS7 Signalized Intersection Results Summary

#8 EAM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.93
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St & Midway - AM - Existing - 7.9.2020 (2).xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	259	418	35	68	409	56	68	807	157	105	384	241

Signal Information			
Cycle, s	67.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.3	0.9	21.1	5.3	2.5	12.0	1	2	3	4	
Yellow	4.0	0.0	4.0	4.0	0.0	4.0	5	6	7	8	
Red	1.0	0.0	1.5	1.0	0.0	1.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	12.7	19.4	10.3	17.0	10.3	26.6	11.2	27.5
Change Period, ($Y+R_c$), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g_s), s	7.2	9.6	3.3	9.7	4.6	16.7	6.1	10.7
Green Extension Time (g_e), s	0.5	2.2	0.1	2.2	0.1	4.3	0.1	4.3
Phase Call Probability	0.99	1.00	0.75	1.00	0.75	1.00	0.88	1.00
Max Out Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	278	449	38	73	440	60	73	868	169	113	413	259
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1810	1809	1610	1810	1809	1610
Queue Service Time (g_s), s	5.2	7.6	1.3	1.3	7.7	2.2	2.6	14.7	5.4	4.1	5.9	8.7
Cycle Queue Clearance Time (g_c), s	5.2	7.6	1.3	1.3	7.7	2.2	2.6	14.7	5.4	4.1	5.9	8.7
Green Ratio (g/C)	0.11	0.21	0.21	0.08	0.18	0.18	0.08	0.31	0.31	0.09	0.33	0.33
Capacity (c), veh/h	403	776	345	274	643	286	141	1134	505	166	1183	527
Volume-to-Capacity Ratio (X)	0.691	0.579	0.109	0.267	0.684	0.211	0.518	0.765	0.335	0.681	0.349	0.492
Back of Queue (Q), ft/ln (95 th percentile)	90.9	130.7	19.6	23.5	136.1	33.9	49.1	230.4	80	77.1	95.7	127.8
Back of Queue (Q), veh/ln (95 th percentile)	3.6	5.2	0.8	0.9	5.4	1.4	2.0	9.2	3.2	3.1	3.8	5.1
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	28.8	23.9	21.4	29.4	26.1	23.8	30.0	21.0	17.8	29.8	17.3	18.3
Incremental Delay (d_2), s/veh	0.8	0.3	0.1	0.2	0.5	0.1	1.1	0.4	0.1	1.8	0.1	0.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	29.6	24.1	21.5	29.6	26.6	23.9	31.1	21.4	18.0	31.6	17.4	18.6
Level of Service (LOS)	C	C	C	C	C	C	C	C	B	C	B	B
Approach Delay, s/veh / LOS	26.0	C		26.7	C		21.5	C		19.8	B	
Intersection Delay, s/veh / LOS	23.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.44	B	2.56	C	2.56	C
Bicycle LOS Score / LOS	1.12	A	0.96	A	1.40	A	1.14	A

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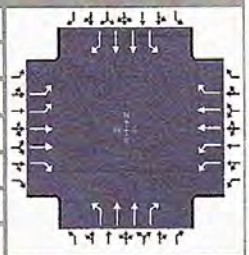
HCS7 Signalized Intersection Input Data

#8 E AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.93
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St & Midway - AM - Existing - 7.9.2020.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	259	418	35	68	409	56	68	807	157	105	384	241

Signal Information			
Cycle, s	67.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.3	0.9	21.1	5.3	2.5	12.0	1	2	3	4		
Yellow	4.0	0.0	4.0	4.0	0.0	4.0	5	6	7	8		
Red	1.0	0.0	1.5	1.0	0.0	1.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	259	418	35	68	409	56	68	807	157	105	384	241
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	24.0	70.0	24.0	70.0	20.0	90.0	20.0	90.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (PC), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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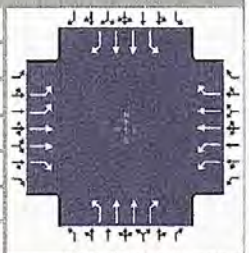
HCS7 Signalized Intersection Results Summary #8 E PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St & Midway - PM - Existing - 7.9.2020.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	204	515	67	188	407	61	47	416	152	93	786	216

Signal Information			
Cycle, s	65.1	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.2	1.7		18.2	6.9	13.7	0.0	1	2	3	4	
Yellow	4.0	0.0		4.0	4.0	4.0	0.0	5	6	7	8	
Red	1.0	0.0		1.5	1.0	1.0	0.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	11.9	18.8	11.8	18.7	9.2	23.7	10.9	25.4
Change Period, ($Y+R_c$), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g_s), s	5.8	11.2	5.5	9.0	3.7	8.6	5.4	15.6
Green Extension Time (g_e), s	0.4	2.5	0.4	2.5	0.0	4.1	0.1	4.1
Phase Call Probability	0.98	1.00	0.97	1.00	0.60	1.00	0.83	1.00
Max Out Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	217	548	71	200	433	65	50	443	162	99	836	230
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1810	1809	1610	1810	1809	1610
Queue Service Time (g_s), s	3.8	9.2	2.4	3.5	7.0	2.2	1.7	6.6	5.2	3.4	13.6	7.6
Cycle Queue Clearance Time (g_c), s	3.8	9.2	2.4	3.5	7.0	2.2	1.7	6.6	5.2	3.4	13.6	7.6
Green Ratio (g/C)	0.11	0.21	0.21	0.10	0.21	0.21	0.06	0.28	0.28	0.09	0.31	0.31
Capacity (c), veh/h	370	765	341	367	763	339	117	1013	451	163	1105	492
Volume-to-Capacity Ratio (X)	0.587	0.716	0.209	0.544	0.568	0.191	0.428	0.437	0.358	0.608	0.757	0.467
Back of Queue (Q), ft/ln (95 th percentile)	67.2	158.1	36.4	61.5	120	33.1	32.3	108.3	77.8	63.8	215.8	110.4
Back of Queue (Q), veh/ln (95 th percentile)	2.7	6.3	1.5	2.5	4.8	1.3	1.3	4.3	3.1	2.6	8.6	4.4
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	27.9	23.9	21.2	27.8	23.1	21.2	29.4	19.3	18.8	28.6	20.5	18.4
Incremental Delay (d_2), s/veh	0.6	0.5	0.1	0.5	0.2	0.1	0.9	0.1	0.2	1.4	0.4	0.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	28.4	24.4	21.4	28.2	23.4	21.3	30.3	19.4	19.0	30.0	20.9	18.6
Level of Service (LOS)	C	C	C	C	C	C	C	B	B	C	C	B
Approach Delay, s/veh / LOS	25.2	C		24.6	C		20.1	C		21.2	C	
Intersection Delay, s/veh / LOS	22.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.43	B	2.56	C	2.56	C
Bicycle LOS Score / LOS	1.18	A	1.06	A	1.03	A	1.45	A

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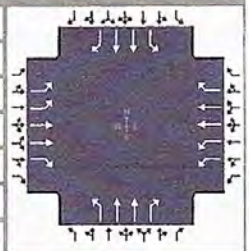
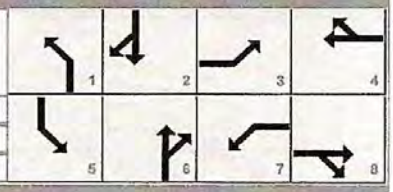
HCS7 Signalized Intersection Input Data #8 E PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St & Midway - PM - Existing - 7.9.2020.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	204	515	67	188	407	61	47	416	152	93	786	216

Signal Information					EB			WB			NB			SB		
Cycle, s	65.1	Reference Phase	2													
Offset, s	0	Reference Point	End	Green	4.2	1.7		18.2	6.9	13.7	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	4.0	0.0		4.0	4.0	4.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.0	0.0		1.5	1.0	1.0	0.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	204	515	67	188	407	61	47	416	152	93	786	216
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	24.0	70.0	24.0	70.0	20.0	90.0	20.0	90.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (PC), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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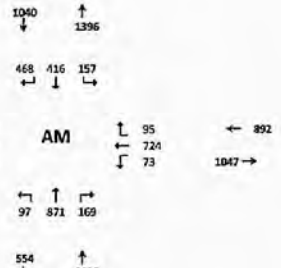
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: S 25th St
FILENAME: Willow Lakes
COUNT DATE: 2/18/2020
REPORT DATE:
DAY: Tuesday
ANALYSIS YEAR: 2035
E/W STREET: Midway Rd
CITY: St Lucie
CONTROL: Signalized

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	15	193	37	16	83	55	64	82	7	9	85	17	703	3007
7:15-7:30	15	201	35	23	101	68	91	104	9	20	104	19	790	2978
7:30-7:45	35	233	46	30	133	71	34	108	18	18	94	13	805	2883
7:45-8:00	23	180	39	16	67	47	50	134	9	21	126	7	709	2687
8:00-8:15	5	121	34	23	92	41	50	127	14	34	123	10	674	2595
8:15-8:30	18	159	55	25	87	39	50	91	18	40	101	12	695	
8:30-8:45	12	121	44	18	79	25	62	101	3	27	101	16	609	
8:45-9:00	12	133	35	21	104	36	58	103	4	25	72	16	617	
AM PEAK HOUR IS FROM:	7:00AM TO 8:00AM													
Volumes	68	807	157	105	384	241	259	418	35	68	409	56	3037	
Season Factor	68	807	157	105	384	241	259	418	35	68	409	56	3037	
Growth	73	870	169	113	414	260	279	450	38	73	441	60	3241	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	0.4%					2.6%	2.6%	2.9%	0.4%		2.9%			
Village at Midway	6					36	16	17	2		42		121	
LTC Ranch %	0.8%					5.2%	5.2%	5.8%	0.8%		5.8%			
LTC Ranch Volume	15					95	64	94	13		106		407	
Southern Grove %								0.5%			0.5%			
Southern Grove								26			31		57	
Wilson Groves %						0.1%	0.1%	1.0%			1.0%			
Wilson Groves						4	4	38			39		85	
Riverland/Kennedy %						0.1%	0.1%	1.2%			1.0%			
Riverland/Kennedy						5	6	56			48		114	
Western Grove %						0.1%	0.1%	0.7%			0.7%			
Western Grove						1	2	15			9		28	
Ravinia %	17.0%					23.0%	23.0%	35.0%	17.0%		36.0%			
Ravinia	4					5	16	24	12		8		65	
Frontera %		3.0%		25.0%	1.0%	35.0%	40.0%					60.0%		
Frontera		2		44	2	61	23					35		
Total	97	871	169	157	416	468	430	721	65	73	724	95	4121	

Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

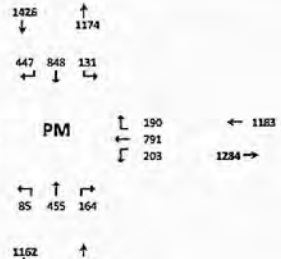
	Trips In	Trips Out
Willow Lakes	1,327	1,052
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,233
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	68
Frontera	58	124



15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	11	97	42	22	122	56	42	132	19	43	114	15	715	2989
4:15-4:30	11	87	49	23	141	63	50	137	27	45	105	12	750	3009
4:30-4:45	20	114	48	20	171	62	41	110	14	31	98	14	743	3060
4:45-5:00	10	100	43	20	179	53	50	141	23	42	103	17	781	3152
5:00-5:15	14	90	24	25	166	48	42	148	16	50	106	6	735	3046
5:15-5:30	14	92	18	20	214	52	58	118	12	51	110	22	801	
5:30-5:45	9	134	47	28	227	63	54	108	16	45	88	16	835	
5:45-6:00	11	109	44	27	121	37	57	103	17	40	92	17	675	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	47	416	152	93	786	216	204	515	67	188	407	61	3152	
Season Factor	47	416	152	93	786	216	204	515	67	188	407	61	3152	
Growth	51	448	164	100	847	233	220	555	72	203	439	66	3397	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	0.4%					2.6%	2.0%	2.9%	0.4%		2.9%			
Village at Midway	3					19	47	53	7		21		150	
LTC Ranch %	0.8%					5.2%	5.2%	5.8%	0.8%		5.8%			
LTC Ranch Volume	19					121	154	172	24		135		624	
Southern Grove %						0.0%	0.0%	0.5%			0.5%			
Southern Grove						0	0	50			35		85	
Wilson Groves %						0.1%	0.1%	1.0%			1.0%			
Wilson Groves						5	6	56			45		112	
Riverland/Kennedy %						0.1%	0.1%	1.0%			1.0%			
Riverland/Kennedy						7	7	73			71		158	
Western Grove %						0.1%	0.1%	0.7%			0.7%			
Western Grove						3	2	14			18		37	
Ravinia %	17.0%					23.0%	23.0%	35.0%	17.0%		36.0%			
Ravinia	13					18	10	18	7		28		92	
Frontera %		3.0%		25.0%	1.0%	35.0%	40.0%					60.0%		
Frontera		6		31	1	43	83					124	288	
Total	85	456	164	181	848	447	530	990	111	203	791	190	4943	

Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,441	1,027
Village at Midway	725	1,824
LTC Ranch	2,320	2,970
Southern Grove	6,990	10,073
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	2,061
Ravinia	77	44
Frontera	207	122



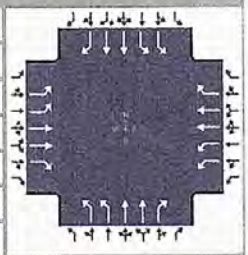
F-154

#8 w/o

HCS7 Signalized Intersection Results Summary

#8 w/o AM

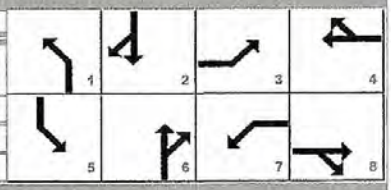
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St Midway - AM - 2035 w.o. Project - 7.9.20....		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	430	721	65	73	724	95	97	871	169	157	416	468

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.8	1.0	44.8	6.5	6.0	29.5	
Yellow	4.0	0.0	4.0	4.0	4.0	4.0	
Red	1.0	0.0	1.5	1.0	1.0	1.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	22.4	45.5	11.5	34.5	11.8	50.3	12.8	51.3
Change Period, ($Y+R_c$), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g_s), s	17.2	23.1	4.5	26.2	5.4		7.5	
Green Extension Time (g_e), s	0.2	4.1	0.1	3.3	0.2	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	0.92	1.00	0.97		1.00	
Max Out Probability	1.00	0.01	0.00	0.18	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	453	759	68	77	762	100	102	917	178	165	438	493
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1757	1809	1610	1757	1809	1610
Queue Service Time (g_s), s	15.2	21.1	3.5	2.5	24.2	6.0	3.4	25.5	9.3	5.5	10.2	32.7
Cycle Queue Clearance Time (g_c), s	15.2	21.1	3.5	2.5	24.2	6.0	3.4	25.5	9.3	5.5	10.2	32.7
Green Ratio (g/C)	0.15	0.34	0.34	0.05	0.25	0.25	0.06	0.37	0.37	0.06	0.38	0.38
Capacity (c), veh/h	510	1219	543	189	889	396	198	1351	601	228	1381	615
Volume-to-Capacity Ratio (X)	0.887	0.622	0.126	0.406	0.857	0.253	0.515	0.679	0.296	0.725	0.317	0.801
Back of Queue (Q), ft/ln (95 th percentile)	299.3	346.5	59.8	50	411.8	104.1	67	415.3	165.3	110.2	194.4	500.3
Back of Queue (Q), veh/ln (95 th percentile)	12.0	13.9	2.4	2.0	16.5	4.2	2.7	16.6	6.6	4.4	7.8	20.0
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	50.3	33.4	27.5	54.9	43.2	36.4	55.0	31.6	26.5	55.1	26.1	33.0
Incremental Delay (d_2), s/veh	14.3	0.3	0.0	0.5	4.9	0.1	0.8	2.8	1.3	1.7	0.6	10.6
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	64.6	33.7	27.6	55.4	48.1	36.5	55.8	34.3	27.7	56.7	26.7	43.6
Level of Service (LOS)	E	C	C	E	D	D	E	C	C	E	C	D
Approach Delay, s/veh / LOS	44.3	D		47.5	D		35.2	D		38.8	D	
Intersection Delay, s/veh / LOS	41.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.58	C	2.59	C	2.58	C	2.58	C
Bicycle LOS Score / LOS	1.54	B	1.26	A	1.47	A	1.39	A

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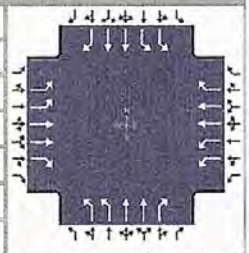
HCS7 Signalized Intersection Input Data

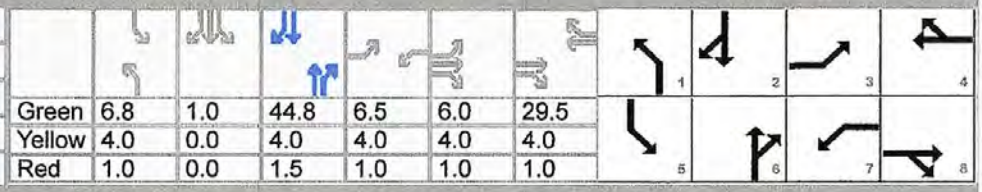
#8 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St & Midway - AM - 2035 w.o. Project - 7.9.2...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	430	721	65	73	724	95	97	871	169	157	416	468

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	6.8	1.0		44.8	6.5	6.0	29.5					
Yellow	4.0	0.0		4.0	4.0	4.0	4.0					
Red	1.0	0.0		1.5	1.0	1.0	1.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	430	721	65	73	724	95	97	871	169	157	416	468
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	24.0	40.0	24.0	40.0	20.0	36.0	20.0	36.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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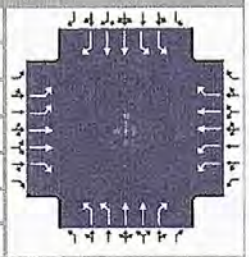
HCS7 Signalized Intersection Results Summary #8 w/o PM

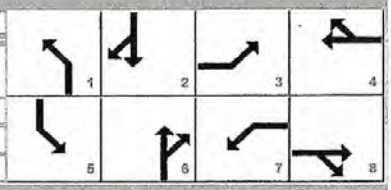
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St Midway - PM - 2035 w.o. Project - 7.21.2...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	530	990	111	203	791	190	85	455	164	131	848	447

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.8	0.9		48.3	10.8	9.2	38.5					
Yellow	4.0	0.0		4.0	4.0	4.0	4.0					
Red	1.0	0.0		1.5	1.0	1.0	1.0					



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	30.0	57.7	15.8	43.5	11.8	53.8	12.7	54.7
Change Period, ($Y+R_c$), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g_s), s	23.7	37.3	10.4	32.3	5.5		7.4	
Green Extension Time (g_e), s	1.3	6.3	0.5	6.2	0.2	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		1.00	
Max Out Probability	0.00	0.00	0.00	0.01	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	558	1042	117	214	833	200	89	479	173	138	893	471
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1757	1809	1610	1757	1809	1610
Queue Service Time (g_s), s	21.7	35.3	6.8	8.4	30.3	14.4	3.5	14.0	11.0	5.4	29.8	37.5
Cycle Queue Clearance Time (g_c), s	21.7	35.3	6.8	8.4	30.3	14.4	3.5	14.0	11.0	5.4	29.8	37.5
Green Ratio (g/C)	0.18	0.38	0.38	0.08	0.28	0.28	0.05	0.35	0.35	0.05	0.35	0.35
Capacity (c), veh/h	627	1362	606	272	996	443	170	1248	556	192	1271	566
Volume-to-Capacity Ratio (X)	0.889	0.765	0.193	0.786	0.836	0.451	0.525	0.384	0.311	0.718	0.703	0.832
Back of Queue (Q), ft/ln (95 th percentile)	366.1	540	117.6	168.7	485.8	238.8	70.1	256.9	198	109.5	485.7	579.4
Back of Queue (Q), veh/ln (95 th percentile)	14.6	21.6	4.7	6.7	19.4	9.6	2.8	10.3	7.9	4.4	19.4	23.2
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	56.1	38.2	29.3	63.4	47.7	42.0	65.0	34.6	33.6	65.1	39.1	41.6
Incremental Delay (d_2), s/veh	1.8	0.3	0.1	1.9	0.7	0.3	0.9	0.9	1.5	1.9	3.3	13.4
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	57.9	38.6	29.4	65.4	48.5	42.2	66.0	35.5	35.1	67.0	42.4	55.0
Level of Service (LOS)	E	D	C	E	D	D	E	D	D	E	D	E
Approach Delay, s/veh / LOS	44.2	D		50.4	D		39.1	D		48.6	D	
Intersection Delay, s/veh / LOS	46.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.58	C	2.60	C	2.59	C	2.59	C
Bicycle LOS Score / LOS	1.90	B	1.52	B	1.10	A	1.73	B

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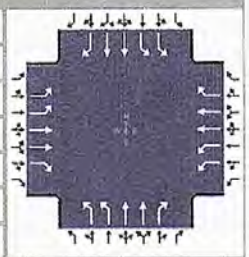
HCS7 Signalized Intersection Input Data

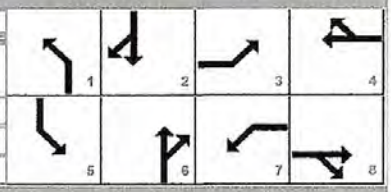
#8 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St Midway - PM - 2035 w.o. Project - 7.21.2...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	530	990	111	203	791	190	85	455	164	131	848	447

Signal Information					EB			WB			NB			SB		
Cycle, s	140.0	Reference Phase	2													
Offset, s	0	Reference Point	End	Green	6.8	0.9		48.3	10.8	9.2	38.5					
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	0.0		4.0	4.0	4.0	4.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.0	0.0		1.5	1.0	1.0	1.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	530	990	111	203	791	190	85	455	164	131	848	447
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None		0	L	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	59.0	36.0	70.0	47.0	16.0	18.0	16.0	18.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l_1), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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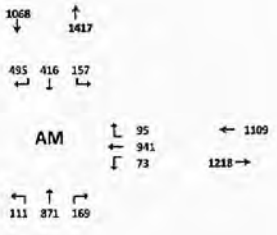
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: S 25th St
E/W STREET: Midway Rd
CONTROL: Signalized
FILENAME: Willow Lakes
COUNT DATE: 1/18/2020
DAY: Tuesday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2045

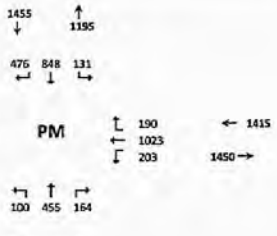
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	15	190	37	36	83	55	84	82	7	9	85	17	703	3007
7:15-7:30	15	201	35	23	101	68	91	104	9	20	104	19	790	2978
7:30-7:45	15	233	46	38	133	71	34	108	10	18	94	13	805	2853
7:45-8:00	23	180	39	16	62	47	50	124	9	21	126	7	709	2687
8:00-8:15	5	121	34	23	92	41	50	127	14	34	123	10	674	2595
8:15-8:30	18	159	55	25	87	39	50	91	18	40	101	12	695	
8:30-8:45	12	121	44	18	79	25	62	101	3	27	101	16	609	
8:45-9:00	12	133	35	21	104	36	58	103	4	23	72	16	617	
AM PEAK HOUR IS FROM:	7:00AM TO 8:00AM													
Volumes	68	807	157	105	384	241	259	418	35	68	409	56	3007	
Season Factor	68	807	157	105	384	241	259	418	35	68	409	56	3007	
Growth	73	870	169	113	414	260	279	450	38	73	441	60	3241	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	1%	0%	0%	0%	0%	2%	2%	16%	1%	0%	15%	0%		
PROJECT	14	0	0	0	0	27	31	170	11	0	217	0	460	
Midway %	0.4%					2.6%	2.6%	2.9%	0.4%		2.9%			
Village at Midway	6					38	36	17	2		42		121	
LTC Ranch %	0.8%					5.2%	5.2%	5.8%	0.8%		5.8%			
LTC Ranch Volume	15					95	84	94	13		106		407	
Southern Grove %								0.5%			0.5%			
Southern Grove								26			31		57	
Wilson Groves %						0.1%	0.1%	1.0%			1.0%			
Wilson Groves						4	4	38			39		85	
Riverland/Kennedy %						0.1%	0.1%	1.0%			1.0%			
Riverland/Kennedy						5	6	56			68		154	
Western Grove %						0.1%	0.1%	0.7%			0.7%			
Western Grove						1	2	15			9		28	
Ravinia %	17.0%					23.0%	23.0%	36.0%	17.0%		36.0%			
Ravinia	4					5	16	24	12		8		68	
Frontera %		3.0%		25.0%	1.0%	35.0%	40.0%					60.0%		
Frontera		2		44	2	61	33					35		
Total	111	871	169	157	416	495	451	892	75	73	941	95	4580	



Seasonal Factor:	1
Growth Rate:	1.005
Years Grown:	15

	Trips In	Trips Out
Willow Lakes	1,355	1,665
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,223
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,135
Ravinia	22	68
Frontera	58	124

15 Min Period Lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	11	97	42	22	122	56	42	132	19	43	114	15	715	2589
4:15-4:30	11	87	49	23	141	53	50	137	27	45	105	12	750	3009
4:30-4:45	20	134	48	20	171	62	41	130	14	31	98	14	743	3060
4:45-5:00	10	100	43	20	179	53	50	141	23	42	103	17	781	3332
5:00-5:15	14	90	24	25	166	48	42	148	18	50	108	6	735	3046
5:15-5:30	14	93	18	20	214	52	58	158	13	51	120	22	801	
5:30-5:45	9	134	47	28	227	63	54	108	16	45	88	16	825	
5:45-6:00	13	109	44	27	121	37	57	103	17	40	92	17	675	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	47	416	152	93	786	216	204	515	67	188	407	61	3152	
Season Factor	47	416	152	93	786	216	204	515	67	188	407	61	3152	
Growth	51	448	164	100	847	233	220	555	72	203	439	66	3397	
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Percentage	1%	0%	0%	0%	0%	2%	2%	16%	1%	0%	13%	0%		
PROJECT	15	0	0	0	0	29	31	166	10	0	232	0	472	
Midway %	0.4%					2.6%	2.6%	2.9%	0.4%		2.9%			
Village at Midway	3					19	42	53	7		21		150	
LTC Ranch %	0.8%					5.2%	5.2%	5.8%	0.8%		5.8%			
LTC Ranch Volume	19					121	154	172	24		135		624	
Southern Grove %						0.0%	0.0%	0.5%			0.5%			
Southern Grove						0	0	50			35		85	
Wilson Groves %						0.1%	0.1%	1.0%			1.0%			
Wilson Groves						5	6	56			45		112	
Riverland/Kennedy %						0.1%	0.1%	1.0%			1.0%			
Riverland/Kennedy						7	7	73			71		158	
Western Grove %						0.1%	0.1%	0.7%			0.7%			
Western Grove						3	2	16			18		37	
Ravinia %	17.0%					23.0%	23.0%	36.0%	17.0%		36.0%			
Ravinia	13					18	10	16	7		26		92	
Frontera %		3.0%		25.0%	1.0%	35.0%	40.0%					60.0%		
Frontera		6		31	1	43	53					124	268	
Total	100	455	164	133	848	476	550	1156	121	203	1013	190	5415	



Seasonal Factor:	1
Growth Rate:	1.005
Years Grown:	15

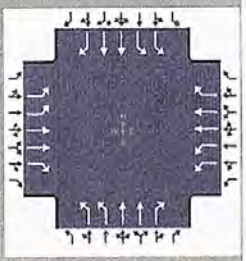
	Trips In	Trips Out
Willow Lakes	3,450	1,039
Village at Midway	726	1,824
LTC Ranch	2,330	2,970
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,629
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	2,063
Ravinia	77	44
Frontera	207	122

Exh 83 #

HCS7 Signalized Intersection Results Summary

#8 W/P AM

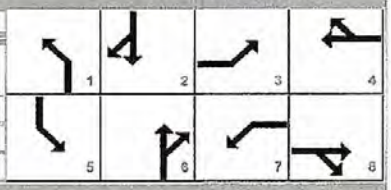
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St & Midway - AM - 2035 with Project - 7.9.2...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	451	892	75	73	941	95	111	871	169	157	416	495

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

	EB			WB			NB			SB		
Green	6.9	0.8		38.5	6.5	6.6	35.2					
Yellow	4.0	0.0		4.0	4.0	4.0	4.0					
Red	1.0	0.0		1.5	1.0	1.0	1.0					



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	23.1	51.9	11.5	40.2	11.9	44.0	12.7	44.8
Change Period, ($Y+R_c$), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g_s), s	17.9	27.6	4.5	34.0	5.9		7.5	
Green Extension Time (g_e), s	0.2	5.5	0.1	1.3	0.1	0.0	0.2	0.0
Phase Call Probability	1.00	1.00	0.92	1.00	0.98		1.00	
Max Out Probability	1.00	0.07	0.00	1.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	475	939	79	77	991	100	117	917	178	165	438	521
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1757	1809	1610	1757	1809	1610
Queue Service Time (g_s), s	15.9	25.6	3.8	2.5	32.0	5.6	3.9	27.7	10.1	5.5	11.1	38.6
Cycle Queue Clearance Time (g_c), s	15.9	25.6	3.8	2.5	32.0	5.6	3.9	27.7	10.1	5.5	11.1	38.6
Green Ratio (g/C)	0.15	0.39	0.39	0.05	0.29	0.29	0.06	0.32	0.32	0.06	0.33	0.33
Capacity (c), veh/h	530	1413	629	189	1062	473	201	1160	516	226	1186	528
Volume-to-Capacity Ratio (X)	0.896	0.665	0.126	0.406	0.933	0.212	0.582	0.790	0.345	0.732	0.369	0.987
Back of Queue (Q), ft/ln (95 th percentile)	315.1	404.6	62.8	50	553.3	96.2	77.1	460.7	183.5	110.3	211	678
Back of Queue (Q), veh/ln (95 th percentile)	12.6	16.2	2.5	2.0	22.1	3.8	3.1	18.4	7.3	4.4	8.4	27.1
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	50.0	30.1	23.4	54.9	41.2	31.9	55.2	37.1	31.1	55.1	30.9	40.1
Incremental Delay (d_2), s/veh	16.0	0.9	0.0	0.5	13.6	0.1	1.0	5.5	1.8	1.7	0.9	36.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	66.0	31.0	23.5	55.4	54.9	32.0	56.2	42.6	33.0	56.9	31.7	76.3
Level of Service (LOS)	E	C	C	E	D	C	E	D	C	E	C	E
Approach Delay, s/veh / LOS	41.8	D		53.0	D		42.5	D		56.1	E	
Intersection Delay, s/veh / LOS	47.8						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.58	C	2.59	C	2.58	C	2.58	C
Bicycle LOS Score / LOS	1.72	B	1.45	A	1.49	A	1.42	A

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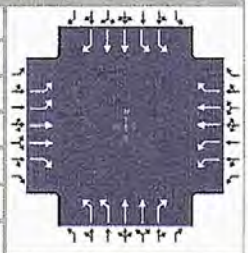
HCS7 Signalized Intersection Input Data

#8 w/p AM

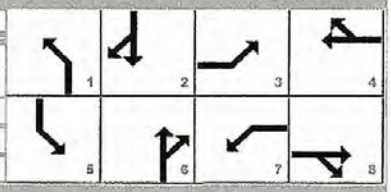
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St & Midway - AM - 2035 with Project - 7.9.2...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	451	892	75	73	941	95	111	871	169	157	416	495

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

	EB			WB			NB			SB		
Green	6.9	0.8		38.5	6.5	6.6	35.2					
Yellow	4.0	0.0		4.0	4.0	4.0	4.0					
Red	1.0	0.0		1.5	1.0	1.0	1.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	451	892	75	73	941	95	111	871	169	157	416	495
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_0), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	24.0	40.0	24.0	40.0	20.0	36.0	20.0	36.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (*l*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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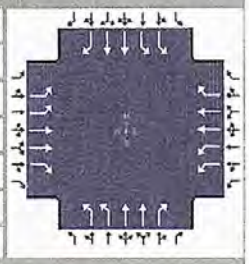
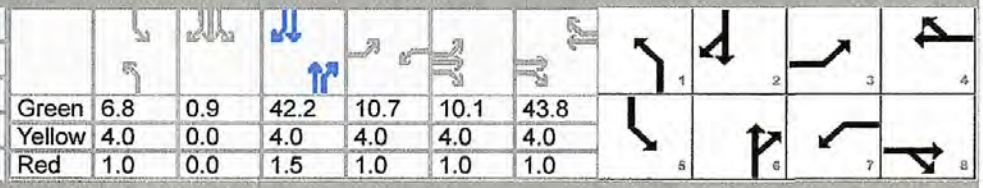
HCS7 Signalized Intersection Results Summary #8 w/P PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St Midway - PM - 2035 with Project - 7.21.2...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	550	1156	121	203	1023	190	85	455	164	131	848	476

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	6.8	0.9	42.2	10.7	10.1	43.8	
Yellow	4.0	0.0	4.0	4.0	4.0	4.0	
Red	1.0	0.0	1.5	1.0	1.0	1.0	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	30.9	63.9	15.7	48.8	11.8	47.7	12.7	48.5
Change Period, ($Y+R_c$), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g_s), s	24.5	43.1	10.4	42.8	5.5		7.4	
Green Extension Time (g_e), s	1.3	6.8	0.4	1.1	0.2	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		1.00	
Max Out Probability	0.00	0.25	0.00	1.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	579	1217	127	214	1077	200	89	479	173	138	893	501
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1757	1809	1610	1757	1809	1610
Queue Service Time (g_s), s	22.5	41.1	7.0	8.4	40.8	13.6	3.5	14.9	11.7	5.4	31.8	43.0
Cycle Queue Clearance Time (g_c), s	22.5	41.1	7.0	8.4	40.8	13.6	3.5	14.9	11.7	5.4	31.8	43.0
Green Ratio (g/C)	0.18	0.42	0.42	0.08	0.31	0.31	0.05	0.30	0.30	0.05	0.31	0.31
Capacity (c), veh/h	649	1523	678	269	1132	504	170	1090	485	192	1112	495
Volume-to-Capacity Ratio (X)	0.892	0.799	0.188	0.793	0.951	0.397	0.525	0.440	0.356	0.718	0.803	1.012
Back of Queue (Q), ft/ln (95 th percentile)	377.2	623.6	118.2	169	690.9	227.4	70.1	273.9	211.2	109.5	527.7	768.8
Back of Queue (Q), veh/ln (95 th percentile)	15.1	24.9	4.7	6.8	27.6	9.1	2.8	11.0	8.4	4.4	21.1	30.8
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	55.7	35.4	25.5	63.5	47.0	37.7	65.0	39.4	38.3	65.1	44.6	48.5
Incremental Delay (d_2), s/veh	1.8	2.8	0.0	2.0	16.0	0.2	0.9	1.3	2.0	1.9	6.2	43.6
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	57.5	38.2	25.5	65.6	63.0	37.9	66.0	40.7	40.3	67.0	50.7	92.0
Level of Service (LOS)	E	D	C	E	E	D	E	D	D	E	D	F
Approach Delay, s/veh / LOS	43.2	D		60.0	E		43.7	D		65.7	E	
Intersection Delay, s/veh / LOS	53.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.58	C	2.59	C	2.59	C	2.59	C
Bicycle LOS Score / LOS	2.07	B	1.72	B	1.10	A	1.75	B

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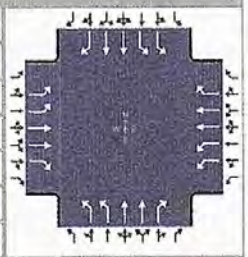
HCS7 Signalized Intersection Input Data #8 w/o PM

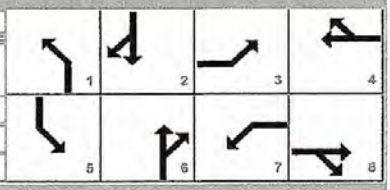
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	25th St	File Name	25th St Midway - PM - 2035 with Project - 7.21.2...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	550	1156	121	203	1023	190	85	455	164	131	848	476

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.8	0.9		42.2	10.7	10.1	43.8					
Yellow	4.0	0.0		4.0	4.0	4.0	4.0					
Red	1.0	0.0		1.5	1.0	1.0	1.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	550	1156	121	203	1023	190	85	455	164	131	848	476
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None		0	L	
Heavy Vehicles (P_{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	55.0	51.0	29.0	25.0	35.0	15.0	45.0	25.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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TURNING MOVEMENT VOLUME COUNTS

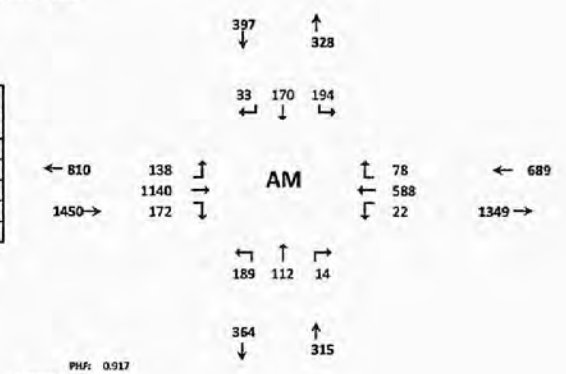
N/S STREET: Jenkins Rd. E/W STREET: Okeechobee Rd. CONTROL: Signal

FILENAME:

COUNT DATE: 5/15/2017 DAY: Wednesday CITY: Ft. Pierce

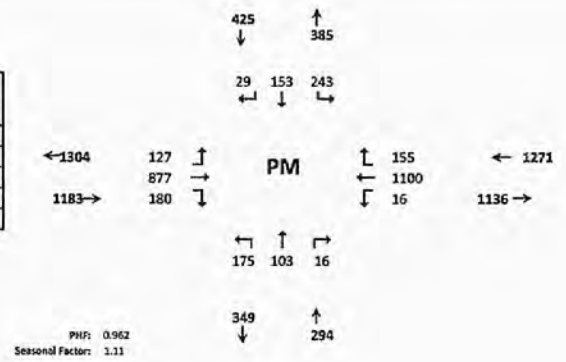
REPORT DATE: 5/5/2020 ANALYSIS YEAR: 2017

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	36	19	1	23	25	6	20	154	47	2	107	5	445	2349
7:15-7:30	40	22	6	31	25	8	22	254	28	4	132	18	590	2524
7:30-7:45	48	25	1	54	41	7	53	224	29	3	115	14	614	2568
7:45-8:00	48	31	5	36	43	8	25	306	37	6	141	14	700	2533
8:00-8:15	48	29	2	45	31	6	24	244	49	5	113	23	620	2410
8:15-8:30	26	16	5	39	38	9	22	253	40	6	161	19	634	
8:30-8:45	43	24	8	34	31	3	16	218	43	8	130	21	579	
8:45-9:00	37	21	12	31	17	6	22	226	55	15	128	7	577	
AM PEAK HOUR IS FROM:			7:30 AM TO 8:30AM											
Volumes	170	101	13	175	153	30	124	1027	155	20	530	70	2568	
Season Factor	189	112	14	194	170	33	138	1140	172	22	588	78	2850	
Growth	189	112	14	194	170	33	138	1140	172	22	588	78	2850	
In/Out	-	-	-	Out	-	Out	In	-	-	-	-	In	-	
Percentage	0%	0%	0%	30%	0%	20%	20%	0%	0%	0%	0%	30%	0%	
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	189	112	14	194	170	33	138	1140	172	22	588	78	2851	



PHF: 0.917
Seasonal Factor: 1.11
Trips In 0
Trips Out 0
Growth Rate: 1.005
Years Grown:

15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	45	19	3	57	31	11	20	180	30	6	210	35	647	2753
4:15-4:30	37	24	3	62	34	12	33	182	30	3	208	35	663	2870
4:30-4:45	35	23	0	50	32	10	36	228	52	8	240	28	742	2940
4:45-5:00	46	19	4	68	37	7	31	200	34	4	213	38	701	2940
5:00-5:15	41	18	6	54	45	8	22	223	49	5	264	29	764	2859
5:15-5:30	45	28	2	54	31	3	32	184	45	4	271	34	733	
5:30-5:45	38	24	2	65	28	8	37	195	35	3	268	39	742	
5:45-6:00	34	23	4	46	34	7	23	188	33	2	188	38	620	
PM PEAK HOUR IS FROM:			5:00PM TO 6:00PM											
Volumes	158	93	14	219	138	26	114	790	162	14	991	140	2859	
Season Factor	175	103	16	243	153	29	127	877	180	16	1100	155	3173	
Growth	175	103	16	243	153	29	127	877	180	16	1100	155	3173	
In/Out	-	-	-	Out	-	Out	In	-	-	-	-	In	-	
Percentage	0%	0%	0%	30%	0%	20%	20%	0%	0%	0%	0%	30%	0%	
Project	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	175	103	16	243	153	29	127	877	180	16	1100	155	3173	

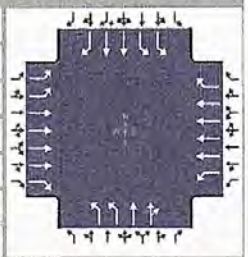


PHF: 0.962
Seasonal Factor: 1.11
Growth Rate: 1.005
Trips In:
Trips Out:
Years Grown:

F-164

HCS7 Signalized Intersection Results Summary #9 E AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee & Jenkins - AM Existing 6.11.20 (...		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	138	1140	172	22	588	78	189	112	14	194	170	33

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	6.5	3.4		96.9	11.7	0.2	15.0					
Yellow	4.3	0.0		4.3	4.3	0.0	4.3					
Red	2.0	0.0		2.0	2.5	0.0	2.5					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	16.3	106.6	12.8	103.2	18.5	21.8	18.7	22.1
Change Period, ($Y+R_c$), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (MAH), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	8.8		4.1		11.3	7.7	11.5	9.9
Green Extension Time (g_e), s	0.6	0.0	0.1	0.0	0.4	1.3	0.4	1.3
Phase Call Probability	1.00		0.65		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		0.10	0.00	0.13	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	150	1239	187	24	639	85	205	69	68	211	185	36
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1798	1730	1781	1585
Queue Service Time (g_s), s	6.8	13.3	8.0	2.1	6.6	3.6	9.3	5.5	5.7	9.5	7.9	3.4
Cycle Queue Clearance Time (g_c), s	6.8	13.3	8.0	2.1	6.6	3.6	9.3	5.5	5.7	9.5	7.9	3.4
Green Ratio (g/C)	0.06	0.63	0.63	0.04	0.61	0.61	0.08	0.09	0.09	0.08	0.10	0.10
Capacity (c), veh/h	216	4259	994	73	4113	960	274	175	169	280	339	151
Volume-to-Capacity Ratio (X)	0.695	0.291	0.188	0.328	0.155	0.088	0.748	0.393	0.404	0.753	0.544	0.237
Back of Queue (Q), ft/ln (95 th percentile)	142	219.2	131.1	45.7	113.7	59.4	193.2	123	120.3	197.6	166.3	63
Back of Queue (Q), veh/ln (95 th percentile)	5.6	8.6	5.2	1.8	4.5	2.3	7.6	4.8	4.8	7.8	6.5	2.5
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	73.5	13.6	12.6	74.6	13.7	13.2	72.1	68.2	68.3	72.0	69.1	67.0
Incremental Delay (d_2), s/veh	4.0	0.2	0.4	2.6	0.1	0.2	4.1	1.4	1.6	4.3	1.4	0.8
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	77.5	13.8	13.0	77.2	13.8	13.3	76.2	69.6	69.8	76.3	70.4	67.8
Level of Service (LOS)	E	B	B	E	B	B	E	E	E	E	E	E
Approach Delay, s/veh / LOS	19.8	B		15.8	B		73.6	E		73.1	E	
Intersection Delay, s/veh / LOS	32.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.41	B	2.55	C	2.99	C	3.10	C
Bicycle LOS Score / LOS	1.14	A	0.80	A	0.77	A	0.84	A

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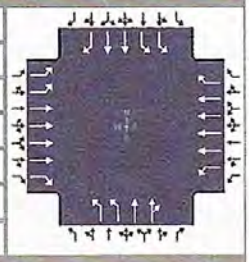
HCS7 Signalized Intersection Input Data

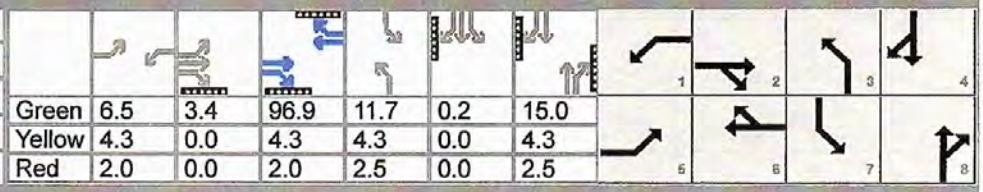
#9 EPM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee & Jenkins - AM Existing 6.11.20....		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	138	1140	172	22	588	78	189	112	14	194	170	33

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	6.5	3.4		96.9	11.7	0.2	15.0					
Yellow	4.3	0.0		4.3	4.3	0.0	4.3					
Red	2.0	0.0		2.0	2.5	0.0	2.5					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	138	1140	172	22	588	78	189	112	14	194	170	33
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0
Yellow Change Interval (*Y*), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G_{min}), s	10	15	10	15	10	15	10	15
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		7.0		7.0		5.0		5.0
Pedestrian Clearance Time (*PC*), s		37.0		37.0		35.0		34.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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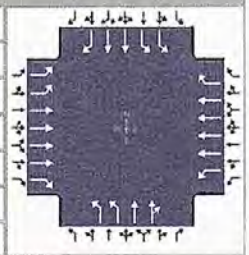
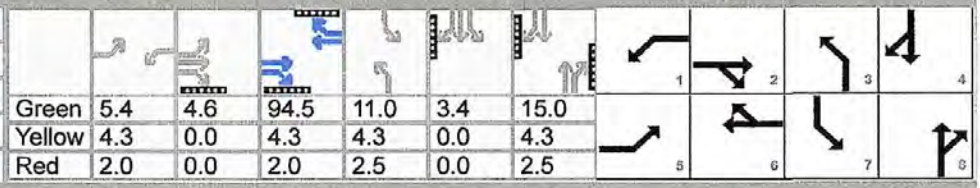
HCS7 Signalized Intersection Results Summary #9 E PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee & Jenkins - PM Existing.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	127	877	180	16	1100	155	175	103	16	243	153	29

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB		WB		NB	
Green	5.4	4.6	94.5	11.0	3.4	15.0
Yellow	4.3	0.0	4.3	4.3	0.0	4.3
Red	2.0	0.0	2.0	2.5	0.0	2.5

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	16.3	105.4	11.7	100.8	17.8	21.8	21.1	25.2
Change Period, ($Y+R_c$), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (MAH), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	8.2		3.5		10.6	7.4	14.0	8.9
Green Extension Time (g_e), s	0.5	0.0	0.0	0.0	0.4	1.2	0.4	1.2
Phase Call Probability	1.00		0.54		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		0.05	0.00	0.86	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	138	953	196	17	1196	168	190	65	64	264	166	32
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1784	1730	1781	1585
Queue Service Time (g_s), s	6.2	9.9	8.6	1.5	14.0	7.8	8.6	5.2	5.4	12.0	6.9	2.9
Cycle Queue Clearance Time (g_c), s	6.2	9.9	8.6	1.5	14.0	7.8	8.6	5.2	5.4	12.0	6.9	2.9
Green Ratio (g/C)	0.06	0.62	0.62	0.03	0.59	0.59	0.07	0.09	0.09	0.10	0.11	0.11
Capacity (c), veh/h	216	4206	981	60	4011	936	259	175	167	332	408	182
Volume-to-Capacity Ratio (X)	0.640	0.227	0.199	0.290	0.298	0.180	0.734	0.371	0.384	0.796	0.407	0.173
Back of Queue (Q), ft/ln (95 th percentile)	129.7	171.2	141.9	33.6	232.8	131	179.4	116	113.2	241.5	144.4	53.6
Back of Queue (Q), veh/ln (95 th percentile)	5.1	6.7	5.6	1.3	9.2	5.2	7.1	4.6	4.5	9.5	5.7	2.1
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	73.3	13.5	13.2	75.4	16.3	15.0	72.4	68.1	68.2	70.8	65.8	64.0
Incremental Delay (d_2), s/veh	3.1	0.1	0.5	2.6	0.2	0.4	4.0	1.3	1.4	8.4	0.7	0.4
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	76.4	13.6	13.7	78.1	16.5	15.4	76.4	69.4	69.6	79.1	66.4	64.4
Level of Service (LOS)	E	B	B	E	B	B	E	E	E	E	E	E
Approach Delay, s/veh / LOS	20.4	C		17.1	B		73.6	E		73.6	E	
Intersection Delay, s/veh / LOS	31.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.41	B	2.56	C	2.99	C	3.10	C
Bicycle LOS Score / LOS	1.02	A	1.06	A	0.75	A	0.87	A

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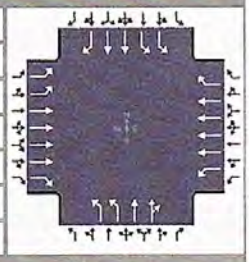
HCS7 Signalized Intersection Input Data

#9EPM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee & Jenkins - PM Existing.xus		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	127	877	180	16	1100	155	175	103	16	243	153	29

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	5.4	4.6		94.5	11.0	3.4	15.0					
Yellow	4.3	0.0		4.3	4.3	0.0	4.3					
Red	2.0	0.0		2.0	2.5	0.0	2.5					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	127	877	180	16	1100	155	175	103	16	243	153	29
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0
Yellow Change Interval (Y), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G_{min}), s	10	15	10	15	10	15	10	15
Start-Up Lost Time (l_t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (PT), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		7.0		7.0		5.0		5.0
Pedestrian Clearance Time (PC), s		37.0		37.0		35.0		34.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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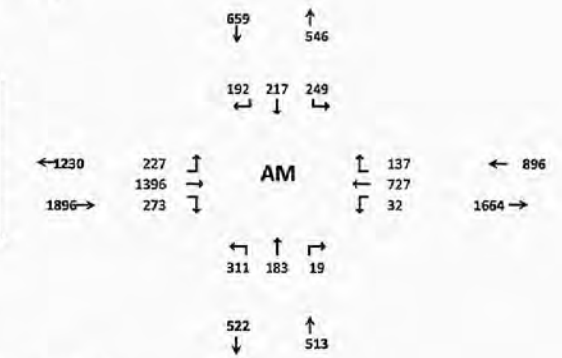
TURNING MOVEMENT VOLUME COUNTS

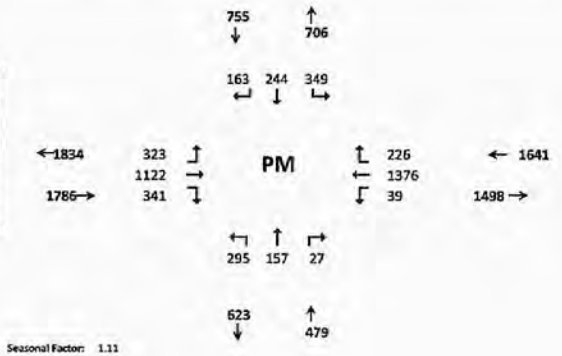
N/S STREET: Jenkins Rd. **E/W STREET:** Okeechobee Rd. **CONTROL:** Signal
FILENAME:
COUNT DATE: 6/15/2017 **DAY:** Wednesday **CITY:** Ft. Pierce
REPORT DATE: 5/5/2020 **ANALYSIS YEAR:** 2035

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	36	19	1	23	25	6	20	154	47	2	107	5	445	2349
7:15-7:30	40	22	6	31	25	8	22	254	28	4	132	18	590	2524
7:30-7:45	48	25	1	54	41	7	53	224	29	3	115	14	614	2568
7:45-8:00	48	31	5	36	43	8	25	306	37	6	141	14	700	2533
8:00-8:15	48	29	2	46	31	6	24	244	49	5	113	23	620	2410
8:15-8:30	26	16	5	39	38	9	22	253	40	6	161	19	634	
8:30-8:45	43	24	8	34	31	3	16	218	43	8	130	21	579	
8:45-9:00	37	21	12	31	17	6	22	226	55	15	128	7	577	
AM PEAK HOUR IS FROM:			7:30 AM TO 8:30AM											
Volumes	170	101	13	175	153	30	124	1027	155	20	530	70	2568	
Season Factor	189	112	14	194	170	33	138	1140	172	22	588	78	2850	
Growth	206	123	16	212	186	36	151	1247	188	24	644	85	3118	
In/Out	-	-	-	-	-	-	-	-	-	-	-	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0		
Mariner Cove	36	8	16	0	2	0	0	0	7	3	0	0		
Camping World	0	0	0	4	0	2	8	0	0	0	0	13		
39 Acre Residential	36	7	3	0	1	0	0	0	8	1	0	0		
Whispering Oaks	0	5	0	17	17	35	9	0	0	0	0	5		
SLCC	0	28	0	5	5	0	0	5	0	0	28	28		
WaWa	11	3	0	4	3	0	0	18	5	4	12	4		
Palm Breezes	0	0	0	7	0	4	2	0	0	0	0	2		
Celebration Pointe	0	0	0	0	0	72	24	0	0	0	0	0		
Bent Creek	0	0	0	0	0	36	12	0	0	0	0	0		
Sedona	15	9	0	0	3	0	0	0	44	0	0	0		
Creekside	7	0	0	0	0	7	21	126	21	0	43	0		
Total	311	183	19	249	217	192	227	1396	273	32	727	137	3963	



Seasonal Factor: 1.11
Trips In
Trips Out
Growth Rate: 1.005
Years Grown: 18

15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	45	19	3	57	31	11	20	180	30	6	210	35	647	2753
4:15-4:30	37	24	3	62	34	12	33	182	30	3	208	35	663	2870
4:30-4:45	35	23	0	50	32	10	36	228	52	8	240	28	742	2946
4:45-5:00	46	19	4	68	37	7	31	200	34	4	213	38	701	2940
5:00-5:15	41	18	6	54	45	8	22	223	49	5	264	29	764	2859
5:15-5:30	45	28	2	54	31	3	32	184	45	4	271	34	733	
5:30-5:45	38	24	2	65	28	8	37	195	35	3	268	39	742	
5:45-6:00	34	22	4	46	34	7	23	100	33	2	188	30	620	
PM PEAK HOUR IS FROM:			5:00PM TO 6:00PM											
Volumes	158	93	14	219	138	26	114	790	162	14	991	140	2859	
Season Factor	175	103	16	243	153	29	127	877	180	16	1100	155	3173	
Growth	192	113	17	266	168	32	138	959	197	17	1203	170	3472	
In/Out	-	-	-	-	-	-	-	-	-	-	-	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
Project	0	0	0	0	0	0	0	0	0	0	0	0		
Mariner Cove	17	4	8	0	8	0	0	0	34	15	0	0		
Camping World	0	0	0	24	0	16	13	0	0	0	0	20		
39 Acre Residential	17	3	2	0	6	0	0	0	35	3	0	0		
Whispering Oaks	0	17	0	9	9	20	36	0	0	0	0	17		
SLCC	0	10	0	39	39	0	0	39	0	0	10	10		
WaWa	13	4	0	4	4	0	0	31	8	4	13	4		
Creekside	25	0	0	0	0	25	15	93	15	8	150	0		
Palm Breezes	0	0	0	7	0	3	5	0	0	0	0	5		
Sedona	31	6	0	0	10	0	0	0	52	0	0	0		
Bent Creek	0	0	0	0	0	22	38	0	0	0	0	0		
Celebration Pointe	0	0	0	0	0	45	78	0	0	0	0	0		
Total	296	157	27	349	244	163	323	1122	341	39	1376	226	4662	



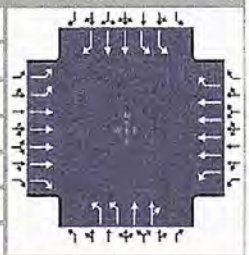
Seasonal Factor: 1.11
Growth Rate: 1.005
Trips In:
Trips Out:
Years Grown: 18

OM 6 #

HCS7 Signalized Intersection Results Summary

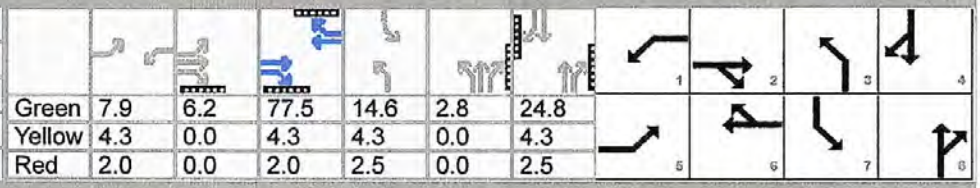
#9 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - AM - 2035 - Backgrou...		
Project Description	Background without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	227	1396	273	32	727	137	311	183	19	249	217	192

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	7.9	6.2	77.5	14.6	2.8	24.8	
Yellow	4.3	0.0	4.3	4.3	0.0	4.3	
Red	2.0	0.0	2.0	2.5	0.0	2.5	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	20.4	90.0	14.2	83.8	24.3	34.4	21.4	31.6
Change Period, ($Y+R_c$), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	13.2		5.0		17.3	10.5	14.3	22.5
Green Extension Time (g_e), s	0.9	0.0	0.1	0.0	0.1	2.5	0.4	2.2
Phase Call Probability	1.00		0.79		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		1.00	0.00	1.00	0.02

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	247	1517	297	35	790	149	338	111	109	271	236	209
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1809	1730	1781	1585
Queue Service Time (g_s), s	11.2	21.9	17.6	3.0	10.9	8.6	15.3	8.3	8.5	12.3	9.6	20.5
Cycle Queue Clearance Time (g_c), s	11.2	21.9	17.6	3.0	10.9	8.6	15.3	8.3	8.5	12.3	9.6	20.5
Green Ratio (*g/C*)	0.09	0.52	0.52	0.05	0.48	0.48	0.12	0.17	0.17	0.10	0.15	0.15
Capacity (*c*), veh/h	304	3554	829	88	3291	768	399	322	312	338	551	245
Volume-to-Capacity Ratio (*X*)	0.811	0.427	0.358	0.397	0.240	0.194	0.847	0.343	0.350	0.801	0.428	0.851
Back of Queue (Q), ft/ln (95 th percentile)	224.7	343.9	278.5	66	197.9	150.9	304.9	181.1	176.1	246.8	196.8	349.2
Back of Queue (Q), veh/ln (95 th percentile)	8.8	13.5	11.0	2.6	7.8	5.9	12.0	7.1	7.0	9.7	7.7	13.7
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	71.7	23.4	22.4	73.8	24.1	23.5	69.4	58.2	58.3	70.7	61.2	65.8
Incremental Delay (d_2), s/veh	5.2	0.4	1.2	2.9	0.2	0.6	14.6	0.6	0.7	8.9	0.5	10.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	76.8	23.8	23.6	76.7	24.2	24.0	84.0	58.9	59.0	79.5	61.7	76.0
Level of Service (LOS)	E	C	C	E	C	C	F	E	E	E	E	E
Approach Delay, s/veh / LOS	30.1	C		26.1	C		74.1	E		72.6	E	
Intersection Delay, s/veh / LOS	42.0						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.57	C	2.98	C	3.10	C
Bicycle LOS Score / LOS	1.34	A	0.89	A	0.95	A	1.08	A

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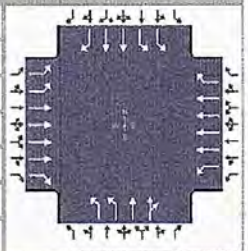
HCS7 Signalized Intersection Input Data

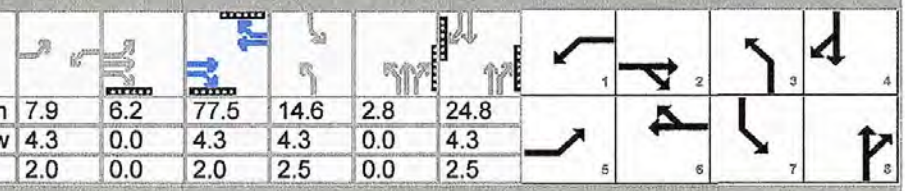
#9 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - AM - 2035 - Backgrou...		
Project Description	Background without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	227	1396	273	32	727	137	311	183	19	249	217	192

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	7.9	6.2		77.5	14.6	2.8	24.8					
Yellow	4.3	0.0		4.3	4.3	0.0	4.3					
Red	2.0	0.0		2.0	2.5	0.0	2.5					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	227	1396	273	32	727	137	311	183	19	249	217	192
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0
Yellow Change Interval (*Y*), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G_{min}), s	10	15	10	15	10	15	10	15
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	7.0	0.0	7.0	0.0	5.0	0.0	5.0
Pedestrian Clearance Time (*PC*), s	0.0	37.0	0.0	37.0	0.0	35.0	0.0	34.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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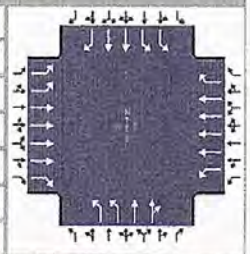
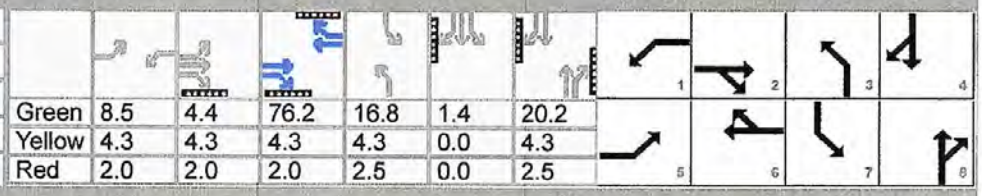
HCS7 Signalized Intersection Results Summary #9 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - PM - 2035 - Backgrou...		
Project Description	Background without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	323	1122	341	39	1376	226	295	157	27	349	244	163

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB		WB			NB			SB		
Green	8.5	4.4	76.2	16.8	1.4	20.2					
Yellow	4.3	4.3	4.3	4.3	0.0	4.3					
Red	2.0	2.0	2.0	2.5	0.0	2.5					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	25.5	93.2	14.8	82.5	23.6	27.0	25.0	28.5
Change Period, ($Y+R_c$), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (MAH), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	17.9		5.7		16.5	10.3	19.3	19.4
Green Extension Time (g_e), s	1.3	0.0	0.1	0.0	0.2	2.4	0.0	2.3
Phase Call Probability	1.00		0.85		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		1.00	0.00	1.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	351	1220	371	42	1496	246	321	101	99	379	265	177
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1776	1730	1781	1585
Queue Service Time (g_s), s	15.9	16.0	22.3	3.7	23.7	15.4	14.5	8.0	8.3	17.3	11.1	17.4
Cycle Queue Clearance Time (g_c), s	15.9	16.0	22.3	3.7	23.7	15.4	14.5	8.0	8.3	17.3	11.1	17.4
Green Ratio (g/C)	0.12	0.54	0.54	0.05	0.48	0.48	0.11	0.13	0.13	0.12	0.14	0.14
Capacity (c), veh/h	415	3688	861	94	3233	754	384	237	225	415	483	215
Volume-to-Capacity Ratio (X)	0.846	0.331	0.431	0.449	0.463	0.326	0.835	0.427	0.441	0.914	0.549	0.825
Back of Queue (Q), ft/ln (95 th percentile)	295.5	264.4	336.7	80.4	371.6	253.6	289.6	175.8	170.3	352.9	222.4	301.7
Back of Queue (Q), veh/ln (95 th percentile)	11.6	10.4	13.3	3.2	14.6	10.0	11.4	6.9	6.8	13.9	8.8	11.9
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	69.0	20.4	21.8	73.5	28.2	26.0	69.7	64.5	64.6	69.6	64.6	67.3
Incremental Delay (d_2), s/veh	4.8	0.2	1.6	3.3	0.5	1.1	13.0	1.2	1.4	24.4	1.0	7.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	73.8	20.6	23.4	76.8	28.6	27.1	82.7	65.7	66.0	94.0	65.6	75.1
Level of Service (LOS)	E	C	C	E	C	C	F	E	E	F	E	E
Approach Delay, s/veh / LOS	30.8	C		29.6	C		76.2	E		80.7	F	
Intersection Delay, s/veh / LOS	43.1						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.42	B	2.58	C	2.99	C	3.10	C
Bicycle LOS Score / LOS	1.29	A	1.22	A	0.92	A	1.17	A

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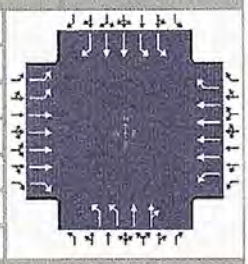
HCS7 Signalized Intersection Input Data

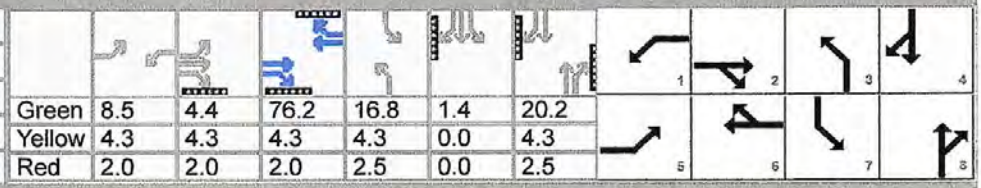
#9 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - PM - 2035 - Backgrou...		
Project Description	Background without Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	323	1122	341	39	1376	226	295	157	27	349	244	163

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	8.5	4.4		76.2	16.8	1.4	20.2					
Yellow	4.3	4.3		4.3	4.3	0.0	4.3					
Red	2.0	2.0		2.0	2.5	0.0	2.5					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	323	1122	341	39	1376	226	295	157	27	349	244	163
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0
Yellow Change Interval (*Y*), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G_{min}), s	10	15	10	15	10	15	10	15
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	7.0	0.0	7.0	0.0	5.0	0.0	5.0
Pedestrian Clearance Time (*PC*), s	0.0	37.0	0.0	37.0	0.0	35.0	0.0	34.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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TURNING MOVEMENT VOLUME COUNTS

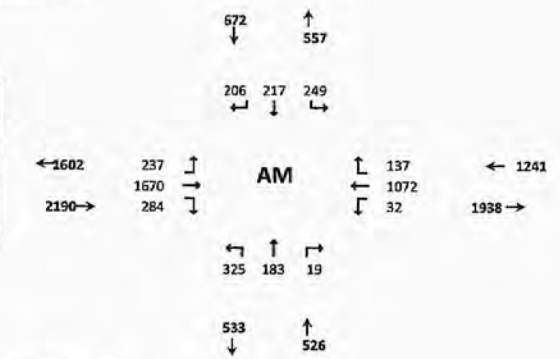
N/S STREET: Jenkins Rd. **E/W STREET:** Okeechobee Rd. **CONTROL:** Signal

FILENAME:

COUNT DATE: 6/15/2017 **DAY:** Wednesday **CITY:** Ft. Pierce

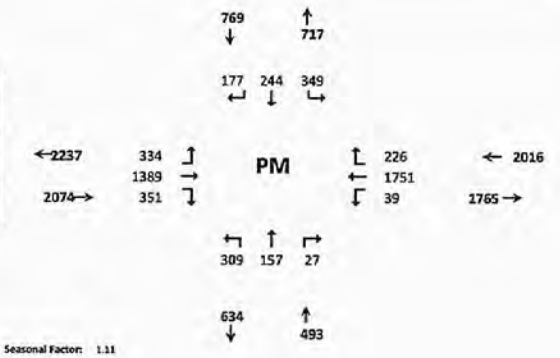
REPORT DATE: 5/5/2020 **ANALYSIS YEAR:** 2035

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	36	19	1	23	25	6	20	154	47	2	107	5	445	2349
7:15-7:30	40	22	6	31	25	8	22	254	28	4	132	18	590	2524
7:30-7:45	48	25	1	54	41	7	53	224	29	3	115	14	614	2568
7:45-8:00	48	31	5	36	43	8	25	306	37	6	141	14	700	2533
8:00-8:15	48	29	2	46	31	6	24	244	49	5	113	23	620	2410
8:15-8:30	26	16	5	39	38	9	22	253	40	6	161	19	634	
8:30-8:45	43	24	8	34	31	3	16	218	43	8	130	21	579	
8:45-9:00	37	21	12	31	17	6	22	226	55	15	128	7	577	
AM PEAK HOUR IS FROM:	7:30 AM TO 8:30AM													
Volumes	170	101	13	175	153	30	124	1027	155	20	530	70	2568	
Season Factor	189	112	14	194	170	33	138	1140	172	22	588	78	2850	
Growth	206	123	16	212	186	36	151	1247	188	24	644	85	3118	
In/Out	In	-	-	-	-	In	Out	Out	Out	-	In	-		
Percentage	1%	0%	0%	0%	0%	1%	1%	26%	1%	0%	26%	0%		
PROJECT	13	0	0	0	0	13	11	274	11	0	345	0		
Mariner Cove	36	8	16	0	2	0	0	0	7	3	0	0		
Camping World	0	0	0	4	0	2	8	0	0	0	0	13		
39 Acre Residential	36	7	3	0	1	0	0	0	8	1	0	0		
Whispering Oaks	0	5	0	17	17	35	9	0	0	0	0	5		
SLCC	0	28	0	5	5	0	0	5	0	0	28	28		
WaWa	11	3	0	4	3	0	0	18	5	4	12	4		
Palm Breezes	0	0	0	7	0	4	2	0	0	0	0	2		
Celebration Pointe	0	0	0	0	0	72	24	0	0	0	0	0		
Bent Creek	0	0	0	0	0	36	12	0	0	0	0	0		
Sedona	15	9	0	0	3	0	0	0	44	0	0	0		
Creekside	7	0	0	0	0	7	21	126	21	0	43	0		
Total	325	183	19	249	217	206	237	1670	284	32	1072	137	4629	



Seasonal Factor: 1.11
Trips In 1327
Trips Out 1052
Growth Rate: 1.005
Years Grown: 18

15 Min Period lanes	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	45	19	3	57	31	11	20	180	30	6	210	35	647	2753
4:15-4:30	37	24	3	62	34	12	33	182	30	3	208	35	663	2870
4:30-4:45	35	23	0	50	32	10	36	228	52	8	240	28	742	2940
4:45-5:00	46	19	4	68	37	7	31	200	34	4	213	38	701	2940
5:00-5:15	41	18	6	54	45	8	22	223	49	5	264	29	764	2859
5:15-5:30	45	28	2	54	31	3	32	184	45	4	271	34	733	
5:30-5:45	38	24	2	65	28	8	37	195	35	3	268	30	742	
5:45-6:00	34	23	4	46	34	7	23	188	33	2	188	30	620	
PM PEAK HOUR IS FROM:	5:00PM TO 6:00PM													
Volumes	158	93	14	219	138	26	114	790	162	14	991	140	2859	
Season Factor	175	103	16	243	153	29	127	877	180	16	1100	155	3173	
Growth	192	113	17	266	168	32	138	959	197	17	1203	170	3472	
In/Out	In	-	-	-	-	In	Out	Out	Out	-	In	-		
Percentage	1%	0%	0%	0%	0%	1%	1%	26%	1%	0%	26%	0%		
Project	14	0	0	0	0	14	10	267	10	0	375	0		
Mariner Cove	17	4	8	0	8	0	0	0	34	15	0	0		
Camping World	0	0	0	24	0	16	13	0	0	0	0	20		
39 Acre Residential	17	3	2	0	6	0	0	0	35	3	0	0		
Whispering Oaks	0	17	0	9	9	20	36	0	0	0	0	17		
SLCC	0	10	0	39	39	0	0	39	0	0	10	10		
WaWa	13	4	0	4	4	0	0	31	8	4	13	4		
Creekside	25	0	0	0	0	25	15	93	15	0	150	0		
Palm Breezes	0	0	0	7	0	3	5	0	0	0	0	5		
Sedona	31	6	0	0	10	0	0	0	52	0	0	0		
Bent Creek	0	0	0	0	0	22	38	0	0	0	0	0		
Celebration Pointe	0	0	0	0	0	45	78	0	0	0	0	0		
Total	309	157	27	349	244	177	334	1389	351	39	1751	226	5353	



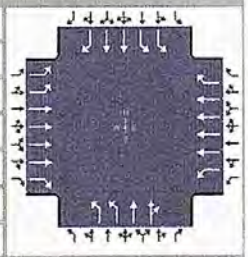
Seasonal Factor: 1.11

Growth Rate: 1.005
Trips In: 1441
Trips Out: 1027
Years Grown: 18

HCS7 Signalized Intersection Results Summary

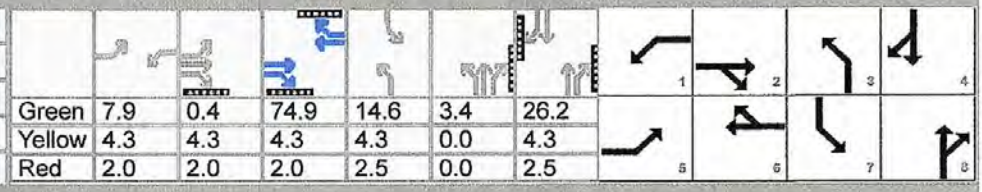
#9 W/B AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - AM - 2035 - with Proje...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	237	1670	284	32	1072	137	325	183	19	249	217	206

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	7.9	0.4	74.9	14.6	3.4	26.2		
Yellow	4.3	4.3	4.3	4.3	0.0	4.3		
Red	2.0	2.0	2.0	2.5	0.0	2.5		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	20.9	88.0	14.2	81.2	24.9	36.4	21.4	33.0
Change Period, (*Y+R c*), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (*g s*), s	13.7		5.0		18.0	10.4	14.3	24.0
Green Extension Time (*g e*), s	0.9	0.0	0.1	0.0	0.0	2.6	0.4	2.2
Phase Call Probability	1.00		0.79		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		1.00	0.00	1.00	0.04

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	258	1815	309	35	1165	149	353	111	109	271	236	224
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1809	1730	1781	1585
Queue Service Time (*g s*), s	11.7	28.6	18.9	3.0	17.6	8.8	16.0	8.2	8.4	12.3	9.5	22.0
Cycle Queue Clearance Time (*g c*), s	11.7	28.6	18.9	3.0	17.6	8.8	16.0	8.2	8.4	12.3	9.5	22.0
Green Ratio (*g/C*)	0.09	0.51	0.51	0.05	0.47	0.47	0.12	0.19	0.19	0.10	0.16	0.16
Capacity (*c*), veh/h	315	3467	809	88	3182	742	412	347	335	338	584	260
Volume-to-Capacity Ratio (*X*)	0.817	0.524	0.382	0.397	0.366	0.201	0.857	0.319	0.325	0.801	0.404	0.862
Back of Queue (*Q*), ft/ln (95 th percentile)	232.3	430.8	297.4	66	292.3	156.4	318.5	177.6	172.8	246.8	194.9	375.7
Back of Queue (*Q*), veh/ln (95 th percentile)	9.1	17.0	11.7	2.6	11.5	6.2	12.5	7.0	6.9	9.7	7.7	14.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh	71.4	26.2	23.8	73.8	27.3	24.9	69.1	56.4	56.5	70.7	59.9	65.1
Incremental Delay (*d 2*), s/veh	5.2	0.6	1.4	2.9	0.3	0.6	16.1	0.5	0.6	8.9	0.5	12.8
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	76.6	26.7	25.2	76.7	27.6	25.6	85.2	57.0	57.1	79.5	60.3	77.9
Level of Service (LOS)	E	C	C	E	C	C	F	E	E	E	E	E
Approach Delay, s/veh / LOS	31.9	C		28.7	C		74.4	E		72.8	E	
Intersection Delay, s/veh / LOS	41.8						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.58	C	2.98	C	3.10	C
Bicycle LOS Score / LOS	1.47	A	1.04	A	0.96	A	1.09	A

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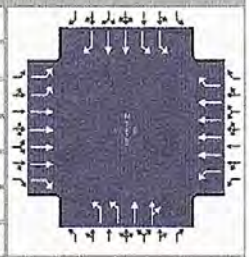
HCS7 Signalized Intersection Input Data

#9 w/P AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - AM - 2035 - with Proje...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	237	1670	284	32	1072	137	325	183	19	249	217	206

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	7.9	0.4		74.9	14.6	3.4	26.2					
Yellow	4.3	4.3		4.3	4.3	0.0	4.3					
Red	2.0	2.0		2.0	2.5	0.0	2.5					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	237	1670	284	32	1072	137	325	183	19	249	217	206
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0
Yellow Change Interval (*Y*), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G_{min}), s	10	15	10	15	10	15	10	15
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	7.0	0.0	7.0	0.0	5.0	0.0	5.0
Pedestrian Clearance Time (*PC*), s	0.0	37.0	0.0	37.0	0.0	35.0	0.0	34.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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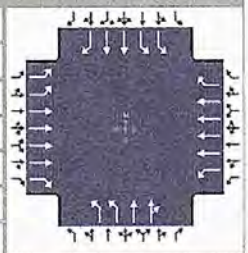
HCS7 Signalized Intersection Results Summary

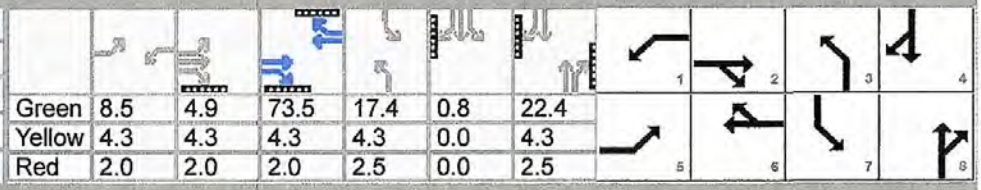
#9 WP PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - PM - 2035 - with Proje...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	334	1389	351	39	1751	226	309	157	27	349	244	177

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	8.5	4.9	73.5	17.4	0.8	22.4			
Yellow	4.3	4.3	4.3	4.3	0.0	4.3			
Red	2.0	2.0	2.0	2.5	0.0	2.5			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	26.0	91.1	14.8	79.8	24.2	29.2	25.0	30.0
Change Period, (*Y+R c*), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (*g s*), s	18.4		5.7		17.2	10.1	19.3	20.9
Green Extension Time (*g e*), s	1.3	0.0	0.1	0.0	0.1	2.5	0.0	2.3
Phase Call Probability	1.00		0.85		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		1.00	0.00	1.00	0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	363	1510	382	42	1903	246	336	101	99	379	265	192
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1776	1730	1781	1585
Queue Service Time (*g s*), s	16.4	21.5	23.9	3.7	33.7	15.9	15.2	7.9	8.1	17.3	11.0	18.9
Cycle Queue Clearance Time (*g c*), s	16.4	21.5	23.9	3.7	33.7	15.9	15.2	7.9	8.1	17.3	11.0	18.9
Green Ratio (*g/C*)	0.12	0.53	0.53	0.05	0.46	0.46	0.11	0.14	0.14	0.12	0.14	0.14
Capacity (*c*), veh/h	427	3598	840	94	3121	728	397	261	248	415	516	230
Volume-to-Capacity Ratio (*X*)	0.851	0.420	0.454	0.449	0.610	0.337	0.845	0.386	0.399	0.914	0.514	0.837
Back of Queue (*Q*), ft/ln (95 th percentile)	303.5	337.7	357.4	80.4	502.6	261.3	302.8	172.4	166.9	352.9	219.9	322.4
Back of Queue (*Q*), veh/ln (95 th percentile)	11.9	13.3	14.1	3.2	19.8	10.3	11.9	6.8	6.7	13.9	8.7	12.7
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (*d 1*), s/veh	68.7	22.7	23.3	73.5	32.5	27.7	69.4	62.6	62.7	69.6	63.2	66.6
Incremental Delay (*d 2*), s/veh	4.9	0.4	1.8	3.3	0.9	1.3	14.4	0.9	1.0	24.4	0.8	7.9
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	73.6	23.1	25.1	76.8	33.4	28.9	83.8	63.5	63.7	94.0	64.0	74.4
Level of Service (LOS)	E	C	C	E	C	C	F	E	E	F	E	E
Approach Delay, s/veh / LOS	31.6	C		33.7	C		76.3	E		80.0	E	
Intersection Delay, s/veh / LOS	43.5						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.58	C	2.99	C	3.10	C
Bicycle LOS Score / LOS	1.42	A	1.39	A	0.93	A	1.18	A

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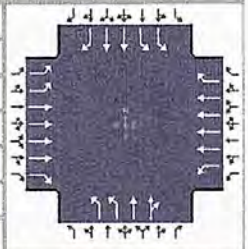
HCS7 Signalized Intersection Input Data

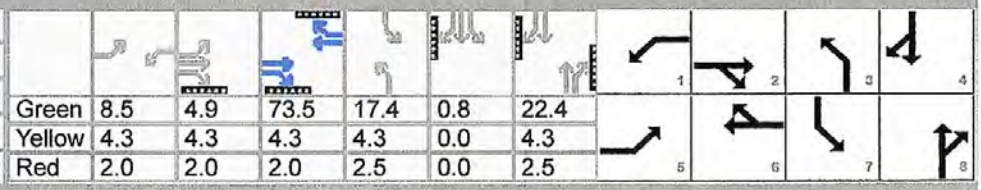
#9 w/ P PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - PM - 2035 - with Proje...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	334	1389	351	39	1751	226	309	157	27	349	244	177

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	8.5	4.9		73.5	17.4	0.8	22.4					
Yellow	4.3	4.3		4.3	4.3	0.0	4.3					
Red	2.0	2.0		2.0	2.5	0.0	2.5					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	334	1389	351	39	1751	226	309	157	27	349	244	177
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0
Yellow Change Interval (*Y*), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G_{min}), s	10	15	10	15	10	15	10	15
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	7.0	0.0	7.0	0.0	5.0	0.0	5.0
Pedestrian Clearance Time (*PC*), s	0.0	37.0	0.0	37.0	0.0	35.0	0.0	34.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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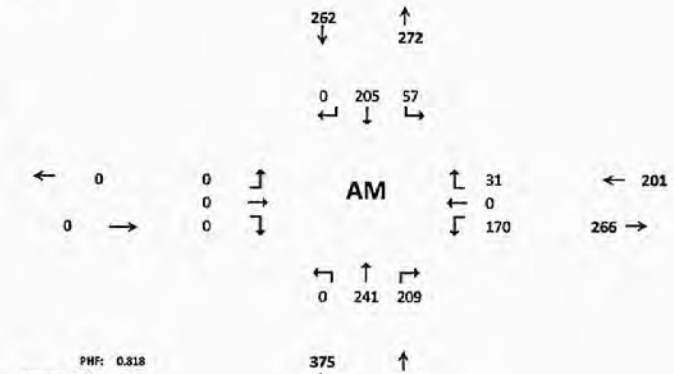
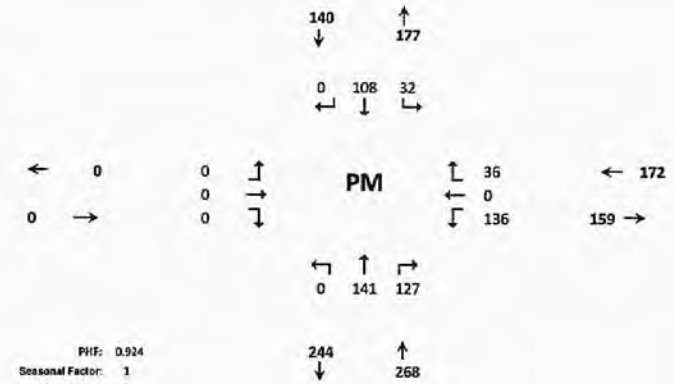
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Glades Cutoff Rd
FILENAME: Willow Lakes
COUNT DATE: 2/20/2020
REPORT DATE:
DAY: Thursday
ANALYSIS YEAR: 2020
E/W STREET: Commerce Centre Dr
CITY: St Lucie
CONTROL: TWSC

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	69	53	9	63	0	0	0	0	69	0	6	269	913
7:15-7:30	0	72	78	15	57	0	0	0	0	46	0	11	279	794
7:30-7:45	0	60	43	24	39	0	0	0	0	24	0	6	196	644
7:45-8:00	0	40	35	9	46	0	0	0	0	31	0	8	169	567
8:00-8:15	0	38	32	7	42	0	0	0	0	27	0	4	150	499
8:15-8:30	0	35	27	6	35	0	0	0	0	23	0	3	129	
8:30-8:45	0	37	27	8	21	0	0	0	0	20	0	6	119	
8:45-9:00	0	21	21	7	26	0	0	0	0	23	0	3	101	
AM PEAK HOUR IS FROM:	7:00AM TO 8:00AM													
Volumes	0	241	209	57	205	0	0	0	0	170	0	31	913	
Season Factor	0	241	209	57	205	0	0	0	0	170	0	31	913	
Growth	0	241	209	57	205	0	0	0	0	170	0	31	913	
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	241	209	57	205	0	0	0	0	170	0	31	913	



15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	32	20	11	21	0	0	0	0	25	0	8	117	524
4:15-4:30	0	33	18	14	34	0	0	0	0	19	0	12	130	564
4:30-4:45	0	35	24	7	26	0	0	0	0	28	0	21	141	564
4:45-5:00	0	21	34	6	30	0	0	0	0	29	0	16	136	580
5:00-5:15	0	36	31	9	31	0	0	0	0	40	0	10	157	547
5:15-5:30	0	39	24	3	22	0	0	0	0	35	0	7	130	
5:30-5:45	0	45	38	14	25	0	0	0	0	32	0	3	157	
5:45-6:00	0	22	29	4	20	0	0	0	0	23	0	5	103	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	0	141	127	32	108	0	0	0	0	136	0	36	580	
Season Factor	0	141	127	32	108	0	0	0	0	136	0	36	580	
Growth	0	141	127	32	108	0	0	0	0	136	0	36	580	
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	141	127	32	108	0	0	0	0	136	0	36	580	



St. Lucie County

ECONOLITE

00022 - MIDWAY RD @ GLADES CUT OFF - - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	15	10	7	7	10	10	7	7	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	0	0	0	0	7	0	0	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	20	0	0	0	0	0	20	0	0	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	60	20	25	25	60	10	25	35	35	35	35	35	35	35	35
Max2	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

#10 E AM

HCS7 Two-Way Stop-Control Report

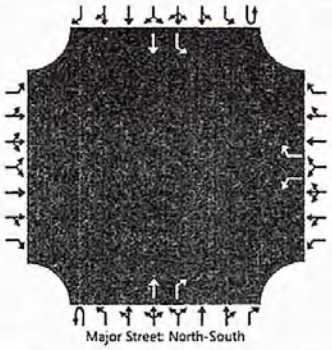
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/1/2020
Analysis Year	2020
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Existing

Site Information

Intersection	Glades Cut Off & Commerce
Jurisdiction	St. Lucie
East/West Street	Commerce Centre Dr
North/South Street	Glades Cut Off Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	1	0	0	1	1	0	1	1	0
Configuration						L		R			T	R		L	T	
Volume (veh/h)						170		31			241	209		57	205	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No					No					
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						179		33						60		
Capacity, c (veh/h)						443		783						1083		
v/c Ratio						0.40		0.04						0.06		
95% Queue Length, Q_{95} (veh)						1.9		0.1						0.2		
Control Delay (s/veh)						18.5		9.8						8.5		
Level of Service (LOS)						C		A						A		
Approach Delay (s/veh)						17.2								1.9		
Approach LOS						C										

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HCS7 Two-Way Stop-Control Report

General Information

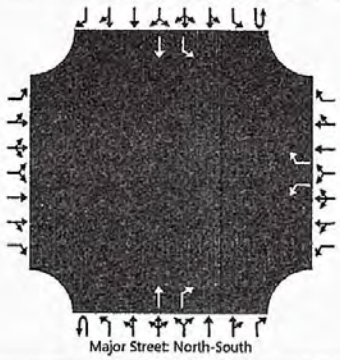
Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/1/2020
Analysis Year	2020
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Existing

Site Information

#10 E PM

Intersection	Glades Cut Off & Commerce
Jurisdiction	St. Lucie
East/West Street	Commerce Centre Dr
North/South Street	Glades Cut Off Rd
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	1	0	0	1	1	0	1	1	0
Configuration						L		R			T	R		L	T	
Volume (veh/h)						136		36			141	127		32	108	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No				No						
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						148		39						35		
Capacity, c (veh/h)						636		890						1265		
v/c Ratio						0.23		0.04						0.03		
95% Queue Length, Q_{95} (veh)						0.9		0.1						0.1		
Control Delay (s/veh)						12.4		9.2						7.9		
Level of Service (LOS)						B		A						A		
Approach Delay (s/veh)						11.7								1.8		
Approach LOS						B										

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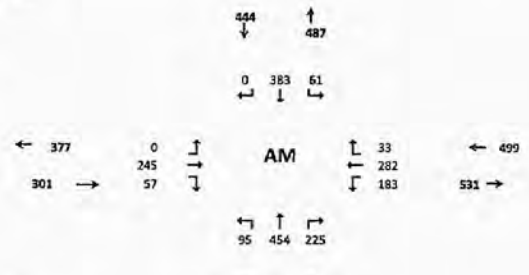
TURNING MOVEMENT VOLUME COUNTS

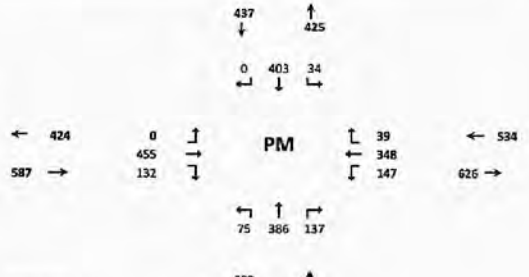
N/S STREET: Glades Cutoff Rd
E/W STREET: Commerce Centre Dr
CONTROL: TWSC
FILENAME: Willow Lakes
COUNT DATE: 2/20/2020
DAY: Thursday
CITY: St Lucie
REPORT DATE
ANALYSIS YEAR: 2035

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	68	53	9	63	0	0	0	0	69	0	6	269	913
7:15-7:30	0	72	78	15	57	0	0	0	0	46	0	11	279	794
7:30-7:45	0	60	43	24	39	0	0	0	0	24	0	6	196	644
7:45-8:00	0	40	35	9	46	0	0	0	0	31	0	8	169	567
8:00-8:15	0	38	32	7	42	0	0	0	0	27	0	4	150	499
8:15-8:30	0	35	27	6	35	0	0	0	0	23	0	3	129	
8:30-8:45	0	37	27	8	21	0	0	0	0	20	0	6	119	
8:45-9:00	0	21	21	7	26	0	0	0	0	23	0	3	101	
AM PEAK HOUR IS FROM:			7:00AM TO 8:00AM											
Volumes	0	241	209	57	205	0	0	0	0	170	0	31	913	
Season Factor	0	241	209	57	205	0	0	0	0	170	0	31	913	
Growth	0	260	225	61	221	0	0	0	0	183	0	33	984	
In/Out	IN	IN	-	-	OUT	-	-	-	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	4%	1%			1%			1%	4%		1%			
Village at Midway	58	15			6			6	24		15		123	
LTC Ranch %	2.0%	6.6%			6.6%			14.7%	2.0%		14.7%			
LTC Ranch Volume	36	120			107			239	32		268		803	
Southern Grove %		0.1%			0.1%									
Southern Grove		5			6								11	
Wilson Groves %		0.3%			0.3%									
Wilson Groves		11			12								23	
Riverland/Kennedy %		0.3%			0.3%									
Riverland/Kennedy		17			14								31	
Western Grove %		1.2%			1.2%									
Western Grove		26			16								42	
Total	95	454	225	61	383	0	0	245	57	183	282	33	2018	



		Trips In	Trips Out
Seasonal Factor	1		
Growth Rate	1.005		
Years Grown	15		
Willow Lakes		1,327	1,052
Village at Midway		1,451	603
LTC Ranch		1,823	1,624
Southern Grove		6,218	5,233
Wilson Groves		3,875	3,607
Riverland/Kennedy		4,791	5,568
Western Grove		1,352	2,115

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	32	20	11	21	0	0	0	0	25	0	8	117	524
4:15-4:30	0	33	18	14	34	0	0	0	0	19	0	12	130	564
4:30-4:45	0	35	24	7	26	0	0	0	0	28	0	21	141	564
4:45-5:00	0	21	34	6	30	0	0	0	0	29	0	16	136	580
5:00-5:15	0	36	31	9	31	0	0	0	0	40	0	10	157	547
5:15-5:30	0	39	24	3	22	0	0	0	0	35	0	7	130	
5:30-5:45	0	45	38	14	25	0	0	0	0	32	0	3	157	
5:45-6:00	0	22	20	4	20	0	0	0	0	23	0	5	103	
PM PEAK HOUR IS FROM:			4:45PM TO 5:45PM											
Volumes	0	141	127	32	108	0	0	0	0	135	0	36	580	
Season Factor	0	141	127	32	108	0	0	0	0	136	0	36	580	
Growth	0	152	137	34	116	0	0	0	0	147	0	39	625	
In/Out	IN	IN	-	-	OUT	-	-	-	-	-	IN	-		
Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midway %	4.0%	1.0%			1.0%			1.0%	4.0%		1.0%			
Village at Midway	29	7			18			18	73		7		153	
LTC Ranch %	2.0%	6.6%			6.6%			14.7%	2.0%		14.7%			
LTC Ranch Volume	46	153			196			437	59		341		1233	
Southern Grove %		0%			0%									
Southern Grove		10			7								17	
Wilson Groves %		0%			0%									
Wilson Groves		12			14								31	
Riverland/Kennedy %		0%			0%									
Riverland/Kennedy		22			21								43	
Western Grove %		1%			1%									
Western Grove		25			30								55	
Total	75	386	137	34	403	0	0	455	132	147	348	39	2156	



		Trips In	Trips Out
Seasonal Factor	1		
Growth Rate	1.005		
Years Grown	15		
Willow Lakes		1,441	1,027
Village at Midway		726	1,824
LTC Ranch		2,320	2,970
Southern Grove		6,950	10,071
Wilson Groves		4,543	5,639
Riverland/Kennedy		7,055	7,277
Western Grove		2,510	2,061

F-183

HCS7 Two-Way Stop-Control Report

General Information

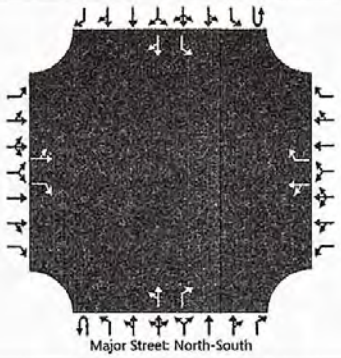
Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/1/2020
Analysis Year	2035
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	without Project

Site Information

#10 w/o AM

Intersection	Glades Cut Off & Commerce
Jurisdiction	St. Lucie
East/West Street	Commerce Centre Dr
North/South Street	Glades Cut Off Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	0	1	1	0	1	1	0
Configuration		LT		R		LT		R		LT		R		L		TR
Volume (veh/h)		0	245	57		183	282	33		95	454	225		61	383	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No				No						
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		258		60		489		35		100				64		
Capacity, c (veh/h)				645				585		1150				881		
v/c Ratio				0.09				0.06		0.09				0.07		
95% Queue Length, Q_{95} (veh)				0.3				0.2		0.3				0.2		
Control Delay (s/veh)				11.2				11.5		8.4				9.4		
Level of Service (LOS)				B				B		A				A		
Approach Delay (s/veh)										1.6				1.3		
Approach LOS																

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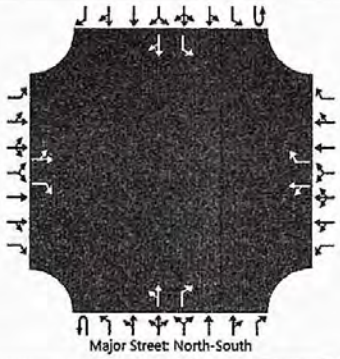
HCS7 Two-Way Stop-Control Report

General Information		Site Information	#10 w/o PM
Analyst	James Kemp	Intersection	Glades Cut Off & Commerce
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie
Date Performed	4/1/2020	East/West Street	Commerce Centre Dr
Analysis Year	2035	North/South Street	Glades Cut Off Rd
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	without Project		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	0	1	1	0	1	1	0
Configuration		LT		R		LT		R		LT		R		L		TR
Volume (veh/h)		0	455	132		147	348	39		75	386	137		34	403	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No				No						
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		479		139		521		41		79				36		
Capacity, c (veh/h)				628				642		1130				1014		
v/c Ratio				0.22				0.06		0.07				0.04		
95% Queue Length, Q_{95} (veh)				0.8				0.2		0.2				0.1		
Control Delay (s/veh)				12.4				11.0		8.4				8.7		
Level of Service (LOS)				B				B		A				A		
Approach Delay (s/veh)										1.5				0.7		
Approach LOS																

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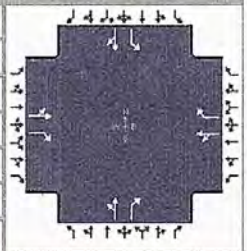
HCS7 Signalized Intersection Results Summary

#10 w/o +Imp AM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Glades Cut Off Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Commerce Centre Dr	File Name	Glades Cut Off & Commerce - AM - 2035 w.o. Pro...		
Project Description	without Project + Imp				

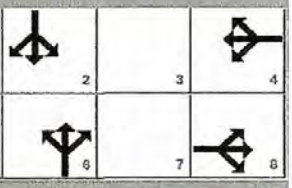


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	245	57	183	282	33	95	454	225	61	383	0

Signal Information			
Cycle, s	95.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	40.0	40.0	0.0	0.0	0.0	0.0	1	2	3	4		
Yellow	5.0	4.0	0.0	0.0	0.0	0.0						
Red	3.0	3.0	0.0	0.0	0.0	0.0	5	6	7	8		



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4		6		2
Case Number		7.0		7.0		7.0		6.0
Phase Duration, s		47.0		47.0		48.0		48.0
Change Period, ($Y+R_c$), s		7.0		7.0		8.0		8.0
Max Allow Headway (*MAH*), s		3.2		3.2		3.2		3.2
Queue Clearance Time (g_s), s		10.6		40.6		42.0		42.0
Green Extension Time (g_e), s		1.8		0.0		0.0		0.0
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		1.00		1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h		0	60		489	35		578	237	64	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln		0	1610		1197	1610		1263	1610	931	0	
Queue Service Time (g_s), s		0.0	2.1		30.0	1.2		25.2	9.5	0.0	0.0	
Cycle Queue Clearance Time (g_c), s		0.0	2.1		38.6	1.2		40.0	9.5	40.0	0.0	
Green Ratio (*g/C*)			0.42		0.42	0.42		0.42	0.42	0.42		
Capacity (*c*), veh/h			678		557	678		576	678	76		
Volume-to-Capacity Ratio (*X*)		0.000	0.089		0.879	0.051		1.003	0.349	0.847	0.000	
Back of Queue (*Q*), ft/ln (95 th percentile)		0	34.2		479.3	20.6		660.4	152.8	117.7	0	
Back of Queue (*Q*), veh/ln (95 th percentile)		0.0	1.4		19.2	0.8		26.4	6.1	4.7	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh			16.5		31.0	16.3		31.7	18.7	47.5		
Incremental Delay (d_2), s/veh		0.0	0.0		17.7	0.1		38.1	0.1	53.3	0.0	
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh			16.6		48.8	16.4		69.8	18.8	100.8		
Level of Service (LOS)			B		D	B		F	B	F		
Approach Delay, s/veh / LOS	18.1	B		46.6	D		55.0	D		31.5	C	
Intersection Delay, s/veh / LOS	42.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.91	B	1.91	B	1.91	B
Bicycle LOS Score / LOS	1.01	A	1.35	A	1.83	B	1.26	A

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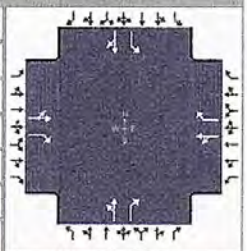
HCS7 Signalized Intersection Results Summary

#10 w/o tmp PM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Glades Cut Off Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Commerce Centre Dr	File Name	Glades Cut Off Commerce - PM - 2035 w.o. Proj...		
Project Description	without Project + Imp				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	455	132	147	348	39	75	386	137	34	403	0

Signal Information			
Cycle, s	100.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB		WB			NB						
Green	40.0	45.0	0.0	0.0	0.0	0.0	1	2	3	4		
Yellow	5.0	4.0	0.0	0.0	0.0	0.0						
Red	3.0	3.0	0.0	0.0	0.0	0.0	5	6	7	8		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4		6		2
Case Number		7.0		7.0		7.0		6.0
Phase Duration, s		52.0		52.0		48.0		48.0
Change Period, ($Y+R_c$), s		7.0		7.0		8.0		8.0
Max Allow Headway (*MAH*), s		3.3		3.3		3.2		3.2
Queue Clearance Time (g_s), s		20.5		47.0		40.9		42.0
Green Extension Time (g_e), s		2.8		0.0		0.0		0.0
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		1.00		1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h		0	139		521	41		485	144	36	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln		0	1449		923	1610		1246	1610	995	0	
Queue Service Time (g_s), s		0.0	5.8		26.5	1.4		21.6	5.9	1.1	0.0	
Cycle Queue Clearance Time (g_c), s		0.0	5.8		45.0	1.4		38.9	5.9	40.0	0.0	
Green Ratio (*g/C*)			0.45		0.45	0.45		0.40	0.40	0.40		
Capacity (*c*), veh/h			652		462	725		540	644	83		
Volume-to-Capacity Ratio (*X*)		0.000	0.213		1.127	0.057		0.898	0.224	0.430	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		0	84.6		800.3	24.4		496.6	97.1	41	0	
Back of Queue (Q), veh/ln (95 th percentile)		0.0	3.4		32.0	1.0		19.9	3.9	1.6	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh			16.7		36.0	15.5		31.9	19.8	49.8		
Incremental Delay (d_2), s/veh		0.0	0.1		81.6	0.1		17.3	0.1	1.3	0.0	
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh			16.8		117.6	15.7		49.2	19.8	51.1		
Level of Service (LOS)			B		F	B		D	B	D		
Approach Delay, s/veh / LOS	19.8	B		110.1	F		42.5	D		25.9	C	
Intersection Delay, s/veh / LOS	49.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.91	B	1.91	B	1.91	B
Bicycle LOS Score / LOS	1.51	B	1.42	A	1.53	B	1.25	A

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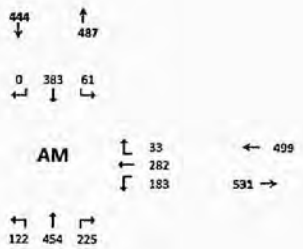
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Glades Cutoff Rd
E/W STREET: Commerce Centre Dr
CONTROL: TWSC
FILENAME: Willow Lakes
COUNT DATE: 2/20/2020
DAY: Thursday
CITY: St Lucie
REPORT DATE:
ANALYSIS YEAR: 2035

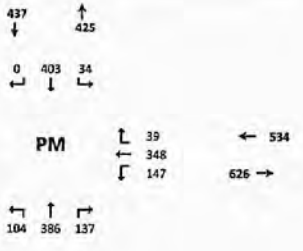
15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	69	53	9	63	0	0	0	0	60	0	6	259	913
7:15-7:30	0	72	78	15	57	0	0	0	0	46	0	11	279	794
7:30-7:45	0	60	43	24	39	0	0	0	0	24	0	6	196	644
7:45-8:00	0	40	35	9	46	0	0	0	0	31	0	8	169	567
8:00-8:15	0	38	32	7	42	0	0	0	0	27	0	4	150	499
8:15-8:30	0	35	27	6	35	0	0	0	0	23	0	3	129	
8:30-8:45	0	37	27	8	21	0	0	0	0	20	0	6	119	
8:45-9:00	0	21	21	7	26	0	0	0	0	23	0	3	101	
AM PEAK HOUR IS FROM:	7:00AM TO 8:00AM													
Volumes	0	241	209	57	205	0	0	0	0	170	0	31	913	
Season Factor	0	241	209	57	205	0	0	0	0	170	0	31	913	
Growth	0	260	225	61	221	0	0	0	0	183	0	33	984	
In/Out	IN	IN	-	-	OUT	IN	OUT	OUT	OUT	-	IN	-		
Percentage	2%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%		
PROJECT	27	0	0	0	0	0	0	0	21	0	0	0	48	
Midway %	4%	1%			1%			1%	4%		1%			
Village at Midway	58	15			6			6	34		15		123	
LTC Ranch %	2.0%	6.6%			6.6%			14.7%	2.0%		14.7%			
LTC Ranch Volume	36	120			107			239	32		268		801	
Southern Grove %		0.1%			0.1%									
Southern Grove		5			6								11	
Wilson Groves %		0.3%			0.3%									
Wilson Groves		11			12								23	
Riverland/Kennedy %		0.3%			0.3%									
Riverland/Kennedy		17			14								31	
Western Grove %		1.2%			1.2%									
Western Grove		26			16								42	
Total	122	454	225	61	383	0	0	245	78	183	282	33	2066	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,355	1,065
Village at Midway	1,451	603
LTC Ranch	1,823	1,624
Southern Grove	6,218	5,213
Wilson Groves	3,875	3,807
Riverland/Kennedy	4,791	5,568
Western Grove	1,352	2,133

15 Min Period lanes	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	32	20	11	21	0	0	0	0	25	0	8	117	574
4:15-4:30	0	33	18	14	34	0	0	0	0	19	0	12	130	564
4:30-4:45	0	35	24	7	26	0	0	0	0	28	0	21	141	564
4:45-5:00	0	21	34	6	30	0	0	0	0	29	0	16	136	580
5:00-5:15	0	36	31	9	31	0	0	0	0	40	0	10	157	547
5:15-5:30	0	39	24	3	22	0	0	0	0	35	0	7	130	
5:30-5:45	0	45	38	14	25	0	0	0	0	32	0	3	157	
5:45-6:00	0	22	29	4	20	0	0	0	0	23	0	5	103	
PM PEAK HOUR IS FROM:	4:45PM TO 5:45PM													
Volumes	0	141	127	32	108	0	0	0	0	136	0	36	580	
Season Factor	0	141	127	32	108	0	0	0	0	136	0	36	580	
Growth	0	152	137	34	116	0	0	0	0	147	0	39	625	
In/Out	IN	IN	-	-	OUT	IN	OUT	OUT	OUT	-	IN	-		
Percentage	2%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%		
PROJECT	29	0	0	0	0	0	0	0	21	0	0	0	50	
Midway %	4.0%	1.0%			1.0%			1.0%	4.0%		1.0%			
Village at Midway	29	7			18			18	73		7		153	
LTC Ranch %	2.0%	6.6%			6.6%			14.7%	2.0%		14.7%			
LTC Ranch Volume	46	153			196			437	59		341		1233	
Southern Grove %		0%			0%									
Southern Grove		10			7								17	
Wilson Groves %		0%			0%									
Wilson Groves		17			14								31	
Riverland/Kennedy %		0%			0%									
Riverland/Kennedy		22			21								43	
Western Grove %		1%			1%									
Western Grove		25			30								55	
Total	104	386	137	34	403	0	0	455	153	147	348	39	2206	



Seasonal Factor: 1
Growth Rate: 1.005
Years Grown: 15

	Trips In	Trips Out
Willow Lakes	1,450	1,036
Village at Midway	726	1,824
LTC Ranch	2,220	2,970
Southern Grove	6,990	10,071
Wilson Groves	4,543	5,639
Riverland/Kennedy	7,095	7,277
Western Grove	2,510	2,061

F-188

#10 with

HCS7 Two-Way Stop-Control Report

General Information

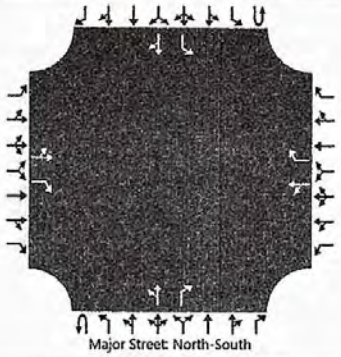
Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/1/2020
Analysis Year	2035
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	with Project

Site Information

#10 w/ PAM

Intersection	Glades Cut Off & Commerce
Jurisdiction	St. Lucie
East/West Street	Commerce Centre Dr
North/South Street	Glades Cut Off Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	0	1	1	0	1	1	0
Configuration		LT		R		LT		R		LT		R		L		TR
Volume (veh/h)		0	245	78		183	282	33		122	454	225		61	383	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No				No						
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		258		82		489		35		128				64		
Capacity, c (veh/h)				645				585		1150				881		
v/c Ratio				0.13				0.06		0.11				0.07		
95% Queue Length, Q_{95} (veh)				0.4				0.2		0.4				0.2		
Control Delay (s/veh)				11.4				11.5		8.5				9.4		
Level of Service (LOS)				B				B		A				A		
Approach Delay (s/veh)										2.0				1.3		
Approach LOS																

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HCS7 Two-Way Stop-Control Report

General Information

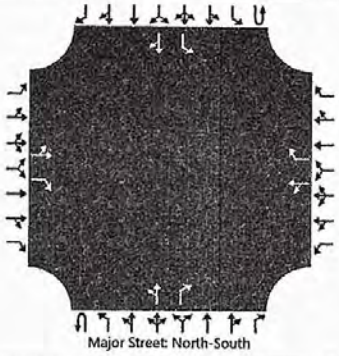
Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/1/2020
Analysis Year	2035
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	with Project

Site Information

#10 w/p PM

Intersection	Glades Cut Off & Commerce
Jurisdiction	St. Lucie
East/West Street	Commerce Centre Dr
North/South Street	Glades Cut Off Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	1	0	0	1	1	0	1	1	0
Configuration		LT		R		LT		R		LT		R		L		TR
Volume (veh/h)		0	455	153		147	348	39		104	386	137		34	403	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized		No				No				No						
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		479		161		521		41		109				36		
Capacity, c (veh/h)				628				642		1130				1014		
v/c Ratio				0.26				0.06		0.10				0.04		
95% Queue Length, Q_{95} (veh)				1.0				0.2		0.3				0.1		
Control Delay (s/veh)				12.7				11.0		8.5				8.7		
Level of Service (LOS)				B				B		A				A		
Approach Delay (s/veh)										2.1				0.7		
Approach LOS																

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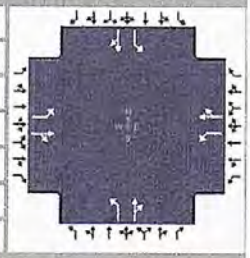
HCS7 Signalized Intersection Results Summary

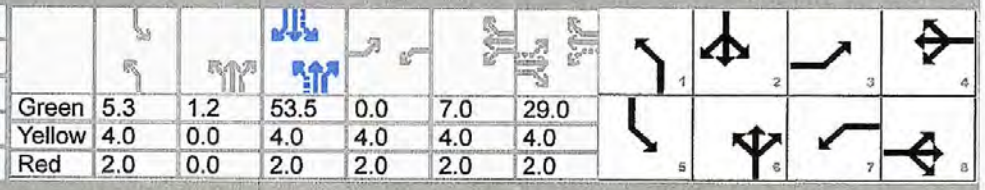
#10 W/P + IMP AM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Glades Cut Off Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Commerce Centre Dr	File Name	Glades Cut Off & Commerce - AM - 2035 with Pro...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	245	78	183	282	33	122	454	225	61	383	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	5.3	1.2		53.5	0.0	7.0	29.0					
Yellow	4.0	0.0		4.0	4.0	4.0	4.0					
Red	2.0	0.0		2.0	2.0	2.0	2.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	0.0	35.0	13.0	48.0	12.5	60.7	11.3	59.5
Change Period, (*Y+R c*), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	0.0	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (*g s*), s		22.9	9.0	18.9	6.6		4.3	
Green Extension Time (*g e*), s	0.0	0.9	0.0	1.3	0.0	0.0	0.1	0.0
Phase Call Probability		1.00	1.00	1.00	0.99		0.88	
Max Out Probability		0.23	1.00	0.00	1.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	0	340		193	332		128	715		64	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1821		1810	1865		1810	1793		1810	0	
Queue Service Time (*g s*), s	0.0	20.9		7.0	16.9		4.6	43.3		2.3	0.0	
Cycle Queue Clearance Time (*g c*), s	0.0	20.9		7.0	16.9		4.6	43.3		2.3	0.0	
Green Ratio (*g/C*)	0.19	0.24		0.32	0.35		0.50	0.46		0.49		
Capacity (*c*), veh/h	266	440		236	653		454	818		199		
Volume-to-Capacity Ratio (*X*)	0.000	0.773		0.815	0.508		0.283	0.874		0.323	0.000	
Back of Queue (*Q*), ft/ln (95 th percentile)	0	385.8		156.7	315.9		84.8	703.9		42.4	0	
Back of Queue (*Q*), veh/ln (95 th percentile)	0.0	15.4		6.3	12.6		3.4	28.2		1.7	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Uniform Delay (*d 1*), s/veh	0.0	42.4		39.6	30.8		17.7	29.5		25.0		
Incremental Delay (*d 2*), s/veh	0.0	7.5		18.1	2.8		0.1	12.5		0.3	0.0	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	0.0	50.0		57.7	33.7		17.8	42.1		25.4		
Level of Service (LOS)		D		E	C		B	D		C		
Approach Delay, s/veh / LOS	50.0	D		42.5	D		38.4	D		25.3	C	
Intersection Delay, s/veh / LOS	38.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.94	B	1.93	B	1.91	B	1.91	B
Bicycle LOS Score / LOS	1.05	A	1.35	A	1.88	B	1.26	A

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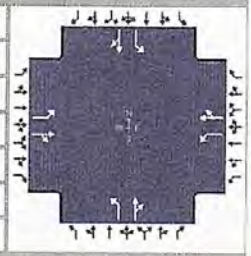
HCS7 Signalized Intersection Input Data

#10 w/P+IMP AM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Glades Cut Off Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Commerce Centre Dr	File Name	Glades Cut Off & Commerce - AM - 2035 with Pro...		
Project Description	with Project + Improvements				

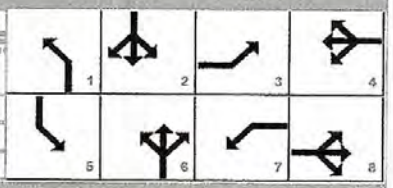


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	245	78	183	282	33	122	454	225	61	383	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	5.3	1.2		53.5	0.0	7.0	29.0					
Yellow	4.0	0.0		4.0	4.0	4.0	4.0					
Red	2.0	0.0		2.0	2.0	2.0	2.0					



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	245	78	183	282	33	122	454	225	61	383	0
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h	0	L			None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0		0	0		0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	35.0	13.0	35.0	15.0	16.0	56.0	57.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	7	6	7	6	10	6	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Max	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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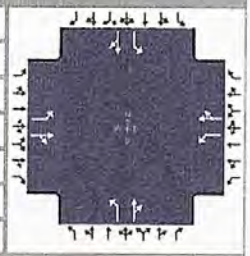
HCS7 Signalized Intersection Results Summary #10 WIP + 2nd PM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Glades Cut Off Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Commerce Centre Dr	File Name	Glades Cut Off Commerce - PM - 2035 with Proj...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	455	153	147	348	39	104	386	137	34	403	0

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.5	2.5	44.0	0.0	9.6	55.5	1	2	3	4		
Yellow	4.0	0.0	4.0	4.0	4.0	4.0	5	6	7	8		
Red	2.0	0.0	2.0	2.0	2.0	2.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	0.0	61.5	15.6	77.0	13.0	52.5	10.5	50.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (*MAH*), s	0.0	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s		56.3	9.3	21.3	7.7		3.8	
Green Extension Time (g_e), s	0.0	0.0	0.3	2.2	0.0	0.0	0.0	0.0
Phase Call Probability		1.00	1.00	1.00	0.99		0.75	
Max Out Probability		1.00	0.00	0.00	1.00		0.99	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	0	640		155	407		109	551		36	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1636		1810	1866		1810	1814		1810	0	
Queue Service Time (g_s), s	0.0	54.3		7.3	19.3		5.7	40.7		1.8	0.0	
Cycle Queue Clearance Time (g_c), s	0.0	54.3		7.3	19.3		5.7	40.7		1.8	0.0	
Green Ratio (*g/C*)	0.35	0.40		0.48	0.51		0.36	0.33		0.35		
Capacity (*c*), veh/h	404	648		181	947		257	602		134		
Volume-to-Capacity Ratio (*X*)	0.000	0.987		0.853	0.430		0.426	0.914		0.266	0.000	
Back of Queue (*Q*), ft/ln (95 th percentile)	0	893.4		151.4	339.6		114.6	728.8		37.3	0	
Back of Queue (*Q*), veh/ln (95 th percentile)	0.0	35.7		6.1	13.6		4.6	29.2		1.5	0.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	0.0	41.9		35.5	21.7		33.2	44.9		36.5		
Incremental Delay (d_2), s/veh	0.0	32.0		4.3	1.4		0.4	20.7		0.4	0.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	0.0	73.9		39.8	23.2		33.6	65.6		36.9		
Level of Service (LOS)		E		D	C		C	E		D		
Approach Delay, s/veh / LOS	73.9	E		27.7	C		60.3	E		48.6	D	
Intersection Delay, s/veh / LOS	53.8						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.93	B	1.91	B	1.94	B	1.94	B
Bicycle LOS Score / LOS	1.54	B	1.42	A	1.58	B	1.25	A

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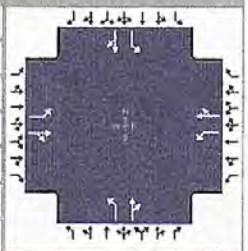
HCS7 Signalized Intersection Input Data #10 W/ + IMP PM

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Glades Cut Off Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Commerce Centre Dr	File Name	Glades Cut Off & Commerce - PM - 2035 with Pro...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	0	455	153	147	348	39	104	386	137	34	403	0

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.5	2.5	44.0	0.0	9.6	55.5	1	2	3	4		
Yellow	4.0	0.0	4.0	4.0	4.0	4.0	5	6	7	8		
Red	2.0	0.0	2.0	2.0	2.0	2.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	455	153	147	348	39	104	386	137	34	403	0
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		R	0		None			None			None	
Heavy Vehicles (P_{HV}), %	0	0		0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0		0	0		0	0		0	0	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	63.0	14.0	63.0	14.0	13.0	50.0	13.0	50.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G_{min}), s	6	7	6	7	6	10	6	10
Start-Up Lost Time (*l1*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Max	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50	No		0.50

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THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

PUBLIC NOTIFICATION CERTIFICATION

PROJECT NAME: Zoning Atlas Map Amendment - Willow Lakes - 10050 W. Midway Road

NOTICES PROVIDED PURSUANT TO: City Code Section 125-37

NOTICE BY NEWSPAPER: September 6th, 2020

NOTICE BY MAIL: September 9th, 2020

NOTICE BY SIGNS: September 10th, 2020

VERIFIED BY: Vennis Gilmore **TITLE:** Planner

SIGNATURE: **DATE:** September 10th, 2020

1
Walton International Group (USA) INC
P O Box 2249
Cumming; GA 30028-6501

2
NSLRWCD
14666 Orange Ave
Fort Pierce; FL 34945-4511

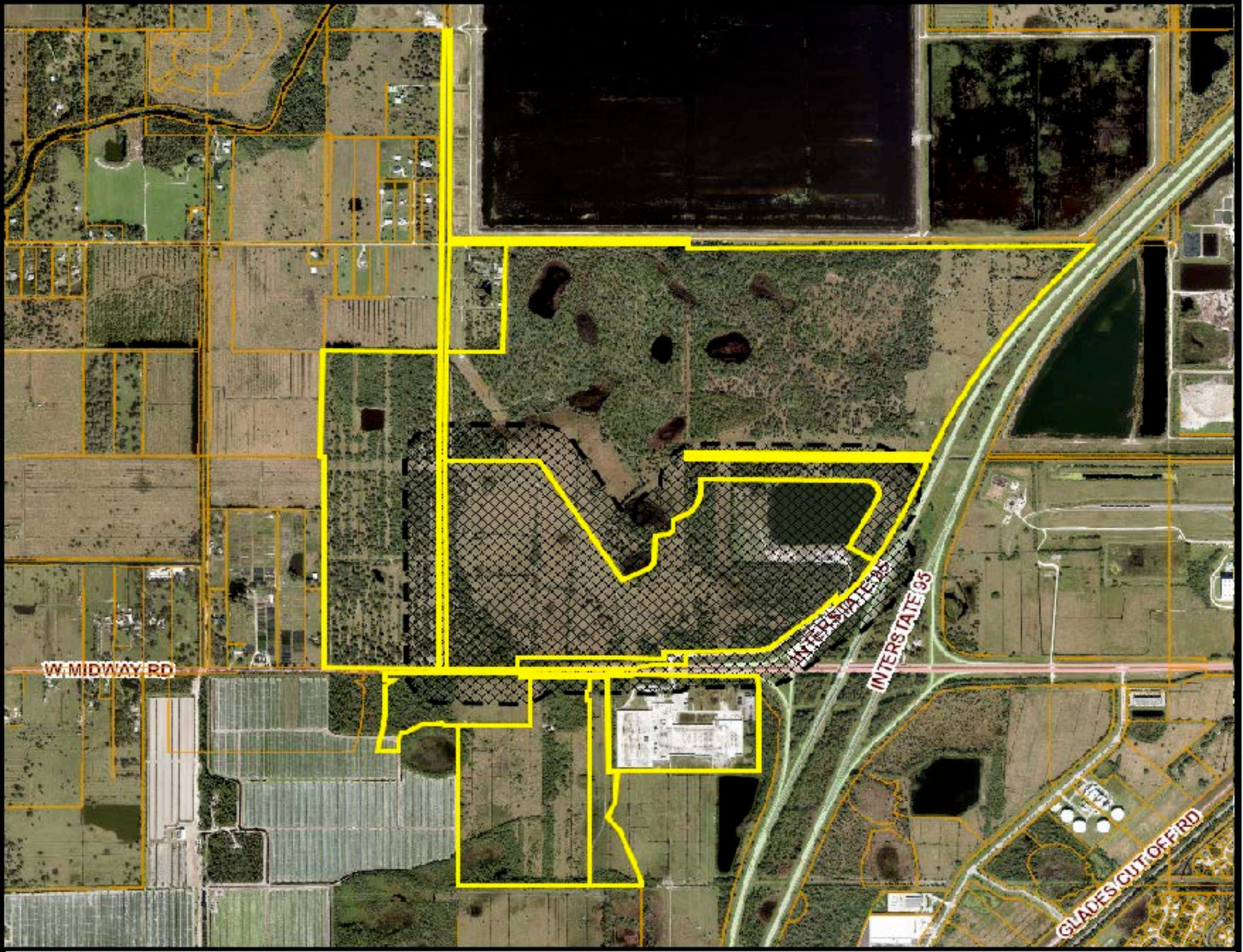
3
Willow Lakes LLC
433 S Main ST; Unit Ste 300
West Hartford; CT 06110-2810

4
LTC Midway LLC
7995 Mahogany Run LN
Naples; FL 34113-1625

5
Florida Power and Light Company
700 Universe Blvd PSX/JB
Juno Beach; FL 33408-2657

6
Laurent Groll
284 South Island
Golden Beach; FL 33160

7
State Of Florida Dot
3400 W Commercial Blvd
Fort Lauderdale; FL 33309-3421



Location Buffer Map

10050 W. Midway Road

Willow Lakes

THE SUNRISE CITY
FORT PIERCE
Florida

City Commission Regular Meeting - 6:00 pm **12. b.**

Meeting Date: 10/05/2020

Re: Future Land Use Map Amendment - Aria Apartments - 3000 Okeechobee Road

Submitted For: Jennifer Hofmeister, Planning Director, Planning & Zoning

---

SUBJECT:

Legislative Hearing - ORDINANCE 20-023 AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA; AMENDING THE FUTURE LAND USE MAP OF THE COMPREHENSIVE PLAN TO CHANGE THE DESIGNATION OF PROPERTY GENERALLY LOCATED AT OR NEAR 3000 OKEECHOBEE ROAD, FROM GENERAL COMMERCIAL, GC, TO MEDIUM DENSITY RESIDENTIAL, RM; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; PROVIDING FOR AN EFFECTIVE DATE. SECOND READING

SUMMARY:

- The subject Future Land Use Map Amendment from General Commercial (GC) to Medium Density Residential (RM) will provide for a land use that is consistent with the applicant's proposed vision of an Innovative Residential Multi-Family Development and the City's desired development pattern for the subject site and surrounding area.
- The RM Future Land Use Category, as defined in the Future Land Use Element of the City's Comprehensive Plan, calls for parcels that are best suited for multi-family residential uses
- As the City's Zoning Map and Land Development Regulations must be consistent with the Future Land Use and accompanying land use category specifications contained in the Future Land Use Element, the subject application also includes a rezoning for the same subject parcel from General Commercial (C-3) to Medium Density Residential (R-4).

RECOMMENDATION:

The requested Application for Future Land Use Map Amendment meets the criteria specified in Section 125-136 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience, and general welfare. Therefore, Staff recommends **APPROVAL** of the request to change the Future Land Use Designation from General Commercial (GC) to Medium Density Residential (RM).

ALTERNATIVES:

Denial

RESPONSIBLE STAFF:

Vennis Gilmore, Planner

COORDINATED WITH:

Technical Review Committee

Fiscal Impact

OTHER INFORMATION:

Potential Increase In Ad-Valorem Tax Revenue

Attachments

Ordinance 20-023
staff presentation
Staff Report & Supporting Documents
Application Packet & Supporting Documents
Public Notice Certification

Form Review

Inbox	Reviewed By	Date
City Manager	Vennis Gilmore	09/09/2020 04:42 PM
City Manager	Nick Mimms	09/11/2020 12:07 PM

Form Started By: Vennis Gilmore Started On: 09/09/2020 01:51 PM
Final Approval Date: 09/22/2020

ORDINANCE NO. 20-023

AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA; **AMENDING THE FUTURE LAND USE MAP OF THE COMPREHENSIVE PLAN TO CHANGE THE DESIGNATION OF PROPERTY GENERALLY LOCATED AT OR NEAR 3000 OKEECHOBEE ROAD, FROM GENERAL COMMERCIAL, GC, TO MEDIUM DENSITY RESIDENTIAL, RM;** PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the subject property is generally located at or near 3000 Okeechobee Road, within the City of Fort Pierce, Florida, representing approximately 6.796 acres of land; and

WHEREAS, the subject property is included in a proposed site plan for a multi-family development; and

WHEREAS, the subject property is also included in a zoning atlas amendment for the proposed multi-family development; and

WHEREAS, the subject property, generally located at or near 3000 Okeechobee Road, is presently designated GC, General Commercial; and

WHEREAS, the applicant seeks a future land use amendment of the subject property, generally located at or near 3000 Okeechobee Road, from GC, General Commercial to RM, Medium Density Residential; and

WHEREAS, the proposed future land use amendment is consistent with the comprehensive plan, and will not have an adverse effect on the ability of the city to satisfy land and water use needs, and meet transportation demands and provide community facilities and services, and will promote and protect the public health, safety and general welfare as required by City Code section 125-136; and

WHEREAS, the City of Fort Pierce Planning Board, at their August 11th, 2020 meeting, voted to recommend approval of the proposed Future Land Use Amendment for this parcel; and

WHEREAS, the City of Fort Pierce has adopted a Comprehensive Plan known as the City of Fort Pierce Comprehensive Plan adopted by Ordinance No. L-136, as subsequently amended; and

WHEREAS, changing the future land use designation requires an amendment to the Comprehensive Plan, pursuant to section 163.3187, Florida Statutes; and

WHEREAS, the City of Fort Pierce Planning Board having been duly designated as the Local Planning Agency pursuant to section 163.3174 et seq., Florida Statutes, and having held a public hearing thereon, has considered this proposed amendment to the Comprehensive Plan and submitted its recommendations thereon to the City Commission; and

WHEREAS, two (2) public hearings with due notice have been held by the City Commission to inform the public and receive comments and objections; and

WHEREAS, the City of Fort Pierce desires to hereby formally adopt this amendment to the City's Comprehensive Plan.

NOW, THEREFORE, BE IT ORDAINED by the City Commission of the City of Fort Pierce, Florida as follows:

SECTION 1. The preceding "whereas" clauses are ratified and incorporated as the legislative intent of this ordinance.

SECTION 2. The Comprehensive Plan of the City of Fort Pierce is hereby amended as follows:

From and after the effective date hereof, the following property legally described as:

Parcel ID: 2417-504-0020-001-6

LEGAL DESCRIPTION:

BLOCK "D", LESS RIGHTS-OF-WAY, COLLIER SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A RAILROAD SPIKE AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST, LUCIE COUNTY, FLORIDA; THENCE RUN N 88°42'30"E, ALONG THE SOUTH LINE OF THE SAID NORTHEAST 1/4, A DISTANCE OF 661.40 FEET TO THE WEST LINE OF BLOCK "D" OF COLLIER'S SUBDIVISION, AS RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE RUN N 00°00'18" W, ALONG THE WEST LINE OF SAID BLOCK D, A DISTANCE OF 27.01 FEET, TO THE POINT OF BEGINNING; THENCE CONTINUE N 00°00'18" W, A DISTANCE OF 796.62 FEET, TO THE NORTHWEST CORNER OF SAID BLOCK D; THENCE RUN N 88°43'25" E, ALONG THE NORTH LINE OF SAID BLOCK D, A DISTANCE OF 460.00 FEET; THENCE RUN S 00°04'02" W, A DISTANCE OF 470.52 FEET, TO THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70]; THENCE RUN S 49°35'30" W, ALONG THE SAID NORTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 516.56 FEET; THENCE RUN S 88°42'30" W, A DISTANCE OF 65.96 FEET, TO THE POINT OF BEGINNING, ALL LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THE FOLLOWING:

A PORTION OF BLOCK "D", COLLIER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 4, PAGE 63, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SAID BLOCK "D", SAID CORNER BEING SITUATED ON THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70]; THENCE, NORTH 28°001/23" W, A DISTANCE OF 167.87 FEET; THENCE, NORTH 89°51'15" E, A DISTANCE OF 79.00 FEET TO THE EAST LINE OF SAID BLOCK D; THENCE, SOUTH 00°04'02" W, ALONG SAID EAST LINE, A DISTANCE OF 148.41 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.

SAID LANDS SITUATE, LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST,

CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA.

Said property being generally located at or near 3000 Okeechobee Road, in Fort Pierce, Florida shall be and the Future Land Use Designation is hereby changed from General Commercial, GC, to Medium Density Residential, RM, as depicted on Exhibit “A”, attached hereto and incorporated herein.

SECTION 3. The provisions of this Ordinance are declared to be severable and if any section, sentence, clause, or phrase of this Ordinance shall, for any reason, be held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining sections, sentences, clauses, and phrases of this Ordinance but shall remain in effect, it being the legislative intent that this Ordinance shall stand notwithstanding the invalidity of any part.

SECTION 4. All ordinances or parts of ordinances in conflict herewith are and the same shall be repealed and shall be of no further force or effect whatsoever.

SECTION 5. This Ordinance is and the same shall become effective immediately upon final passage.

APPROVED AS TO FORM & CORRECTNESS:

_____
Peter J. Sweeney, Esq.
City Attorney

STATE OF FLORIDA

COUNTY OF ST. LUCIE

WE, THE UNDERSIGNED, Mayor Commissioner and the City Clerk of the City of Fort Pierce, Florida, do hereby certify that the foregoing and above Ordinance No.20-023 was duly advertised accordance with section 163.3187, Florida Statutes by display advertising in the St. Lucie News Tribune on September 6th, 2020 and on September 13th, 2020; copy of said Ordinance was made available at the office of the City Clerk to the public upon request; said Ordinance was duly introduced, read by title only, and passed on first reading by the City Commission of the City of Fort Pierce, Florida, on September 21st, 2020; and was duly introduced, read by title only, and passed on second and final reading October 5th, 2020, by the City Commission of the City of Fort Pierce, Florida.

IN WITNESS HEREWITH, we hereunto set our hands and affix the Official Seal of the City of Fort Pierce, Florida, this 6th day of October 2020.

_____
Linda Hudson
Mayor Commissioner

ATTEST:

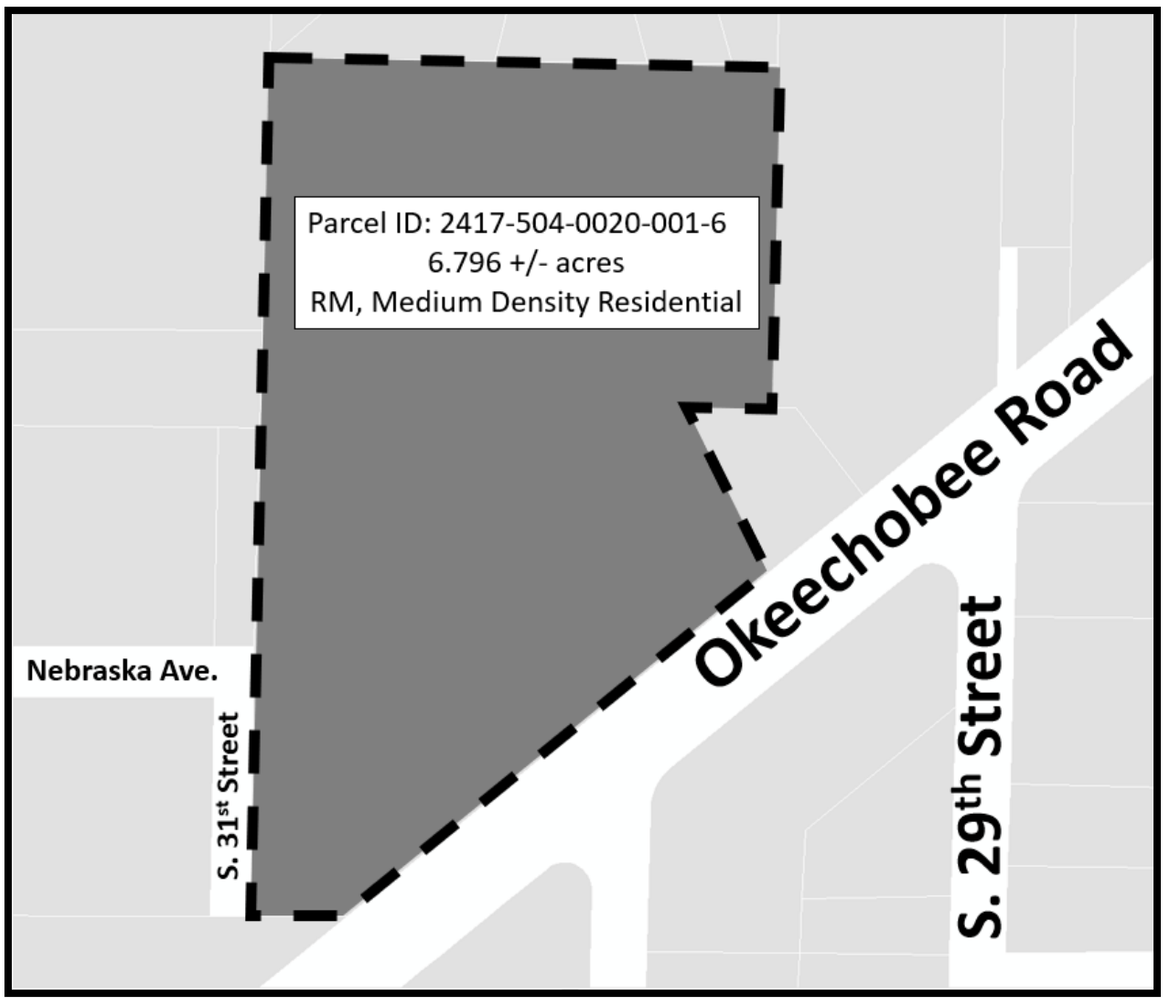
_____
Linda W. Cox
City Clerk

(City Seal)

EXHIBIT A

Proposed Future Land Use

Medium Density Residential, RM



Future Land Use Map Amendment

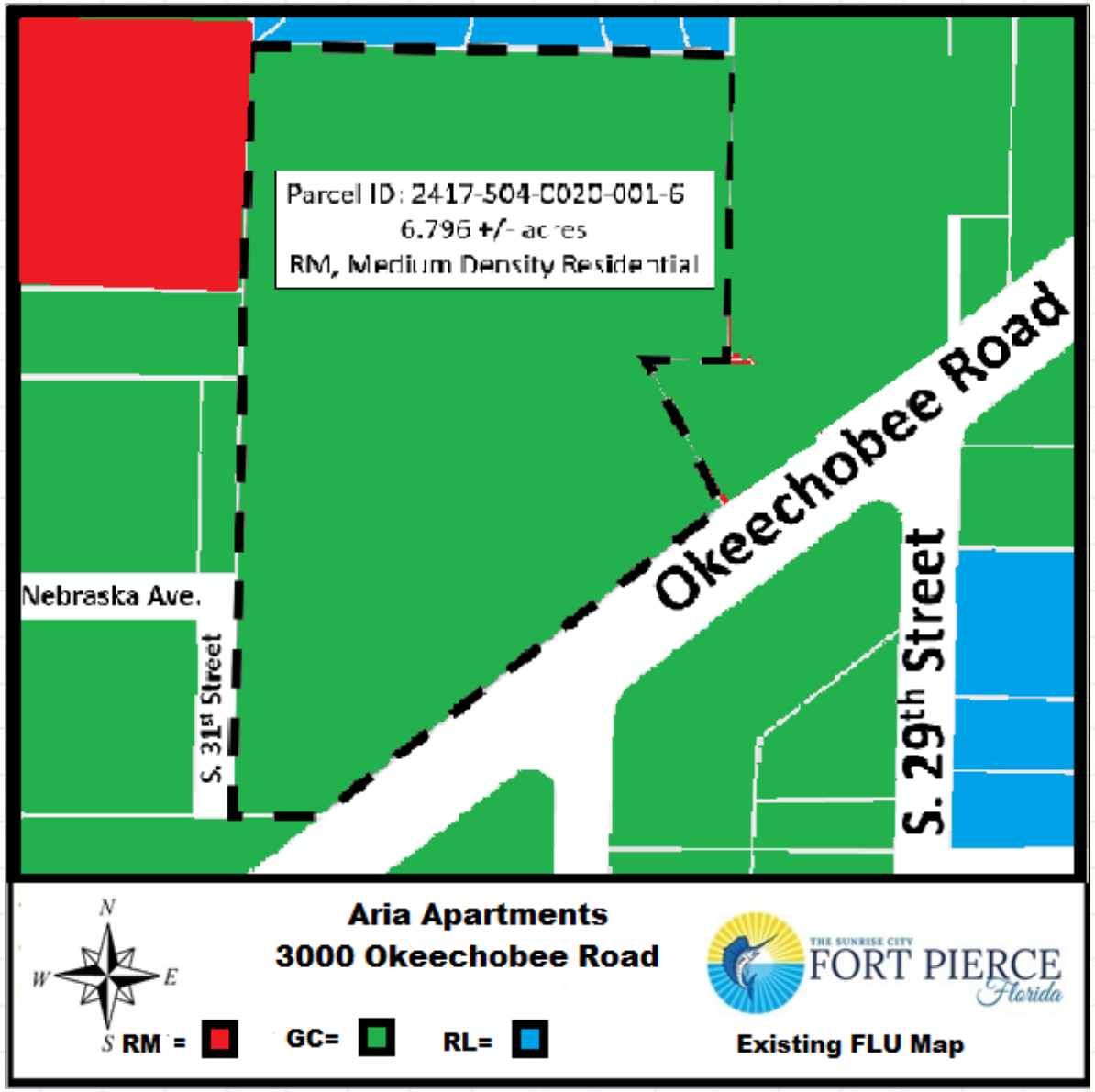


3000 Okeechobee Road

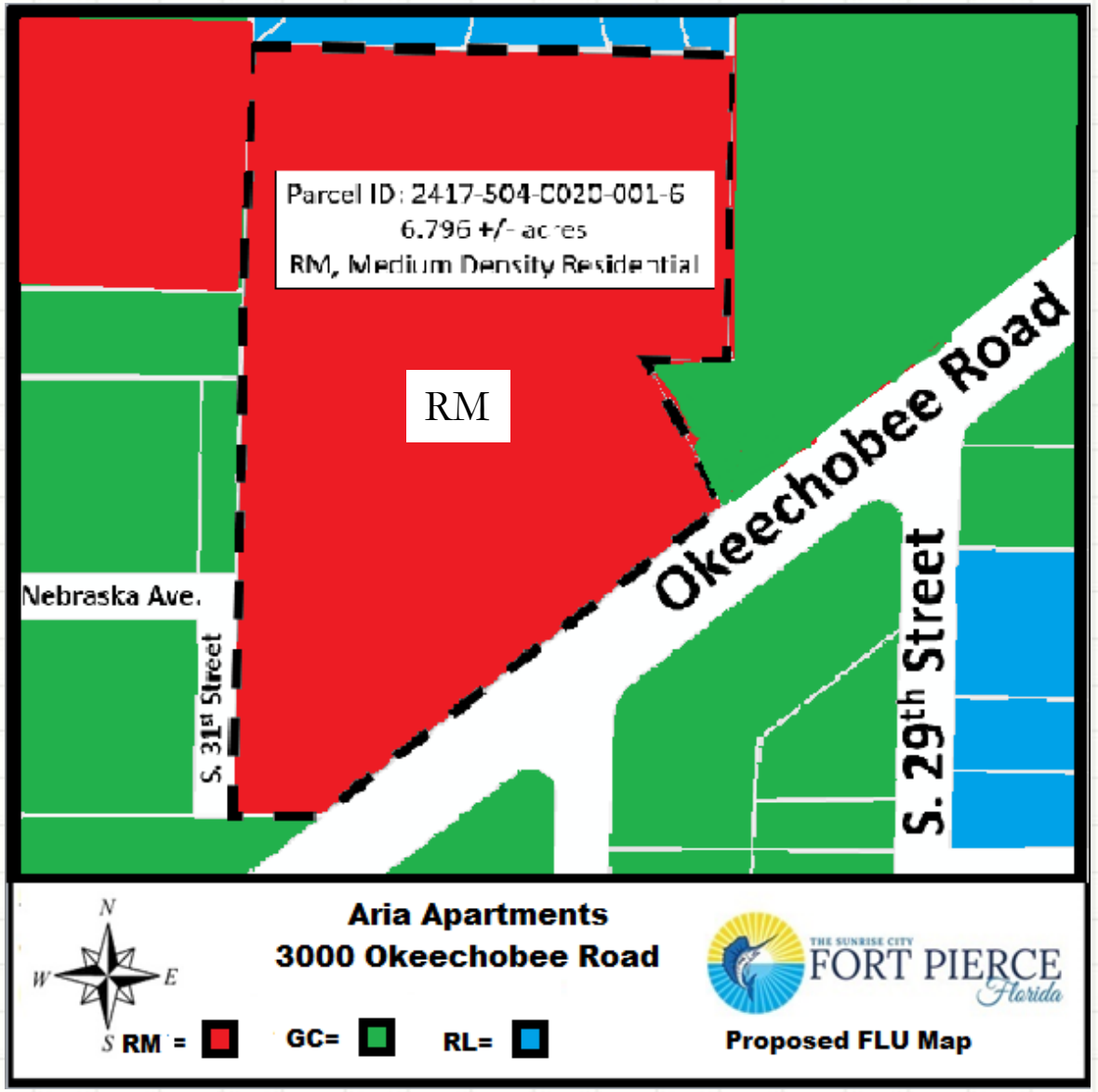
Aerial Map


OKEECHOBEE RD
N
W
E
S
Aria Apartments
3000 Okeechobee Road
THE SUNRISE CITY
FORT PIERCE
Florida
Aerial Map

Current Future Land Use Map



Proposed Future Land Use Map



Staff Recommendation

Future Land Use change for one (1) parcel from General Commercial (GC) to Medium Density Residential (RM)

- Staff recommends **Approval** of the request
  - ❑ Consistent with surrounding Future Land Uses
  - ❑ Consistent with Section 125-136 of City Code & the Comprehensive Plan
  - ❑ Does not adversely affect the public health, safety, convenience and general welfare

Planning Board Recommendation

At the Planning Board August 11, 2020 meeting, recommended 7-0 **Approval** of the Map Amendment.

CC Action

Possible actions of the City Commission:

- APPROVAL of the proposed FLUM Amendment
    - Staff recommends that the City Commission APPROVE the proposed Amendment.
- DISAPPROVAL of the proposed Amendment

Future Land Use Map Amendment



3000 Okeechobee Road

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO:	Nick C. Mimms, P.E., ICMA-CM, City Manager
THROUGH:	Jennifer Hofmeister, AICP, LCAM, Planning Director
FROM:	Vennis Gilmore, Planner
RE:	**Application for Future Land Use Map Amendment** **Application for Zoning Atlas Map Amendment** **Aria Apartments**
BOARD DATE:	September 21, 2020

STAFF REPORT

Property Owner/Applicant:	Arrow Investment Group, LLC 4512 N. Flagler Drive, Suite 2056 West Palm Beach, FL 33407
Requested Action:	Approval to amend the Future Land Use Map designation for one (1) parcel from General Commercial (GC) to Medium Density Residential (RM) Approval to Rezone one (1) parcel from General Commercial (C-3) to Medium Density Residential (R-4).
Site Location:	3000 Okeechobee Road
Parcel IDs:	2417-504-0020-001-6
Existing Use:	Vacant
Parcel Size:	6.796 +/- Acres
Current Future Land Use:	General Commercial (GC)
Current Zoning:	General Commercial (C-3)
Proposed Future Land Use:	Medium Density Residential (RM)
Proposed Zoning:	Medium Density Residential (R-4)

	North	East	South	West
Surrounding FLU:	Low Density Residential (RL)	General Commercial (GC)	General Commercial (GC)	(GC) and Medium Density Residential (RM)
Surrounding Zoning:	Single-Family Intermediate (R-2)	General Commercial (C-3)	General Commercial (C-3)	(C-3) and Medium Density Residential (R-4)

Staff Analysis

Request

The subject Future Land Use Map Amendment from General Commercial (GC) to Medium Density Residential (RM) will provide for a land use that is consistent with the applicant's proposed vision of an Innovative Residential Multi-Family Development and the City's desired development pattern for the subject site and surrounding area. The RM Future Land Use Category, as defined in the Future Land Use Element of the City's Comprehensive Plan, calls for parcels that are best suited for multi-family residential uses. As the City's Zoning Map and Land Development Regulations must be consistent with the Future Land Use and accompanying land use category specifications contained in the Future Land Use Element, the subject application also includes a rezoning for the same subject parcel from General Commercial (C-3) to Medium Density Residential (R-4).

Subsequent to the subject map amendments, separate applications for Development Review, Design Review, and Conditional Use (Innovative Residential Development) will be submitted for review and approval that will include a request for density bonuses specific to the subject property.

Future Land Use and Zoning Designation Comparison

The subject property currently has a Future Land Use and Zoning designation of Commercial, which was, at a point in time, an appropriate designation as the site abuts Okeechobee Road, a major east/west corridor in the City. More recently, however, the development pattern has shifted to a horizontal mix of both residential and commercial uses as this corridor transitions into Delaware Avenue, a corridor that transverses the Peacock District. The Peacock Overlay District is envisioned as a destination for neighborhood serving uses. The proposed land use and zoning map amendments will promote the City's vision for this corridor and the surrounding area.

As the development of the subject parcel is a vital component to the redevelopment effort of this targeted area, it is staff's professional opinion that the proposed land use and zoning for the

subject property of Residential Medium (RM) and Medium Density Residential (R-4), respectfully, is appropriate and supported.

Standards for Review

Pursuant to Chapter 163.3187, F.S., a small-scale development amendment may be adopted under the following conditions:

a) The proposed amendment involves a use of 10 acres or fewer; and
b) The proposed amendment does not involve a text change to the goals, policies, and objectives of the local government's comprehensive plan, but only proposes a land use change to the future land use map for a site-specific small-scale development activity. However, text changes that relate directly to, and are adopted simultaneously with, the small-scale future land use map amendment shall be permissible under this section.

Small scale development amendments adopted pursuant to this section require only one public hearing before the governing board, which shall be the adoption hearing.

Regarding the requested rezoning, pursuant to Article IX, City Code of Ordinances, a proposed change of district or text may be initiated by the City Commission, the City Planning Board or by petition of one or more of the property owners or affected residents within the area proposed to be changed or affected by a change in the district map or text.

The following standards must be satisfied per Section 125-136 of the City Code prior to the approval of the requested amendment:

(1) The amendment is consistent with the Comprehensive Plan.
(2) The amendment will not have an adverse effect on the ability of the City to:
    a. Satisfy land and water use needs; and
    b. Meet transportation demands and provide community facilities and services.
(3) The amendment will promote and protect the public health, safety, and general welfare.

The proposed amendment is consistent with and furthers the Goals, Objectives, and Policies of the City's Comprehensive Plan. The Zoning Atlas Map Amendment promotes and protects the public health, safety, and general welfare as the request as proposed is in character and similar with the surrounding area, land uses and zoning designations.

Technical Review Committee (TRC)

All affected City and County Departments have reviewed the proposed Future Land Use Map and Zoning Atlas Map Amendments and there were no comments from the TRC.

Property Owner Response Summary

A total of 64 notifications of the Zoning Atlas Amendment proposal were mailed to the owners of property located within 500 feet of the subject property. An update will be provided to the City Commission at the public hearing.

Planning Board Recommendation

The Planning Board, at their August 11th, 2020 meeting, voted unanimously to recommend **Approval** of both requests.

Staff Recommendation Future Land Use Map Amendment

The requested Application for Future Land Use Map Amendment meets the criteria specified in Section 125-136 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience, and general welfare. Therefore, Staff recommends **APPROVAL** of the request to change the Future Land Use Designation from General Commercial (GC) to Medium Density Residential (RM).

Staff Recommendation Zoning Atlas Map Amendment

The requested Application for Zoning Atlas Map Amendment meets the criteria specified in Section 125-136 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience and general welfare. Therefore, Staff recommends **APPROVAL** of the request to change the Zoning Designation from General Commercial (C-3) to Medium Density Residential (R-4).



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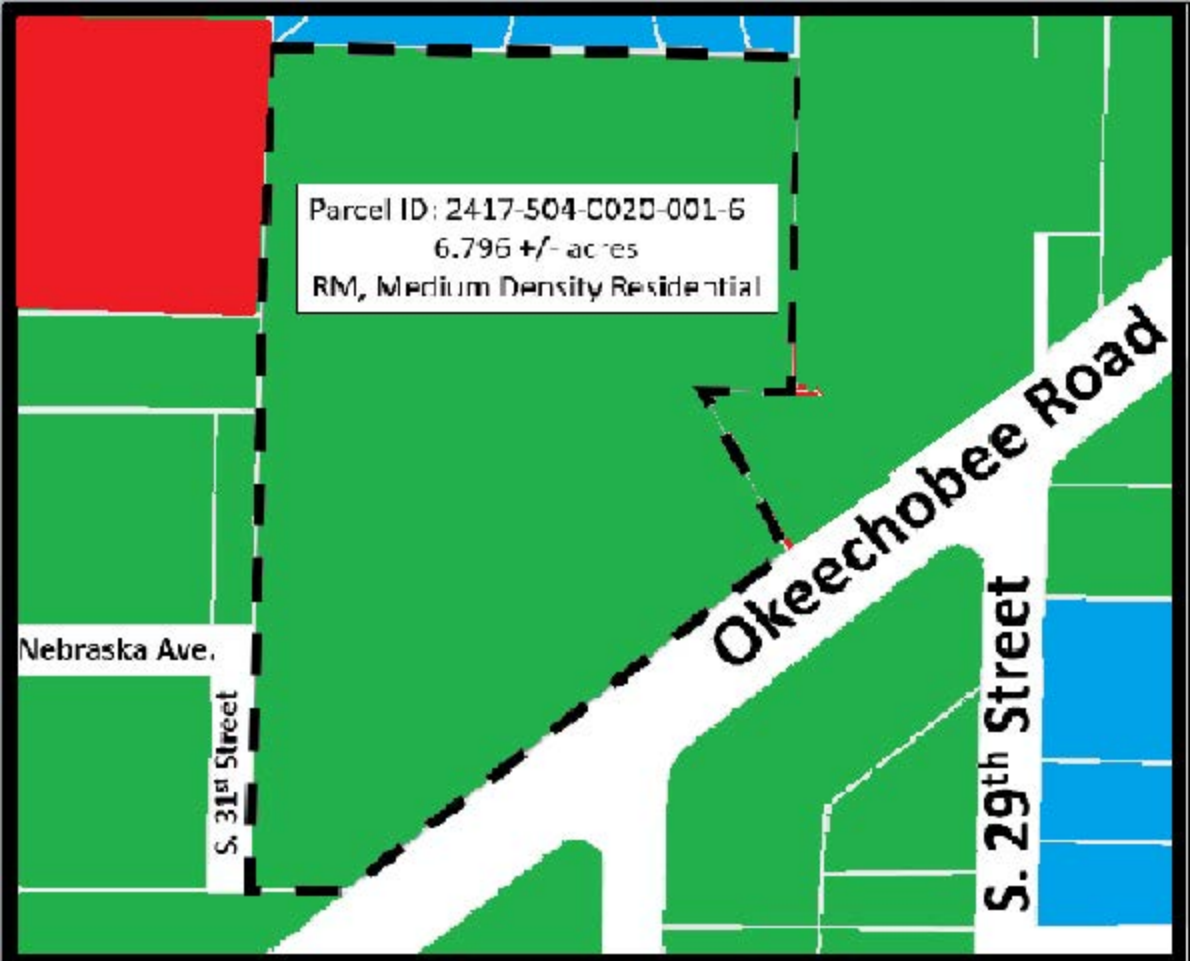
Aria Apartments
3000 Okeechobee Road

THE SUNRISE CITY
FORT PIERCE
Florida

Aerial Map



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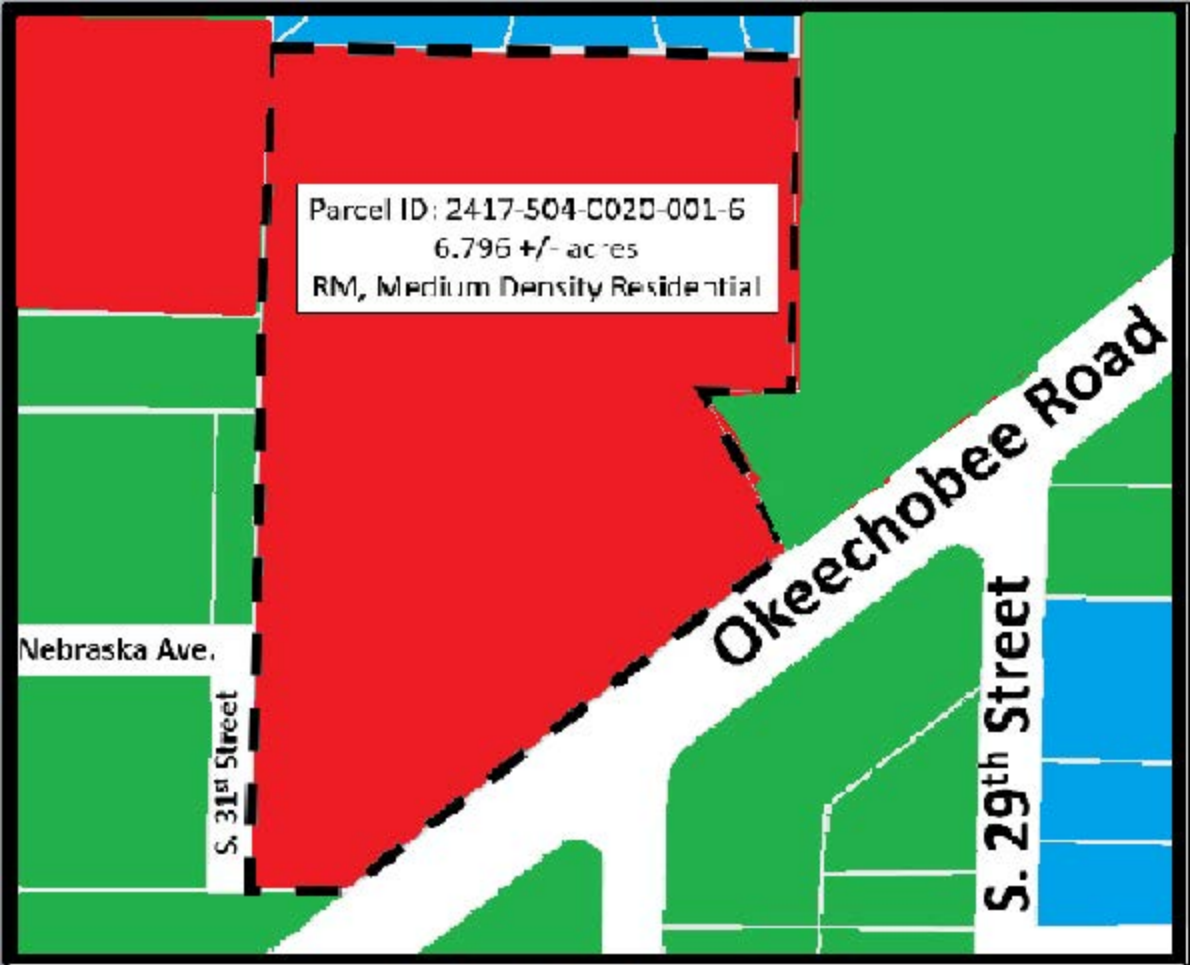
Aria Apartments
3000 Okeechobee Road

RM = GC= RL=

THE SUNRISE CITY FORT PIERCE Florida

Existing FLU Map



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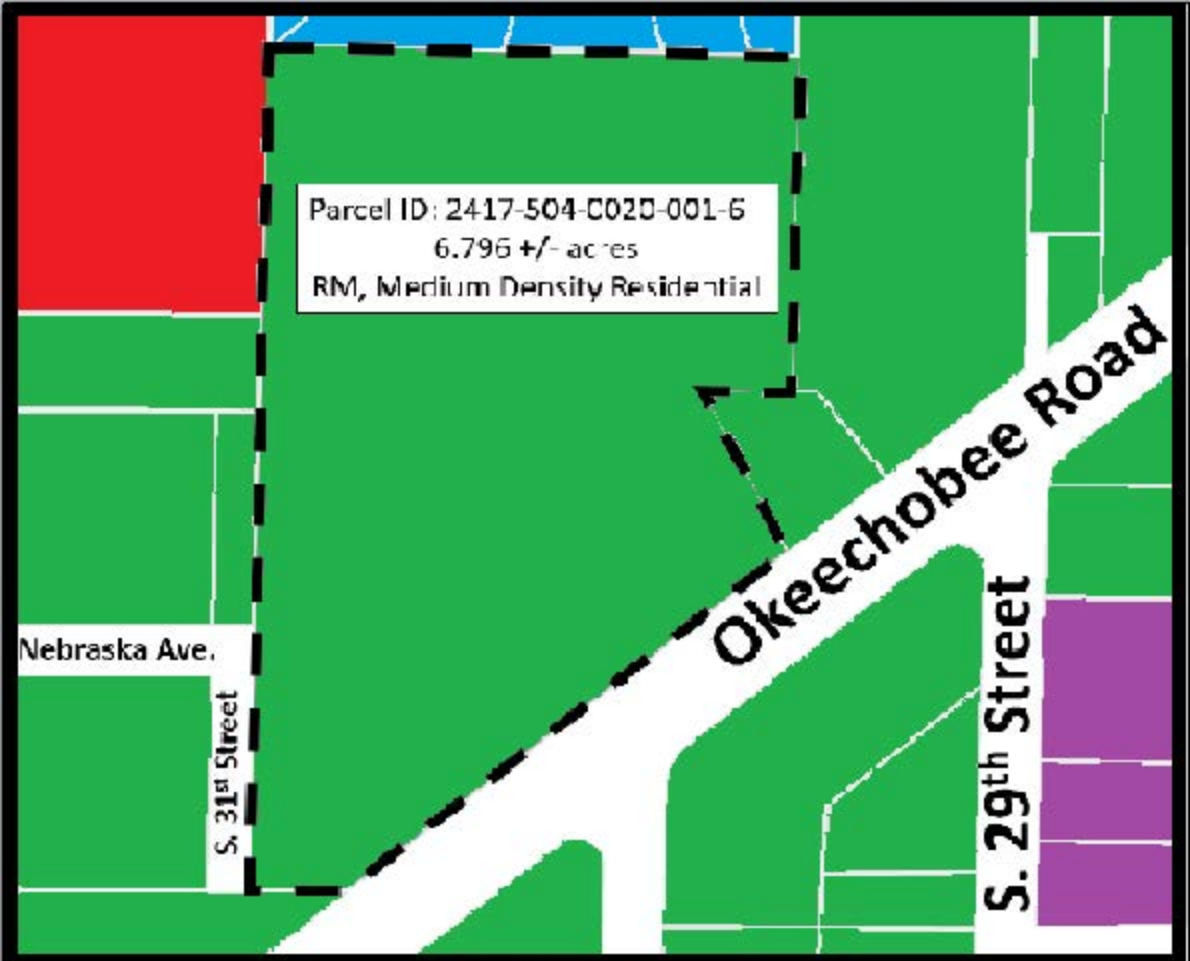
Aria Apartments
3000 Okeechobee Road

RM = GC= RL=

THE SUNRISE CITY FORT PIERCE Florida

Proposed FLU Map



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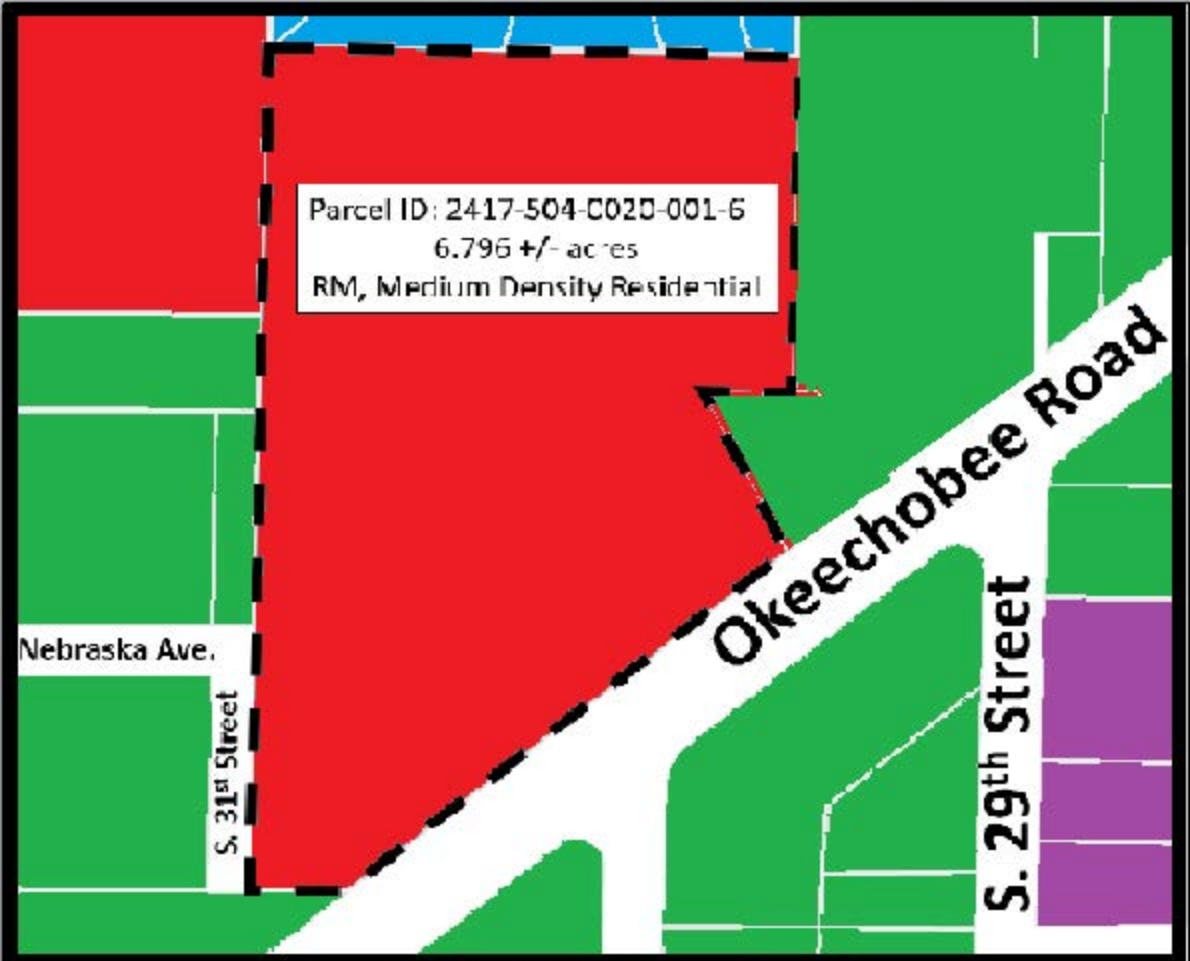
Aria Apartments
3000 Okeechobee Road

THE SUNRISE CITY FORT PIERCE Florida

R-4= C-3= R-2= R-3: :

Existing Zoning Map



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Aria Apartments
3000 Okeechobee Road

THE SUNRISE CITY FORT PIERCE Florida

R-4= C-3= R-2= R-3: : Proposed Zoning Map

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

July 16, 2020

Michael Sanchez/Managed Land Entitlements
3710 Buckeye Street, Suite 100
Palm Beach Gardens, FL 33410

Subject: 3000 Okeechobee Road – TRC Comments for July 16th, 2020 conference call

City of Fort Pierce Planning Department

1. Install a landscaped area around the proposed monument sign base which extends a minimum distance of three (3) feet in all directions. Such landscaped area shall be completely covered by ground cover and shrubs, hedges or similar vegetative materials. Vegetation in the area surrounding said sign shall be maintained at a height of less than twelve (12) inches.

2. Provide a separate gated entrance to the refuse collection areas for resident and employee access.

3. Pursuant to City Code Section 22-62(b)(4) Sidewalks. In order to provide continual access for pedestrians, sidewalks and sidewalk linkages shall be required to be provided by the property owner or permit applicant, when plans are submitted for condition use applications or pay a payment into the city sidewalk fund pursuant to City Code Section 22-62(g).

   Please submit payment in-lieu for sidewalks that would be otherwise required along S. 31st Street and the Southwest corner of the subject property to the City of Fort Pierce within ninety (90) days of Conditional Use Approval.

4. Please note that the City of Fort Pierce will have a new Code of Ordinances effective July 20, 2020. This new code represents a renumbering and reshuffling of code sections from what the current code reflects. The new Planning sections will start with Chapter 111, which is Historic Preservation through Chapter 125, which is Zoning. Should you have any questions; the new proposed code can be found on the City Website, under Agenda & Minutes, City Commission 7/6/2020, Item 12(i).

Fort Pierce Engineering Department

Recommends approval.

Advisory Comment: 1. The drainage plan was reviewed as a conceptual plan and will be further reviewed at time of Building Permit submittal.

Fort Pierce Utility Authority

FPUA W/WW Engineering: Water and sewer services are available to serve this location. Please Submit 3 complete sets of utility construction plan along with a completed commercial service application to Water and Wastewater Engineering for review at 1701 S 37th Street Fort Pierce Florida. For more information, please contact John Biggs at 772 466 1600 ext. 3474 or click on the following link below: https://www.fpua.com/Business/StartStopNewServices/DevelopmentServicesResponsibilitiesWWW.asp

FPUA Electric & Gas Engineering: Approved - Electric service is available to the site (from S. 33rd Street and Nebraska Avenue). Please provide electric load information for the AutoCAD drawing. Customer will be responsible for all transformer pads, conduits and secondary conductors. For more information and project coordination, please contact Sal Scimeca. Engineering Technician II Electric and Gas Engineering 1701 S. 37th Street, Fort Pierce, FL 34947 sscimeca@fpua.com Office: (772)466-1600 Ext. 6957

Gas service is available to the site (from S. 33rd Street and Nebraska Avenue). Please provide a copy of the gas riser diagram with the anticipated load (if developer is interested in natural gas service to the propose complex). For more information and incentive available, please contact Billy Dupre. Business Development Representative Gas Operations 1701 S. 37th Street, Fort Pierce, FL 34947 Bdupre@fpua.com Office: (772)-466-1600 Ext.4705

Utility easement will be required for all propose FPUA electric and gas facilities within the site. If the developer should have any questions, please have them contact individuals listed above. Attached are copies of the FPUA GIS Maps (Electric and Gas).

Please see attached utility maps of the area.

Fort Pierce Building Department

The Building Official or his representative has no comment at the time of this meeting, but reserves submission of comments upon completion of the official plan review.

Fort Pierce Police Department

Overall, a very nice project and site plan that would, once finished, bring "substantial enhancement to the area" as stated in the project narrative.
I do, however, have one concern. It is to do with the "indented, mini-courtyard like" area in the center of each of the apartment structures. That indented area is part of the building's design and is shown on the "front elevation" and floor plans. Specifically, it is the open courtyard like space that is between the two "one bedroom" apartment units. Even though there are a total of four (or six in the 3 story building) windows (located in "bedroom 3" of the

3 bedroom apartment units) which allow residents to see into that courtyard like area, it is still an area that may have potential use for nefarious activity as it offers a fair amount of concealment. The "indent" creates an area that may offer cover for abnormal users and unwanted activities.
One suggestion to mitigate this concern is to place an additional window in each of the one bedroom apartment's bedroom on the wall that currently does not feature a window. This will allow for greater levels of natural surveillance by residents into that courtyard area which would aide in the deterrence of unwanted activities. Additionally, consider some form of pedestrian scale illumination to ensure that courtyard area receives adequate illumination to deter (or identify) unwanted activities (but with consideration to light trespass into the bedrooms)

Officer Damian Spotts
Crime Prevention Practitioner
Fort Pierce Police Department.

City of Fort Pierce Arborist

Please contact Paul Bertram for further review. He will need to send the Planning Department his comments as well.

Paul Bertram
Office: 772-467-3821
Email: PBertram@cityoffortpierce.com

St. Lucie County Planning Department

No Comments

St. Lucie County PW/Engineering

1. A County Roadway Improvement Agreement, Right-of-Way permit, and bond will be required for turn lane construction to Okeechobee Road. Plans and cost estimates should be provided to Grant Chambers, P.E. at chambersg@stlucieco.org .
2. The County asks to be copied on the correspondence regarding the City's review of the traffic impact analysis.

City Clerk Office

No Comments

St Lucie County Fire District

This entity had issues opening your file packet, please contact Lieutenant Wayne Boyer:

Lieutenant Wayne Boyer, M.S., FO, C.F.E.I.
Water Supply Officer
Community Risk Reduction Bureau
St. Lucie County Fire District
Office: 772-621-3322 Mobile: 772-631-8877
Email: WBoyer@slcfd.org

Lieutenant Boyd will need to send the Planning Department his comments as well.

Code Enforcement

No Comments

Florida Department of Transportation

No Comments



Legend

- Electric Primary Wire
- Transmission Wire
- Gas Main
- Fiber Optic Cable
- Potable Water Main
- Raw Water Main
- Wastewater Force Main
- WW Gravity Main
- Pole
- Fuse
- Transformers
  - Overhead
  - Pad Mount
- Valves
  - Gas
  - Water
  - Raw Water
  - Waste Water
- Fire Hydrant
- Well
- Lift Station

Disclaimer:

The data contained herein is offered "as is", with no claim or warranty as to its accuracy or completeness. The data is for reference only and should not be considered to be of survey precision. Due to formatting restrictions, the information provided in the map may not be represented in the legend.

811 Know what's below. Call before you dig.

Date: 7/6/2020

FPUA COMMUNITY PROUD

N

1 inch = 181 feet

FPUA Utility Map

Created By:
Name

(772) 466-1600
FAX (772) 461-1938



Legend

- Electric Primary Wire
- Transmission Wire
- Gas Main
- Fiber Optic Cable
- Potable Water Main
- Raw Water Main
- Wastewater Force Main
- WW Gravity Main
- Pole
- Fuse
- Transformers
  - Overhead
  - Pad Mount
- Valves
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  - Water
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FPUA Utility Map

Created By:
Name

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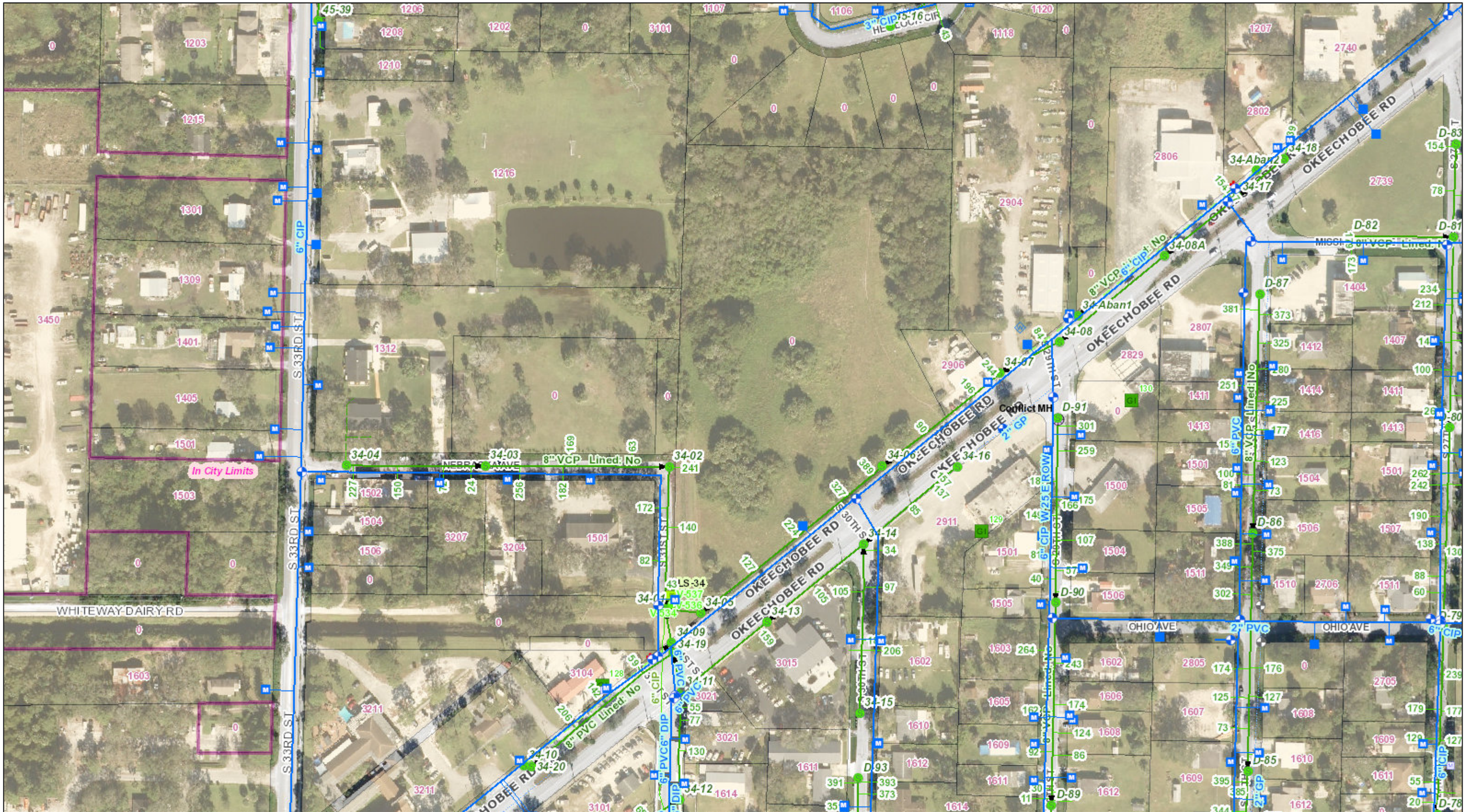

Legend

- Electric Primary Wire
- Transmission Wire
- Gas Main
- Fiber Optic Cable
- Potable Water Main
- Raw Water Main
- Wastewater Force Main
- WW Gravity Main

- Pole
- Fuse

Transformers

- Overhead
- Pad Mount

Valves

- Gas
- Water
- Raw Water
- Waste Water

- Fire Hydrant
- Well
- PS Lift Station

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811 Know what's below. Call before you dig.

Date: 7/7/2020

FPUA COMMUNITY PROUD

N

1 inch = 170 feet

FPUA Utility Map

Created By:
Name

(772) 466-1600
FAX (772) 461-1938

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

DEVELOPMENT REVIEW

Property address or Location: North side of Okeechobee Road - Approximately 1/4 mile NE of S 33rd Street

Parcel ID #(s): 2417-504-0020-001-6

Project description: Aria Apartments

Arrow Investment Group, LLC	Michael Sanchez/Managed Land Entitlements
Property Owner(s)	**Applicant/Representative, Title, Company**
4512 N. Flagler Drive, Suite 2056	3710 Buckeye Street, Suite 100
Street Address	Street Address
West Palm Beach, FL 33407	Palm Beach Gardens, FL 33410
City State Zip	City State Zip
(561) 324-4439	561-568-8045
Phone Number	Phone Number
capitalinvestments@usa.com	michael@mylandentitlements.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below sholl also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 24 day of June, 2020, by Mustafa Alnok who is personally known to me or has produced FLDL as identification.

Signature of Notary (seal)

NOTARY PUBLIC
MARIA TELLEZ-HURST
Notary Public. State of Florida
Commission# GG 104011
My comm. expires June 13, 2021

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____ Fees_____ Control #_____ B. Permit #_____

Intake Planner_____

Planner Assigned_____

Approved By_____ Date _____

Comments_____

Intake Date Stamp

❑ DEVELOPMENT REVIEW

General Information

- ❑ Incomplete application packets cannot be accepted.
- ❑ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
☒ Site Plan	☒ Conditional Use with New Const.	❑ Major Amendment
❑ Conceptual Development Plan		❑ Minor Amendment

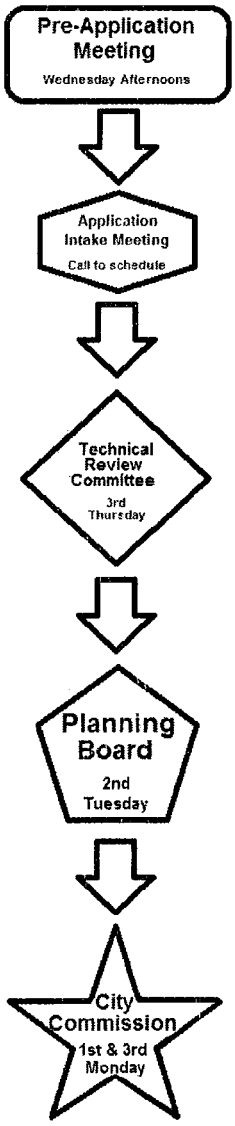
Site Information:

Non-Residential: Proposed Sq. Ft.: _____ Residential: Proposed Units: 112 Units

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West
Single Family	Commercial	Commercial	Multifamily/Commercial

Application Outlook



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ❑ Complete notarized application
- ❑ Warranty Deed
- ❑ SLC Property Record Card
- ❑ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ❑ General location map (see Section 22-58.d.2)
- ❑ Survey (see Section 22-58.d.3)
- ❑ Site Plan (see Section 22-58.d.4)
- ❑ Landscaping Plan (see Section 22-187)
- ❑ Storm Drainage Plan (see Section 22-58.d.6)
- ❑ Environmental Impact Report
- ❑ Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ❑ Lighting Plan (see Section 22-58.d.8)
- ❑ Design Review submittals (see Design Review application)
- ❑ Traffic Impact Report
- ❑ Concurrency Review submittals (see Concurrency Review application)

ARIA APARTMENTS

CITY OF FORT PIERCE

FUTURE LAND USE MAP AMENDMENT, REZONING, CONDITIONAL USE AND SITE PLAN APPROVAL

PROJECT NARRATIVE/JUSTIFICATION STATEMENT

JUNE 26, 2020

REQUEST SUMMARY

Arrow Investments Group, LLC (the "Applicant"), hereby respectfully requests approval from the City of Fort Pierce (the "City") of the following applications related to the Aria Apartments project proposed on a 6.796-acre property located on the north side of Okeechobee Road approximately ¼ mile east of S. 33rd Street (the "Property"):

- Future Land Use Map Amendment to change the land use designation of the Property from General Commercial (GC) to Medium Density Residential (RM);
- Zoning Map Amendment to change the zoning designation of the Property from General Commercial (C3) to Medium Density Residential (R-4);
- Site Plan Approval to allow the construction of a 112-unit luxury rental apartment project on the Property to be referred to as the "Aria" apartment complex (the "Project"); and
- Conditional Use Approval to allow for an "Innovative Residential Development" for the Project.

PROPERTY DETAILS

The Property is currently vacant and, to the best knowledge of the Applicant, has never been developed. Limited clearing had previously occurred on the Property, and the Property is currently dominated by cleared land with some remnant forest communities consisting of Cabbage Palm and Brazilian Pepper (please see "Environmental" section of this narrative for additional information regarding existing vegetation and a small, isolated wetland). A drainage ditch exists along the west perimeter of the Property.

The Property contains a General Commercial (CG) Future Land Use Designation and a General Commercial (C3) zoning designation.

ADJACENT PROPERTIES DETAILS

Details regarding the land use, zoning and existing uses of the properties adjacent to the Property are noted below:

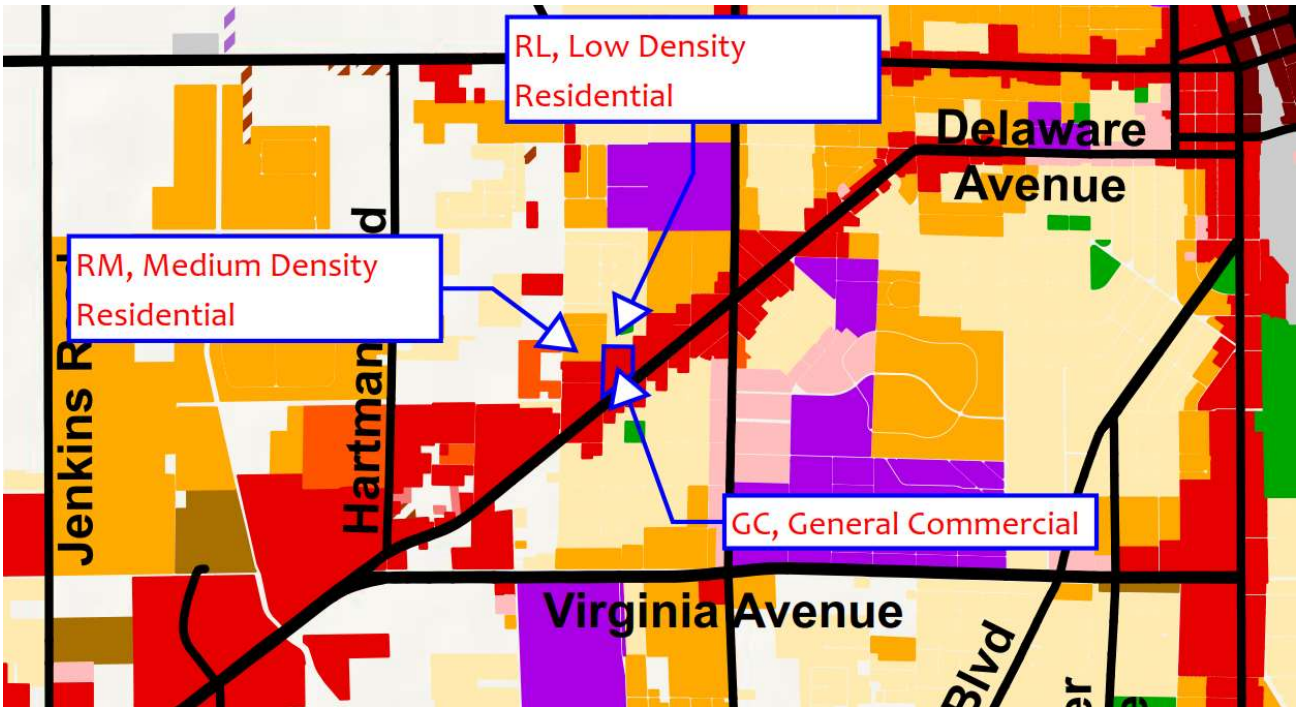
	Current FLU	Current Zoning	Existing Uses
North	RL, Residential Low Density	R2, Single Family Intermediate Residential	Vacant single family
South	GC, General Commercial	C3, General Commercial	Funeral home; grocery store
East	GC, General Commercial	C3, General Commercial	Used car sales; Habitat for Humanity
West	GC, General Commercial; RM, Medium Density Residential	C3, General Commercial; R4, Medium Density Residential	Contractor's Office; Religious Institutions

The graphic below identifies the Property in red and identifies the existing uses of the adjacent properties:

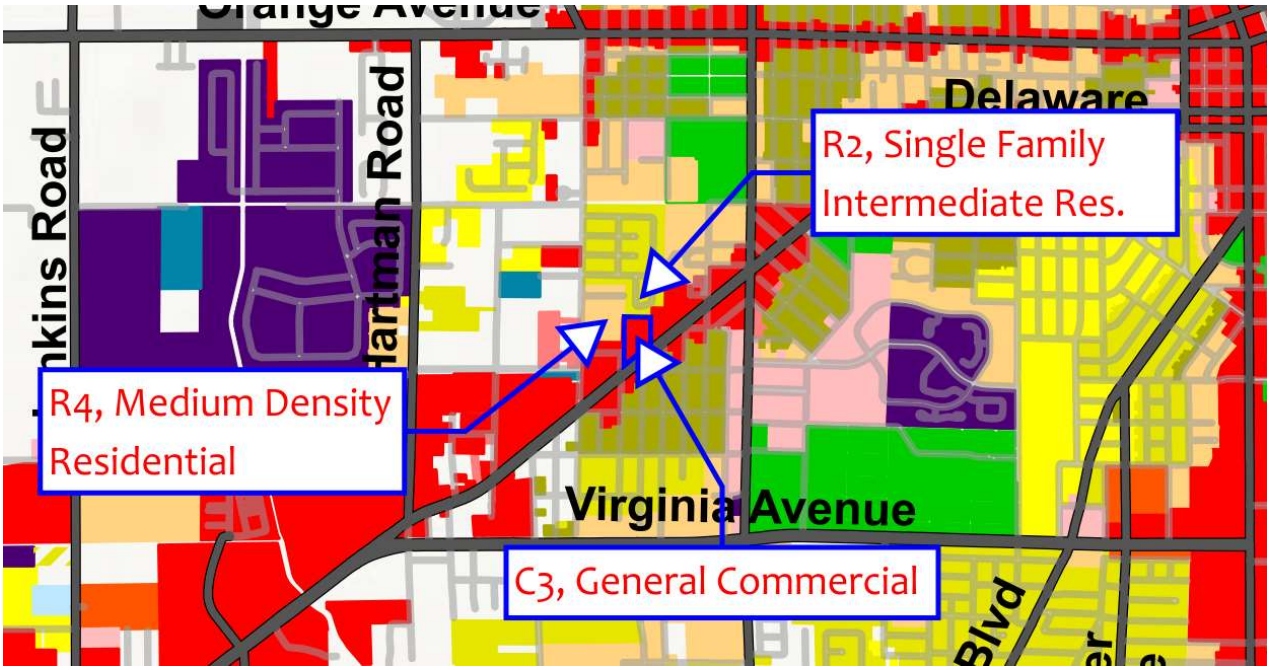


The graphics below identify the Future Land Use and Zoning of the subject property and adjacent properties:

FUTURE LAND USE



ZONING



GENERAL DESCRIPTION OF SUBJECT REQUEST AND NARRATIVE FORMAT

The Applicant is proposing to change the future land use designation of the Property to Medium Density Residential (RM) and rezone the Property to Medium Density Residential (R4) in order to allow for the development of a 112-unit residential apartment project consisting of five (5) residential buildings of between two (2) and three (3) stories in height, a clubhouse, a pool and other amentities.

The balance of this Narrative will provide (1) discussion regarding the proposed change from commercial to residential future land use and zoning designations; (2) discussion regarding the proposed density within the Project; (3) descriptions of the physical improvements proposed for the Project and related issues; and (4) demonstration of compliance with the Innovative Residential Development criteria.

FUTURE LAND USE MAP AMENDMENT AND REZONING FROM COMMERCIAL TO RESIDENTIAL

The Property currently has commercial land use and zoning designations similar to other properties that front along the north and south sides of Okeechobee Road. The portion of Okeechobee Road extending from Virginia Avenue to Delaware Avenue is developed on both sides of the road with an eclectic mix of uses including, but not limited to, smaller retail strip centers, automobile repair, used auto sales, small restaurants, small personal service uses, small office uses, day care, convenience stores, gas stations, bank, religious institutions and other uses. There are no large-scale commercial developments within said stretch of Okeechobee Road since those developments would typically locate on a road with a higher traffic volume such as Virginia Avenue.

It is the Applicant's opinion that (1) an approximately 6.8-acre property such as the Property is not suitable for large scale commercial development given its location along a lesser traveled roadway, and (2) a much more suitable and feasible use for the Property would be medium-scale multifamily development that would be appropriate along a four-lane divided roadway such as the section of Okeechobee Road in front of the Property and which would provide a logical transition from the single family and multi-family residential uses to the north to Okeechobee Road.

The requested Medium Density Residential (RM) future land use designation is consistent with the land use designation of properties to the west and northwest of the Property, provides for a logical transition from the Low Density Residential (RL) land use designation of the properties to the north to Okeechobee Road and is compatible with the General Commercial (GC) land use designations to the west, east and south.

The same logic as above applies to the requested Medium Density Residential (R4) zoning district as it relates to the zoning designations of surrounding properties.

Consistency with Comprehensive Plan

The following are excerpts from the Future Land Use Element of the County's Comprehensive Plan as it relates to the requested Medium Density Residential (RM) designation, each followed by the Applicant's demonstration of the proposed Project's compliance with the referenced provisions of the Comprehensive Plan:

- Section A: *The Medium Density Residential designation is intended for parcels that are best suited for multifamily residential uses ranging in density from 6.5 to 12 du/ac. This category allows small-lot single family units and multifamily dwellings including duplexes, condominiums and townhouses. Limited*

commercial uses intended to serve the residential uses shall be allowed. Compatible public, quasi-public, and special uses including parks, churches, non-profit clubs, schools, and daycare facilities shall be allowed.

Demonstration of compliance: *The proposed land use designation is consistent with the intended use of the property as multi-family apartments, and uses allowed with the RM future land use designation are consistent with other uses existing along Okeechobee Road based on the allowable uses within the RM designation noted above.*

- Objective 1.2: *The City shall use innovative Land Development Regulations to encourage flexibility in development to support compact, mixed-uses compatible with local context and character.*

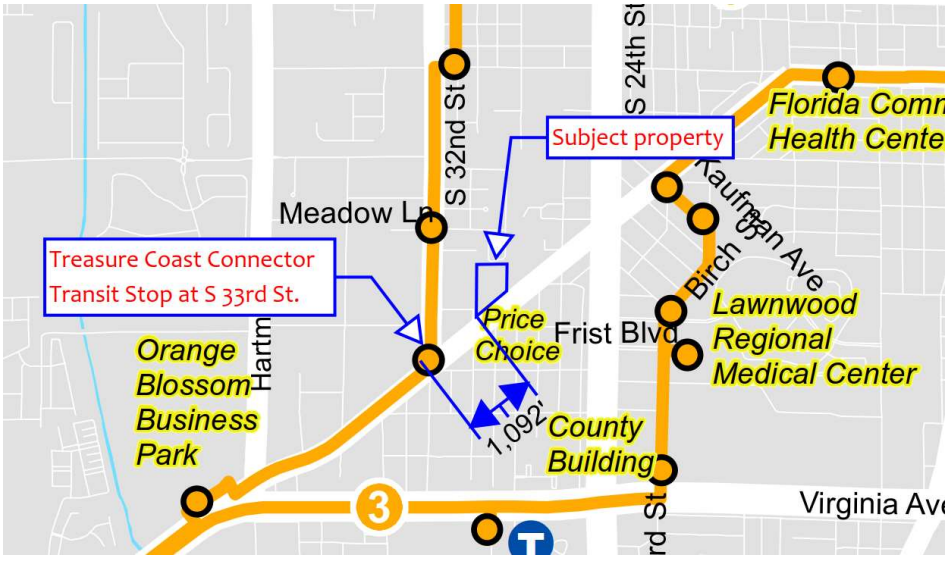
  Demonstration of compliance: *The proposed Project will be a compact development providing new, high-quality apartment housing for residents of the City which is compatible with the local context and character of the area. The increased residential density in the area will help to support the neighboring commercial uses along Okeechobee Road, and the Project's compact, walkable design will help to further the interrelationship between the residential and commercial uses in the area.*

Density

The proposed Project provides for a density of 16.48 du/ac.

The County's Comprehensive Plan provides that the Medium Density Residential (RM) future land use designation allows for between 6.5-12 du/ac. However, Policy 1.1.5 states "The City will allow a density bonus of 5 dwelling units per acre above the maximum density for developments within ¼ mile of a rail station, multimodal transit center or transit stop."

As demonstrated the map below, the Property is located less than ¼ mile from a transit stop for the County's Treasure Coast Connector bus system that is located at the northwest corner of the intersection of Okeechobee Road and S. 33rd Avenue. Accordingly, the Applicant intends to utilize the additional five (5) du/ac authorized by the above-referenced Policy 1.1.5 of the Comprehensive Plan bringing the total density permitted under the RM future land use designation to 17 du/ac.



With respect to zoning, the Medium Density Residential Zone (R-4) allow for a maximum density of ten (10) du/ac for conventional developments and twelve (12) du/ac for innovative developments. The Applicant is requesting approval of a Conditional Use to allow an "Innovative Residential Development" as demonstrated in the "Innovative Residential Development/Conditional Use Approval" section of this narrative and, thus, will be utilizing the additional density allowed for such developments (12 du/ac) for the purposes of this application. The maximum density for the Project with respect to zoning has been calculated at 17 du/ac based on the 12 du/ac allowed with an innovative development + the additional five (5) du/ac density bonus authorized by the above-referenced Policy 1.1.5 of the Comprehensive Plan for developments within a ¼ mile of a transit stop.

The proposed density of 16.48 du/ac per acre complies with the 17 du/ac maximum allowed by the future land use and zoning designations noted above.

PROJECT DETAILS

General Project Improvements

A summary of proposed Project improvements depicted in the development plans provided with this submittal is contained below:

- Development program: The Project comprises a multifamily apartment project consisting of 112 dwelling units ranging from one (1) to three (3) bedrooms in five (5) buildings. Four (4) of the buildings will be three (3) stories in height; and the fifth building will be two (2) stories in height. A clubhouse, pool area and other amenities listed below are also proposed.

- General design intent/summary: The design intent of the Project was to create an innovative, walkable and compact apartment project with high quality architecture, landscaping and amenities that raise the bar for new development in the area, increase property values and create an inviting sense of place for its residents. Four (4) of the residential building are placed around a central retention lake which has been provided an amenity for the Project. The lake will have a fountain and littoral plantings to enhance the amenity, and a sidewalk has been provided around the entire lake with benches so that residents can enjoy the lake views and recreate/exercise around the lake. A palm tree-lined roundabout is proposed at the entrance into the Project which will have a specimen tree as a focal point and will provide for an aesthetically pleasing entry into the Project. Parking and dumpsters are evenly and conveniently distributed throughout the Project. Other amenities include a clubhouse with a fitness center, kitchen, multipurpose room, restrooms and a covered area over the pool deck for shade lounging; a passive park with picnic tables, benches and shade trees; a large pool with seating areas and planters; a tot lot with playground equipment and fenced dog park. Additionally, Building 1 and the clubhouse have been placed against the street to add visual interest and to help screen the parking area from the adjacent roadway.

- Parking: Parking is provided within the Project based on a rate of 1.5 spaces/unit. 168 spaces are required, and 172 spaces are provided.

- Open Space/Outdoor Amenities: Section 22-27(b)(3) of the City's Land Development Code requires that buildings within multi-family housing developments in the Medium Density Residential (R-4) zoning district not cover more than 50% of the lot area. The Project proposes a building coverage of only 18.0% and a total open space of 127,934 square feet or 43.2% of the project site. Outdoor amenities include

walking paths throughout the site including around the retention lake, seating areas around the lake; a passive park with benches, tables and shade trees; a large pool; a fenced dog park and a tot lot.

Architecture

Both the two story and three buildings are designed in a contemporary style that mirrors current trends in many residential projects. The building footprints allow the building mass to be broken up reducing overall scale and creating a more visually interesting facade. The fenestration utilizes contemporary features and materials including cantilevered balconies, horizontal railing, variations in roof types and heights, metal eyebrow shades, faux horizontal wood siding, and smooth stucco broken into different wall panels by the building mass and vinyl stucco joints. The color and material palette is contemporary and brings good contrast for visual interest using white for trim, window frames, walls, sun shades and railings; light grey for wall panels, medium grey for the faux wood siding and dark grey for the flat concrete roof tiles.

The maximum height allowed in the Medium Density Residential (R-4) zoning district is 45'-0". The maximum height of the tallest building is 39'-0".

Mechanical equipment will be located on the roof and screened from view.

A monument sign is proposed on the south side of the Project entrance, and details regarding said sign are provided with this submittal on the "Sheet A-1 – Entry Monument" plan. The design of the monument sign incorporates the same colors and materials as the buildings on site and has been sized in accordance with the City's requirements for residential development signage.

Landscaping/Tree Mitigation

The Applicant has gone to every effort to save and/or relocate existing native trees on site which include Pine, Live Oak and Cabbage Palm. The Tree Mitigation Plans provided with this submittal provide that (1) 155 cabbage palms will be relocated on site; (2) 552" of trees will be removed in order to allow for the Project; and (3) 316" of trees will be preserved in place. The total mitigation requirement is 236".

The Applicant is proposing an very dense landscape design in order to satisfy the minimum landscape requirements of the City, provide additional trees to satisfy the mitigation requirement and provide additional landscaping to satisfy the "Innovative Residential Development" requirements as further discussed in the "Innovative Residential Development/Conditional Use Approval" section of this narrative.

The Project requires 56 interior trees, where 166 interior trees are being provided (110 additional trees or 196% additional). The project requires 112 buffer trees, where 137 trees are being provided (25 additional trees or 22.3% additional). A total of 137 additional trees are proposed on the Project. Additionally, the height of trees and palms proposed (Slash Pine, Bald Cypress, Live Oak, Japanese Blueberry, Crape Mrytle, Yellow Tabebuia, Royal Poinciana, Christmas Palm, Washington Palms, etc.) have been increased by at least 10% beyond the minimum size requirements at planting to provide additional justification for the Innovative Residential Development proposal.

The Applicant has increased the landscape buffers along the west, north and east sides beyond the minimum 10-foot requirement to 20', 15' and 15', respectively in order to further justify the Project and provide additional buffering for adjacent properties.

The proposed landscape palette provides native vegetation and careful placement of trees to provide shade in open spaces areas, screening where required, planting of the littoral areas of the retention pond for aesthetics and enhanced aesthetics at the Project entrance, residential buildings, clubhouse and other areas.

A cabbage palm hammock is proposed at the southwest corner of the Project, and a "Range Live Oak" is proposed at the roundabout at the Project entrance to serve as a focal point and enhance the Project.

Site Lighting

A photometric plan has been provided with this submittal which depicts the proposed exterior lighting within the Project. Pole mounted lights and building lights are proposed to provide lighting within the parking areas and pedestrian walks, bollard lighting is provided at the passive park and pedestrian scale pole-mounted lights are provided within the pool area. All lighting will be high efficiency LED lighting.

Drainage

The proposed surface water management system will collect stormwater runoff and direct it to the on-site detention area via a network of underground pipes. Stormwater will be stored in the detention area and on surface for large, infrequent storm events. A small exfiltration system is provided to assist with pre-treatment prior to discharge. Finished floors will be protected from the 100-year 3-day storm event. Roadways will be protected from the 10-year 1-day storm event. A perimeter berm will be established and retain the 25-year 3-day storm event on-site.

The drainage ditch along the west side of the property will lie outside the storage basin and act as the receiving body for controlled discharge. Water from the ditch will exit to the west via a culvert under South 31st Street into a City of Fort Pierce drainage ditch that runs west to and under South 33rd Street. At that point, the drainage system becomes part of North St. Lucie River Water Control District Canal 6 and stormwater flows west to Five Mile Creek.

Utilities

Domestic and Fire Water supply will be provided through an 8" water main loop through the project with two connection points to the existing water main located within Okeechobee Road right-of-way. This system will be constructed to Fort Pierce Utility Authority standards and be turned over to the utility for operation and maintenance.

Sanitary sewage will be collected via a service from each building that connects to a sanitary main. The main directs flow to an on-site private lift station located near Building 1 at the southwest corner of the site. The lift station will pump flow to an existing manhole operated and maintained by Fort Pierce Utility Authority. The on-site sanitary system is proposed to be privately operated and maintained.

Traffic Concurrency and Capacity Analysis

Included with this submittal are (1) a future land use amendment traffic analysis (the "FLUA Analysis"), and (2) a traffic impact analysis for the Project (the "TIA").

The FLUA Analysis concludes that the proposed change in land use will be a decrease in project trips and will not impact roadways in the vicinity of the project and, therefore, the proposed change in future land use for the Project meets applicable criteria for an amendment to the City's Comprehensive Plan.

The TIA concludes that (1) the roadway links are sufficient to accommodate the Project traffic in the AM and PM peak hours; (2) the existing geometry at the intersections of S 25th Street & Okeechobee Road and Okeechobee Road and Virginia Avenue are expected to operate acceptably under existing, background and future total conditions; and (3) an eastbound left turn lane is required. The Project plans provided with this submittal include the required eastbound left turn lane.

INNOVATIVE RESIDENTIAL DEVELOPMENT/CONDITIONAL USE APPROVAL

Section 22-82 of the City's Land Development Code contains the following standards applicable to a multifamily residential developments that shall be satisfied in order to qualify for the two (2) additional dwelling units per acre and the related Conditional Use approval by the City. The Applicant's demonstration of compliance with said criteria is contained below in *italics* typeface:

(a) Purpose. Innovative residential developments are developments which achieve a more creative and imaginative housing environment than normally occurs by use of the clustering technique, by employing various other methods to achieve distinctiveness and excellence in siting, design and/or landscaping. Density bonuses and reductions in various building restrictions are used to encourage these developments.

Demonstration of Compliance: *The Project has been thoughtfully and carefully designed to create a more innovative project than normally occurs. Factors that, in the opinion of the Applicant, qualify the Project as an innovative residential development that are above-and-beyond a "normal" apartment building project and the minimum requirements of the City are listed below:*

- *Four (4) of the five (5) residential building have been clustered around a central retention lake which is proposed as an amenity (as opposed to a depressed grassed stormwater detention area).*
- *The central lake will have a fountain and a walking trail with sitting areas.*
- *A passive park is proposed as a project amenity with picnic tables, benches and shade trees.*
- *A luxurious clubhouse with a multipurpose room, kitchen, fitness center, etc. is proposed.*
- *A large pool with a large pool deck area decorated with planters is proposed.*
- *A fenced dog park is being provided as an extra amenity.*
- *A fenced tot lot is provided as an extra amenity.*
- *Pedestrian paths are provided throughout the Project.*
- *A central roundabout with a large Oak Tree will serve as a focal point upon entry into the Project.*
- *A high quality of architecture is proposed as discussed in the "Architecture" section of this narrative.*
- *The fifth residential building and the clubhouse have been located against Okeechobee Road to provide visual interest and screen the parking area from view.*
- *A large number of trees and palms are either being preserved or relocated on site.*
- *The landscape buffer along the west side has been increased to 20 feet and the landscape buffers on the north and east sides have been increased to 15, where ten (10) feet is required on the sides and rear of the Project.*

- *Significant enhancements to landscaping beyond the minimum requirements are provided as further discussed in the "Landscaping" section below.*

(e)(1) Landscaping. Landscaping. The gross density may be increased up to one unit per acre for landscaping plans which provide for effective use of existing vegetation and/or for approved landscape plans for streetscapes, pedestrian ways, bicycle paths, areas near buildings, open spaces and/or recreation areas. This increased density may only be awarded if the landscaping of the innovative residential development will exceed the requirements in section for landscaped area by ten (10) per cent, for amount of trees by ten (10) per cent and/or in terms of qualitative characteristics of the landscaping.

Demonstration of Compliance: *As depicted on the landscape plans provided with this submittal, the Applicant is proposing a carefully designed, very dense landscape design and substantial additional landscaping in order to create an aesthetically pleasing project and to satisfy the innovative residential development criteria. Details regarding the "extra" landscaping proposed are noted below:*

- *The landscape buffer along the west side has been increased to 20 feet and the landscape buffers on the north and east sides have been increased to 15, where ten (10) feet is required on the sides and rear of the Project.*
- *The passive park has been densely landscaped to create an inviting and shaded sitting area for enjoyment of the tenants.*
- *The Project entry and roundabout are lined with palms typical of a luxury development.*
- *The residential buildings, clubhouse and pool are densely landscaped typical of a luxury development.*
- *43.2% open space is provided where only 40% is required.*
- *166 interior trees are provided where only 56 are required (196% additional).*
- *137 buffer trees are provided where only 112 trees are required (25 additional trees = 22.3% additional).*
- *Littoral plantings are proposed around the lake as an added aesthetic enhancement for the Project.*
- *The height of trees and palms proposed (Slash Pine, Bald Cypress, Live Oak, Japanese Blueberry, Crape Mrytle, Yellow Tabebuia, Royal Poinciana, Christmas Palm, Washington Palms, etc.) have been increased by at least 10% beyond the minimum size requirements at planting to provide additional justification for the Innovative Residential Development proposal.*

(e)(2) Siting. The gross density may be increased (up to one-half unit per acre in R-3 and R-4 zones and one unit per acre in an R-5 zone) for creative placement of buildings and/or other facilities in terms of visual focal points, use of existing physical features such as topography, views, sun and wind orientation, the circulation pattern, variation in building setbacks and/or building and facility groupings.

Demonstration of Compliance: *As demonstrated below, the site design and placement of buildings have been creatively designed in order to establish an innovative residential development by use of visual focal points and physical features as much as possible on a 6.796-acre property.*

- *Four (4) of the five (5) residential building have been clustered around a central retention lake which is proposed as an amenity (as opposed to a depressed grassed stormwater detention area).*

The placement of the buildings around the lake will enhance views from both the residential units and from tenants recreating/exercising/sitting around the lake.

- ❖ *A central roundabout lined with palm trees and with a large Oak Tree in the center will serve as a focal point upon entry into the Project.*
- ❖ *The fifth residential building and the clubhouse have been located against Okeechobee Road to provide visual interest and screen the parking area from view.*
- ❖ *Pedestrian pathways are provided throughout the development to create a walkable community.*

(e)(3) Design. The gross density may be increased (up to one-half unit per acre in R-3 and R-4 zones and one unit per acre in an R-S zone) for imaginative design features including architectural styles, harmonious use of building materials, varied use of housing types and/or other design elements of the innovative residential development.

Demonstration of Compliance: *The Applicant is proposing enhanced architectural features beyond a standard multi-family housing project as demonstrated in the "Architecture" section of this narrative.*

(g) Open Spaces. Innovative residential developments which receive density bonuses in accordance with subsection (e) of this section shall comply with the following provisions: (1) In all such innovative residential developments, at least forty (40) percent of the site, exclusive of aquatic areas, shall be devoted to open space. Of this required open space area, no more than twenty-five (25) percent may be utilized privately by individuals or users of the innovated residential development. At least seventy-five (75) per cent of the required open space area must be common open space.

Demonstration of Compliance: *Open space is provided at 43.2% of the site where only 40 is required. Additionally, all open space on site will be for the enjoyment of all residents of the community.*

CLOSING

The Applicant respectfully requests the City's consideration and approval of the subject application based on the justification provided herein. The Applicant believes that the Project will provide a substantial enhancement to the area and help to spur other redevelopment in the area. The Applicant looks forward to working with the City to bring a high-quality project to the City.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Application for Future Land Use Map Amendment

☐ Future Land Use Map Amendment – Large Scale (>10 acres)

☒ Future Land Use Map Amendment – Small Scale (<10 acres)

In accordance with Chapter 163.3187, Florida Statutes, The City of Fort Pierce will consider applications for land use changes on parcels in excess of 10 aces ("Large Scale Amendments") only twice each calendar year. The City Commission will consider applications for land use changes on parcels less than or equal to 10 acres with a maximum density of 10 units per acres or less at any time during the calendar year. You are encouraged to schedule a pre-application meeting with the planning staff and to submit your application up to three months in advance of the application deadline.

Application submission shall include the following:

•**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**Planning Board**: One (1) original and (13) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**City Commission**: One (1) original and (11) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

In addition to a complete application, packets shall include:

- ☐ Warranty Deed & Legal Description
- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: North side of Okeechobee Road - Approximately 1/4 mile NE of S 33rd Street
2. Property Tax ID(s): 2417-504-0020-001-6
3. Total Acreage: 6.796 acres
4. Existing Future Land Use Designation: GC - General Commercial
5. Existing Zoning Classification: C3 - General Commercial
6. Proposed Zoning Classification: (FLU) RM - Medium Density Residential (ZONING) R4 - Medium Density Residential
7. Other applications being submitted concurrent with this application, if any: Zoning Map Amendment, Design Review
8. Describe the existing uses, improvements and structures on the amendment lands: Vacant
9. Are there any identified or possible historical structures on the amendment lands? No
10. The reason for making this request: Proposed luxury apartment project. See Project Narrative.

11. **Capacity Analysis:**

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Single Family	RL - Low Density Residential	R2 - Single Family Intermediate Density
South	Commercial	GC - General Commercial	C3 - General Commercial
East	Commercial	GC - General Commercial	C3 - General Commercial
West	Commercial/Religious Institution	RM - Medium Density Residential GC - General Commercial	R4 - Medium Density Residential C3 - General Commercial

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	GC - General Commercial	C3 - General Commercial	1.0 FAR = 296,033 SF	6.796 acres	
Proposed	RM - Medium Density Residential	R4 - Medium Density Residential	12 du/ac + 5 du/ac bonus per FLUE Policy 1.1.5 = 17 du/ac = 115 units	6.796 acres	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 37,004
Change in Demand	**Total gallons per day** -7,104

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 29,603
Change in Demand	**Total gallons per day** +297

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	884.54	890.52	+5.98
Urban District	5 acres per 1,000 people	221.14	222.63	+1.49
Community	2.5 acres per 1,000 people	110.57	113.32	+0.75
Neighborhood	1.36 acres per 1,000 people	60.15	60.56	+0.41

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name	Chester A Moore Elementary/Dan McCarty Middle	Fort Pierce Central High
City	Fort Pierce	Fort Pierce
Distance	0.5-0.8 mile	0.5 mile
Current Zoning Enrollment Demand	N/A	N/A
Proposed Zoning Enrollment Demand	34.01	79.35
Change in Demand	+34.01	+79.35

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	Demand for commercial not listed above.
Proposed Zoning	16 yards
Change in Demand	Need demand for commercial

F. Stormwater: Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)	
Impact	See drainage report provided with submittal.

G. Transportation Analysis: Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning	8,300	65/83
Proposed Zoning	609	38/49
Change in Demand	Trips	Trips
Impact to Capacity	-7,691	-27/-34

12. Name of Owner(s): Arrow Investment Group, LLC
Mailing Address: 4512 N. Flagler Drive, Suite 2056
City West Palm Beach State FL Zip 33407
Phone # (561) 324-4439
E-mail: capitalinvestments@usa.com

13. Name of Applicant: Same as Owner
Mailing Address: _____
City _____ State _____ Zip _____
Phone # _____ Fax # _____
E-mail: _____

14. Name of Representative: Michael Sanchez/Managed Land Entitlements
Mailing Address: 3710 Buckeye Street, Suite 100
City Palm Beach Gardens State FL Zip 33410
Phone # 561-568-8045 Fax # _____
E-mail: michael@mylandentitlements.com

15. Applicant Acknowledgements (Owner's signature must be notarized)

I certify that: (Check One)

X I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

_____ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

_____

Same as Owner

Applicant's Signature Date

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

(561) 324-4439 capitalinvestments@usa.com

Phone Fax E-mail Address

16. Property Owners Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application for a change in zoning classification. The property owner's signature(s) below shall also authorize the Applicant (if other than the property owner) and/or Agent to act in his/her behalf for the purposes of seeking this change to the City' Land Development Regulations for the property described herein.

Arrow Investment Group, LLC

by: (561) 324-4439

Property Owner's Name (Please Print) Phone

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

Property Owner's Signature Date

STATE OF FLORIDA)
ST LUCIE COUNTY)

The foregoing instrument was acknowledged before me this 24 day of June, 2020, by MUSTAFA ACUNOK who is personally known to me or has produced FL DL as identification.

Signature of Notary (seal)

MARIA TELLEZ-HURST
Notary Public. State of Florida
Commission# GG 104011
My comm. expires June 13, 2021

OFFICE USE:		
DATE RECEIVED:	Signed:	
File Number:	Check No:	Receipt No:
TRC Review:	Planning Board Review:	City Commission:
Ordinance No:	Date Approved:	

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Single Family	RL - Low Density Residential	R2 - Single Family Intermediate Density
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	K-8	High
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City	Fort Pierce	Fort Pierce
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E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)	
Demand Analysis	Maximum
Current Zoning/FLU	Demand for commercial not listed above.
****Proposed Zoning/FLU**	16 yards
***Change in Demand**	Need demand for commercial

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	See drainage report provided with submittal.

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	8,300	65/83
****Proposed Zoning/FLU**	609	38/49
***Change in Demand**	Trips	Trips
Impact to Capacity	-7,691	-27/-34

IV. Project Description

PHASING
Is this project (phase) part of a larger project? [ ] Yes [X] No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: 112 Single Family: Multifamily: 112
Non-residential (square footage):
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family		112	6.796	03/21	03/22
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. [ ] Yes [X] No

B. 1. Does this application involve demolition or re-use of any structure(s)? [ ] Yes [X] No
If yes, what is the size of the structure(s) to be demolished or re-used? _____
2. What is the current use of the structure to be demolished or re-used? _____
3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? [ ] Yes [ ] No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Application for Zoning Atlas Map Amendment

Application submission shall include the following:

•**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**Planning Board**: One (1) original and (16) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**City Commission**: One (1) original and (11) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

In addition to a complete application, packets shall include:

- ☐ Warranty Deed & Legal Description
- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: North side of Okeechobee Road - Approximately 1/4 mile NE of S 33rd Street
2. Property Tax ID(s): 2417-504-0020-001-6
3. Total Acreage: 6.796 acres
4. Existing Future Land Use Designation: GC - General Commercial
5. Existing Zoning Classification: C3 - General Commercial
6. Proposed Zoning Classification: (ZONING) R4 - Medium Density Residential
7. Other applications being submitted concurrent with this application, if any: FLU Amendment, Design Review

8. Describe the existing uses, improvements and structures on the amendment lands: Vacant

9. Are there any identified or possible historical structures on the amendment lands? No

10. The reason for making this request: Proposed luxury apartment project. See Project Narrative.

11. CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Single Family	RL - Low Density Residential	R2 - Single Family Intermediate Density
South	Commercial	GC - General Commercial	C3 - General Commercial
East	Commercial	GC - General Commercial	C3 - General Commercial
West	Commercial/Religious Institution	RM - Medium Density Residential GC - General Commercial	R4 - Medium Density Residential C3 - General Commercial

	Future Land Use	Zoning Classification	Maximum Intensity **Residential: Dwelling Units per Acre** **Other: Square Footage**	Total Acreage	Flood Zone
Current	GC - General Commercial	C3 - General Commercial	1.0 FAR = 296,033 SF	6.796 acres	
Proposed	RM - Medium Density Residential	R4 - Medium Density Residential	12 du/ac + 5 du/ac bonus per FLUE Policy 1.1.5 = 17 du/ac = 115 units	6.796 acres	N/A

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 37,004
Change in Demand	**Total gallons per day** -7,104

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 29,603
Change in Demand	**Total gallons per day** +297

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	884.54	890.52	+5.98
Urban District	5 acres per 1,000 people	221.14	222.63	+1.49
Community	2.5 acres per 1,000 people	110.57	113.32	+0.75
Neighborhood	1.36 acres per 1,000 people	60.15	60.56	+0.41

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name	Chester A Moore Elementary/Dan McCarty Middle	Fort Pierce Central High
City	Fort Pierce	Fort Pierce
Distance	0.5-0.8 mile	0.5 mile
Current Zoning Enrollment Demand	N/A	N/A
Proposed Zoning Enrollment Demand	34.01	79.35
Change in Demand	+34.01	+79.35

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	Demand for commercial not listed above.
Proposed Zoning	16 yards
Change in Demand	Need demand for commercial

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	See drainage report provided with submittal.

III. Transportation Analysis

G. Traffic Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning	8,300	65/83
Proposed Zoning	609	38/49
Change in Demand	Trips	Trips
Impact to Capacity	-7,691	-27/-34

12. Name of Owner(s): Arrow Investment Group, LLC
Mailing Address: 4512 N. Flagler Drive, Suite 2056
City West Palm Beach State FL Zip 33407
Phone # (561) 324-4439
E-mail: capitalinvestments@usa.com

13. Name of Applicant: Same as Owner
Mailing Address: _____
City _____ State _____ Zip _____
Phone # _____ Fax # _____
E-mail: _____

14. Name of Representative: Michael Sanchez/Managed Land Entitlements
Mailing Address: 3710 Buckeye Street, Suite 100
City Palm Beach Gardens State FL Zip 33410
Phone # 561-568-8045 Fax # _____
E-mail: michael@mylandentitlements.com

15. **Applicant Acknowledgements** (Owner's signature must be notarized)

I certify that: (Check One)

X I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

_____ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

Same as Owner
Applicant's Signature Date

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

(561) 324-4439 capitalinvestments@usa.com

Phone Fax E-mail Address

16. Property Owners Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application for a change in zoning classification. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Agent to act in his/her behalf for the purposes of seeking this change to the City' Land Development Regulations for the property described herein.

Arrow Investment Group, LLC
by: (561) 324-4439

Property Owner's Name (Please Print) Phone

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

6/24/20

Property Owner's Signature Date

STATE OF FLORIDA)
ST LUCIE COUNTY)

The foregoing instrument was acknowledged before me this 24 day of June, 2020, by Mustafa Altinok who is personally known to me or has produced _____ as identification.

Signature of Notary (seal)

MARIA TELLEZ-HURST
Notary Public. State of Florida
Commission# GG 104011
My comm. expires June 13, 2021

OFFICE USE:

DATE RECEIVED:_____ Signed:_____

File Number:_____ Check No: _____ Receipt No: _____

TRC Review:_____ Planning Board Review: _____ City Commission: _____

Ordinance No:_____ Date Approved: _____

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

GENERAL ADDRESS REQUEST

[X] Assigned [ ] Corrected [ ] Changed

Property Owner(s): Arrow Investment Group, LLC

Parcel Identification(s): 2417-504-0020-001-6

Legal Description: See attached survey

Current Address: No address assigned

Use of Property: Proposed 112 unit multifamily apartment project

Reason for Request: New development.

Applicants Signature: _____ **Date:** 6/24/20

Arrow Investment Group, LLC

Printed Name: by: MUSTAFA ALTINOK

_____I am not the owner of the described property; however, the owner(s) authorizes me to act as agent for the owner(s) of record. (Provide copy of authorization).

Contact Information: Phone: (561) 324-4439 Email: capitalinvestments@usa.com

Office Use Only

PROPOSED NEW ADDRESS: _____

Signature of City Representative: _____

LOCATION MAP



Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address:	OKEECHOBEE RD
Parcel ID:	2417-504-0020-001-6
Account #:	26668
Map ID:	24/17N
Use Type:	1000
Zoning:	General Co
City/County:	Fort Pierce

Ownership

Arrow Investment Group LLC
4512 N Flagler DR # 2056
West Palm Beach, FL 33407

Legal Description

COLLIER`S S/D BLK D ALL BLK D-LESS S 27 FT AND SELY 7 FT FOR RD R/W AND LESS THAT PART MPDAF: BEG INT OF SE COR OF BLK D AND NLY RD R/W LI OF OKEEC RD RUN N 28 00 23 W 167.87 FT,TH N 89 51 15 E 79 FT TO E LI OF BLK D,TH S 00 04 02 W ALG E LI 148.41 FT TO NLY RD R/W LI OF OKEEC RD AND POB- (6.86 AC)



Current Values

Just/Market Value:	$732,700
Assessed Value:	$732,700
Exemptions:	$0
Taxable Value:	$732,700

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.87
Land Size (SF):	299,058

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Sale History

Date:	Sep 26, 2019
Book/Page:	4327 / 0333
Sale Code:	0002
Deed:	SP
Grantor:	Cypress Trust Company (TR)
Price:	$450,000
Date:	May 27, 2010
Book/Page:	3204 / 0743
Sale Code:	0112
Deed:	SP
Grantor:	Cypress Trust Company (TR)
Price:	$100
Date:	Dec 17, 2008
Book/Page:	3049 / 2156

Sale Code:	XX01
Deed:	CT
Grantor:	Mid South Acquisitions LLC
Price:	$299,000
Date:	Mar 9, 2006
Book/Page:	2511 / 0830
Sale Code:	XX00
Deed:	WD
Grantor:	Zog Limited Partnership
Price:	$1,728,800
Date:	Mar 25, 2004
Book/Page:	1936 / 0579
Sale Code:	XX00
Deed:	WD
Grantor:	B + M Construction Co Inc
Price:	$448,500
Date:	Sep 16, 1999
Book/Page:	1251 / 1882
Sale Code:	XX00
Deed:	WD
Grantor:	B + M Construction Co Inc
Price:	$260,000
Date:	Sep 14, 1998
Book/Page:	1171 / 1672
Sale Code:	XX01
Deed:	WD
Grantor:	SCOTTY`S INC
Price:	$95,700
Date:	Jan 1, 1986
Book/Page:	0489 / 2883
Sale Code:	XX00
Deed:	CV
Grantor:	
Price:	$725,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Special Features and Yard Items

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$732,700
Just/Market:	$732,700
Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$732,700
Exemption(s):	$0
Taxable:	$732,700

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2006	0041	18.1	Fort Pierce Stormwater Charge	$1,248.90

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office .

Historical Values

Permits

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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/

LEGAL DESCRIPTION

LEGAL DESCRIPTION (ORB 3204, PAGE 743):

BLOCK "D", LESS RIGHTS-OF-WAY, COLLIER SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A RAILROAD SPIKE AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST, LUCIE COUNTY, FLORIDA;
THENCE RUN N 88°42'30"E, ALONG THE SOUTH LINE OF THE SAID NORTHEAST 1/4, A DISTANCE OF 661.40 FEET TO THE WEST LINE OF BLOCK "D" OF COLLIER'S SUBDIVISION, AS RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA;
THENCE RUN N 00°00'18" W, ALONG THE WEST LINE OF SAID BLOCK D, A DISTANCE OF 27.01 FEET, TO THE POINT OF BEGINNING;
THENCE CONTINUE N 00°00'18" W, A DISTANCE OF 796.62 FEET, TO THE NORTHWEST CORNER OF SAID BLOCK D;
THENCE RUN N 88°43'25" E, ALONG THE NORTH LINE OF SAID BLOCK D, A DISTANCE OF 460.00 FEET;
THENCE RUN S 00°04'02" W, A DISTANCE OF 470.52 FEET, TO THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE RUN S 49°35'30" W, ALONG THE SAID NORTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 516.56 FEET;
THENCE RUN S 88°42'30" W, A DISTANCE OF 65.96 FEET, TO THE POINT OF BEGINNING,
ALL LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THE FOLLOWING:

A PORTION OF BLOCK "D", COLLIER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 4, PAGE 63, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SAID BLOCK "D", SAID CORNER BEING SITUATED ON THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE, NORTH 28°00'23" W, A DISTANCE OF 167.87 FEET;
THENCE, NORTH 89°51'15" E, A DISTANCE OF 79.00 FEET TO THE EAST LINE OF SAID BLOCK D;
THENCE, SOUTH 00°04'02" W, ALONG SAID EAST LINE, A DISTANCE OF 148.41 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.
SAID LANDS SITUATE, LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA.

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 4623280 OR BOOK 4327 PAGE 333, Recorded 10/01/2019 12:37:51 PM Doc Tax: $3150.00

Prepared by and return to:
James H. Ryan
Attorney at Law
Gary, Dytrych & Ryan, P.A.
701 U. S. Highway One Suite 402
North Palm Beach, FL 33408
561-844-3700
File Number: **84101**

[Space Above This Line For Recording Data]

Special Warranty Deed

This Special Warranty Deed made this **30th** day of **September, 2019** between **Cypress Trust Company, a Florida corporation**, as Trustee under Special Purpose Revocable Trust Agreement dated November 22, 2013, as modified; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated May 18, 2004, as modified; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated June 8, 2004; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated June 2, 2004; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated October 17, 2003; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated March 23, 2005; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated February 21, 2006; and Cypress Trust Company, as Trustee under IRA Self-directed Trust Agreement dated February 13, 2005, whose post office address is **251 Royal Palm Way, Suite 500, Palm Beach, FL 33480**, grantor, and **Arrow Investment Group LLC, a Florida limited liability company**, whose post office address is **4512 North Flagler Dr., #2056, West Palm Beach, FL 33407**, grantee:

(Whenever used herein the terms grantor and grantee include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Saint Lucie County, Florida**, to-wit:

Block "D", Less rights-of-way, COLLIER'S SUBDIVISION, according to the Plat thereof, recorded in Plat Book 4, Page 63, Public Records of St. Lucie County, Florida, being more particularly described as follows:
Commence at a railroad spike at the Southwest corner of the Northeast 1/4 of Section 17, Township 35 South, Range 40 East, St, Lucie County, Florida; thence run N 88°42'30"E, along the South line of the said Northeast 1/4, a distance of 661.40 feet to the West line of Block "D" of Collier's Subdivision, as recorded in Plat Book 4, Page 63, Public Records of St. Lucie County, Florida; thence run N 00°00'18" W, along the West line of said Block D, a distance of 27.01 feet, to the POINT OF BEGINNING; thence continue N 00°00'18" W, a distance of 796.62 feet, to the Northwest corner of said Block D; thence run N 88°43'25" E, along the North line of said Block D, a distance of 460.00 feet; thence run S 00°04'02" W, a distance of 470.52 Feet, to the Northerly right-of-way line of Okeechobee Road [State Road 70]; thence run S 49°35'30" W, along the said Northerly right-of-way line, a distance of 516.56 feet; thence run S 88°42'30" W, a distance of 65.96 feet, to the POINT OF BEGINNING, all lying and being in Section 17, Township 35 South, Range 40 East, St. Lucie County, Florida.
Less and excepting the following:
A portion of Block "D", COLLIER'S SUBDIVISION, according to the Plat thereof as recorded in Plat Book 4, Page 63, of the Public Records of St. Lucie County, Florida.
Being more particularly described as follows:

Begin at the Southeast corner of said Block "D", said corner being situated on the Northerly right-of-way line of Okeechobee Road [State Road 70]; thence, North 28°00'23" W, a distance of 167.87 feet; thence, North 89°51'15" E, a distance of 79.00 feet to the East line of said Block D; thence,
South 00°04'02" W, along said East line, a distance of 148.41 feet to the Point of Beginning of the herein described parcel of land.
Said lands situate, lying and being in Section 17, Township 35 South, Range 40 East, City of Fort Pierce, St. Lucie County, Florida.

Parcel Identification Number: 2417-504-0020-001-6

Subject to taxes for 2019 and subsequent years; covenants, conditions, restrictions, easements, reservations and limitations of record, if any.

Grantor is an institutional lender and is acting solely in a fiduciary capacity.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under grantors.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Witness Name: Donna Pfister

Witness Name: Jamie Reid

Cypress Trust Company, a Florida corporation, as Trustee

By: _____
Roxanne Ertle, Vice President

(Corporate Seal)

State of Florida
County of Palm Beach

The foregoing instrument was acknowledged before me this 26 day of September, 2019 by Roxanne Ertle, Vice President of Cypress Trust Company, a Florida corporation, as Trustee, on behalf of the corporation. He/she [ ] is personally known to me or [ ] has produced a driver's license as identification.

[Notary Seal]

JAMIE REID
Notary Public - State of Florida
Commission # FF 936732
My Comm. Expires Jan 21, 2020
Bonded through National Notary Assn.

Notary Public

Printed Name: Jamie Reid

My Commission Expires: 01 | 21 | 2020

DoubleTime®

CONCEPTUAL SURFACE WATER MANAGEMENT REPORT AND CALCULATIONS

For

ARIA APARTMENTS

June 2020

SINCE 1979

Prepared by:

Michael B. Schorah and Associates, Inc.
1850 Forest Hill Blvd., Suite 206
West Palm Beach, Florida 33406
(561) 968-0080
EB#2438

MICHAEL J. LACOURSIERE LICENSE No. 41071 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY MICHAEL J. LACOURIERE, P.E. ON 6/16/20 USING A SHA-1 AUTHENTICATION CODE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Michael J. LaCoursiere, P.E.
Florida Registration No. 41071
for Michael B. Schorah and Associates, Inc.

Date

MICHAEL J. LaCOURSIERE LICENSE 41071 STATE OF FLORIDA PROFESSIONAL ENGINEER 6/16/2020

INTRODUCTION

This drainage report is prepared and presented as a support document for an application being submitted to City of Fort Pierce Technical Review Committee. The application proposes development of 112 multi-family residential units located in five (5) two- and three-story buildings on approximately 6.8 acres. The site is located on Okeechobee Road at the intersection with South 30th Street. A clubhouse and pool amenity are also proposed. The site is currently undeveloped. An existing ditch runs along the west side of the property. This on-stie ditch appears to provide conveyance of off-site water south to an existing culvert located off-site near the southwest corner of property. Water from the ditch passes through the culvert, under South 31st Street, and into a City of Fort Pierce (CFP) drainage ditch. Flow from the CFP ditch continues westward under South 33rd Avenue and into the North St. Lucie River Water Control District (NSLRWCD) Canal 6 and ultimately to Five Mile Creek (NSLRWCD Canal 29). Therefore, the subject parcel has legal positive outfall.

PROPOSED SURFACE WATER MANAGEMENT SYSTEM

The proposed surface water management design considers the existing on-site ditch as the receiving body (receiving ditch) for stormwater discharge. Discharge from the receiving ditch into the CFP ditch is controlled by an existing 36" RCP pipe with a west invert elevation of 13.4. Therefore, we can assume that water elevations in the receiving ditch can rise to this elevation and artificially control the new system at the same elevation. Conservatively, the following surface water management calculations assume an on-site control elevation of 13.4. The calculations demonstrate the proposed development can meet regulatory criteria for finished floors (100-year 3-day stage), perimeter grades (25-year 3-day stage), and minimum pavement (10-year 1-day stage). We expect, however, that the on-site detention area water level will

fluctuate between elevation 13.4 and 10.5 (expected groundwater elevation). Elevation 10.5 is also the control elevation of NSLRWCD Canal 6. Accordingly, on-site storm stages will only rise as high as presented in the summary shown below during instances where the receiving ditch is full.

The site plan shows modifications to the receiving ditch. More specifically, as shown on the Conceptual Engineering Plan, a portion of the receiving ditch will be piped within the property limits. Sizing of the pipe will be determined based upon expected off-site flows. The site plan also considers re-grading the east bank of the receiving ditch.

We also note that the water surface of the proposed on-site detention area is less than 0.5 acres. This falls short of the minimum dimensional criteria established by South Florida Water Management District for water quality credit. Therefore, an exfiltration trench system is being established to provide necessary water quality treatment prior to off-site discharge.

WATER MANAGEMENT CALCULATIONS

Land Use Assumptions:

Total Site Area	=	6.50 ac.	(area within perimeter berm)	
Lake Area (Water)	=	0.36 ac.	el. 13.4	(100% imp.)
Lake Bank Area	=	0.23 ac.	el. 13.4→17.5	(0% imp.)
Building Area	=	1.39 ac.	el. 19.5 min.	(100% imp.)
Pavement Area	=	1.97 ac.	el. 17.25→18.5	(100% imp.)
Walk Area	=	0.29 ac.	el. 17.5→19.0	(100% imp.)
Remainder	=	2.26 ac.	el. 17.5→19.0	(0% imp.)

Soil Storage:

Wet Season Groundwater elevation is 13.4 NAVD.
Using Flatwoods Soil Storage:
Lake Bank (avg. 2.05' above GWT) = 0.23 ac. x 2.64 in. x 0.75= 0.46 ac.-in.

Remainder (avg. 4'+ above GWT) = 2.26 ac. x 9 in. x 0.75 = 15.26 ac.-in.

Total Soil Storage = 15.26 + 0.46 = 15.72 ac.-in. or 2.42 inches

Water Quality Retention Required:

Drainage Area= 6.5 ac.
1" over site:
V = 1" x 6.5 ac. x 1'/12" = 0.54 ac.-ft.`

2.5" x % impervious:
Site area for water quality = 6.5 – 1.39 – 0.36 = 4.75 ac.
Imp. area for water quality = 4.75 – 2.26– 0.23 = 2.26 ac.
% Impervious = 2.26 / 4.75 = 47.58%
2.5" x % impervious = 2.5" x 0.4758 = 1.19"
V = 1.19" x (6.5 – 0.36) ac. x 1'/12" = 0.61 ac.-ft.

Maximum controls, therefore, V = 0.61 ac.-ft.

Note: Detention area does not meet SFWMD dimensional criteria. Therefore, water quality will be provided by other means, see following exfiltration design.

Bleeder Criteria:

Type: Circular
Invert Elevation: 13.40'
Diameter: 3.75 in.
Weir Flow: 0.6
Orifice Flow: 0.6

Allowable Discharge:

Allowable Discharge = 0.216/24 x 6.5 x (43560 S.F. /3600 sec.) = 0.71 cfs*
Weir Top Elevation has been set above the 25-year 3-day flood stage.

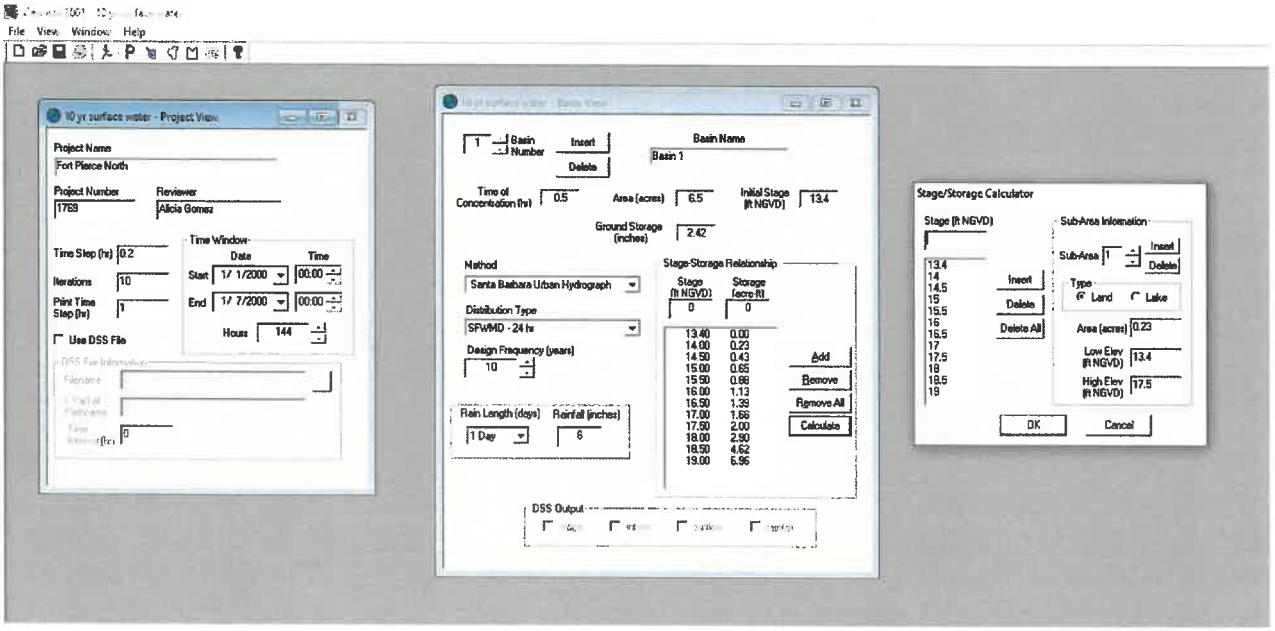
*Based on NSLRWCD criteria which is more restrictive than City of Fort Pierce pre vs. post analysis. NSLRWCD criteria = 2.6" in 24 hours.

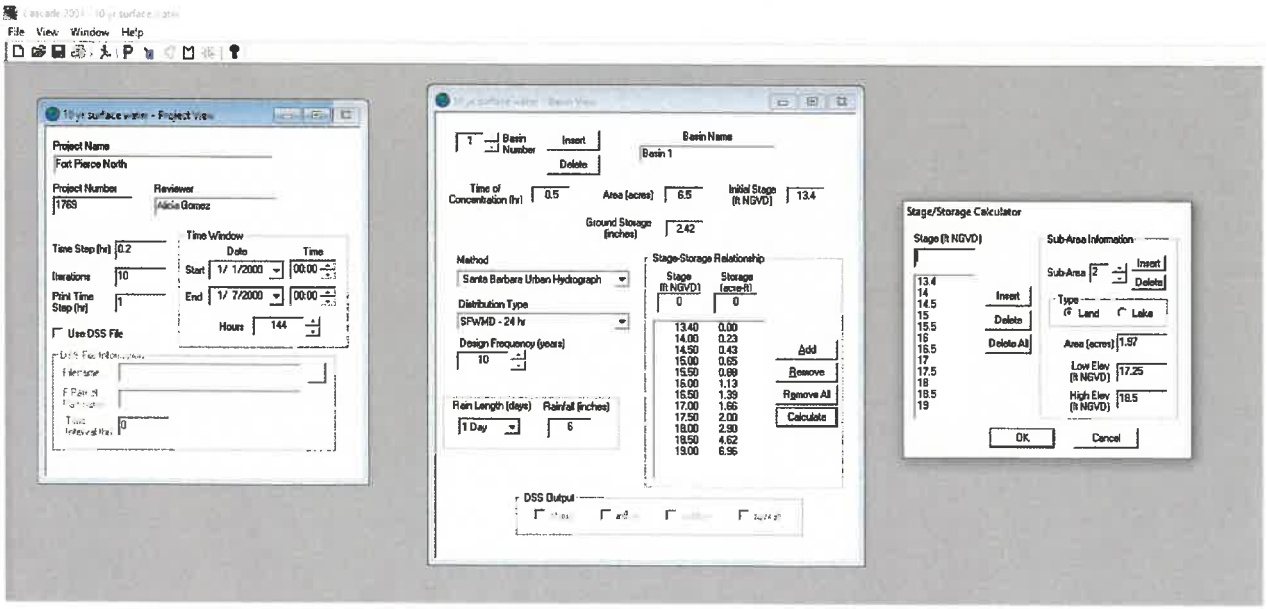
SUMMARY OF CONCEPTUAL DESIGN CRITERIA:

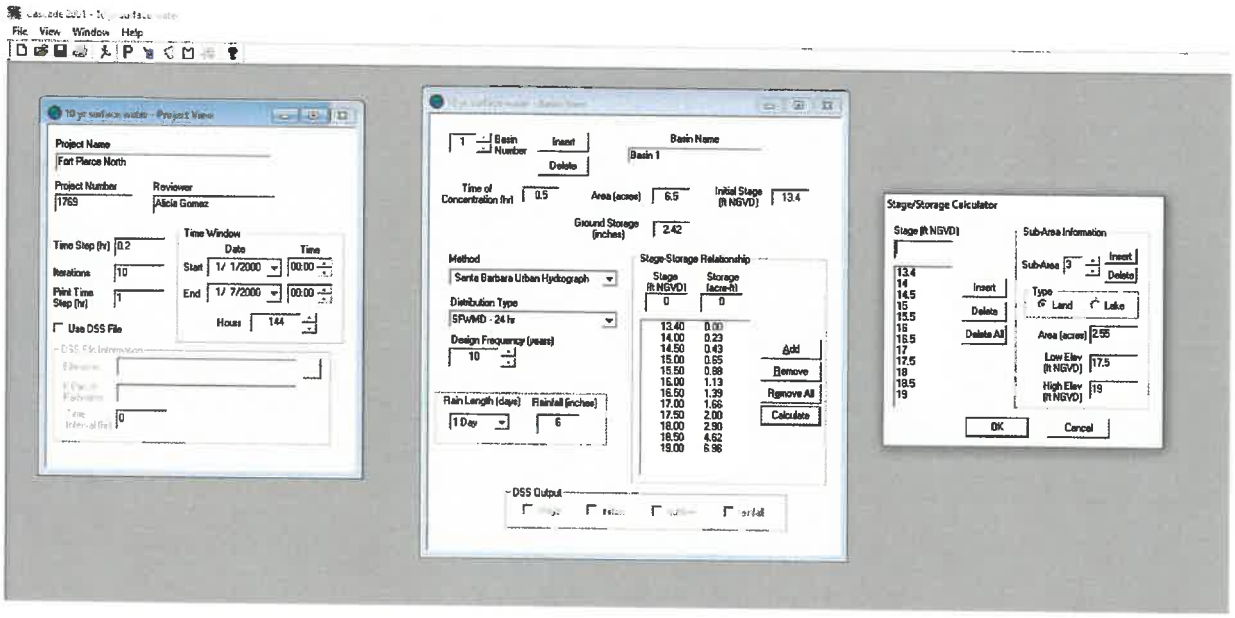
100 year –3 day Rainfall	12.23 inches
100 year - 3 day Flood Elevation	18.58' NAVD (zero discharge)
Minimum Finished Floor Elevation	19.50' NAVD
25 year – 3 day Rainfall	9.5 inches
25 year - 3 day Flood Elevation	17.76' NAVD
Minimum Perimeter Elevation	17.90' NAVD
Weir Elevation	17.90' NAVD
10 year - 1 day Rainfall	6 inches
10 year - 1 day Flood Elevation	16.16' NAVD
Minimum Pavement Elevation	17.25' NAVD

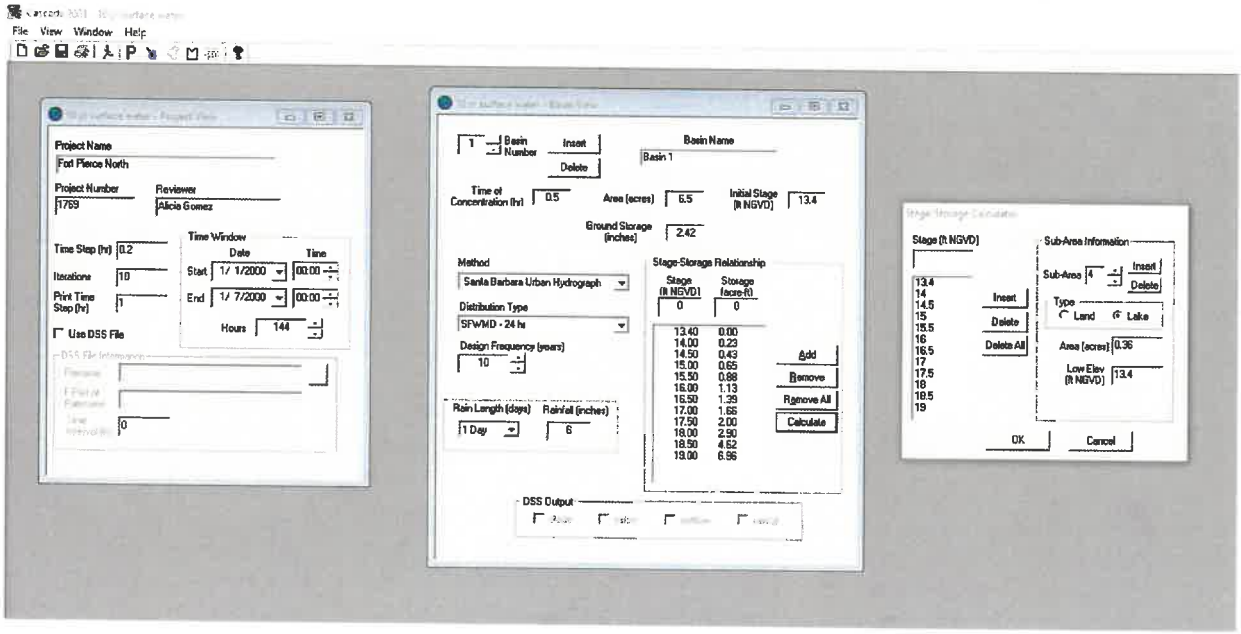
Stage/Storage Calculations on Cascade (Screenshots)

The following screenshots are presented to show the stage-storage table generated by the Cascade/SBWW program prior to hand entering storage associated with the proposed exfiltration trench.






File View Window Help
Project Name
Fort Pierce North
Project Number
1769
Reviewer
Alicia Gomez
Time Window
Time Step (hr) 0.2
Iterations 10
Print Time Step (hr) 1
Use DSS File
Start 1/ 1/2000
End 1/ 7/2000
Hours 144
Basin Number
Insert
Delete
Basin Name
Basin 1
Time of Concentration (hr) 0.5
Area (acres) 6.5
Initial Stage (ft NGVD) 13.4
Ground Storage (inches) 2.42
Method
Santa Barbara Urban Hydrograph
Distribution Type
SFWMD - 24 hr
Design Frequency (years) 10
Rain Length (days) 1 Day
Rainfall (inches) 6
Stage-Storage Relationship
Stage (ft NGVD) Storage (acre-ft)
13.40 0.00
14.00 0.23
14.50 0.43
15.00 0.65
15.50 0.88
16.00 1.13
16.50 1.39
17.00 1.66
17.50 2.00
18.00 2.90
18.50 4.62
19.00 6.96
Add
Remove
Remove All
Calculate
DSS Output
Stage/Storage Calculator
Stage (ft NGVD)
Sub-Area Information
Sub-Area 3
Type Land Lake
Area (acres) 2.55
Low Elev (ft NGVD) 17.5
High Elev (ft NGVD) 19
Delete All
OK
Cancel


File View Window Help
Project Name
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Time Window
Time Step (hr) 0.2
Iterations 10
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Start 1/ 1/2000
End 1/ 7/2000
Hours 144
Basin Number
Insert
Delete
Basin Name
Basin 1
Time of Concentration (hr) 0.5
Area (acres) 6.5
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Method
Santa Barbara Urban Hydrograph
Distribution Type
SFWMD - 24 hr
Design Frequency (years) 10
Rain Length (days) 1 Day
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Stage-Storage Relationship
Stage (ft NGVD) Storage (acre-ft)
13.40 0.00
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17.00 1.66
17.50 2.00
18.00 2.90
18.50 4.62
19.00 6.96
Add
Remove
Remove All
Calculate
DSS Output
Stage (ft NGVD)
Sub-Area Information
Sub-Area 4
Type Land Lake
Area (acres) 0.36
Low Elev (ft NGVD) 13.4
Delete All
OK
Cancel

EXFILTRATION TRENCH DATA:

18" PERFORATED H.D.P.E PIPE
TRENCH DEPTH 3.5', TRENCH WIDTH 6'
OVERFLOW ELEVATION = 13.40 NAVD
PIPE INVERT ELEVATION = 12.75 NAVD
12" MINIMUM COVER OF COARSE ROCK OVER PIPE
TOP OF TRENCH ELEVATION = 15.25 NAVD
BOTTOM OF TRENCH ELEVATION = 11.75 NAVD
WATER TABLE ELEVATION = 13.40 NAVD

k = HYDRAULIC CONDUCTIVITY *	6.32E-05 cfs/sq.ft-ft-head	
V = VOLUME TO BE TREATED	0.61 Ac-in	Max. Allowed Volume
W = TRENCH WIDTH	6.00 feet	
Ds = SATURATED TRENCH DEPTH	1.65 feet	
Du = NON-SATURATED TRENCH DEPTH	1.85 feet	
H2 = DEPTH OF WT FROM CONTROL ELEV.	3.85 feet	(17.25-13.40)

EXFILTRATION TRENCH LENGTH

L = V / K(H2xW+2xH2xDu-Du^2+2xH2xDs) +(1.39x10-4)WxDu

L = 135.86 feet

*HYDRAULIC CONDUCTIVITY FROM SOIL REPORT. SEE ATTACHED EXHIBIT.

STAGE-STORAGE TABLE:

Stage (Ft NAVD)	Storage (acre-ft)	+	Exfiltration Trench (acre-ft)	=	Total Storage (acre-ft)
13.40	0	+	0.31	=	0.31
14.00	0.23	+	0.41	=	0.64
14.50	0.43	+	0.49	=	0.92
15.00	0.65	+	0.57	=	1.22
15.50	0.88	+	0.61	=	1.49
16.00	1.13	+	0.61	=	1.74
16.50	1.39	+	0.61	=	2.00
17.00	1.66	+	0.61	=	2.27
17.50	2.00	+	0.61	=	2.61
18.00	2.90	+	0.61	=	3.51
18.50	4.62	+	0.61	=	5.23
19.00	6.96	+	0.61	=	7.57
	Generated from Cascade				

Project Name: Fort Pierce North
Reviewer: Alicia Gomez
Project Number: 1769
  Period Begin: Jan 01, 2000;0000 hr End: Jan 07, 2000;0000 hr Duration: 144 hr
  Time Step: 0.2 hr, Iterations: 10

Basin 1: Basin 1

  Method: Santa Barbara Unit Hydrograph
  Rainfall Distribution: SFWMD - 3day
  Design Frequency: 100 year
  3 Day Rainfall: 12.23 inches
  Area: 6.5 acres
  Ground Storage: 2.42 inches
  Time of Concentration: 1 hours
  Initial Stage: 13.4 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
13.40	0.31
14.00	0.64
14.50	0.92
15.00	1.22
15.50	1.49
16.00	1.74
16.50	2.00
17.00	2.27
17.50	2.61
18.00	3.51
18.50	5.23
19.00	7.57

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NAVD)
0.00	13.40
1000.00	13.40

Structure: 1

  From Basin: Basin 1
  To Basin: Offsite1
  Structure Type: Gravity
    Weir: None
    Bleeder: None
    Pipe: None

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
0.00	0.00	0.00	0.00	0.00	13.40	13.40
1.00	0.05	0.00	0.00	0.00	13.40	13.40
2.00	0.11	0.00	0.00	0.00	13.40	13.40
3.00	0.16	0.00	0.00	0.00	13.40	13.40
4.00	0.22	0.00	0.00	0.00	13.40	13.40
5.00	0.27	0.00	0.00	0.00	13.40	13.40
6.00	0.33	0.00	0.00	0.00	13.40	13.40
7.00	0.38	0.00	0.00	0.00	13.40	13.40
8.00	0.44	0.00	0.00	0.00	13.40	13.40
9.00	0.49	0.00	0.00	0.00	13.40	13.40
10.00	0.55	0.01	0.00	0.00	13.40	13.40
11.00	0.60	0.02	0.00	0.00	13.40	13.40
12.00	0.66	0.03	0.00	0.00	13.41	13.40
13.00	0.71	0.05	0.00	0.00	13.41	13.40
14.00	0.77	0.06	0.00	0.00	13.42	13.40
15.00	0.82	0.07	0.00	0.00	13.43	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
16.00	0.88	0.08	0.00	0.00	13.44	13.40
17.00	0.93	0.09	0.00	0.00	13.45	13.40
18.00	0.99	0.10	0.00	0.00	13.47	13.40
19.00	1.04	0.11	0.00	0.00	13.49	13.40
20.00	1.09	0.12	0.00	0.00	13.50	13.40
21.00	1.15	0.13	0.00	0.00	13.52	13.40
22.00	1.20	0.14	0.00	0.00	13.54	13.40
23.00	1.26	0.15	0.00	0.00	13.56	13.40
24.00	1.31	0.15	0.00	0.00	13.59	13.40
25.00	1.39	0.21	0.00	0.00	13.61	13.40
26.00	1.47	0.24	0.00	0.00	13.65	13.40
27.00	1.55	0.26	0.00	0.00	13.68	13.40
28.00	1.63	0.27	0.00	0.00	13.72	13.40
29.00	1.71	0.28	0.00	0.00	13.77	13.40
30.00	1.79	0.29	0.00	0.00	13.81	13.40
31.00	1.87	0.30	0.00	0.00	13.85	13.40
32.00	1.95	0.31	0.00	0.00	13.90	13.40
33.00	2.03	0.32	0.00	0.00	13.95	13.40
34.00	2.11	0.33	0.00	0.00	14.00	13.40
35.00	2.19	0.34	0.00	0.00	14.04	13.40
36.00	2.27	0.34	0.00	0.00	14.09	13.40
37.00	2.35	0.35	0.00	0.00	14.15	13.40
38.00	2.43	0.36	0.00	0.00	14.20	13.40
39.00	2.51	0.36	0.00	0.00	14.25	13.40
40.00	2.59	0.37	0.00	0.00	14.30	13.40
41.00	2.67	0.37	0.00	0.00	14.36	13.40
42.00	2.75	0.38	0.00	0.00	14.42	13.40
43.00	2.83	0.38	0.00	0.00	14.47	13.40
44.00	2.91	0.39	0.00	0.00	14.53	13.40
45.00	2.99	0.39	0.00	0.00	14.58	13.40
46.00	3.07	0.40	0.00	0.00	14.63	13.40
47.00	3.15	0.40	0.00	0.00	14.69	13.40
48.00	3.23	0.40	0.00	0.00	14.75	13.40
49.00	3.32	0.44	0.00	0.00	14.80	13.40
50.00	3.41	0.46	0.00	0.00	14.87	13.40
51.00	3.52	0.53	0.00	0.00	14.93	13.40
52.00	3.64	0.59	0.00	0.00	15.01	13.40
53.00	3.79	0.74	0.00	0.00	15.11	13.40
54.00	3.98	0.93	0.00	0.00	15.24	13.40
55.00	4.20	1.13	0.00	0.00	15.40	13.40
56.00	4.46	1.34	0.00	0.00	15.60	13.40
57.00	4.77	1.61	0.00	0.00	15.84	13.40
58.00	5.15	1.98	0.00	0.00	16.13	13.40
59.00	5.65	2.65	0.00	0.00	16.49	13.40
60.00	9.13	16.79	0.00	0.00	17.45	13.40
61.00	10.13	9.84	0.00	0.00	18.05	13.40
62.00	10.59	5.41	0.00	0.00	18.22	13.40
63.00	10.88	3.12	0.00	0.00	18.32	13.40
64.00	11.15	2.23	0.00	0.00	18.38	13.40
65.00	11.31	1.47	0.00	0.00	18.43	13.40
66.00	11.47	1.19	0.00	0.00	18.46	13.40
67.00	11.64	1.09	0.00	0.00	18.49	13.40
68.00	11.80	1.05	0.00	0.00	18.51	13.40
69.00	11.91	0.82	0.00	0.00	18.52	13.40
70.00	12.01	0.74	0.00	0.00	18.54	13.40
71.00	12.12	0.70	0.00	0.00	18.55	13.40
72.00	12.23	0.69	0.00	0.00	18.56	13.40
73.00	12.23	0.26	0.00	0.00	18.57	13.40
74.00	12.23	0.09	0.00	0.00	18.57	13.40
75.00	12.23	0.03	0.00	0.00	18.57	13.40
76.00	12.23	0.01	0.00	0.00	18.58	13.40
77.00	12.23	0.00	0.00	0.00	18.58	13.40
78.00	12.23	0.00	0.00	0.00	18.58	13.40
79.00	12.23	0.00	0.00	0.00	18.58	13.40
80.00	12.23	0.00	0.00	0.00	18.58	13.40
81.00	12.23	0.00	0.00	0.00	18.58	13.40
82.00	12.23	0.00	0.00	0.00	18.58	13.40
83.00	12.23	0.00	0.00	0.00	18.58	13.40
84.00	12.23	0.00	0.00	0.00	18.58	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
85.00	12.23	0.00	0.00	0.00	18.58	13.40
86.00	12.23	0.00	0.00	0.00	18.58	13.40
87.00	12.23	0.00	0.00	0.00	18.58	13.40
88.00	12.23	0.00	0.00	0.00	18.58	13.40
89.00	12.23	0.00	0.00	0.00	18.58	13.40
90.00	12.23	0.00	0.00	0.00	18.58	13.40
91.00	12.23	0.00	0.00	0.00	18.58	13.40
92.00	12.23	0.00	0.00	0.00	18.58	13.40
93.00	12.23	0.00	0.00	0.00	18.58	13.40
94.00	12.23	0.00	0.00	0.00	18.58	13.40
95.00	12.23	0.00	0.00	0.00	18.58	13.40
96.00	12.23	0.00	0.00	0.00	18.58	13.40
97.00	12.23	0.00	0.00	0.00	18.58	13.40
98.00	12.23	0.00	0.00	0.00	18.58	13.40
99.00	12.23	0.00	0.00	0.00	18.58	13.40
100.00	12.23	0.00	0.00	0.00	18.58	13.40
101.00	12.23	0.00	0.00	0.00	18.58	13.40
102.00	12.23	0.00	0.00	0.00	18.58	13.40
103.00	12.23	0.00	0.00	0.00	18.58	13.40
104.00	12.23	0.00	0.00	0.00	18.58	13.40
105.00	12.23	0.00	0.00	0.00	18.58	13.40
106.00	12.23	0.00	0.00	0.00	18.58	13.40
107.00	12.23	0.00	0.00	0.00	18.58	13.40
108.00	12.23	0.00	0.00	0.00	18.58	13.40
109.00	12.23	0.00	0.00	0.00	18.58	13.40
110.00	12.23	0.00	0.00	0.00	18.58	13.40
111.00	12.23	0.00	0.00	0.00	18.58	13.40
112.00	12.23	0.00	0.00	0.00	18.58	13.40
113.00	12.23	0.00	0.00	0.00	18.58	13.40
114.00	12.23	0.00	0.00	0.00	18.58	13.40
115.00	12.23	0.00	0.00	0.00	18.58	13.40
116.00	12.23	0.00	0.00	0.00	18.58	13.40
117.00	12.23	0.00	0.00	0.00	18.58	13.40
118.00	12.23	0.00	0.00	0.00	18.58	13.40
119.00	12.23	0.00	0.00	0.00	18.58	13.40
120.00	12.23	0.00	0.00	0.00	18.58	13.40
121.00	12.23	0.00	0.00	0.00	18.58	13.40
122.00	12.23	0.00	0.00	0.00	18.58	13.40
123.00	12.23	0.00	0.00	0.00	18.58	13.40
124.00	12.23	0.00	0.00	0.00	18.58	13.40
125.00	12.23	0.00	0.00	0.00	18.58	13.40
126.00	12.23	0.00	0.00	0.00	18.58	13.40
127.00	12.23	0.00	0.00	0.00	18.58	13.40
128.00	12.23	0.00	0.00	0.00	18.58	13.40
129.00	12.23	0.00	0.00	0.00	18.58	13.40
130.00	12.23	0.00	0.00	0.00	18.58	13.40
131.00	12.23	0.00	0.00	0.00	18.58	13.40
132.00	12.23	0.00	0.00	0.00	18.58	13.40
133.00	12.23	0.00	0.00	0.00	18.58	13.40
134.00	12.23	0.00	0.00	0.00	18.58	13.40
135.00	12.23	0.00	0.00	0.00	18.58	13.40
136.00	12.23	0.00	0.00	0.00	18.58	13.40
137.00	12.23	0.00	0.00	0.00	18.58	13.40
138.00	12.23	0.00	0.00	0.00	18.58	13.40
139.00	12.23	0.00	0.00	0.00	18.58	13.40
140.00	12.23	0.00	0.00	0.00	18.58	13.40
141.00	12.23	0.00	0.00	0.00	18.58	13.40
142.00	12.23	0.00	0.00	0.00	18.58	13.40
143.00	12.23	0.00	0.00	0.00	18.58	13.40
144.00	12.23	0.00	0.00	0.00	18.58	13.40

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	0.00	0.00	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Basin 1	18.58	81.60	13.40	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Basin 1	5.27	0.00	0.00	0.31	5.58	0.00

Project Name: Fort Pierce North
Reviewer: Alicia Gomez
Project Number: 1769
  Period Begin: Jan 01, 2000;0000 hr End: Jan 07, 2000;0000 hr Duration: 144 hr
  Time Step: 0.2 hr, Iterations: 10

Basin 1: Basin 1

  Method: Santa Barbara Unit Hydrograph
  Rainfall Distribution: SFWMD - 3day
  Design Frequency: 25 year
  3 Day Rainfall: 9.5 inches
  Area: 6.5 acres
  Ground Storage: 2.42 inches
  Time of Concentration: 1 hours
  Initial Stage: 13.4 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
13.40	0.31
14.00	0.64
14.50	0.92
15.00	1.22
15.50	1.49
16.00	1.74
16.50	2.00
17.00	2.27
17.50	2.61
18.00	3.51
18.50	5.23
19.00	7.57

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NAVD)
0.00	13.40
24.00	13.40
48.00	13.60
68.00	14.50
360.00	13.40
1000.00	13.40

Structure: 1

  From Basin: Basin 1
  To Basin: Offsite1
  Structure Type: Gravity
    Weir: None
    Bleeder: Circular, Invert Elev = 13.4 ft NAVD, Diameter = 0.31 ft
      Default Coefs: Weir Coef = 0.6, Orifice Coef = 0.6
    Pipe: Diameter = 2 ft, Manning's n = 0.012, Length = 20 ft
      US Invert Elev = 11.8 ft NAVD, DS Invert Elev = 11.8 ft NAVD, flap gate

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
0.00	0.00	0.00	0.00	0.00	13.40	13.40
1.00	0.04	0.00	0.00	0.00	13.40	13.40
2.00	0.09	0.00	0.00	0.00	13.40	13.40
3.00	0.13	0.00	0.00	0.00	13.40	13.40
4.00	0.17	0.00	0.00	0.00	13.40	13.40
5.00	0.21	0.00	0.00	0.00	13.40	13.40
6.00	0.26	0.00	0.00	0.00	13.40	13.40
7.00	0.30	0.00	0.00	0.00	13.40	13.40
8.00	0.34	0.00	0.00	0.00	13.40	13.40
9.00	0.38	0.00	0.00	0.00	13.40	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
10.00	0.43	0.00	0.00	0.00	13.40	13.40
11.00	0.47	0.00	0.00	0.00	13.40	13.40
12.00	0.51	0.00	0.00	0.00	13.40	13.40
13.00	0.55	0.01	0.00	0.00	13.40	13.40
14.00	0.60	0.02	0.00	0.00	13.40	13.40
15.00	0.64	0.02	0.00	0.00	13.41	13.40
16.00	0.68	0.03	0.00	0.00	13.41	13.40
17.00	0.72	0.04	0.00	0.00	13.42	13.40
18.00	0.77	0.05	0.00	0.00	13.42	13.40
19.00	0.81	0.05	0.00	0.00	13.43	13.40
20.00	0.85	0.06	0.00	0.00	13.44	13.40
21.00	0.89	0.07	0.00	0.00	13.45	13.40
22.00	0.94	0.07	0.01	0.00	13.46	13.40
23.00	0.98	0.08	0.01	0.00	13.47	13.40
24.00	1.02	0.09	0.01	0.00	13.48	13.40
25.00	1.08	0.12	0.02	0.00	13.49	13.41
26.00	1.14	0.14	0.02	0.01	13.51	13.42
27.00	1.21	0.15	0.03	0.01	13.53	13.42
28.00	1.27	0.16	0.04	0.01	13.55	13.43
29.00	1.33	0.17	0.05	0.01	13.56	13.44
30.00	1.39	0.18	0.06	0.02	13.58	13.45
31.00	1.45	0.19	0.07	0.02	13.60	13.46
32.00	1.52	0.20	0.08	0.03	13.62	13.47
33.00	1.58	0.21	0.09	0.04	13.64	13.48
34.00	1.64	0.21	0.10	0.05	13.65	13.48
35.00	1.70	0.22	0.11	0.06	13.67	13.49
36.00	1.77	0.23	0.12	0.06	13.69	13.50
37.00	1.83	0.23	0.13	0.08	13.70	13.51
38.00	1.89	0.24	0.15	0.09	13.72	13.52
39.00	1.95	0.24	0.15	0.10	13.73	13.52
40.00	2.01	0.25	0.16	0.11	13.74	13.53
41.00	2.08	0.25	0.16	0.13	13.76	13.54
42.00	2.14	0.26	0.17	0.14	13.77	13.55
43.00	2.20	0.26	0.17	0.15	13.78	13.56
44.00	2.26	0.27	0.17	0.17	13.80	13.57
45.00	2.32	0.27	0.18	0.18	13.81	13.58
46.00	2.39	0.28	0.18	0.20	13.83	13.58
47.00	2.45	0.28	0.18	0.21	13.84	13.59
48.00	2.51	0.28	0.18	0.23	13.86	13.60
49.00	2.58	0.31	0.17	0.24	13.87	13.65
50.00	2.65	0.32	0.16	0.26	13.90	13.69
51.00	2.73	0.37	0.16	0.27	13.92	13.74
52.00	2.82	0.42	0.15	0.28	13.96	13.78
53.00	2.94	0.53	0.16	0.29	14.01	13.83
54.00	3.09	0.66	0.16	0.31	14.07	13.87
55.00	3.26	0.81	0.18	0.32	14.16	13.91
56.00	3.47	0.97	0.20	0.34	14.26	13.96
57.00	3.70	1.16	0.22	0.36	14.39	14.01
58.00	4.00	1.44	0.25	0.38	14.54	14.05
59.00	4.39	1.95	0.29	0.40	14.73	14.10
60.00	7.10	12.58	0.42	0.43	15.45	14.14
61.00	7.87	7.41	0.60	0.47	16.95	14.19
62.00	8.23	4.08	0.66	0.52	17.52	14.23
63.00	8.45	2.36	0.67	0.58	17.63	14.27
64.00	8.66	1.69	0.67	0.63	17.69	14.32
65.00	8.79	1.12	0.67	0.69	17.72	14.36
66.00	8.91	0.91	0.66	0.74	17.74	14.41
67.00	9.04	0.83	0.66	0.80	17.75	14.45
68.00	9.16	0.80	0.66	0.85	17.76	14.50
69.00	9.25	0.63	0.66	0.91	17.76	14.50
70.00	9.33	0.56	0.66	0.96	17.76	14.49
71.00	9.42	0.54	0.66	1.02	17.75	14.49
72.00	9.50	0.53	0.66	1.07	17.74	14.48
73.00	9.50	0.19	0.66	1.12	17.73	14.48
74.00	9.50	0.07	0.65	1.18	17.71	14.48
75.00	9.50	0.03	0.65	1.23	17.68	14.47
76.00	9.50	0.01	0.65	1.29	17.65	14.47
77.00	9.50	0.00	0.65	1.34	17.62	14.47
78.00	9.50	0.00	0.64	1.39	17.59	14.46

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
79.00	9.50	0.00	0.64	1.45	17.56	14.46
80.00	9.50	0.00	0.64	1.50	17.53	14.45
81.00	9.50	0.00	0.63	1.55	17.50	14.45
82.00	9.50	0.00	0.63	1.60	17.43	14.45
83.00	9.50	0.00	0.62	1.66	17.35	14.44
84.00	9.50	0.00	0.61	1.71	17.28	14.44
85.00	9.50	0.00	0.60	1.76	17.20	14.44
86.00	9.50	0.00	0.60	1.81	17.13	14.43
87.00	9.50	0.00	0.59	1.85	17.06	14.43
88.00	9.50	0.00	0.58	1.90	16.98	14.42
89.00	9.50	0.00	0.57	1.95	16.90	14.42
90.00	9.50	0.00	0.56	2.00	16.81	14.42
91.00	9.50	0.00	0.55	2.04	16.72	14.41
92.00	9.50	0.00	0.54	2.09	16.64	14.41
93.00	9.50	0.00	0.53	2.13	16.56	14.41
94.00	9.50	0.00	0.52	2.18	16.48	14.40
95.00	9.50	0.00	0.51	2.22	16.39	14.40
96.00	9.50	0.00	0.50	2.26	16.31	14.39
97.00	9.50	0.00	0.49	2.30	16.23	14.39
98.00	9.50	0.00	0.48	2.34	16.16	14.39
99.00	9.50	0.00	0.47	2.38	16.08	14.38
100.00	9.50	0.00	0.46	2.42	16.00	14.38
101.00	9.50	0.00	0.45	2.46	15.93	14.38
102.00	9.50	0.00	0.44	2.50	15.86	14.37
103.00	9.50	0.00	0.43	2.53	15.78	14.37
104.00	9.50	0.00	0.42	2.57	15.71	14.36
105.00	9.50	0.00	0.41	2.60	15.64	14.36
106.00	9.50	0.00	0.40	2.63	15.58	14.36
107.00	9.50	0.00	0.39	2.67	15.51	14.35
108.00	9.50	0.00	0.38	2.70	15.45	14.35
109.00	9.50	0.00	0.37	2.73	15.39	14.35
110.00	9.50	0.00	0.36	2.76	15.34	14.34
111.00	9.50	0.00	0.35	2.79	15.28	14.34
112.00	9.50	0.00	0.34	2.82	15.23	14.33
113.00	9.50	0.00	0.33	2.85	15.18	14.33
114.00	9.50	0.00	0.33	2.87	15.13	14.33
115.00	9.50	0.00	0.32	2.90	15.08	14.32
116.00	9.50	0.00	0.31	2.93	15.03	14.32
117.00	9.50	0.00	0.30	2.95	14.99	14.32
118.00	9.50	0.00	0.29	2.97	14.95	14.31
119.00	9.50	0.00	0.28	3.00	14.91	14.31
120.00	9.50	0.00	0.27	3.02	14.87	14.30
121.00	9.50	0.00	0.26	3.04	14.83	14.30
122.00	9.50	0.00	0.26	3.06	14.79	14.30
123.00	9.50	0.00	0.25	3.09	14.76	14.29
124.00	9.50	0.00	0.24	3.11	14.73	14.29
125.00	9.50	0.00	0.23	3.13	14.69	14.29
126.00	9.50	0.00	0.22	3.14	14.66	14.28
127.00	9.50	0.00	0.22	3.16	14.63	14.28
128.00	9.50	0.00	0.21	3.18	14.60	14.27
129.00	9.50	0.00	0.20	3.20	14.57	14.27
130.00	9.50	0.00	0.19	3.21	14.55	14.27
131.00	9.50	0.00	0.18	3.23	14.52	14.26
132.00	9.50	0.00	0.18	3.24	14.50	14.26
133.00	9.50	0.00	0.17	3.26	14.47	14.26
134.00	9.50	0.00	0.16	3.27	14.45	14.25
135.00	9.50	0.00	0.15	3.28	14.42	14.25
136.00	9.50	0.00	0.14	3.30	14.40	14.24
137.00	9.50	0.00	0.14	3.31	14.38	14.24
138.00	9.50	0.00	0.13	3.32	14.36	14.24
139.00	9.50	0.00	0.12	3.33	14.34	14.23
140.00	9.50	0.00	0.11	3.34	14.33	14.23
141.00	9.50	0.00	0.11	3.35	14.31	14.23
142.00	9.50	0.00	0.10	3.36	14.29	14.22
143.00	9.50	0.00	0.09	3.36	14.28	14.22
144.00	9.50	0.00	0.08	3.37	14.27	14.21

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	0.67	64.00	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Basin 1	17.76	68.80	13.40	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Basin 1	3.85	0.00	3.37	0.31	0.79	0.00

Project Name: Fort Pierce North
Reviewer: Alicia Gomez
Project Number: 1769
  Period Begin: Jan 01, 2000;0000 hr End: Jan 07, 2000;0000 hr Duration: 144 hr
  Time Step: 0.2 hr, Iterations: 10

Basin 1: Basin 1

  Method: Santa Barbara Unit Hydrograph
  Rainfall Distribution: SFWMD - 24 hr
  Design Frequency: 10 year
  1 Day Rainfall: 6 inches
  Area: 6.5 acres
  Ground Storage: 2.42 inches
  Time of Concentration: 1 hours
  Initial Stage: 13.4 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
13.40	0.31
14.00	0.64
14.50	0.92
15.00	1.22
15.50	1.49
16.00	1.74
16.50	2.00
17.00	2.27
17.50	2.61
18.00	3.51
18.50	5.23
19.00	7.57

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NAVD)
0.00	13.40
24.00	13.40
48.00	13.60
68.00	14.50
360.00	13.40
1000.00	13.40

Structure: 1

  From Basin: Basin 1
  To Basin: Offsite1
  Structure Type: Gravity
    Weir: None
    Bleeder: Circular, Invert Elev = 13.4 ft NAVD, Diameter = 0.31 ft
      Default Coefs: Weir Coef = 0.6, Orifice Coef = 0.6
    Pipe: Diameter = 2 ft, Manning's n = 0.012, Length = 20 ft
      US Invert Elev = 11.8 ft NAVD, DS Invert Elev = 11.8 ft NAVD, flap gate

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
0.00	0.00	0.00	0.00	0.00	13.40	13.40
1.00	0.06	0.00	0.00	0.00	13.40	13.40
2.00	0.12	0.00	0.00	0.00	13.40	13.40
3.00	0.19	0.00	0.00	0.00	13.40	13.40
4.00	0.27	0.00	0.00	0.00	13.40	13.40
5.00	0.37	0.00	0.00	0.00	13.40	13.40
6.00	0.50	0.00	0.00	0.00	13.40	13.40
7.00	0.65	0.05	0.00	0.00	13.40	13.40
8.00	0.82	0.15	0.00	0.00	13.42	13.40
9.00	1.03	0.31	0.01	0.00	13.45	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
10.00	1.28	0.53	0.02	0.00	13.51	13.40
11.00	1.61	0.91	0.07	0.01	13.61	13.40
12.00	3.94	8.63	0.26	0.02	14.06	13.40
13.00	4.60	5.35	0.44	0.05	15.01	13.40
14.00	4.91	3.04	0.51	0.09	15.56	13.40
15.00	5.10	1.81	0.55	0.14	15.86	13.40
16.00	5.28	1.33	0.57	0.18	16.02	13.40
17.00	5.39	0.89	0.58	0.23	16.10	13.40
18.00	5.50	0.72	0.58	0.28	16.13	13.40
19.00	5.60	0.67	0.58	0.33	16.15	13.40
20.00	5.71	0.65	0.59	0.37	16.16	13.40
21.00	5.78	0.51	0.59	0.42	16.15	13.40
22.00	5.86	0.46	0.58	0.47	16.14	13.40
23.00	5.93	0.44	0.58	0.52	16.11	13.40
24.00	6.00	0.43	0.58	0.57	16.09	13.40
25.00	6.00	0.16	0.57	0.62	16.04	13.41
26.00	6.00	0.06	0.56	0.66	15.97	13.42
27.00	6.00	0.02	0.55	0.71	15.88	13.42
28.00	6.00	0.01	0.54	0.75	15.79	13.43
29.00	6.00	0.00	0.53	0.80	15.70	13.44
30.00	6.00	0.00	0.52	0.84	15.62	13.45
31.00	6.00	0.00	0.51	0.88	15.53	13.46
32.00	6.00	0.00	0.50	0.93	15.45	13.47
33.00	6.00	0.00	0.49	0.97	15.38	13.48
34.00	6.00	0.00	0.48	1.01	15.30	13.48
35.00	6.00	0.00	0.47	1.05	15.23	13.49
36.00	6.00	0.00	0.46	1.08	15.16	13.50
37.00	6.00	0.00	0.45	1.12	15.09	13.51
38.00	6.00	0.00	0.44	1.16	15.02	13.52
39.00	6.00	0.00	0.43	1.19	14.96	13.52
40.00	6.00	0.00	0.42	1.23	14.90	13.53
41.00	6.00	0.00	0.41	1.26	14.84	13.54
42.00	6.00	0.00	0.40	1.30	14.79	13.55
43.00	6.00	0.00	0.39	1.33	14.73	13.56
44.00	6.00	0.00	0.38	1.36	14.68	13.57
45.00	6.00	0.00	0.37	1.39	14.63	13.58
46.00	6.00	0.00	0.36	1.42	14.58	13.58
47.00	6.00	0.00	0.35	1.45	14.53	13.59
48.00	6.00	0.00	0.34	1.48	14.48	13.60
49.00	6.00	0.00	0.32	1.51	14.43	13.65
50.00	6.00	0.00	0.30	1.53	14.38	13.69
51.00	6.00	0.00	0.28	1.56	14.34	13.74
52.00	6.00	0.00	0.26	1.58	14.30	13.78
53.00	6.00	0.00	0.24	1.60	14.26	13.83
54.00	6.00	0.00	0.22	1.62	14.23	13.87
55.00	6.00	0.00	0.19	1.64	14.20	13.91
56.00	6.00	0.00	0.17	1.65	14.17	13.96
57.00	6.00	0.00	0.14	1.66	14.15	14.01
58.00	6.00	0.00	0.10	1.67	14.13	14.05
59.00	6.00	0.00	0.06	1.68	14.12	14.10
60.00	6.00	0.00	0.00	1.68	14.12	14.14
61.00	6.00	0.00	0.00	1.68	14.12	14.19
62.00	6.00	0.00	0.00	1.68	14.12	14.23
63.00	6.00	0.00	0.00	1.68	14.12	14.27
64.00	6.00	0.00	0.00	1.68	14.12	14.32
65.00	6.00	0.00	0.00	1.68	14.12	14.36
66.00	6.00	0.00	0.00	1.68	14.12	14.41
67.00	6.00	0.00	0.00	1.68	14.12	14.45
68.00	6.00	0.00	0.00	1.68	14.12	14.50
69.00	6.00	0.00	0.00	1.68	14.12	14.50
70.00	6.00	0.00	0.00	1.68	14.12	14.49
71.00	6.00	0.00	0.00	1.68	14.12	14.49
72.00	6.00	0.00	0.00	1.68	14.12	14.48
73.00	6.00	0.00	0.00	1.68	14.12	14.48
74.00	6.00	0.00	0.00	1.68	14.12	14.48
75.00	6.00	0.00	0.00	1.68	14.12	14.47
76.00	6.00	0.00	0.00	1.68	14.12	14.47
77.00	6.00	0.00	0.00	1.68	14.12	14.47
78.00	6.00	0.00	0.00	1.68	14.12	14.46

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
79.00	6.00	0.00	0.00	1.68	14.12	14.46
80.00	6.00	0.00	0.00	1.68	14.12	14.45
81.00	6.00	0.00	0.00	1.68	14.12	14.45
82.00	6.00	0.00	0.00	1.68	14.12	14.45
83.00	6.00	0.00	0.00	1.68	14.12	14.44
84.00	6.00	0.00	0.00	1.68	14.12	14.44
85.00	6.00	0.00	0.00	1.68	14.12	14.44
86.00	6.00	0.00	0.00	1.68	14.12	14.43
87.00	6.00	0.00	0.00	1.68	14.12	14.43
88.00	6.00	0.00	0.00	1.68	14.12	14.42
89.00	6.00	0.00	0.00	1.68	14.12	14.42
90.00	6.00	0.00	0.00	1.68	14.12	14.42
91.00	6.00	0.00	0.00	1.68	14.12	14.41
92.00	6.00	0.00	0.00	1.68	14.12	14.41
93.00	6.00	0.00	0.00	1.68	14.12	14.41
94.00	6.00	0.00	0.00	1.68	14.12	14.40
95.00	6.00	0.00	0.00	1.68	14.12	14.40
96.00	6.00	0.00	0.00	1.68	14.12	14.39
97.00	6.00	0.00	0.00	1.68	14.12	14.39
98.00	6.00	0.00	0.00	1.68	14.12	14.39
99.00	6.00	0.00	0.00	1.68	14.12	14.38
100.00	6.00	0.00	0.00	1.68	14.12	14.38
101.00	6.00	0.00	0.00	1.68	14.12	14.38
102.00	6.00	0.00	0.00	1.68	14.12	14.37
103.00	6.00	0.00	0.00	1.68	14.12	14.37
104.00	6.00	0.00	0.00	1.68	14.12	14.36
105.00	6.00	0.00	0.00	1.68	14.12	14.36
106.00	6.00	0.00	0.00	1.68	14.12	14.36
107.00	6.00	0.00	0.00	1.68	14.12	14.35
108.00	6.00	0.00	0.00	1.68	14.12	14.35
109.00	6.00	0.00	0.00	1.68	14.12	14.35
110.00	6.00	0.00	0.00	1.68	14.12	14.34
111.00	6.00	0.00	0.00	1.68	14.12	14.34
112.00	6.00	0.00	0.00	1.68	14.12	14.33
113.00	6.00	0.00	0.00	1.68	14.12	14.33
114.00	6.00	0.00	0.00	1.68	14.12	14.33
115.00	6.00	0.00	0.00	1.68	14.12	14.32
116.00	6.00	0.00	0.00	1.68	14.12	14.32
117.00	6.00	0.00	0.00	1.68	14.12	14.32
118.00	6.00	0.00	0.00	1.68	14.12	14.31
119.00	6.00	0.00	0.00	1.68	14.12	14.31
120.00	6.00	0.00	0.00	1.68	14.12	14.30
121.00	6.00	0.00	0.00	1.68	14.12	14.30
122.00	6.00	0.00	0.00	1.68	14.12	14.30
123.00	6.00	0.00	0.00	1.68	14.12	14.29
124.00	6.00	0.00	0.00	1.68	14.12	14.29
125.00	6.00	0.00	0.00	1.68	14.12	14.29
126.00	6.00	0.00	0.00	1.68	14.12	14.28
127.00	6.00	0.00	0.00	1.68	14.12	14.28
128.00	6.00	0.00	0.00	1.68	14.12	14.27
129.00	6.00	0.00	0.00	1.68	14.12	14.27
130.00	6.00	0.00	0.00	1.68	14.12	14.27
131.00	6.00	0.00	0.00	1.68	14.12	14.26
132.00	6.00	0.00	0.00	1.68	14.12	14.26
133.00	6.00	0.00	0.00	1.68	14.12	14.26
134.00	6.00	0.00	0.00	1.68	14.12	14.25
135.00	6.00	0.00	0.00	1.68	14.12	14.25
136.00	6.00	0.00	0.00	1.68	14.12	14.24
137.00	6.00	0.00	0.00	1.68	14.12	14.24
138.00	6.00	0.00	0.00	1.68	14.12	14.24
139.00	6.00	0.00	0.00	1.68	14.12	14.23
140.00	6.00	0.00	0.00	1.68	14.12	14.23
141.00	6.00	0.00	0.00	1.68	14.12	14.23
142.00	6.00	0.00	0.00	1.68	14.12	14.22
143.00	6.00	0.00	0.00	1.68	14.12	14.22
144.00	6.00	0.00	0.00	1.68	14.12	14.21

STRUCTURE MAXIMUM AND MINIMUM DISCHARGE

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	0.59	20.40	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Basin 1	16.16	20.40	13.40	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Basin 1	2.08	0.00	1.68	0.31	0.71	0.00

ENVIRONMENTAL ASSESSMENT

6.87-ACRE PARCEL ALONG OKEECHOBEE ROAD

FT. PIERCE, ST. LUCIE COUNTY, FLORIDA

August 2019
Updated June 2020

For

Michael Moore
Arrow Investments
4512 North Flagler Drive, Ste. 216
West Palm Beach, Florida 33412

Prepared by:
David Nickerson, Inc.
6687 SE. Silverbell Avenue
Stuart, Florida 34997
561-891-1572

www.environmentalconsultflorida.com

Environmental Assessment

Project Name: 6.87-Acre Parcel **Project No.** C19012

Work Date: August 7 and 8, 2019

Site Location: Just east of South 31st Street, north side of Okeechobee Road
Ft. Pierce, Florida

Objective of Work: David Nickerson, Inc., (DNI) conducted an environmental assessment to document occurrences of any significant environmental resources including vegetative communities, jurisdictional wetland areas, and listed plant or wildlife species.

Site Description: The 6.87acre parcel is a vacant commercially zoned lot established in a commercial district located in Section 19, Township 35 South, Range 40 East, in Ft. Pierce, Florida (Figure 1). The property comprises 6.87 acres and is located east of South 31st Street, north of Okeechobee Road, west of developed commercial enterprises and south of undeveloped land. A small wetland ditch exists near the northwestern corner of the property and is connected to the dry drainage ditch located along the western property boundary. The entire site is disturbed and is dominated by cleared land on which a variety of weedy herbaceous plants occur. Remnant forest communities occur along the northeastern, northern and northwestern portions of the site. Several small to large isolated Cabbage palm (*Sabal palmetto*)/Brazilian pepper (*Schinus terebinthifolius*) heads occur along the southern site boundary and interior to the property. The largest of these, near the southwestern portion, supports an active homeless camp. Two well-worn foot paths occur onsite. One servicing the homeless camp from offsite at the intersection of Nebraska Avenue and South 31st Street and the other occurs along the eastern portion from the northern property line south to the business located offsite at the extreme southeastern property corner. No structures or other site improvements occur on the parcel.

Methodology: Prior to the site visit, the U.S. Geological Survey 7.5-minute Quadrangle Topographic Map, Ft. Pierce Quadrangle (Photo-revised 2015) and the Soil Survey of St. Lucie County Florida (U.S. Department of Agriculture 2014) were reviewed to determine topographic features and site soil map



NORTH

David Nickerson, Inc. www.environmentalconsultflorida.com	**Location Map** **6.87-Acre Okeechobee Road Parcel** **Ft. Pierce, Florida**	**Figure 1** August 2019 Not To Scale

units. Copies of Google 2016 aerial photographs of the parcel were obtained and reviewed to determine potential location of environmental features.

Pedestrian surveys of the parcel were conducted on August 7 and 8, 2019 to map approximate locations and boundaries of significant environmental resources, vegetative communities and occurrence of listed plant or animal species. Approximate locations of vegetative community cover type boundaries and other features were mapped on an aerial photograph of the site. Vegetative communities were identified in accordance with Florida Land Use Cover and Forms Classification System Handbook (FLUCFCS) (Florida Department of Transportation 1999).

Listed species of plants and wildlife are found in Florida's Endangered Species, Threatened Species, and Species of Special Concern, Official Lists (Florida Fish and Wildlife Conservation Commission 2013) and Preservation of Native Flora of Florida, Chapter 5B-40 (Florida Department of Agriculture and Consumer Services, Division of Plant Industry, October 2017). Any occurrences of listed species were recorded.

Technical Staff: David Nickerson

Findings: The entire 6.87-acre parcel is disturbed including vegetation and soil surface. Site investigation confirmed mapped soils on the southern half of the property as Tantile and Pomona sands and the northern half is underlain by Nettles and Oldsmar sands. Natural Resource and Conservation Service mapped soils are shown in Attachment A. Relatively intact native upland habitat does not occur on the property. Due to previous clearing, exotic and nuisance plant pioneers have replaced the historic pine flatwood understory vegetation naturally occurring on Tantile and Pomona sands and Nettles and Oldsmar sands soils in this part of St. Lucie County. The narrow forested areas along western and southern portions comprise mostly exotic plant species and the wetland buffer also contains exotic canopy and subcanopy species. Following partial clearing and local/regional historic drainage, six cover types currently occur on site and include Disturbed Herbaceous, Brazilian Pepper, Disturbed Mixed Hardwoods, Brazilian Pepper Cabbage Palm, Disturbed Pine Oak Cabbage Palm and Ditches. The cover types are described below and their locations on the parcel are depicted in Figure 2.



NORTH

LEGEND

- Parcel Boundary
- Human Paths

3101 – Disturbed Herbaceous
4141 – Disturbed Pine Oak Cabbage Palm
4220 – Brazilian Pepper
4221 – Brazilian Pepper Cabbage Palm
4381 – Disturbed Mixed Hardwoods
5101– Ditches
Source – *Florida Land Use, Cover and Forms Classification System* 1999

David Nickerson, Inc. www.environmentalconsultflorida.com	**Vegetation Communities Map 6.87 Acre Okeechobee Road Parcel Ft. Pierce, Florida**	Figure 2 August 2019 Not to Scale

Disturbed Herbaceous – FLUCFCS 3101; Disturbed Herbaceous cover type is the dominant cover on site, occurring on approximately 2.25 acres of the 6.87-acre parcel. Because this cover type has been cleared of all but herbaceous plants, no canopy, subcanopy or shrub plants occur. Bahiagrass (*Paspalum notatum*), in the eastern and southern portions, and St. Augustine grass (*Stenotaphrum secundatum*), in the northern and western portions, dominate the vegetation in the ground cover layer. Additional exotic and native herbaceous plants found in the ground cover include creeping oxeye (*Sphagneticola trilobata*), beggarticks (*Bidens pilosa*), sandspur (*Cenchrus spinifex*), morning glory (*Ipomea imperati*), frostweed (*Verbesina virginica*), creeping beggar weed (*Desmodium incanum*), pepper vine (*Ampleopsis arborea*), creeping indigo (*Indigofera spicata*), large flower pusley (*Richardia grandiflora*), West Indian dropseed (*Sporobolus jacquemontii*), shrubby false button (*Spermacoce verticillata*) and Guinea grass (*Panicum maximum*). Occasionally, ragweed (*Ambrosia artimisifolia*), dayflower (*Commelina* sp.), wild grape (*Vitis rotundifolia*), broomsedge bluestem (*Andropogon virginicus*), catbriar (*Smilax* spp.), wild poinsettia (*Poinsettia cyathophora*), Florida threeawn (*Aristida rhizomophora*), and dog fennel (*Eupatorium capillifolium*) also occur. Select photographs of this cover type are provided in Attachment B.

Disturbed Pine Oak Cabbage Palm – FLUCFCS 4141: Disturbed Pine Oak Cabbage Palm cover type occurs along the northern and eastern property boundaries. It comprises 2.1 acres. Evidence of disturbance observed includes abundant solid waste, soil disturbance and invasion of exotic plants. Only a few slash pine (*Pinus elliottii*) remain in the community and they occur in the northern extreme of the cover type. Other canopy plants include cabbage palm, laurel oak (*Quercus laurifolia*), melaleuca (*Melaleuca quinquenervia*) and Brazilian pepper with occasional horse bush (*Peltophorum dubium*), Mexican fan palm (*Washingtonia robusta*), and Queen Palm (*Syagrus romanzoffiana*). Subcanopy vegetation comprises Brazilian pepper, cabbage palm, melaleuca, Guinea grass and carrotwood (*Cupaniopsis anacardioides*). Ground cover includes Brazilian pepper, cabbage palm, carrotwood, Surinam cherry (*Ugenia uniflora*), blechnum fern (*Blechnum serrulatum*), with occasional marlberry (*Ardisia escallonioides*), beauty berry (*Callicarpa americana*), caesar weed (*Urena lobata*), frostweed, cat briar (*Smilax* sp.), and monk orchid (*Oceoclades maculata*).

Brazilian Pepper – FLUCFCS 4220; Brazilian Pepper cover type occurs south of the Disturbed Pine Oak Cabbage Palm and north of Disturbed Herbaceous and Disturbed Mixed Hardwoods in the northwestern forested portion of the property. It

comprises approximately 0.92 acres. Canopy trees are dominated by the exotic Brazilian pepper (*Schinus terebinthifolius*) with occasional representation by cabbage palm (*Sabal palmetto*), laurel oak and queen palm. Brazilian pepper also dominates the subcanopy with occasional laurel oak and cabbage palm. Ground cover plants are sparse and include seedlings of Brazilian pepper, Caesar weed (*Urena lobata*), pepper vine and frostweed (*Verbesina virginica*). Select photographs of this cover type are provided in Attachment B.

Brazilian Pepper Cabbage Palm – FLUCFCS 4221; Brazilian Pepper Cabbage Palm cover type occurs mostly as isolated tree "heads" within the Disturbed Herbaceous cover and includes an upland fringing community along the west central site boundary. It comprises approximately 0.92 acres. This community is highly disturbed as evidenced by dominance of exotic and invasive plants and scattered solid waste in each area. The largest of the heads contains an active homeless camp with several tents, makeshift tables and clothes lines (Figure 2) and Attachment B. Trees in the canopy layer of this cover type are dominated by the exotic Brazilian pepper and include Cabbage palm and an occasional laurel oak. Subcanopy plants include Brazilian pepper, strangler fig (*Ficus aurea*), occasional laurel oak and the invasive Surinam cherry (*Ugenia uniflora*). Ground cover plants are sparse but include Brazilian pepper, West Indian dropseed, Caesar weed, bahia grass and Florida threeawn. Select photographs of this cover type are provided in Attachment B.

Disturbed Mixed Hardwoods – FLUCFCS 4381; Disturbed Mixed Hardwoods cover type occurs in a small area along the west central portion of the property south of the Brazilian Pepper and north of the Disturbed Herbaceous cover type. It comprises 0.39 acres. Canopy vegetation comprises False Tamarind (*Lysiloma latisiliquum*), cabbage palm, rosewood (*Dalbergia sissoo*), Brazilian pepper and laurel oak. Subcanopy plants include Brazilian pepper, rosewood, cabbage palm, Surinam cherry and laurel oak. Ground cover comprises seedlings of canopy and subcanopy species as well as Guinea grass, pepper vine, frostweed, Bahia grass and Caesar weed. A photograph of this cover type is provided in Attachment B.

Ditches – FLUCFCS 5101; Ditches cover type occurs as a 10-20 foot wide mostly dry drainage ditch along and just within the western property boundary from Okeechobee Road north to the Disturbed Pine Oak Cabbage Palm community. It comprises approximately 0.29 acres. On the day of this assessment, standing water was observed to occur only in the northern half of the ditch. The southern two fifths of the ditch and its banks are open and without any shrubs or trees. The northern three fifths of the ditch length are covered by

overhanging vegetation and the portion west of the Disturbed Mixed Hardwoods community has Primrose willow (*Ludwigia peruviana*) plants growing in the ditch. No canopy trees actually grow in the ditch but overhanging Brazilian pepper predominates over the ditch in that community and an occasional laurel oak and Carolina willow (Salix caroliniana) overhang to the south. Herbaceous plants growing in the open portion of the ditch include Guinea grass, West Indian dropseed, pepper vine, Caesar weed, rattlebox, blechnum fern (*Blechnum serrulatum*), with occasional maidencane (*Panicum hemitomon*) and plants typically found in the Disturbed Herbaceous cover type to the east. Select photographs of this cover type are provided in Attachment B.

A Gopher Tortoise Burrow Survey was conducted on the property. No active or inactive burrows were found. No other animals listed as protected by federal, state, or local environmental regulatory agencies, nor any signs of such animals, were observed on the parcel. Unlisted animal species and/or sign observed on the parcel included southern leopard frog (*Lithobates utricularia*), common oak toad (*Bufo quercicus*), Cuban anole (*Anolis sagrei*), Southern black racer (*Coluber constrictor*), mourning dove (*Zenaida macroura*), northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), mockingbird (*Mimus polyglottos*), loggerhead shrike (*Lanius ludovicianus*), zebra longwing butterfly (*Heliconius charitonia*) and a few other butterflies. Sign of animal occurrence observed include common rabbit (*Sylvilagus floridanus*) scat.

No plant species regulated by the Florida Department of Agriculture and Consumer Services were observed on the property.

Recommendations: Ft. Pierce Land Development Regulations address Tree Protection of native trees. A tree removal permit and a land clearing permit must be obtained prior to conducting any site work. No tree removal permit is required should only Brazilian pepper, Australian pine or Melaleuca trees be removed. Ft. Pierce Landscape Code defines material standards as to species and sizes. A tree survey may be necessary as the few native trees occurring onsite are required to be protected onsite or replaced with same species in future landscaping areas.

A small area of low land adjacent to and east of northern portions of the western drainage ditch is jurisdictional wetland and a wetland delineation was conducted to determine and mark the actual jurisdictional wetland limits on site in accordance with South Florida Water Management District (SFWMD) rules. The wetland delineation has been approved by SFWMD and the wetland has been determined to be an isolated wetland less than 0.5

acre in area. Should the wetland be maintained as part of the site plan, a 25 foot wide upland buffer must be maintained outside and surrounding the jurisdictional wetland line. Should the isolated wetland be impacted by the project, no mitigation would be required in accordance with SFWMD rules.

Because native upland habitat does not occur on site, Ft. Pierce Land Development Regulations (LDR) do not require any portion of onsite upland habitat to be protected in an upland preserve area on site.

Additionally, in accordance with Fort Pierce rules, all prohibited exotic plant species occurring on the property must be eradicated as a condition of building permit approval. Consequently, all prohibited species, including Brazilian pepper, camphor tree, Old World climbing fern and Guinea grass found on the site must be removed during the development process.

DNI can assist in addressing all of the above topics by conducting pre-permit application meetings with environmental regulatory agencies, preparing permit applications in cooperation with planners and engineers, and defining options that will assist in the development goals for the parcel.

Figures:

Figure 1 – Location Map
Figure 2 – Vegetative Communities Map

References:

Florida Association of Environmental Soil Scientists. 1995. Hydric Soils of Florida Handbook, second edition. University of Florida, United States Department of Agriculture, Florida Department of Environmental Protection, and St. Johns River Water Management District. 409p.

Florida Fish and Wildlife Conservation Commission. 2013. Florida's Endangered Species, Threatened Species and Species of Special Concern, Official Lists. Tallahassee, Florida. 12p.

U. S. Department of Agriculture, Soil Conservation Service. 2014. NRCS Web Soil Survey, Custom Soil Resource Report for St Lucie County

Attachment A

Area Soils Map



Map Scale: 1:8,520 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Natural Resources Web Soil Survey **Conservation Service** National Cooperative Soil Survey Soil Map—St. Lucie County, Florida (6.87 Acre Parcel)

MAP LEGEND

Area of Interest (AOI)
Area of Interest (AOI)
Soils
Soil Map Unit Polygons
Soil Map Unit Lines
Soil Map Unit Points
Special Line Features
Blowout
Borrow Pit
Clay Spot
Closed Depression
Gravel Pit
Gravelly Spot
Landfill
Lava Flow
Marsh or swamp
Mine or Quarry
Miscellaneous Water
Perennial Water
Rock Outcrop
Saline Spot
Sandy Spot
Severely Eroded Spot
Sinkhole
Slide or Slip
Sodic Spot
Spoil Area
Stony Spot
Very Stony Spot
Wet Spot
Other
Special Point Features
Water Features
Streams and Canals
Transportation
Rails
Interstate Highways
US Routes
Major Roads
Local Roads
Background
Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were m

Warning: Soil Map may not be valid at this

Enlargement of maps beyond the scale of misunderstanding of the detail of mapping line placement. The maps do not show th contrasting soils that could have been sho scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are re

This product is ge NRCS certified data as of the version date(s) lis

Soil Survey Area: St. Lucie
Survey Area Data: Version 11, Sep 17, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were 2019—Mar 23, 2019

The orthophoto or other base map on which compiled and digitized probably differs from the displayed on these maps. As a result, some mir shifting of map unit boundaries may be evident.

Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ankona and Farmton sands	12.2	3.7%
4	Arents, 0 to 5 percent slopes	5.6	1.7%
21	Lawnwood and Myakka sands	1.9	0.6%
25	Nettles and Oldsmar sands	29.7	9.0%
31	Pepper and EauGallie sands	55.0	16.6%
32	Pineda sand, 0 to 2 percent slopes	1.5	0.4%
40	Samsula muck, frequently ponded, 0 to 1 percent slopes	2.7	0.8%
44	Tantile and Pomona sands	188.8	57.0%
50	Waveland and Immokalee fine sands	1.2	0.4%
52	Waveland-Urban land complex	29.7	9.0%
99	Water	2.6	0.8%
Totals for Area of Interest		**330.9**	**100.0%**

Attachment B
Selected Photographs



Brazilian Pepper Cabbage Palm Head & Disturbed Herbaceous cover at SE property corner view to W



Disturbed Herbaceous cover and Human Path at SE property corner view to N



Disturbed Pine Oak Cabbage Palm, Disturbed Herbaceous & Human Path at NE corner view to S



Disturbed Herbaceous and Pine Oak Cabbage Palm at NE corner view to W



Adjacent land, Ditch, Disturbed Herbaceous & Brazilian Pepper head at SW corner view to N



Ditch, Disturbed Herbaceous & Brazilian Pepper Cabbage Palm head at SW corner view to ENE



Disturbed Herbaceous & Brazilian Pepper Heads from S of Disturbed Mixed Hardwoods view to SE



BP head, Disturbed Herbaceous and Brazilian Pepper head along street near SW corner view to E



Eastern Disturbed Pine Oak Cabbage Palm interior view to SE



Northern Disturbed Pine Oak Cabbage Palm western interior view to SW



False Tamarind tree and Brazilian pepper in Disturbed Mixed Hardwoods View to NW



Disturbed Herbaceous, Wetland portion of Ditch and Mexican fan palms in NW portion view to NNW



Homeless camp in Largest Brazilian Pepper Cabbage Palm head in SW portion of site view to ESE

Kimley»Horn

June 22, 2020

Arrow Investment Group, LLC
c/o Michael Sanchez
4512 North Flagler Drive, Suite 206
West Palm Beach, Florida 33407

Re: Arrow Fort Pierce North Residential – Future Land Use Plan Amendment Analysis
Fort Pierce, Florida
Kimley-Horn #043264001

Dear Mr. Sanchez:

Kimley-Horn and Associates, Inc. has prepared a future land use plan amendment traffic analysis for the site located in the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. The proposed plan of development includes changing the future land use designation from general commercial (GC) to medium density residential (RM). The parcel identification number for the site is 2417-504-0020-001-6.

The attached **Figure 1** shows the location of the site. The site plan and parcel number are attached for reference.

Table 1 summarizes the maximum development intensities for proposed future land use designation on the parcel based upon the proposed medium density residential (RM) designation. Per *City of Fort Pierce Comprehensive Plan* Policy 1.1.5, the City allows a density bonus of 5 dwelling units per acre for developments located within a ¼ mile of a rail station, multimodal transit center, or transit stop.

This analysis was conducted following short-term and long-term analysis procedures typically used to evaluate comprehensive plan amendments in Fort Pierce as outlined in the Comprehensive Plan. This report summarizes the findings of the comprehensive plan land use amendment traffic analysis.

TRIP GENERATION

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the project, and the distribution and assignment of that traffic over the study roadway network.

The trip generation calculations are based on the trip generation rates and equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 10th Edition* for the following:

- Scenario A: Maximum development potential under the existing FLU – General Commercial (GC)
- Scenario B: Maximum development potential under the future FLU – Medium Density Residential (RM)

The trip differential between the maximum development potential of the existing FLU site and maximum development potential of the proposed FLU was used for the short-range (year 2025) analysis and for the long-range (year 2040) analysis. As indicated in **Table 2**, the proposed development is a decrease in 26 net new external AM peak hour trips and a decrease in 32 net new external PM peak hour trips. Therefore, no further analysis is required for the proposed future lane use.

CONCLUSION

The foregoing comprehensive plan traffic analysis has been conducted to evaluate the proposed future land use to medium density residential at the site located in the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. Based on the trip generation calculation between the existing and proposed future land use, the proposed change in land use will be a decrease in project trips and will not impact roadways in the vicinity of the project. Therefore, the change in future land use for the subject parcel meets applicable criteria for an amendment to Fort Pierce's comprehensive plan.

Please contact me at (561) 840-0874 or adam.kerr@kimley-horn.com should you have any questions.

Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.

Adam B. Kerr, P.E.
Transportation Engineer

Florida Registration
Number 64773
Certificate of Authorization
Number 696

Attachments

k:\wpb_tpto\0432\043264001 - arrow fp north\flupa\2020-03-19 arrow flupa.docx

TABLE 1: MAXIMUM DEVELOPMENT INTENSITIES ARROW FORT PIERCE NORTH RESIDENTIAL			
Scenario	Maximum Intensity	Acreage	Max
Existing Future Land Use *General Commercial (GC)*	1.0 FAR	6.796	296,034 SF
Proposed Future Land Use *Medium Density Res (RM)*	17 DU per Acre	6.796	115 DU

TABLE 2
WEEKDAY TRIP GENERATION
ARROW FORT PIERCE NORTH RESIDENTIAL

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Existing Future Land Use								
Commercial	296.034 KSF	12,576	99	26	73	126	77	49
Subtotal		*12,576*	*99*	*26*	*73*	*126*	*77*	*49*
Pass-By								
Commercial	34%	4,276	34	9	25	43	26	17
Net External Trips		*8,300*	*65*	*17*	*48*	*83*	*51*	*32*
Proposed Future Land Use								
Multifamily Residential (Mid-Rise)	115 DU	625	39	10	29	51	31	20
Net External Trips		*625*	*39*	*10*	*29*	*51*	*31*	*20*
Existing Future Land Use - Proposed Future Land Use		*(7,675)*	*(26)*	*(7)*	*(19)*	*(32)*	*(20)*	*(12)*

Trip generation was calculated using the following data:

Daily Trip Generation			
Commercial	[ITE 820]	=	Ln(T) = 0.68Ln(X) + 5.57 trips/1,000 SF
Multifamily Residential (Mid-Rise)	[ITE 221]	=	T = 5.45(X) - 1.75 trips/DU
AM Peak Hour Trip Generation			
Commercial	[ITE 820]	=	T = 0.50(X) + 151.78 trips/1,000 SF (62% in, 38% out)
Multifamily Residential (Mid-Rise)	[ITE 221]	=	Ln(T) = 0.98Ln(X) - 0.98 trips/DU (26% in, 74% out)
PM Peak Hour Trip Generation			
Commercial	[ITE 820]	=	Ln(T) = 0.74 Ln(X) + 2.89 trips/1,000 SF (48% in, 52% out)
Multifamily Residential (Mid-Rise)	[ITE 221]	=	Ln(T) = 0.96Ln(X) - 0.63 trips/DU (61% in, 39% out)

Kimley»Horn


S 25TH STREET
VIRGINIA AVENUE
OKEECHOBEE ROAD
FIGURE 1
SITE LOCATION
ARROW FP NORTH RESIDENTIAL
Kimley»Horn
LEGEND
Project Site
NORTH

SITE INFORMATION

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address: OKEECHOBEE RD	Parcel ID: 2417-504-0020-001-6	Account #: 26668	Sec/Town/Range: 17/35S/40E
Use Type: 1000	Jurisdiction: Fort Pierce	Map ID: 24/17N	Zoning: General Co

Ownership

Arrow Investment Group LLC
4512 N Flagler DR # 2056
West Palm Beach, FL 33407

Legal Description

COLLIER`S S/D BLK D ALL BLK D-LESS S 27 FT AND SELY 7 FT FOR RD R/W AND LESS THAT PART MPDAF: BEG INT OF SE COR OF BLK D AND NLY RD R/W LI OF OKEEC RD RUN N 28 00 23 W 167.87 FT,TH N 89 51 15 E 79 FT TO E LI OF BLK D,TH S 00 04 02 W ALG E LI 148.41 FT TO NLY RD R/W LI OF OKEEC RD AND POB- (6.86 AC)

Current Values

Just/Market:	$732,700	Assessed:	$732,700
Exemptions:	$0	Taxable:	$732,700

Historical Values 3-year

Year	Just/Market	Assessed	Exemptions	Taxable
2019	$732,700	$732,700	$0	$732,700
2018	$732,700	$732,700	$0	$732,700
2017	$732,700	$732,700	$0	$732,700

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
09-26-2019	4327 / 0333	0112	SP	Cypress Trust Company (TR)	$450,000
05-27-2010	3204 / 0743	0112	SP	Cypress Trust Company (TR)	$100
12-17-2008	3049 / 2156	XX01	CT	Mid South Acquisitions LLC	$299,000

Primary Building Information

Finished Area of this building: 0 SF
Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:	Building Type:
Year Built: N/A	Frame:	Grade:	Effective Year: N/A
Primary Wall:	Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	A/C %: 0%	Electric:	Primary Int Wall:
Full Baths: 0	Heated %: N/A%	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Sprinkled %: 0%	Heat Fuel:	Primary Floors:



Image or Sketch unavailable for display

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.87
Land Size (SF):	299,058
Total Building Count:	1

Special Features and Yard Items

Type	Qty	Units	Year Blt

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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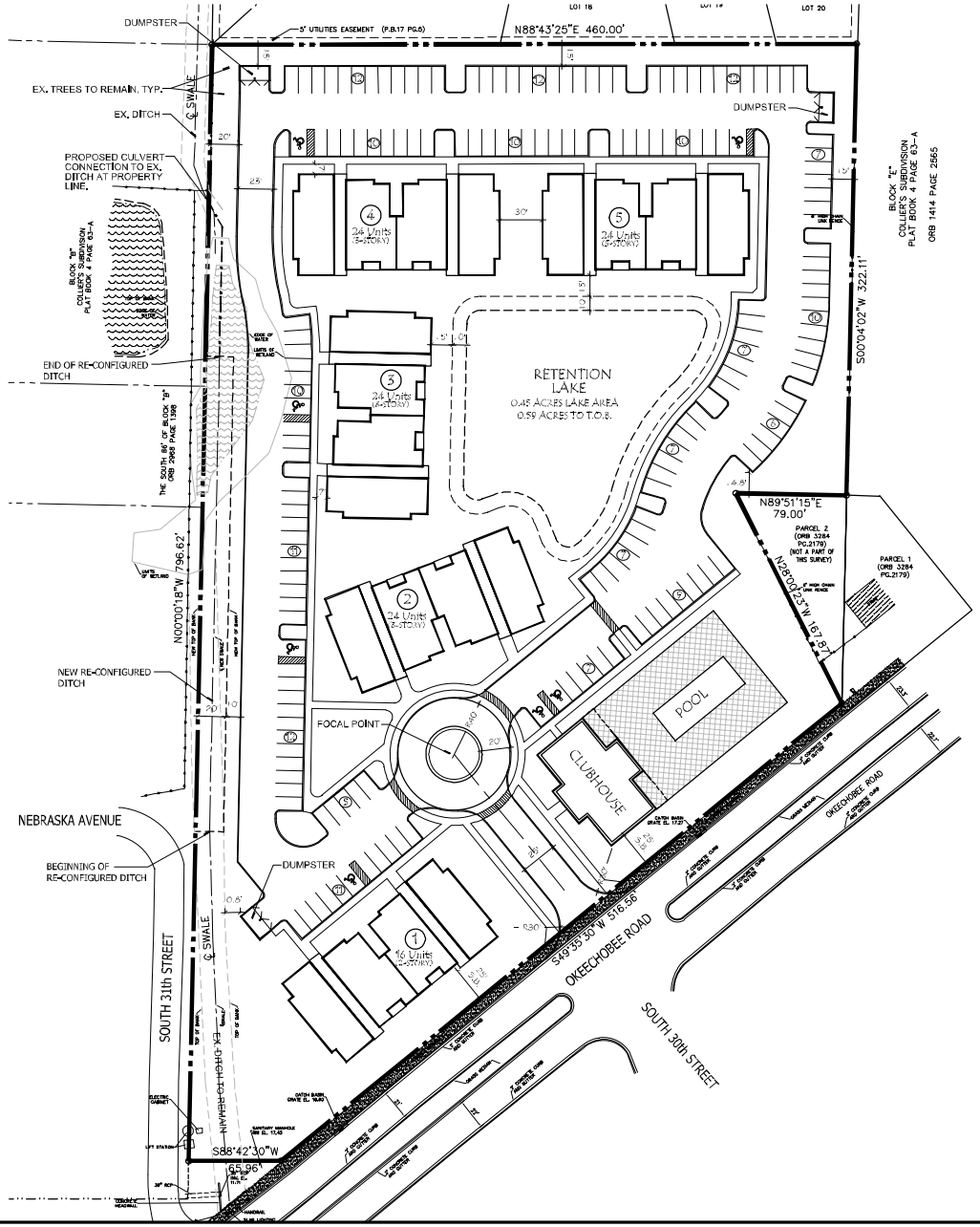


MANAGED LAND ENTITLEMENTS

3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8065

APPLICATION DATA:

NAME OF APPLICATION:	ARROW FP NORTH RESIDENTIAL
PARCEL ID:	2417-504-0020-001-6
SITE ADDRESS:	TBD
EXISTING FUTURE LAND USE:	GENERAL COMMERCIAL (GC)
PROPOSED FUTURE LAND USE:	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING DESIGNATION:	GENERAL COMMERCIAL (CG)
PROPOSED ZONING DESIGNATION:	MEDIUM DENSITY RESIDENTIAL (R-4)
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (112 UNITS)
PROPOSED DENSITY:	*16.48 D.U.'S PER ACRE

*PROJECT UTILIZES DENSITY BONUS FOR PROXIMITY TO TRANSIT STOP (+5 D.U.'S/ACRE) AND FOR INNOVATIVE DESIGN (+2 D.U.'S/ACRE)

SITE DATA:

GROSS SITE AREA:	296,012.97 S.F. (6.796 ACRES)
OPEN SPACE REQUIRED:	118,405.19 S.F. (40%)
PERVIOUS AREA PROVIDED:	109,454.95 S.F. (36.9%)
RETENTION AREA PROVIDED:	25,674.63 S.F. (8.7%)
TOTAL OPEN SPACE AREA:	135,129.58 S.F. (45.6%)

PARKING DATA:

PROPOSED USES (FLEX SPACE)

USE	UNITS	PARKING RATE	REQUIRED PARKING
MULTI-FAMILY RESIDENTIAL	112 UNITS	1.5/UNIT	168 SPACES
	TOTAL PARKING REQUIRED:		168 SPACES
	TOTAL PARKING PROVIDED:		175 SPACES
	HANDICAP SPACES REQ'D.:		6 SPACES
	HANDICAP SPACES PROV.:		7 SPACES

PROJECT TEAM

OWNER
Arrow Investment Group, LLC
4512 North Flagler Drive, Suite 2056
West Palm Beach, Florida 33407

ARCHITECT
Architectural Studios, Inc.
300 Avenue of the Champions, Suite 260
Palm Beach Gardens, Florida 33418
Contact: Scott Dipner (561-622-6990)

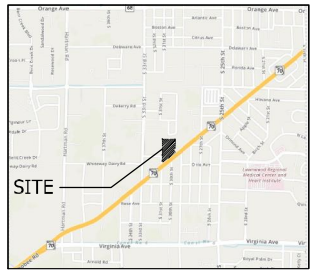
CIVIL ENGINEER/SURVEYOR
Michael G. Schorah & Associates, Inc.
1650 Forest Hill Blvd., Suite 208
West Palm Beach, Florida 33406
Contact: Michael LaCoursiere (561-368-0080)

DEVELOPMENT MANAGER/AGENT
Managed Land Entitlements, LLC
3710 Buckeye Street, Suite 100
Palm Beach Gardens, Florida 33410
Contact: Michael Sanchez (561-568-8045)

LANDSCAPE ARCHITECT
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Florida 34990
Contact: Jason Litterick (561-719-3878)

SURVEYOR
Brown & Phillips, Inc.
1860 Old Okeechobee Road, Suite 509
West Palm Beach, Florida 33409
Contact: John Phillips (561-478-3888)

LOCATION MAP



Site Plan

0 25' 50' 100' 150' 200'

NORTH

Scale: 1" = 50'

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, FL 34990
561-719-3878
JasonLA1677@yahoo.com

Project Name

Arrow FP North Residential
Ft. Pierce, Florida

Landscape Architect of Record

Jason M. Litterick FLA
LA0001677

Scale: 1" = 50'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	3/13/2020
Job No.	
Revisions:	

Sheet No.
SP-1

TRAFFIC IMPACT ANALYSIS

ARIA APARTMENTS
FT PIERCE, FL

PREPARED FOR:
ARROW INVESTMENT GROUP, LLC.

Kimley»Horn

Project # 043264001
June 22, 2020
CA 00000696
Kimley-Horn and Associates, Inc.
1920 Wekiva Way
West Palm Beach, Florida 33411
561/845-0665 TEL

TRAFFIC IMPACT ANALYSIS

ARIA APARTMENTS

FT PIERCE, FL

Prepared by:
Kimley-Horn and Associates, Inc.
West Palm Beach, Florida

Project # 043264001
June 22, 2020
CA 00000696
Kimley-Horn and Associates, Inc.
1920 Wekiva Way
West Palm Beach, Florida 33411
561/845-0665 TEL

Adam B. Kerr, P.E.
Florida Registration Number 64773

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Introduction

Kimley-Horn and Associates, Inc. has performed a traffic impact analysis to evaluate future traffic conditions associated with the proposed development located on the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. The traffic impact analysis has been conducted using a buildout year of 2025. Figure 1 illustrates the location of the project site. The Parcel ID for the site is 2417-504-0020-001-6.

The proposed site plan and parcel information are included in *Appendix A*.

Kimley-Horn and Associates, Inc was retained to prepare a traffic impact analysis for the proposed development. The study quantifies the project's impact on the adjacent transportation network. This report summarizes the project trip generation, distribution, and intersection analyses. This analysis followed the methodology and procedures determined by St Lucie County's *Standardized Traffic Impact Studies Methodology and Procedures.*



NORTH

LEGEND

Project Site

FIGURE 1
SITE LOCATION
ARIA APARTMENTS

Kimley»Horn

Inventory and Planning Data

The data used in this analysis was obtained from St. Lucie County and from the Florida Department of Transportation. The data included:

- Roadway link volume data
- Committed Developments
- Historical growth rate information

Turning movement counts were collected at the following intersections during the AM peak period (7:00 am to 9:00 am) and PM peak period (4:00 pm to 6:00 pm). Counts at the intersection of N 25th Street & Okeechobee Road were performed on Tuesday, October 22, 2019 and the interaction of Okeechobee Road & Virginia Avenue were performed on Wednesday, April 3, 2019:

- N 25th Street & Okeechobee Road
- Okeechobee Road & Virginia Avenue

Roadway link volumes and the committed developments are included in *Appendix B.* The growth rate calculation is included in *Appendix C* and turning movement counts are included in *Appendix D.*

Project Traffic

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the project and the distribution and assignment of that traffic over the study roadway network.

Existing and Proposed Land Uses

The existing site is vacant. The proposed plan of development includes 112 multifamily (mid-rise) dwelling units.

Trip Generation

The trip generation potential for the proposed redevelopment was calculated using the trip generation rates and equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 10th Edition*. Land Use [221] rates and equations were used for multifamily residential (mid-rise) use. As indicated in Table 1, the proposed development is projected to generate 609 net new external daily trips, an increase in 38 net new AM peak hour trips (+10 in, +28 out), and an increase of 49 net new external PM peak hour trips (+30 in, +19 out). Based on the new external daily trips, the area of influence is one-mile.

Table 1: Trip Generation

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Proposed								
Multifamily Residential (Mid-Rise)	112 DU	609	38	10	28	49	30	19
Driveway Volumes		609	38	10	28	49	30	19
Net External Trips		*609*	*38*	*10*	*28*	*49*	*30*	*19*

Trip generation was calculated using the following data:

Daily Trip Generation
- Multifamily Residential (Mid-Rise) [ITE 221] = T = 5.45(X) - 1.75 trips/DU

AM Peak Hour Trip Generation
- Multifamily Residential (Mid-Rise) [ITE 221] = Ln(T) = 0.98Ln(X) - 0.98 trips/DU (26% in, 74% out)

PM Peak Hour Trip Generation
- Multifamily Residential (Mid-Rise) [ITE 221] = Ln(T) = 0.96Ln(X) - 0.63 trips/DU (61% in, 39% out)

Traffic Distribution

Traffic distribution is the pairing of trip ends from the subject site with other land uses in the area. The project assignment on the study roadway links based on the characteristics of the proposed land use and existing travel demands.

The distribution is the following:

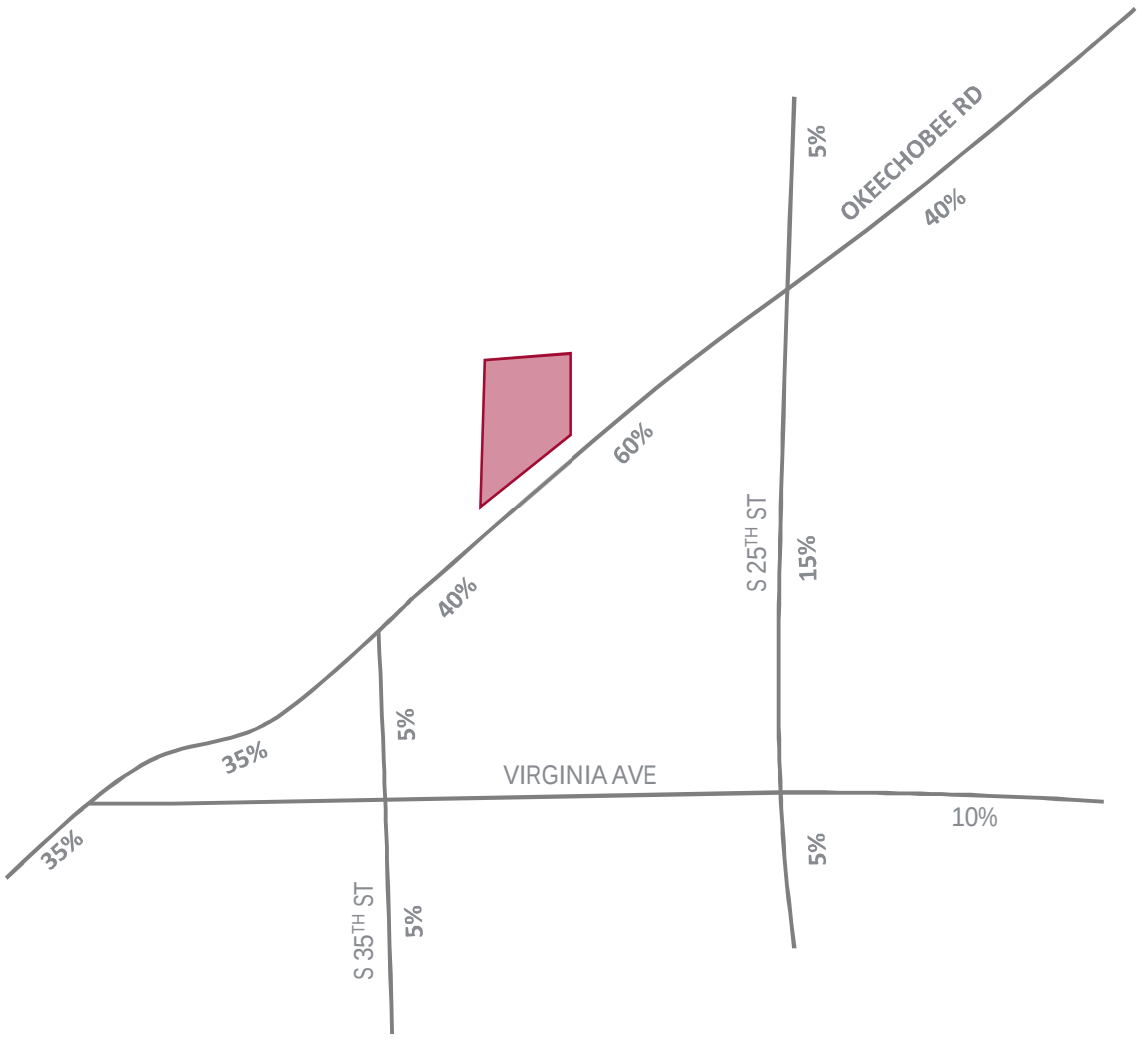
NORTH	5 percent
SOUTH	10 percent
WEST	35 percent
EAST	40 percent

Traffic Assignment

The site traffic was assigned to the surrounding roadway network based upon existing travel patterns and the traffic distribution. The function classification of the surround roadways is the following:

- Okeechobee Road – Minor Arterial
- S 35th Street – Major Collector
- S 25th Street – Other Principal Arterial
- Virginia Avenue – Other Principal Arterial

Figure 2 illustrates the roadway link assignment. The AM and PM peak hour trips for the project were then assigned to the surrounding roadway network projected to be in place by 2025.



NORTH

LEGEND

Project Site

XX% Project Assignment

FIGURE 2
PROJECT ASSIGNMENT
ARIA APARTMENTS

Kimley»Horn

Background Traffic

Background traffic is calculated from historical annual growth rates and/or traffic from the unbuilt portions of committed developments. For this study, the areawide growth rate was calculated as 2.53% and was applied to links and intersections to account for background growth not related to the approved projects. Growth rate calculations are included in *Appendix C*. St Lucie County provided committed development projects in the area. The impacts of the approved projects were added to links and intersections that were subject to analysis.

A nominal 1% growth rate was applied to links and intersections (to which committed project traffic was already added) to account for background growth not related to the approved projects. The total background traffic for each significantly impacted link and intersection was then determined as the greater of the following:

- Existing traffic volumes plus growth due to a historic growth rate of 2.53%
- Existing traffic volumes plus growth due to committed projects and a nominal 1% background growth rate

Roadway Segment Analysis

The roadway segments within the adjacent influence area were analyzed and are summarized in Table 2. Significantly impacted roadways, where the project traffic consumes one percent or more of the existing peak hour peak direction service capacity, are considered significantly impacted and required further analysis. The following roadway segments were significantly impacted due to the project traffic:

AM Peak Hour and PM Peak Hour

- Okeechobee Road: S 25th Street to Georgia Avenue

The future volume on each significantly impacted roadway segment was analyzed in comparison to its peak hour directional service capacity volume. Committed development information for each significantly impacted link was provided by St Lucie County. It should be noted, committed developments which were identified to be insignificant (fewer than 20 peak hour trips) did not have a provided inbound/outbound distribution. Committed developments that generated greater traffic volumes were applied using the corresponding approved traffic study, attached in *Appendix B*. As seen in Table 2, the significantly impacted roadways are projected to operate acceptably during the AM and PM peak hours through buildout 2025.

Table 2: Peak Hour Peak Direction Roadway Segment Analysis

Roadway			Existing		Existing Base Peak Direction Volume/LOS		Peak Hour Peak Direction Project Traffic					Background Traffic			Capacity	
From	To		Lanes	Peak Hour Service Capacity			Last Count Year	% Assignment	Project Trips	% Impact	Significant Impact ?	Growth Rate (1)	2025 Background Growth	2025 Background Traffic	2025 Project	Over Capacity ?
AM PEAK HOUR PEAK DIRECTION																
Okeechobee Rd																
Virginia Ave	S 35th Street		4	1630	687	C	2020	35%	10	0.61%	No	2.53%	91	778	788	-
S 35th Street	Project Driveway		4	1630	922	C	2020	35%	10	0.61%	No	2.53%	123	1,045	1,055	-
Project Driveway	S 25th Street		4	1630	922	C	2020	40%	11	0.67%	No	2.53%	123	1,045	1,056	-
S 25th Street	Georgia Ave		4	1630	777	C	2020	60%	17	1.04%	Yes	2.53%	103	880	897	No
S 35th Street																
Cortez Blvd	Virginia Ave		2	790	497	D	2020	5%	1	0.13%	No	2.53%	66	563	564	-
Virginia Ave	Okeechobee Rd		2	750	279	C	2016	5%	1	0.13%	No	2.53%	70	349	350	-
S 25th Street																
Cortez Blvd	Virginia Ave		5	2000	1182	C	2020	5%	1	0.05%	No	2.53%	157	1,339	1,340	-
Virginia Ave	Okeechobee Rd		5	2000	1193	C	2017	15%	4	0.20%	No	2.53%	264	1,457	1,461	-
Okeechobee Rd	Georgia Ave		5	1630	1196	D	2017	5%	1	0.06%	No	2.53%	265	1,461	1,462	-
Virginia Avenue																
Okeechobee Rd	S 35th Street		6	3020	1169	C	2017	0%	0	0.00%	No	2.53%	259	1,428	1,428	-
S 35th Street	S 25th Street		6	3020	1169	C	2017	0%	0	0.00%	No	2.53%	259	1,428	1,428	-
S 25th Street	13th Street		6	3020	1093	C	2017	10%	3	0.10%	No	2.53%	242	1,335	1,338	-
PM PEAK HOUR PEAK DIRECTION																
Okeechobee Rd																
Virginia Ave	S 35th Street		4	1630	727	C	2020	35%	11	0.67%	No	2.53%	97	824	835	-
S 35th Street	Project Driveway		4	1630	902	C	2020	35%	11	0.67%	No	2.53%	120	1,022	1,033	-
Project Driveway	S 25th Street		4	1630	922	C	2020	40%	12	0.74%	No	2.53%	123	1,045	1,057	-
S 25th Street	Georgia Ave		4	1630	738	C	2020	60%	18	1.10%	Yes	2.53%	98	836	854	No
S 35th Street																
Cortez Blvd	Virginia Ave		2	790	406	D	2020	5%	2	0.25%	No	2.53%	54	460	462	-
Virginia Ave	Okeechobee Rd		2	750	280	C	2016	5%	2	0.27%	No	2.53%	71	351	353	-
S 25th Street																
Cortez Blvd	Virginia Ave		5	2000	1261	C	2020	5%	2	0.10%	No	2.53%	168	1,429	1,431	-
Virginia Ave	Okeechobee Rd		5	2000	1069	C	2017	15%	5	0.25%	No	2.53%	237	1,306	1,311	-
Okeechobee Rd	Georgia Ave		5	1630	1159	D	2017	5%	2	0.12%	No	2.53%	256	1,415	1,417	-
Virginia Avenue																
Okeechobee Rd	S 35th Street		6	3020	1126	C	2017	0%	0	0.00%	No	2.53%	249	1,375	1,375	-
S 35th Street	S 25th Street		6	3020	1126	C	2017	0%	0	0.00%	No	2.53%	249	1,375	1,375	-
S 25th Street	13th Street		6	3020	1164	C	2017	10%	3	0.10%	No	2.53%	258	1,422	1,425	-

Intersection Analysis

The operating conditions for the existing, background, and future total buildout was analyzed using Trafficware's *Synchro 10.0* Software during the AM peak hour and the PM peak hour at the following intersections because the intersection is part of the impacted roadway:

1. S 25th Street & Okeechobee Road (signalized)

In addition to the intersection of S 25th Street & Okeechobee Road, the intersection of Okeechobee Road & Virginia Avenue was analyzed for the existing, background, and future total buildout.

These analyses use the methodologies outlined in the *Highway Capacity Manual*, 6th *Edition* in order to determine the overall intersection level of service and delay. The signal timing sheet was provided by the City of Ft Pierce and is included in *Appendix E.* Table 3 summarizes the level of service and delay at the study intersections under existing, background, and future total conditions. As shown in Table 3, the intersection operates at an acceptable overall level of service during the existing, background, and future total (with project traffic) conditions.

Table 3: Intersection Analysis

Intersection	Type	Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Existing Scenario						
S 25th Street & Okeechobee Road	Signalized	EB	42.7	D	35.4	D
		WB	31.1	C	34.2	C
		NB	32.9	C	45.3	D
		SB	52.1	D	58.8	E
		Overall	41.1	D	45.3	D
Okeechobee Road & Virginia Avenue	Signalized	EB	6.3	A	10.1	B
		WB	53.8	D	45.8	D
		SB	5.6	A	10.6	B
		Overall	16.3	B	20.7	C
Background Scenario						
S 25th Street & Okeechobee Road	Signalized	EB	24.4	C	44.0	D
		WB	20.5	C	40.8	D
		NB	43.9	D	47.0	D
		SB	85.6	F	67.5	E
		Overall	49.3	D	51.5	D
Okeechobee Road & Virginia Avenue	Signalized	EB	8.0	A	14.8	B
		WB	51.5	D	42.3	D
		SB	7.1	A	15.8	B
		Overall	17.1	B	23.0	C
Future Total Scenario						
S 25th Street & Okeechobee Road	Signalized	EB	24.2	C	40.7	D
		WB	20.2	C	34.8	C
		NB	43.9	D	47.8	D
		SB	85.9	F	62.6	E
		Overall	49.3	D	49.0	D
Okeechobee Road & Virginia Avenue	Signalized	EB	8.0	A	27.0	C
		WB	51.5	D	26.4	C
		SB	7.1	A	29.1	C
		Overall	17.0	B	27.2	C

The 95th percentile queue lengths are summarized in Table 4 for the study intersection of S 25th Street & Okeechobee Road. As shown in Table 4, the queues will remain within the provided storage through future total buildout year.

Table 4: 95th Percentile Queue Lengths

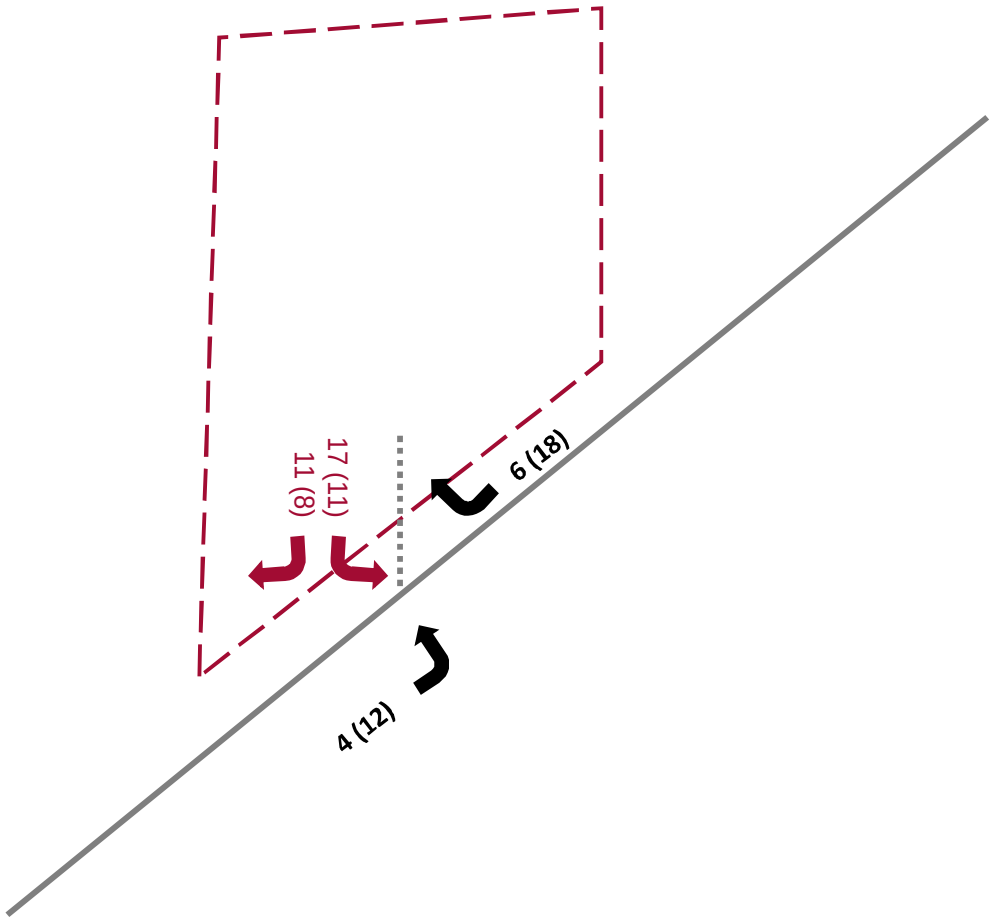
Movement	EBL	WBL	NBL	SBL
Provided Storage	225	200	225	200
Existing Scenario				
AM Peak Hour	108	84	80	33
PM Peak Hour	184	154	145	43
Background Scenario				
AM Peak Hour	125	97	102	37
PM Peak Hour	266	199	182	48
Future Total Scenario				
AM Peak Hour	126	97	109	37
PM Peak Hour	186	141	149	47

The volume development sheet is included in *Appendix F*. The Synchro output sheets are included in *Appendix G*.

Access Review

Access to the proposed site includes one proposed full-access driveway on Okeechobee Road *Figure 3* illustrates the AM peak hour and PM peak hour driveway volumes. According to the FDOT's Driveway Information Guide, exclusive right-turn lanes are recommended at unsignalized intersections for roadways with a posted speed limit of 45 mph or less when the volume of right turns per hour exceed 80 vehicles. As shown in *Figure 3,* the project driveway volume on Okeechobee Road is not expected to generate 80 vehicles; therefore, a right-turn lane is not required. The need for left-turn lanes is evaluated based on the Pennsylvania Department of Transportation's (PennDOT) Publication 46. This warrant considers the left-turn volume, the adjacent volume ("advancing" volume), the conflicting volume ("opposing" volume), and the posted speed limit to determine whether the percentage of left-turns justifies the presence of an exclusive left-turn lane.

Under existing conditions, the advancing volume is the eastbound through volume and the opposing volume is the westbound through volume. The highest eastbound left-turn volume is anticipated to be 12 vehicles per hour, which is projected to occur during the PM peak hour and constitutes approximately 1.8% percent of the total advancing volume. The opposing volume during this hour is 733 vehicles. The volumes were compared to the thresholds defined for a four-lane divided highway with a speed of 35 mph. The left-turn lane warrant worksheet is included in *Appendix H* for Okeechobee Road. The results of the analysis show that an eastbound left turn lane is warranted on Okeechobee Road at the proposed project driveway under current conditions. With the buildout of the proposed development, a left turn lane will be provided on Okeechobee Road.



NORTH

LEGEND

Project Site

XX (XX) AM (PM) Inbound Driveway Volumes

XX (XX) AM (PM) Outbound Driveway Volumes

FIGURE 3
DRIVEWAY VOLUMES
ARIA APARTMENTS

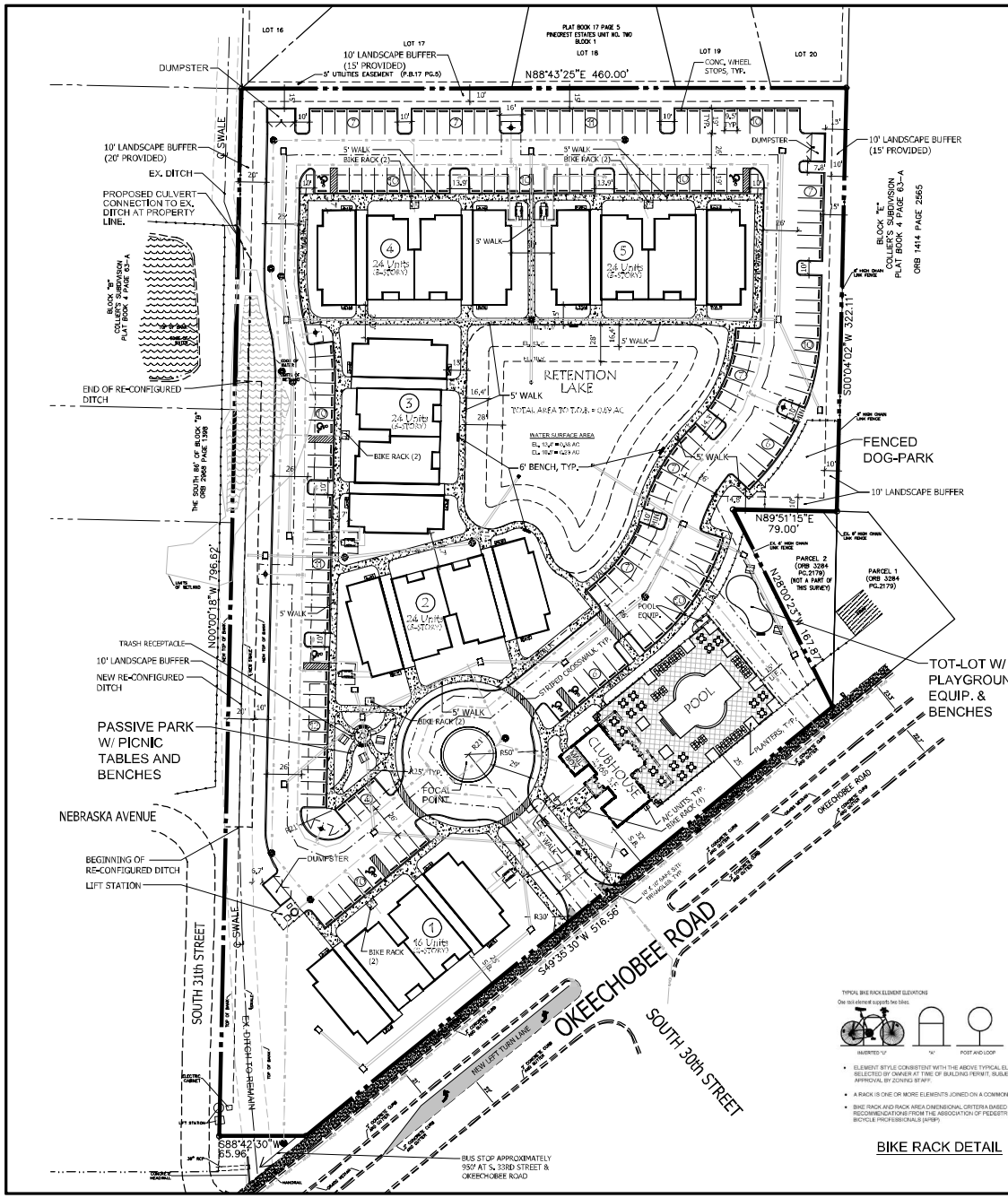
Kimley»Horn

Conclusion

The proposed plan of development includes 112 multifamily (mid-rise) dwelling units located in the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. Based on the analysis undertaken, the roadway links are sufficient to accommodate the project traffic during the AM and PM peak hours.

An intersection analysis was conducted at the signalized intersection of S 25th Street & Okeechobee Road, which is the intersection that was part of a significantly impacted roadway. In addition, an intersection analysis was conducted at Okeechobee Road & Virginia Avenue. Based on the intersection analysis, the existing geometry is expected to operate acceptably under existing, background, and future total conditions. The 95th percentile queue lengths at S 25th Street & Okeechobee Road are within the provided storage through future total conditions. An eastbound left turn lane is required per Pennsylvania Department of Transportation's (PennDOT) Publication 46 warrant criteria. With the buildout of the proposed development, a left turn lane will be provided on Okeechobee Road.

Appendix A: Project Site Data



APPLICATION DATA:

NAME OF APPLICATION:	ARIA AAPARTMENTS
PARCEL ID:	2417-504-3020-001-6
SITE ADDRESS:	TBD
EXISTING FUTURE LAND USE:	GENERAL COMMERCIAL (GC)
PROPOSED FUTURE LAND USE:	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING DESIGNATION:	GENERAL COMMERCIAL (CG)
PROPOSED ZONING DESIGNATION:	MEDIUM DENSITY RESIDENTIAL (R-4)
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (112 UNITS)
PROPOSED DENSITY:	*16.48 D.U.'S PER ACRE

*PROJECT UTILIZES DENSITY BONUS FOR PROXIMITY TO TRANSIT STOP (+5 D.U.'S/ACRE) AND FOR INNOVATIVE DESIGN (+2 D.U.'S/ACRE)

SITE DATA:

GROSS SITE AREA:	296,912.97 S.F. (6.796 ACRES)
OPEN SPACE REQUIRED:	118,405.19 S.F. (40%)
PERVIOUS AREA PROVIDED:	109,454.95 S.F. (36.9%)
RETENTION AREA PROVIDED:	25,674.63 S.F. (8.7%)
TOTAL OPEN SPACE AREA:	135,129.58 S.F. (45.6%)

PARKING DATA:

PROPOSED USES (FLEX SPACE)

USE	UNITS	PARKING RATE	REQUIRED PARKING
MULTI-FAMILY RESIDENTIAL	112 UNITS	1.5/UNIT	168 SPACES
	TOTAL PARKING REQUIRED:		168 SPACES
	TOTAL PARKING PROVIDED:		172 SPACES
	HANDICAP SPACES REQ'D.:		6 SPACES
	HANDICAP SPACES PROV.:		7 SPACES

BICYCLE PARKING REQUIRED: 12 SPACES (1 PER 10 UNITS)
BICYCLE PARKING PROVIDED: 14 SPACES



TRASH RECEPTACLE DETAIL
N.T.S.

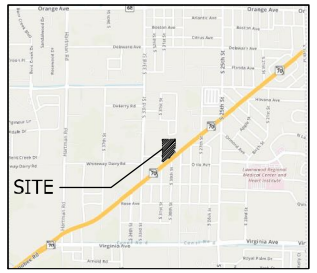
BIKE RACK DETAIL



LANDSCAPE FORMS • CHASE PARK BENCH CAST ALUM./W STEEL FRAMES & ARMREST ARMS

BENCH DETAIL
N.T.S.

LOCATION MAP



Site Plan

0 20' 40' 80' 120' 160'

NORTH

Scale: 1" = 40'

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

PROJECT TEAM

OWNER
Arrow Investment Group, LLC
4512 North Flagler Drive, Suite 2056
West Palm Beach, Florida 33407

ARCHITECT
Architectural Studios, Inc.
300 Avenue of the Champions, Suite 260
Palm Beach Gardens, Florida 33418
Contact: Scott Dilsher (561-202-6990)

CIVIL ENGINEER/SURVEYOR
Michael B. Schaarsh & Associates, Inc.
1650 Forest Hill Blvd., Suite 206
West Palm Beach, Florida 33406
Contact: Michael LaCoursiere (561-368-0080)

DEVELOPMENT MANAGER/AGENT
Managed Land Entitlements, LLC
3710 Buckeye Street, Suite 100
Palm Beach Gardens, Florida 33410
Contact: Michael Sanchez (561-568-8045)

LANDSCAPE ARCHITECT
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Florida 34990
Contact: Jason Litterick (561-719-3878)

SURVEYOR
Brown & Phillips, Inc.
1860 Old Okeechobee Road, Suite 509
West Palm Beach, Florida 33409
Contact: John Phillips (561-478-3888)

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, FL 34990
561-719-3878
Jasonl.LA1677@yahoo.com

Project Name

Aria Apartments

Ft. Pierce, Florida

Landscape Architect of Record

Jason M. Litterick FLA 0001677

Scale: 1" = 40'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/15/2020
Job No.	
Revisions:	

Sheet No.

SP-1

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address: OKEECHOBEE RD	Parcel ID: 2417-504-0020-001-6	Account #: 26668	Sec/Town/Range: 17/35S/40E
Use Type: 1000	Jurisdiction: Fort Pierce	Map ID: 24/17N	Zoning: General Co

Ownership

Arrow Investment Group LLC
4512 N Flagler DR # 2056
West Palm Beach, FL 33407

Legal Description

COLLIER`S S/D BLK D ALL BLK D-LESS S 27 FT AND SELY 7 FT FOR RD R/W AND LESS THAT PART MPDAF: BEG INT OF SE COR OF BLK D AND NLY RD R/W LI OF OKEEC RD RUN N 28 00 23 W 167.87 FT,TH N 89 51 15 E 79 FT TO E LI OF BLK D,TH S 00 04 02 W ALG E LI 148.41 FT TO NLY RD R/W LI OF OKEEC RD AND POB- (6.86 AC)

Current Values

Just/Market:	$732,700	Assessed:	$732,700
Exemptions:	$0	Taxable:	$732,700

Historical Values 3-year

Year	Just/Market	Assessed	Exemptions	Taxable
2019	$732,700	$732,700	$0	$732,700
2018	$732,700	$732,700	$0	$732,700
2017	$732,700	$732,700	$0	$732,700

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
09-26-2019	4327 / 0333	0112	SP	Cypress Trust Company (TR)	$450,000
05-27-2010	3204 / 0743	0112	SP	Cypress Trust Company (TR)	$100
12-17-2008	3049 / 2156	XX01	CT	Mid South Acquisitions LLC	$299,000

Primary Building Information

Finished Area of this building: 0 SF
Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:	Building Type:
Year Built: N/A	Frame:	Grade:	Effective Year: N/A
Primary Wall:	Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	A/C %: 0%	Electric:	Primary Int Wall:
Full Baths: 0	Heated %: N/A%	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Sprinkled %: 0%	Heat Fuel:	Primary Floors:



Image or Sketch unavailable for display

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.87
Land Size (SF):	299,058
Total Building Count:	1

Special Features and Yard Items

Type	Qty	Units	Year Blt

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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Appendix B: St Lucie County Traffic Data

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
17TH ST	ORANGE AVE to AVENUE D	608	4,033	2016	750	236	C	0.638	225	C	0.608
17TH ST	AVENUE D to AVENUE Q	608	4,033	2016	750	236	C	0.638	225	C	0.608
25TH ST	MIDWAY RD to BELL AVE	940016	18,275	2017	2,100	1,310	C	0.652	1,222	C	0.608
25TH ST	BELL AVE to EDWARDS RD	159	19,040	2019	2,100	1,056	C	0.525	1,053	C	0.524
25TH ST	EDWARDS RD to CORTEZ BLVD	940021	22,049	2017	2,000	1,405	C	0.736	1,401	C	0.734
25TH ST	CORTEZ BLVD to VIRGINIA AVE	529	21,000	2020	2,000	1,182	C	0.619	1,261	C	0.660
25TH ST	VIRIGINIA AVE to NEBRASKA AVE	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	NEBRASKA AVE to OKEECHOBEE RD	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	OKEECHOBEE RD to GEORGIA AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	GEORGIA AVE to DELAWARE AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	DELAWARE AVE to ORANGE AVE	940014	19,612	2017	1,630	1,021	D	0.626	1,015	D	0.623
25TH ST	ORANGE AVE to AVENUE D	610	19,000	2020	1,630	877	D	0.538	904	D	0.555
25TH ST	AVENUE D to AVENUE Q	940050	15,331	2017	1,630	807	D	0.495	784	D	0.481
25TH ST	AVENUE Q to JUANITA AVE	945152	13,301	2017	2,000	752	C	0.394	689	C	0.361
25TH ST	JUANITA AVE to ST LUCIE BLVD	940791	14,647	2013	2,100	794	C	0.395	745	C	0.371
25TH ST	ST LUCIE BLVD to US 1	945165	5,924	2017	2,100	340	C	0.169	380	C	0.189
33RD ST	OKEECHOBEE RD to DELAWARE AVE	611	7,000	2020	750	419	D	0.559	368	C	0.995
33RD ST	DELAWARE AVE to ORANGE AVE	948507	4,991	2017	790	230	C	0.622	230	C	0.622
35TH ST	KIRBY LOOP RD to CORTEZ BLVD	612	6,300	2020	540	497	D	0.920	406	D	0.752
35TH ST	CORTEZ BLVD to VIRGINIA AVE	612	6,300	2020	790	497	D	0.629	406	D	0.514
35TH ST	VIRGINIA AVE to OKEECHOBEE RD	613	4,600	2016	750	279	C	0.754	280	C	0.757
53RD ST	ANGLE RD to JUANITA AVE	614	2,767	2016	540	148	C	0.548	163	C	0.604
AE BACKUS AVE	7TH ST to US 1	632	1,033	2017	750	70	C	0.189	81	C	0.219
AIROSO BLVD	PORT ST LUCIE BLVD to THORNHILL DR	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423
AIROSO BLVD	THORNHILL DR to CROSSTOWN PKWY	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
OHIO AVE	SUNRISE BLVD to COLONIAL RD	686	4,250	2017	540	252	C	0.933	246	C	0.911
OHIO AVE	COLONIAL RD to US 1	686	4,250	2017	750	252	C	0.681	246	C	0.665
OKEECHOBEE RD	OKEECHOBEE C.L. to BLUEFIELD RD	687	10,500	2020	1,010	540	B	0.535	528	B	0.523
OKEECHOBEE RD	BLUEFIELD RD to CARLTON RD	687	10,500	2020	1,270	540	B	0.425	528	B	0.416
OKEECHOBEE RD	CARLTON RD to SNEED RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	IDEAL HOLDING RD to HEADER CANAL RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	SNEED RD to IDEAL HOLDING RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	HEADER CANAL RD to MIDWAY RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	MIDWAY RD to SHINN RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	SHINN RD to MCCARTY RD	940195	6,025	2017	1,810	327	B	0.181	327	B	0.181
OKEECHOBEE RD	MCCARTY RD to FLORIDA'S TURNPIKE	940025	7,551	2017	1,810	378	B	0.209	391	B	0.216
OKEECHOBEE RD	FLORIDA'S TURNPIKE to KINGS HWY	940025	7,551	2017	2,010	378	C	0.188	391	C	0.195
OKEECHOBEE RD	KINGS HWY to CROSSROADS PKWY	940748	21,250	2017	4,170	960	C	0.230	1,013	C	0.243
OKEECHOBEE RD	CROSSROADS PKWY to I-95	940106	24,585	2017	4,170	1,063	C	0.255	1,086	C	0.260
OKEECHOBEE RD	I-95 to JENKINS RD	940029	30,244	2017	4,240	1,976	C	0.474	1,709	C	0.410
OKEECHOBEE RD	JENKINS RD to MCNEIL RD	940029	30,244	2017	4,040	1,976	C	0.498	1,709	C	0.430
OKEECHOBEE RD	MCNEIL RD to VIRGINIA AVE	940742	28,870	2017	3,170	1,580	C	0.511	1,649	C	0.534
OKEECHOBEE RD	VIRGINIA AVE to HARTMAN RD	688	12,500	2020	2,100	687	C	0.342	727	C	0.362
OKEECHOBEE RD	HARTMAN RD to 35TH ST	688	12,500	2020	1,630	687	C	0.941	727	C	0.996
OKEECHOBEE RD	35TH ST to 33RD ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	33RD ST to 25TH ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	25TH ST to GEORGIA AVE	690	13,500	2020	1,630	777	D	0.477	738	D	0.453
OKEECHOBEE RD	GEORGIA AVE to DELAWARE AVE	690	13,500	2020	1,710	777	D	0.454	738	C	0.958
OLD DIXIE HWY	US 1 to SR A1A NORTH	691	5,150	2017	790	400	D	0.506	363	C	0.931
OLD DIXIE HWY	SR A1A NORTH to ST LUCIE BLVD	948521	1,383	2017	750	65	C	0.176	65	C	0.176

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
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St. Lucie Transportation Planning Organization

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466 SW Port St. Lucie Blvd, Suite 111
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Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
US 1	AVENUE H to OLD DIXIE HWY	715	33,500	2020	2,000	1,766	C	0.925	1,742	C	0.912
US 1	OLD DIXIE HWY to AVENUE O	940123	22,051	2017	2,000	1,530	C	0.801	1,196	C	0.626
US 1	AVENUE O to SR A1A NORTH	940123	22,051	2017	2,100	1,530	C	0.761	1,196	C	0.595
US 1	SR A1A NORTH to JUANITA AVE	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	JUANITA AVE to ST LUCIE BLVD	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	ST LUCIE BLVD to 25TH ST	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	25TH ST to INDRIO RD	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	INDRIO RD to TURNPIKE FEEDER RD	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
US 1	TURNPIKE FEEDER RD to INDIAN RIVER C.L.	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
VETERANS MEMORIAL PKWY	PORT ST LUCIE BLVD to LYNGATE DR	329	14,500	2019	2,100	779	C	0.388	817	C	0.406
VETERANS MEMORIAL PKWY	LYNGATE DR to US 1	327	14,911	2017	2,100	756	C	0.376	804	C	0.400
VILLAGE GREEN DR	US 1 to WALTON RD	716	9,600	2017	2,100	619	C	0.308	575	C	0.286
VILLAGE GREEN DR	WALTON RD to TIFFANY AVE	717	4,633	2017	920	249	C	0.286	235	C	0.270
VIRGINIA AVE	35TH ST to 25TH ST	940032	21,557	2017	3,020	1,111	C	0.378	1,083	C	0.368
VIRGINIA AVE	OKEECHOBEE RD to HARTMAN RD	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	HARTMAN RD to 35TH ST	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	25TH ST to 13TH ST	940033	20,913	2017	3,020	1,093	C	0.372	1,164	C	0.396
VIRGINIA AVE	13TH ST to 11TH ST	940794	22,873	2017	3,020	1,101	C	0.374	1,101	C	0.374
VIRGINIA AVE	11TH ST to SUNRISE BLVD	940794	22,873	2017	3,170	1,101	C	0.356	1,101	C	0.356
VIRGINIA AVE	SUNRISE BLVD to OLEANDER AVE	940792	19,519	2017	3,020	1,063	C	0.362	992	C	0.337
VIRGINIA AVE	OLEANDER AVE to COLONIAL RD	940034	18,483	2017	3,170	1,043	C	0.338	1,020	C	0.330
VIRGINIA AVE	COLONIAL RD to US 1	940034	18,483	2017	3,020	1,043	C	0.355	1,020	C	0.347
VILLAGE PKWY	DISCOVERY WAY to TRADITION PKWY	718	14,000	2019	2,650	732	C	0.595	797	C	0.648
VILLAGE PKWY	BECKER RD to DISCOVERY WAY	718	14,000	2019	1,710	732	C	0.951	797	D	0.466
VILLAGE PKWY	TRADITION PKWY to WESTCLIFFE LN	719	23,000	2019	1,710	1,208	D	0.706	1,265	D	0.740

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
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*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

Appendix C: Growth Rate Calculations

Road Segment	2015 Volume	2018 Volume	Growth Rate	Yearly Growth
Virginia Ave	22,000	22,000	0.00%	0
S 35th Street	7,900	10,900	11.33%	1235
S 25th Street	22,000	22,500	0.75%	169
Sum		55,400		1,404
Area Wide Growth Rate =			2.53%	

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0032 - SR 70/VIRGINIA AVE - W OF SR 615/25 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	22000 C	E 11000	W 11000	9.00	51.30	6.10
2017	20900 C	E 9900	W 11000	9.00	50.90	4.10
2016	20800 C	E 9800	W 11000	9.00	50.90	4.10
2015	22000 C	E 11000	W 11000	9.00	51.00	4.10
2014	21000 C	E 11000	W 10000	9.00	50.80	4.20
2013	21000 C	E 10500	W 10500	9.00	50.80	3.70
2012	23000 F	E 12000	W 11000	9.00	56.80	4.30
2011	23000 C	E 12000	W 11000	9.00	57.20	5.10
2010	22500 C	E 11500	W 11000	10.32	55.40	5.10
2009	22500 C	E 11500	W 11000	10.27	57.35	5.10
2008	23500 C	E 11500	W 12000	10.45	58.06	4.10
2007	25000 C	E 13000	W 12000	10.31	58.74	4.10
2006	21500 C	E 11500	W 10000	10.73	65.89	4.10
2005	23500 C	E 12000	W 11500	10.80	60.70	6.00
2004	22500 C	E 11500	W 11000	10.30	57.70	6.00
2003	20500 C	E 10500	W 10000	10.20	59.60	2.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0083 - S 35 ST- NORTH OFARNOLD RD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	10900 C	N 6500	S 4400	9.00	51.30	5.80
2017	8100 V	0	0	9.00	50.90	10.00
2016	8000 R	0	0	9.00	50.90	6.20
2015	7900 T	0	0	9.00	51.00	41.80
2014	7900 S			9.00	50.80	49.50
2013	7900 F	0	0	9.00	50.80	11.90
2012	7900 C	N 0	S 0	9.00	56.80	7.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0015 - SR 615/25 ST - N OF SR 70/VIRGINIA AVE (COUNTY 15)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	22500 C	N 11500	S 11000	9.00	51.30	5.40
2017	20500 C	N 11000	S 9500	9.00	50.90	4.80
2016	22500 C	N 11000	S 11500	9.00	50.90	4.80
2015	22000 C	N 11000	S 11000	9.00	51.00	4.80
2014	21000 C	N 10000	S 11000	9.00	50.80	4.20
2013	20500 C	N 10500	S 10000	9.00	50.80	4.20
2012	22500 C	N 11500	S 11000	9.00	56.80	4.20
2011	22500 C	N 12000	S 10500	9.00	57.20	3.00
2010	23000 C	N 12000	S 11000	10.32	55.40	3.00
2009	22500 C	N 12000	S 10500	10.27	57.35	3.00
2008	21500 C	N 11000	S 10500	10.45	58.06	3.90
2007	25000 C	N 13000	S 12000	10.31	58.74	3.90
2006	23000 C	N 11500	S 11500	10.73	65.89	3.90
2005	24000 C	N 12000	S 12000	10.80	60.70	3.10
2004	23000 C	N 11500	S 11500	10.30	57.70	3.10
2003	22500 C	N 11500	S 11000	10.20	59.60	3.60

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Appendix D: Turning Movement Counts

Traffic Survey Specialists, Inc.

Delray Beach, Florida

Phone (561) 272-3255 www.trafficsurveyspecialists.com

S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 1

Groups Printed- ALL VEHICLES

	S 25TH STREET From North				OKEECHOBEE ROAD From East				S 25TH STREET From South				OKEECHOBEE ROAD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00	0	5	135	26	0	26	49	2	0	19	162	24	0	37	40	9	534
07:15	0	6	159	33	0	25	50	4	0	24	162	35	0	37	52	14	601
07:30	0	5	177	35	0	26	46	1	0	30	158	37	0	28	74	27	644
07:45	0	11	186	28	2	26	62	4	0	27	171	50	0	38	95	30	730
Total	0	27	657	122	2	103	207	11	0	100	653	146	0	140	261	80	2509
08:00	0	13	197	33	1	27	75	6	0	24	115	45	0	37	124	25	722
08:15	0	11	155	22	0	27	64	3	0	25	131	41	1	39	98	23	640
08:30	0	18	152	18	2	28	48	3	0	23	106	41	1	36	49	12	537
08:45	0	11	164	19	1	27	71	3	0	21	97	26	0	25	63	23	551
Total	0	53	668	92	4	109	258	15	0	93	449	153	2	137	334	83	2450
16:00	0	7	162	24	0	42	76	7	0	29	137	49	1	30	73	16	653
16:15	0	10	155	29	3	41	84	3	0	31	151	32	1	37	82	26	685
16:30	0	10	160	23	0	44	88	2	0	32	141	48	1	44	51	18	662
16:45	0	7	171	25	0	28	112	3	0	36	154	31	1	42	78	31	719
Total	0	34	648	101	3	155	360	15	0	128	583	160	4	153	284	91	2719
17:00	0	13	182	43	0	46	112	3	0	33	166	39	0	39	75	34	785
17:15	0	12	194	37	1	28	96	5	0	24	162	41	0	42	93	25	760
17:30	0	9	194	35	0	36	80	2	0	33	157	33	0	43	111	22	755
17:45	0	6	157	26	0	33	66	5	0	22	148	25	1	28	98	16	631
Total	0	40	727	141	1	143	354	15	0	112	633	138	1	152	377	97	2931
Grand Total	0	154	2700	456	10	510	1179	56	0	433	2318	597	7	582	1256	351	10609
Apprch %	0	4.7	81.6	13.8	0.6	29.1	67.2	3.2	0	12.9	69.2	17.8	0.3	26.5	57.2	16	
Total %	0	1.5	25.5	4.3	0.1	4.8	11.1	0.5	0	4.1	21.8	5.6	0.1	5.5	11.8	3.3	

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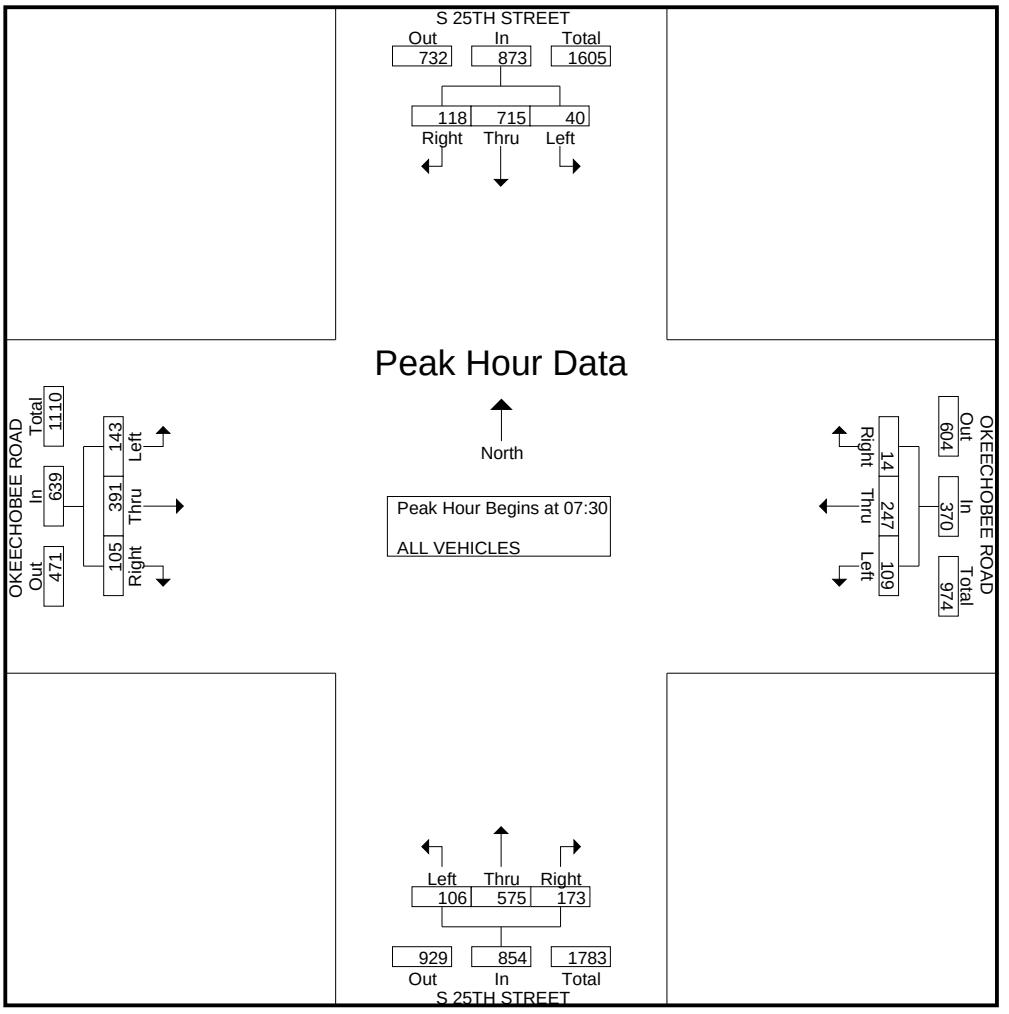
S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 2

	S 25TH STREET From North					OKEECHOBEE ROAD From East					S 25TH STREET From South					OKEECHOBEE ROAD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	0	5	177	**35**	217	0	26	46	1	73	0	**30**	158	37	225	0	28	74	27	129	644
07:45	0	11	186	28	225	**2**	26	62	4	94	0	27	**171**	**50**	**248**	0	38	95	**30**	163	**730**
08:00	0	**13**	**197**	33	**243**	1	**27**	**75**	**6**	**109**	0	24	115	45	184	0	37	**124**	25	**186**	722
08:15	0	11	155	22	188	0	27	64	3	94	0	25	131	41	197	**1**	**39**	98	23	161	640
Total Volume	0	40	715	118	873	3	106	247	14	370	0	106	575	173	854	1	142	391	105	639	2736
% App. Total	0	4.6	81.9	13.5		0.8	28.6	66.8	3.8		0	12.4	67.3	20.3		0.2	22.2	61.2	16.4		
PHF	.000	.769	.907	.843	.898	.375	.981	.823	.583	.849	.000	.883	.841	.865	.861	.250	.910	.788	.875	.859	.937



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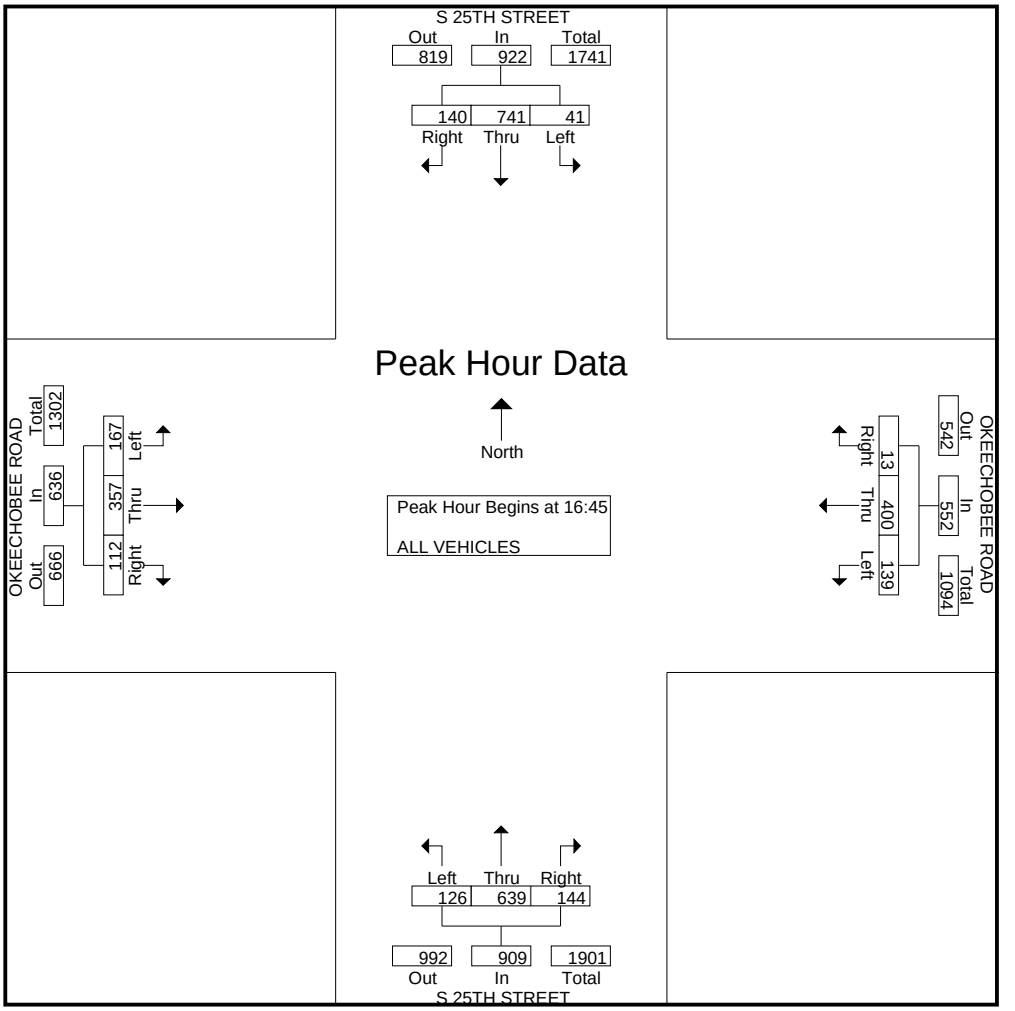
S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 3

	S 25TH STREET From North					OKEECHOBEE ROAD From East					S 25TH STREET From South					OKEECHOBEE ROAD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	7	171	25	203	0	28	**112**	3	143	0	**36**	154	31	221	**1**	42	78	31	152	719
17:00	0	**13**	182	**43**	238	0	**46**	112	3	**161**	0	33	**166**	39	**238**	0	39	75	**34**	148	**785**
17:15	0	12	**194**	37	**243**	**1**	28	96	**5**	130	0	24	162	**41**	227	0	42	93	25	160	760
17:30	0	9	194	35	238	0	36	80	2	118	0	33	157	33	223	0	**43**	**111**	22	**176**	755
Total Volume	0	41	741	140	922	1	138	400	13	552	0	126	639	144	909	1	166	357	112	636	3019
% App. Total	0	4.4	80.4	15.2		0.2	25	72.5	2.4		0	13.9	70.3	15.8		0.2	26.1	56.1	17.6		
PHF	.000	.788	.955	.814	.949	.250	.750	.893	.650	.857	.000	.875	.962	.878	.955	.250	.965	.804	.824	.903	.961



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S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	S 25TH STREET From North				OKEECHOBEE ROAD From East				S 25TH STREET From South				OKEECHOBEE ROAD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
08:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3
16:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
16:45	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	0	4
Total	0	0	2	0	0	0	0	0	0	0	1	0	1	0	2	0	6
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15	0	0	1	0	0	0	0	0	1	0	1	0	1	0	0	0	4
17:45	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
Total	0	0	1	0	0	0	1	0	1	0	2	0	1	0	1	0	7
Grand Total	1	0	4	0	0	0	1	0	2	0	3	0	2	0	3	0	16
Apprch %	20	0	80	0	0	0	100	0	40	0	60	0	40	0	60	0	
Total %	6.2	0	25	0	0	0	6.2	0	12.5	0	18.8	0	12.5	0	18.8	0	

TRAFFIC SURVEY SPECIALISTS, INC.
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DELRAY BEACH, FLORIDA
PHONE (561)272-3255

VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE
Page : 1

ALL VEHICLES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/03/19																	
07:00	0	0	47	0	0	0	102	0	0	0	0	0	0	0	70	114	333
07:15	0	0	71	0	0	0	114	0	0	0	0	0	0	0	82	165	432
07:30	0	0	104	0	0	0	136	0	0	0	0	0	0	0	126	252	618
07:45	0	0	99	0	0	0	124	0	0	0	0	0	0	0	134	317	674
Hr Total	0	0	321	0	0	0	476	0	0	0	0	0	0	0	412	848	2057
08:00	0	0	97	0	0	0	133	0	0	0	0	0	0	0	113	258	601
08:15	0	0	89	0	0	0	133	0	0	0	0	0	0	0	104	259	585
08:30	0	0	103	0	0	0	144	0	0	0	0	0	0	0	112	244	603
08:45	0	0	103	0	0	0	149	0	0	0	0	0	0	0	90	216	558
Hr Total	0	0	392	0	0	0	559	0	0	0	0	0	0	0	419	977	2347
---------- * BREAK * ----------																	
16:00	0	0	129	0	0	0	229	0	0	0	0	0	0	0	128	207	693
16:15	0	0	105	0	0	0	197	0	0	0	0	0	0	0	128	225	655
16:30	0	0	149	0	0	0	203	0	0	0	0	0	0	0	119	227	698
16:45	0	0	141	0	0	0	231	0	0	0	0	0	0	0	123	215	710
Hr Total	0	0	524	0	0	0	860	0	0	0	0	0	0	0	498	874	2756
17:00	0	0	161	0	0	0	272	0	0	0	0	0	0	0	109	233	775
17:15	0	0	167	0	0	0	200	0	0	0	0	0	0	0	160	223	750
17:30	0	0	130	0	0	0	210	0	0	0	0	0	0	0	145	256	741
17:45	0	0	137	0	0	0	202	0	0	0	0	0	0	0	144	245	728
Hr Total	0	0	595	0	0	0	884	0	0	0	0	0	0	0	558	957	2994
TOTAL	0	0	1832	0	0	0	2779	0	0	0	0	0	0	0	1887	3656	10154

TRAFFIC SURVEY SPECIALISTS, INC.

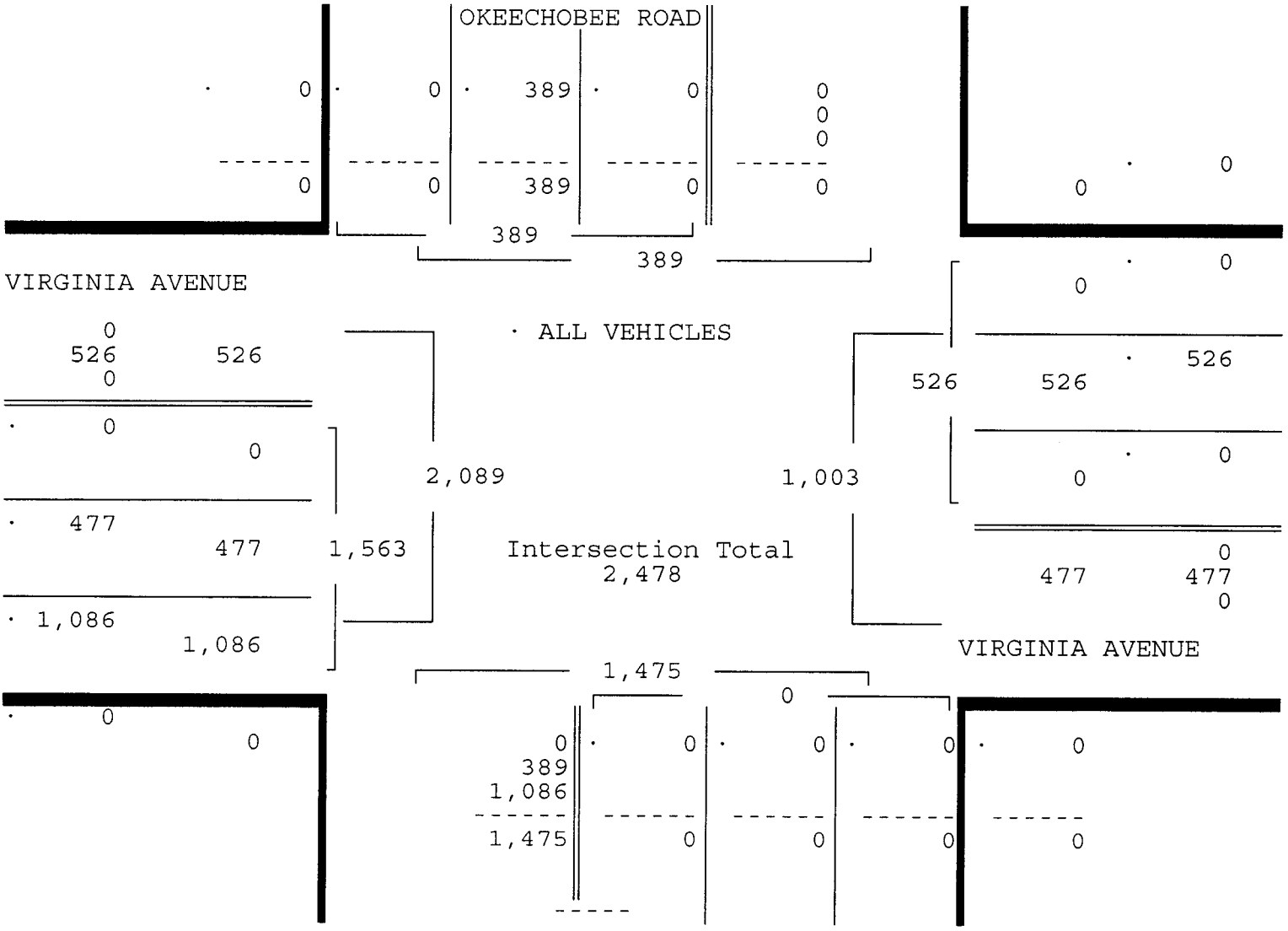
VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE

ALL VEHICLES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/03/19																	
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 04/03/19																	
Peak start	07:30				07:30				07:30				07:30				
Volume	0	0	389	0	0	0	526	0	0	0	0	0	0	0	477	1086	
Percent	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	31%	69%	
Pk total	389				526				0				1563				
Highest	07:30				07:30				07:00				07:45				
Volume	0	0	104	0	0	0	136	0	0	0	0	0	0	0	134	317	
Hi total	104				136				0				451				
PHF	.94				.97				.0				.87				



TRAFFIC SURVEY SPECIALISTS, INC.

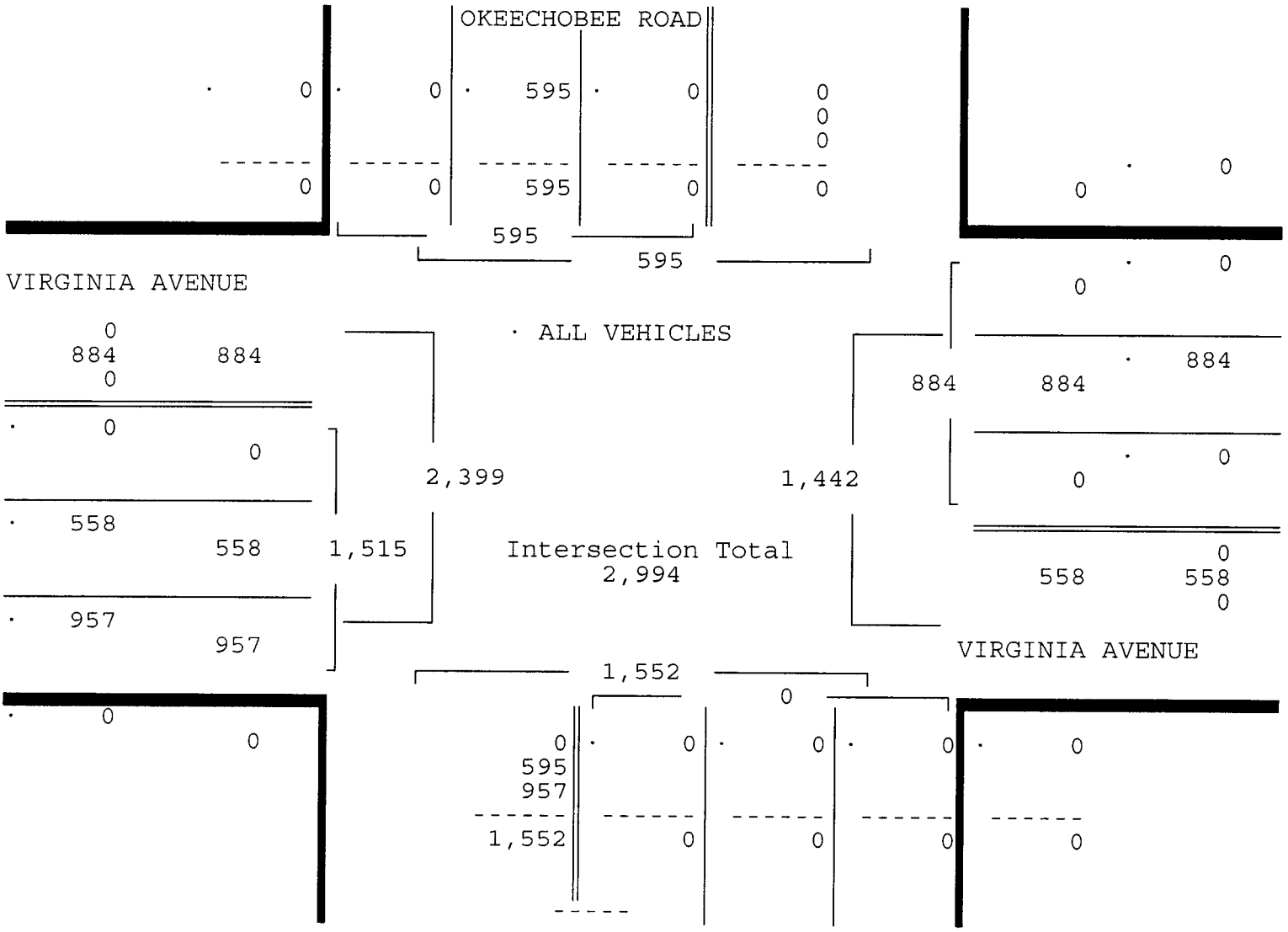
VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE
Page : 3

ALL VEHICLES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/03/19																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 04/03/19																	
Peak start	17:00				17:00				17:00				17:00				
Volume	0	0	595	0	0	0	884	0	0	0	0	0	0	0	558	957	
Percent	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	37%	63%	
Pk total	595				884				0				1515				
Highest	17:15				17:00				07:00				17:30				
Volume	0	0	167	0	0	0	272	0	0	0	0	0	0	0	145	256	
Hi total	167				272				0				401				
PHF	.89				.81				.0				.94				



TRAFFIC SURVEY SPECIALISTS, INC.

VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE
Page : 1

PEDESTRIANS & BIKES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 04/03/19																	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
* BREAK *																	
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2

Appendix E: Signal Timing Sheet

City of Fort Pierce Engineering Department

Intersection Timing Sheet

Name **SR-615 at Okeechobee Road**

Part I — Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8		
Approach	EBLT	WB	SBLT	NB	WBLT	EB	NBLT	SB		
Initial	12	12	9	12	12	12	9	12		
Passage	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Max1	15.0	35.0	20.0	45.0	15.0	35.0	20.0	45.0		
Yellow	4.0	3.7	4.0	4.4	3.7	4.0	4.4	4.0		
Red	2.6	2.7	2.0	2.1	2.6	2.7	2.0	2.1		
Walk		7.0		7.0		7.0		7.0		
Ped Clear		28.0		25.0		30.0		29.0		
Recall		Min				Min				
LT Type	Prot+Perm		Prot+Perm		Prot+Perm		Prot+Perm			

Part II — Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pattern 1	17	25	15	33	17	25	15	33	90	59
Split Pattern 2	18	31	15	36	18	31	15	36	100	50
Split Pattern 3	17	44	15	64	17	44	23	56	140	49
Split Pattern 4	15	22	15	28	15	22	15	28	80	42
Split Pattern 5	15	33	15	37	15	33	15	37	100	30

Schedule Implementation

Schedule Notes

Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
Start	End	Split	Start	End	Split			
0:00	6:30	100	0:00	7:00	100			
6:30	10:00	1	7:00	10:00	4			
10:00	15:00	2	10:00	18:00	5			
15:00	19:00	3	18:00	21:00	4			
19:00	21:00	4	21:00	0:00	100			
21:00	0:00	100						

Part III — Notes and Comments

1. Installed new system and signal timing by AECOM (FDOT Retiming Contract C9O28; FM 230017 7 32 01)

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City of Fort Pierce Engineering Department

Intersection Timing Sheet

Name **SR-70 at Okeechobee Road**

Part I — *Actuated Timing Information*

Non-coordinated Operation

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*		
Approach		EB/SBR		WBT						
Initial		12		12						
Passage		5.0		5.0						
Max1		60.0		60.0						
Max2										
Yellow		4.8		4.8						
Red		2.5		2.5						
Walk		5.0								
Ped Clear		9.0								
Recall				Min						
LT Type										

Part II — *Coordinated Timing Information*

Pattern Tables

PHASE	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*Cycle*	*Offset*
Split Pattern 1		60		70					130	34
Split Pattern 2		65		65					130	22
Split Pattern 3		65		65					130	103
Split Pattern 4		50		50					100	70
Split Pattern 5		55		65					120	80

Schedule Implementation

Schedule Notes

Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
Start	End	Pattern	Start	End	Pattern			
0:00	6:30	Free	0:00	7:00	Free			
6:30	10:00	1	7:00	10:00	4			
10:00	15:00	2	10:00	18:00	5			
15:00	19:00	3	18:00	21:00	4			
19:00	21:00	4	21:00	0:00	Free			
21:00	0:00	Free						

Part III — *Notes and Comments*

1. Installed new system and signal timing by AECOM (FDOT Retiming Contract C9O28; FM 230017 7 32 01)
2. Coord offset reference - Phase 4

Appendix F: Volume Development Worksheet

VOLUME DEVELOPMENT SHEET
ARROW FORT PIERCE NORTH RESIDENTIAL
OKEECHOBEE ROAD & VIRIGNIA AVENUE

Peak Season =	1.01	1.01
Buildout Year =	2025	2025
Years =	6	6

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 04/03/2019	0	0	0	0	389	0	0	477	1,086	0	526	0
Peak Season Volume	0	0	0	0	393	0	0	482	1,097	0	531	0
Growth Rate				2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	0	0	0	0	64	0	0	78	177	0	86	0
Committed Celebration Pointe												
Inbound Traffic Assignment					5.0%						15.0%	
Inbound Traffic Volumes					5						15	
Outbound Traffic Assignment								5.0%	15.0%			
Outbound Traffic Volumes								19	56			
Project Traffic	0	0	0	0	5	0	0	19	56	0	15	0
Committed Bent Creek												
Inbound Traffic Assignment					10.0%						10.0%	
Inbound Traffic Volumes					38						38	
Outbound Traffic Assignment								10.0%	10.0%			
Outbound Traffic Volumes								51	51			
Project Traffic	0	0	0	0	38	0	0	51	51	0	38	0
Committed Carriage Pointe												
Inbound Traffic Assignment					20.0%							
Inbound Traffic Volumes					7							
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Project Traffic	0	0	0	0	7	0	0	0	0	0	0	0
Committed Camping World												
Inbound Traffic Assignment					5.0%						25.0%	
Inbound Traffic Volumes					2						11	
Outbound Traffic Assignment								5.0%	25.0%			
Outbound Traffic Volumes								1	3			
Project Traffic	0	0	0	0	2	0	0	1	3	0	11	0
Total Committed Projects	0	0	0	0	52	0	0	71	110	0	64	0
1.0% Traffic Volume Growth	0	0	0	0	24	0	0	30	67	0	33	0
Committed + 1.0% Growth	0	0	0	0	76	0	0	101	177	0	97	0
Max (Committed + 1.0% or Historic Growth)	0	0	0	0	76	0	0	101	177	0	97	0
Background Traffic Volumes	0	0	0	0	469	0	0	583	1,274	0	628	0
Project Traffic												
Inbound Traffic Assignment								35.0%				
Inbound Traffic Volumes								4				
Outbound Traffic Assignment					35.0%							
Outbound Traffic Volumes					10							
Project Traffic	0	0	0	0	10	0	0	4	0	0	0	0
Total Traffic w/o RTOR	0	0	0	0	479	0	0	587	1,274	0	628	0
RTOR Reduction												
TOTAL TRAFFIC	0	0	0	0	479	0	0	587	1,274	0	628	0

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 04/03/2019	0	0	0	0	595	0	0	558	957	0	884	0
Peak Season Volume	0	0	0	0	601	0	0	564	967	0	893	0
Growth Rate				2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	0	0	0	0	97	0	0	91	156	0	144	0
Committed Celebration Pointe												
Inbound Traffic Assignment					5.0%						15.0%	
Inbound Traffic Volumes					20						60	
Outbound Traffic Assignment								5.0%	15.0%			
Outbound Traffic Volumes								11	32			
Project Traffic	0	0	0	0	20	0	0	11	32	0	60	0
Committed Bent Creek												
Inbound Traffic Assignment					10.0%						10.0%	
Inbound Traffic Volumes					23						23	
Outbound Traffic Assignment								10.0%	10.0%			
Outbound Traffic Volumes								63	63			
Project Traffic	0	0	0	0	23	0	0	63	63	0	23	0
Committed Carriage Pointe												
Inbound Traffic Assignment					20.0%							
Inbound Traffic Volumes					25							
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Project Traffic	0	0	0	0	25	0	0	0	0	0	0	0
Committed Camping World												
Inbound Traffic Assignment					5.0%						25.0%	
Inbound Traffic Volumes					3						17	
Outbound Traffic Assignment								5.0%	25.0%			
Outbound Traffic Volumes								4	20			
Project Traffic	0	0	0	0	3	0	0	4	20	0	17	0
Total Committed Projects	0	0	0	0	71	0	0	78	115	0	100	0
1.0% Traffic Volume Growth	0	0	0	0	37	0	0	35	59	0	55	0
Committed + 1.0% Growth	0	0	0	0	108	0	0	113	174	0	155	0
Max (Committed + 1.0% or Historic Growth)	0	0	0	0	108	0	0	113	174	0	155	0
Background Traffic Volumes	0	0	0	0	709	0	0	677	1,141	0	1,048	0
Project Traffic												
Inbound Traffic Assignment								35.0%				
Inbound Traffic Volumes								11				
Outbound Traffic Assignment					35.0%							
Outbound Traffic Volumes					7							
Project Traffic	0	0	0	0	7	0	0	11	0	0	0	0
Total Traffic w/o RTOR	0	0	0	0	716	0	0	688	1,141	0	1,048	0
RTOR Reduction												
TOTAL TRAFFIC	0	0	0	0	716	0	0	688	1,141	0	1,048	0

VOLUME DEVELOPMENT SHEET
ARROW FORT PIERCE NORTH RESIDENTIAL
S 25TH STREET & OKEECHOBEE ROAD

Peak Season =	1.11	1.11
Buildout Year =	2025	2025
Years =	6	6

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/22/2019	106	575	173	40	715	118	143	391	105	109	247	14
Peak Season Volume	118	638	192	44	794	131	159	434	117	121	274	16
Growth Rate	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	19	103	31	7	128	21	26	70	19	20	44	3
1.0% Traffic Volume Growth	7	39	12	3	49	8	10	27	7	7	17	1
Committed + 1.0% Growth	7	39	12	3	49	8	10	27	7	7	17	1
Max (Committed + 1.0% or Historic Growth)	19	103	31	7	128	21	26	70	19	20	44	3
Background Traffic Volumes	137	741	223	51	922	152	185	504	136	141	318	19
Project Traffic												
Inbound Traffic Assignment	15.0%				5.0%						40.0%	
Inbound Traffic Volumes	2				1						4	
Outbound Traffic Assignment							5.0%	40.0%	15.0%			
Outbound Traffic Volumes							1	11	4			
Project Traffic	2	0	0	0	1	0	1	11	4	0	4	0
Total Traffic w/o RTOR	139	741	223	51	923	152	186	515	140	141	322	19
RTOR Reduction												
TOTAL TRAFFIC	139	741	223	51	923	152	186	515	140	141	322	19

PM Peak Hour

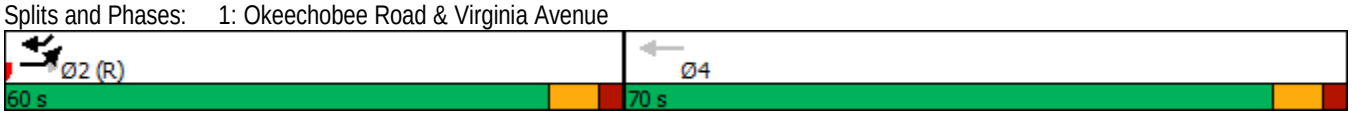
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/22/2019	126	639	144	41	741	140	167	357	112	139	400	13
Peak Season Volume	140	709	160	46	823	155	185	396	124	154	444	14
Growth Rate	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	23	115	26	7	133	25	30	64	20	25	72	2
1.0% Traffic Volume Growth	9	44	10	3	51	10	11	24	8	9	27	1
Committed + 1.0% Growth	9	44	10	3	51	10	11	24	8	9	27	1
Max (Committed + 1.0% or Historic Growth)	23	115	26	7	133	25	30	64	20	25	72	2
Background Traffic Volumes	163	824	186	53	956	180	215	460	144	179	516	16
Project Traffic												
Inbound Traffic Assignment	15.0%				5.0%						40.0%	
Inbound Traffic Volumes	5				2						12	
Outbound Traffic Assignment							5.0%	40.0%	15.0%			
Outbound Traffic Volumes							1	8	3			
Project Traffic	5	0	0	0	2	0	1	8	3	0	12	0
Total Traffic w/o RTOR	168	824	186	53	958	180	216	468	147	179	528	16
RTOR Reduction												
TOTAL TRAFFIC	168	824	186	53	958	180	216	468	147	179	528	16

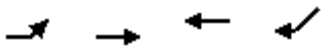
Appendix G: Synchro Analyses

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	482	1097	531	393
Future Volume (vph)	482	1097	531	393
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	60.0	60.0	70.0	60.0
Total Split (%)	46.2%	46.2%	53.8%	46.2%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	94.5	94.5	20.9	94.5
Actuated g/C Ratio	0.73	0.73	0.16	0.73
v/c Ratio	0.20	0.31	0.68	0.19
Control Delay	6.3	6.8	55.6	0.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.3	6.8	55.6	0.7
LOS	A	A	E	A
Approach Delay		6.6	55.6	
Approach LOS		A	E	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 34 (26%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 36.2%	ICU Level of Service A
Analysis Period (min) 15	

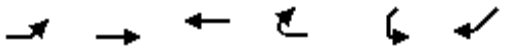
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	507	1155	559	414
v/c Ratio	0.20	0.31	0.68	0.19
Control Delay	6.3	6.8	55.6	0.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.3	6.8	55.6	0.7
Queue Length 50th (ft)	62	112	164	0
Queue Length 95th (ft)	96	155	198	15
Internal Link Dist (ft)		358	1207	
Turn Bay Length (ft)				
Base Capacity (vph)	2494	3694	2452	2141
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.31	0.23	0.19

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	482	1097	531	0	0	393
Future Volume (vph)	482	1097	531	0	0	393
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	507	1155	559	0	0	414
RTOR Reduction (vph)	0	0	0	0	0	113
Lane Group Flow (vph)	507	1155	559	0	0	301
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	94.5	94.5	20.9			94.5
Effective Green, g (s)	94.5	94.5	20.9			94.5
Actuated g/C Ratio	0.73	0.73	0.16			0.73
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2495	3696	817			2025
v/s Ratio Prot	0.15					0.11
v/s Ratio Perm		c0.23	c0.11			
v/c Ratio	0.20	0.31	0.68			0.15
Uniform Delay, d1	5.7	6.3	51.4			5.4
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.2	0.2	2.4			0.2
Delay (s)	5.9	6.5	53.8			5.6
Level of Service	A	A	D			A
Approach Delay (s)		6.3	53.8		5.6	
Approach LOS		A	D		A	

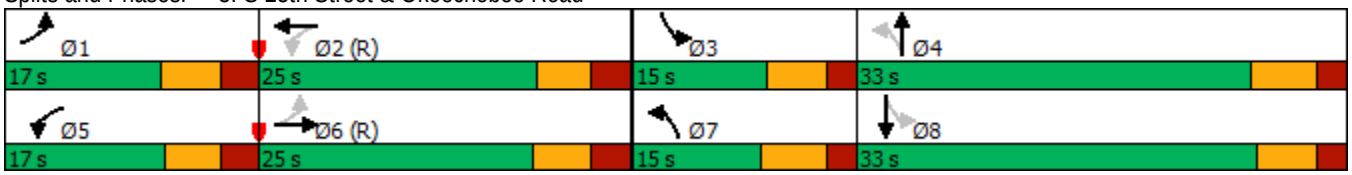
Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		

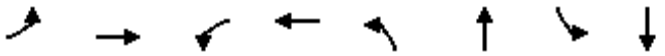
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	159	434	121	274	118	638	44	794
Future Volume (vph)	159	434	121	274	118	638	44	794
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	10.4	12.0	10.7	12.0	8.6	12.0	9.0	12.0
Minimum Split (s)	17.0	24.7	17.0	24.7	15.0	24.5	15.0	24.1
Total Split (s)	17.0	25.0	17.0	25.0	15.0	33.0	15.0	33.0
Total Split (%)	18.9%	27.8%	18.9%	27.8%	16.7%	36.7%	16.7%	36.7%
Yellow Time (s)	4.0	4.0	3.7	3.7	4.4	4.4	4.0	4.0
All-Red Time (s)	2.6	2.7	2.6	2.7	2.0	2.1	2.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.7	6.3	6.4	6.4	6.5	6.0	6.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	28.9	18.4	29.5	18.7	37.7	32.4	35.9	26.8
Actuated g/C Ratio	0.32	0.20	0.33	0.21	0.42	0.36	0.40	0.30
v/c Ratio	0.41	0.80	0.42	0.42	0.51	0.69	0.15	0.93
Control Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
LOS	C	D	C	C	C	C	B	D
Approach Delay		37.3		29.5		28.0		44.9
Approach LOS		D		C		C		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 59 (66%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 35.7	Intersection LOS: D
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: S 25th Street & Okeechobee Road

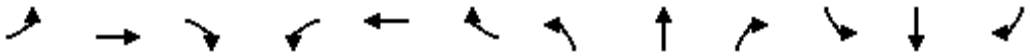




Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	167	580	127	305	124	874	46	974
v/c Ratio	0.41	0.80	0.42	0.42	0.51	0.69	0.15	0.93
Control Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
Queue Length 50th (ft)	62	156	46	77	39	233	14	276
Queue Length 95th (ft)	108	#234	84	117	80	#333	33	#402
Internal Link Dist (ft)		1962		574		2034		690
Turn Bay Length (ft)	225		200		225		200	
Base Capacity (vph)	409	725	305	732	243	1259	298	1050
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.80	0.42	0.42	0.51	0.69	0.15	0.93

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	159	434	117	121	274	16	118	638	192	44	794	131
Future Volume (vph)	159	434	117	121	274	16	118	638	192	44	794	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3427		1770	3510		1770	3417		1770	3464	
Flt Permitted	0.54	1.00		0.25	1.00		0.12	1.00		0.22	1.00	
Satd. Flow (perm)	1001	3427		457	3510		230	3417		405	3464	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	167	457	123	127	288	17	124	672	202	46	836	138
RTOR Reduction (vph)	0	28	0	0	5	0	0	28	0	0	14	0
Lane Group Flow (vph)	167	552	0	127	300	0	124	846	0	46	960	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	26.4	16.0		27.0	16.3		41.0	32.4		34.6	29.2	
Effective Green, g (s)	26.4	16.0		27.0	16.3		41.0	32.4		34.6	29.2	
Actuated g/C Ratio	0.29	0.18		0.30	0.18		0.46	0.36		0.38	0.32	
Clearance Time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	382	609		293	635		251	1230		237	1123	
v/s Ratio Prot	0.05	c0.16		c0.05	0.09		c0.05	c0.25		0.01	c0.28	
v/s Ratio Perm	0.08			0.08			0.18			0.06		
v/c Ratio	0.44	0.91		0.43	0.47		0.49	0.69		0.19	0.85	
Uniform Delay, d1	24.8	36.3		24.2	33.0		17.5	24.5		18.1	28.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.8	19.6		1.0	2.5		1.5	1.6		0.4	6.5	
Delay (s)	25.6	55.8		25.2	35.5		19.1	26.1		18.5	34.9	
Level of Service	C	E		C	D		B	C		B	C	
Approach Delay (s)		49.1			32.5			25.2			34.2	
Approach LOS		D			C			C			C	

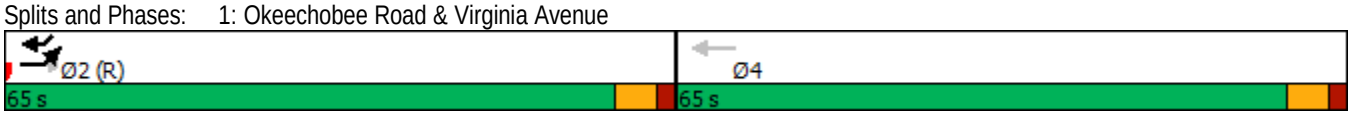
Intersection Summary			
HCM 2000 Control Delay	34.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

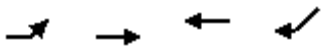
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	564	967	893	601
Future Volume (vph)	564	967	893	601
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0
Total Split (s)	65.0	65.0	65.0	65.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	84.5	84.5	33.5	84.5
Actuated g/C Ratio	0.65	0.65	0.26	0.65
v/c Ratio	0.27	0.31	0.72	0.34
Control Delay	10.6	10.8	46.9	9.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.6	10.8	46.9	9.2
LOS	B	B	D	A
Approach Delay		10.7	46.9	
Approach LOS		B	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 103 (79%), Referenced to phase 2:EBTL and 6:, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 48.3%	ICU Level of Service A
Analysis Period (min) 15	

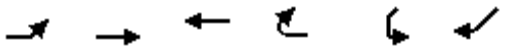
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	594	1018	940	633
v/c Ratio	0.27	0.31	0.72	0.34
Control Delay	10.6	10.8	46.9	9.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.6	10.8	46.9	9.2
Queue Length 50th (ft)	102	128	265	100
Queue Length 95th (ft)	153	178	293	159
Internal Link Dist (ft)		326	1056	
Turn Bay Length (ft)				
Base Capacity (vph)	2230	3304	2307	1853
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.41	0.34

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	564	967	893	0	0	601
Future Volume (vph)	564	967	893	0	0	601
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0			6.0
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	594	1018	940	0	0	633
RTOR Reduction (vph)	0	0	0	0	0	42
Lane Group Flow (vph)	594	1018	940	0	0	591
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	84.5	84.5	33.5			84.5
Effective Green, g (s)	84.5	84.5	33.5			84.5
Actuated g/C Ratio	0.65	0.65	0.26			0.65
Clearance Time (s)	6.0	6.0	6.0			6.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2231	3305	1310			1811
v/s Ratio Prot	0.17					c0.21
v/s Ratio Perm		0.20	c0.18			
v/c Ratio	0.27	0.31	0.72			0.33
Uniform Delay, d1	9.6	10.0	43.9			10.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.2	1.9			0.5
Delay (s)	9.9	10.2	45.8			10.6
Level of Service	A	B	D			B
Approach Delay (s)		10.1	45.8		10.6	
Approach LOS		B	D		B	

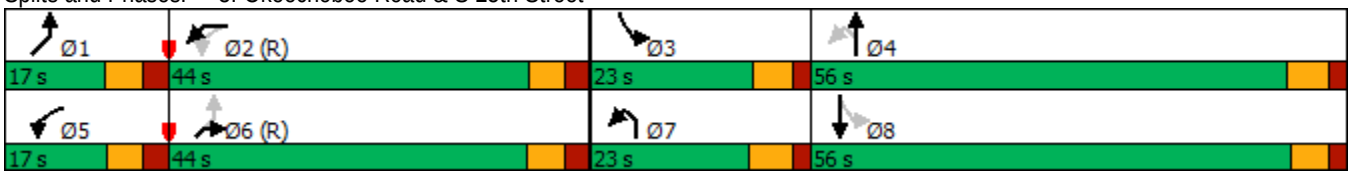
Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	154	444	140	709	46	823	185	396
Future Volume (vph)	154	444	140	709	46	823	185	396
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	44.0	23.0	56.0	23.0	56.0	17.0	44.0
Total Split (%)	12.1%	31.4%	16.4%	40.0%	16.4%	40.0%	12.1%	31.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	53.6	42.1	65.6	54.6	56.6	47.5	54.2	42.4
Actuated g/C Ratio	0.38	0.30	0.47	0.39	0.40	0.34	0.39	0.30
v/c Ratio	0.53	0.43	0.67	0.68	0.20	0.87	0.55	0.59
Control Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
LOS	C	C	D	D	C	D	D	D
Approach Delay		31.5		38.1		50.1	35.2	
Approach LOS		C		D		D	D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 39.9	Intersection LOS: D
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street





Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	162	482	147	914	48	1029	195	548
v/c Ratio	0.53	0.43	0.67	0.68	0.20	0.87	0.55	0.59
Control Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
Queue Length 50th (ft)	93	138	77	357	22	445	115	192
Queue Length 95th (ft)	154	193	145	414	43	533	184	267
Internal Link Dist (ft)		574		2034		690	3530	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	306	1122	260	1360	337	1249	354	934
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.43	0.57	0.67	0.14	0.82	0.55	0.59

Intersection Summary

Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	154	444	14	140	709	160	46	823	155	185	396	124
Future Volume (vph)	154	444	14	140	709	160	46	823	155	185	396	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	1.00		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3431		1770	3442		1770	3455		1770	2787	
Flt Permitted	0.29	0.95		0.08	1.00		0.19	1.00		0.36	1.00	
Satd. Flow (perm)	539	3431		142	3442		363	3455		679	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	162	467	15	147	746	168	48	866	163	195	417	131
RTOR Reduction (vph)	0	91	0	0	13	0	0	11	0	0	91	0
Lane Group Flow (vph)	162	391	0	147	901	0	48	1018	0	195	457	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	52.4	41.0		67.8	54.6		55.8	48.6		53.0	41.3	
Effective Green, g (s)	52.4	41.0		67.8	54.6		55.8	48.6		53.0	41.3	
Actuated g/C Ratio	0.37	0.29		0.48	0.39		0.40	0.35		0.38	0.29	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	301	1004		222	1342		217	1199		348	822	
v/s Ratio Prot	0.04	0.11		c0.06	c0.26		0.01	c0.29		c0.05	0.16	
v/s Ratio Perm	0.16			0.26			0.08			c0.17		
v/c Ratio	0.54	0.39		0.66	0.67		0.22	0.85		0.56	0.56	
Uniform Delay, d1	31.0	39.5		29.1	35.3		27.3	42.3		30.8	41.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	1.1		7.2	1.3		0.5	5.8		2.1	2.7	
Delay (s)	32.8	40.6		36.4	36.6		27.8	48.1		32.9	44.3	
Level of Service	C	D		D	D		C	D		C	D	
Approach Delay (s)		38.7			36.6			47.2		41.3		
Approach LOS		D			D			D		D		

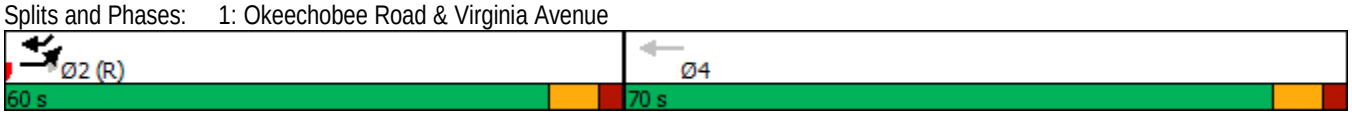
Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

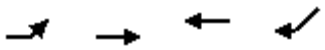
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	583	1274	628	469
Future Volume (vph)	583	1274	628	469
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	60.0	60.0	70.0	60.0
Total Split (%)	46.2%	46.2%	53.8%	46.2%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	91.0	91.0	24.4	91.0
Actuated g/C Ratio	0.70	0.70	0.19	0.70
v/c Ratio	0.26	0.38	0.69	0.24
Control Delay	7.8	8.6	53.0	2.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	2.9
LOS	A	A	D	A
Approach Delay		8.4	53.0	
Approach LOS		A	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 34 (26%), Referenced to phase 2:EBTL and 6:, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

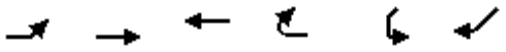
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	614	1341	661	494
v/c Ratio	0.26	0.38	0.69	0.24
Control Delay	7.8	8.6	53.0	2.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	2.9
Queue Length 50th (ft)	88	153	191	24
Queue Length 95th (ft)	132	207	225	51
Internal Link Dist (ft)		282	721	
Turn Bay Length (ft)				
Base Capacity (vph)	2402	3559	2452	2046
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.38	0.27	0.24

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	583	1274	628	0	0	469
Future Volume (vph)	583	1274	628	0	0	469
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	614	1341	661	0	0	494
RTOR Reduction (vph)	0	0	0	0	0	95
Lane Group Flow (vph)	614	1341	661	0	0	399
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	91.0	91.0	24.4			91.0
Effective Green, g (s)	91.0	91.0	24.4			91.0
Actuated g/C Ratio	0.70	0.70	0.19			0.70
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2403	3559	954			1950
v/s Ratio Prot	0.18					0.14
v/s Ratio Perm		c0.26	c0.13			
v/c Ratio	0.26	0.38	0.69			0.20
Uniform Delay, d1	7.1	7.9	49.3			6.8
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.3	2.2			0.2
Delay (s)	7.4	8.3	51.5			7.1
Level of Service	A	A	D			A
Approach Delay (s)		8.0	51.5		7.1	
Approach LOS		A	D		A	

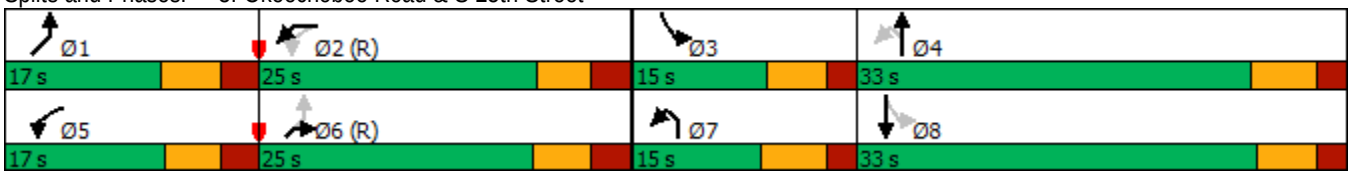
Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	141	318	137	741	51	922	185	504
Future Volume (vph)	141	318	137	741	51	922	185	504
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	25.0	15.0	33.0	15.0	33.0	17.0	25.0
Total Split (%)	18.9%	27.8%	16.7%	36.7%	16.7%	36.7%	18.9%	27.8%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	29.4	18.6	37.8	32.5	36.0	26.9	28.8	18.3
Actuated g/C Ratio	0.33	0.21	0.42	0.36	0.40	0.30	0.32	0.20
v/c Ratio	0.48	0.41	0.59	0.80	0.21	1.08	0.51	0.93
Control Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
LOS	C	B	C	C	B	F	C	D
Approach Delay		17.5		32.4		79.2	40.9	
Approach LOS		B		C		E	D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 59 (66%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 47.3	Intersection LOS: D
Intersection Capacity Utilization 79.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street





Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	148	355	144	1015	54	1131	195	674
v/c Ratio	0.48	0.41	0.59	0.80	0.21	1.08	0.51	0.93
Control Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
Queue Length 50th (ft)	54	38	46	288	16	~377	74	155
Queue Length 95th (ft)	97	76	#102	#427	37	#507	125	#276
Internal Link Dist (ft)		574		2034		690	2264	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	306	866	243	1261	258	1050	386	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.59	0.80	0.21	1.08	0.51	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	141	318	19	137	741	223	51	922	152	185	504	136
Future Volume (vph)	141	318	19	137	741	223	51	922	152	185	504	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	0.99		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3422		1770	3416		1770	3464		1770	2787	
Flt Permitted	0.25	0.95		0.12	1.00		0.15	1.00		0.48	1.00	
Satd. Flow (perm)	460	3422		229	3416		272	3464		888	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	148	335	20	144	780	235	54	971	160	195	531	143
RTOR Reduction (vph)	0	164	0	0	29	0	0	14	0	0	165	0
Lane Group Flow (vph)	148	191	0	144	986	0	54	1117	0	195	509	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Effective Green, g (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Actuated g/C Ratio	0.30	0.18		0.46	0.36		0.39	0.33		0.29	0.18	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	293	615		251	1233		194	1127		361	492	
v/s Ratio Prot	0.06	0.06		c0.05	c0.29		0.02	c0.32		c0.06	c0.18	
v/s Ratio Perm	0.09			0.21			0.09			0.10		
v/c Ratio	0.51	0.31		0.57	0.80		0.28	0.99		0.54	1.04	
Uniform Delay, d1	25.0	32.0		19.1	25.8		18.8	30.2		25.4	37.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	1.3		3.2	3.7		0.8	24.5		1.7	50.0	
Delay (s)	26.4	33.4		22.3	29.6		19.6	54.7		27.0	87.0	
Level of Service	C	C		C	C		B	D		C	F	
Approach Delay (s)		31.3			28.7			53.1		73.6		
Approach LOS		C			C			D		E		

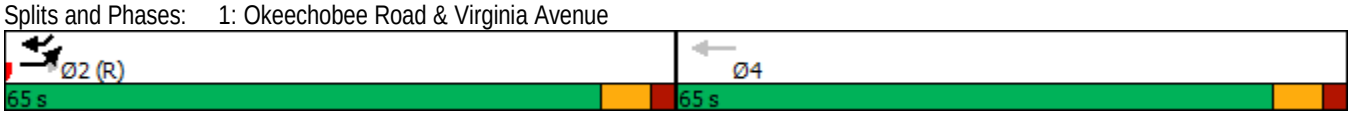
Intersection Summary			
HCM 2000 Control Delay	47.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		

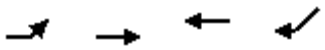
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	677	1141	1048	709
Future Volume (vph)	677	1141	1048	709
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	65.0	65.0	65.0	65.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	76.3	76.3	39.1	76.3
Actuated g/C Ratio	0.59	0.59	0.30	0.59
v/c Ratio	0.35	0.40	0.72	0.45
Control Delay	15.4	15.7	43.1	15.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.4	15.7	43.1	15.3
LOS	B	B	D	B
Approach Delay		15.6	43.1	
Approach LOS		B	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 57.2%	ICU Level of Service B
Analysis Period (min) 15	

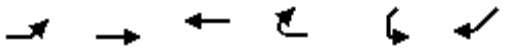
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	713	1201	1103	746
v/c Ratio	0.35	0.40	0.72	0.45
Control Delay	15.4	15.7	43.1	15.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.4	15.7	43.1	15.3
Queue Length 50th (ft)	154	191	304	172
Queue Length 95th (ft)	224	259	326	259
Internal Link Dist (ft)		557	1265	
Turn Bay Length (ft)				
Base Capacity (vph)	2015	2984	2256	1663
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.35	0.40	0.49	0.45

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	677	1141	1048	0	0	709
Future Volume (vph)	677	1141	1048	0	0	709
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	713	1201	1103	0	0	746
RTOR Reduction (vph)	0	0	0	0	0	28
Lane Group Flow (vph)	713	1201	1103	0	0	718
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	76.3	76.3	39.1			76.3
Effective Green, g (s)	76.3	76.3	39.1			76.3
Actuated g/C Ratio	0.59	0.59	0.30			0.59
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2014	2984	1529			1635
v/s Ratio Prot	0.21					c0.26
v/s Ratio Perm		0.24	c0.22			
v/c Ratio	0.35	0.40	0.72			0.44
Uniform Delay, d1	14.0	14.5	40.6			14.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.5	0.4	1.7			0.9
Delay (s)	14.5	14.9	42.3			15.8
Level of Service	B	B	D			B
Approach Delay (s)		14.8	42.3		15.8	
Approach LOS		B	D		B	

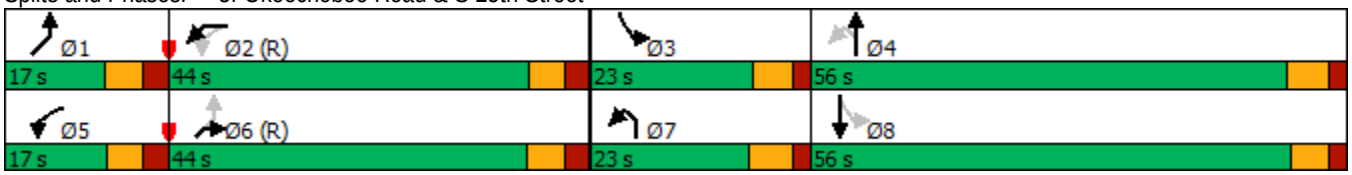
Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	179	516	163	824	53	956	215	460
Future Volume (vph)	179	516	163	824	53	956	215	460
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	44.0	23.0	56.0	23.0	56.0	17.0	44.0
Total Split (%)	12.1%	31.4%	16.4%	40.0%	16.4%	40.0%	12.1%	31.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	49.2	38.3	70.9	59.2	60.3	51.1	49.3	38.3
Actuated g/C Ratio	0.35	0.27	0.51	0.42	0.43	0.36	0.35	0.27
v/c Ratio	0.80	0.54	0.74	0.72	0.26	0.94	0.80	0.74
Control Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
LOS	E	D	D	D	C	E	D	D
Approach Delay		40.5		38.9		55.3	46.1	
Approach LOS		D		D		E	D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 45.7	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street





Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	188	560	172	1063	56	1195	226	636
v/c Ratio	0.80	0.54	0.74	0.72	0.26	0.94	0.80	0.74
Control Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
Queue Length 50th (ft)	116	174	101	421	25	540	143	246
Queue Length 95th (ft)	#200	234	182	511	48	#705	#261	327
Internal Link Dist (ft)		574		2034		690	4088	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	235	1031	260	1467	319	1271	282	856
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.54	0.66	0.72	0.18	0.94	0.80	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	179	516	16	163	824	186	53	956	180	215	460	144
Future Volume (vph)	179	516	16	163	824	186	53	956	180	215	460	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	1.00		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3431		1770	3441		1770	3455		1770	2787	
Flt Permitted	0.19	0.95		0.07	1.00		0.15	1.00		0.28	1.00	
Satd. Flow (perm)	360	3431		128	3441		285	3455		527	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	188	543	17	172	867	196	56	1006	189	226	484	152
RTOR Reduction (vph)	0	95	0	0	12	0	0	11	0	0	95	0
Lane Group Flow (vph)	188	465	0	172	1051	0	56	1184	0	226	541	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	47.9	37.1		72.5	59.2		59.5	52.2		48.1	37.2	
Effective Green, g (s)	47.9	37.1		72.5	59.2		59.5	52.2		48.1	37.2	
Actuated g/C Ratio	0.34	0.27		0.52	0.42		0.42	0.37		0.34	0.27	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	231	909		234	1455		198	1288		277	740	
v/s Ratio Prot	0.06	0.14		c0.08	c0.31		0.01	c0.34		c0.06	0.19	
v/s Ratio Perm	0.21			0.31			0.11			c0.22		
v/c Ratio	0.81	0.51		0.74	0.72		0.28	0.92		0.82	0.73	
Uniform Delay, d1	35.8	43.7		36.5	33.6		25.9	41.9		38.1	46.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	19.3	2.1		11.3	1.8		0.8	10.6		16.7	6.3	
Delay (s)	55.1	45.8		47.8	35.4		26.7	52.5		54.8	53.1	
Level of Service	E	D		D	D		C	D		D	D	
Approach Delay (s)		48.1			37.1			51.3		53.6		
Approach LOS		D			D			D		D		

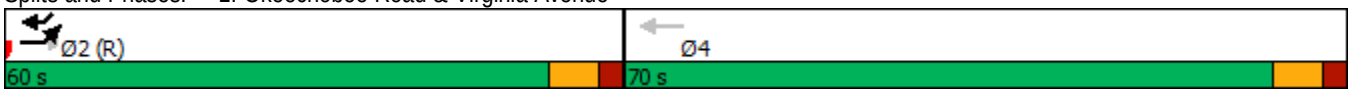
Intersection Summary			
HCM 2000 Control Delay	46.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		

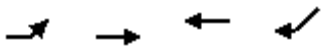
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	587	1274	628	479
Future Volume (vph)	587	1274	628	479
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	60.0	60.0	70.0	60.0
Total Split (%)	46.2%	46.2%	53.8%	46.2%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	91.0	91.0	24.4	91.0
Actuated g/C Ratio	0.70	0.70	0.19	0.70
v/c Ratio	0.26	0.38	0.69	0.25
Control Delay	7.8	8.6	53.0	3.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	3.0
LOS	A	A	D	A
Approach Delay		8.4	53.0	
Approach LOS		A	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 34 (26%), Referenced to phase 2:EBTL and 6:, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 41.1%	ICU Level of Service A
Analysis Period (min) 15	

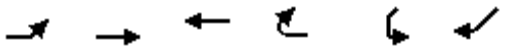
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	618	1341	661	504
v/c Ratio	0.26	0.38	0.69	0.25
Control Delay	7.8	8.6	53.0	3.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	3.0
Queue Length 50th (ft)	89	153	191	26
Queue Length 95th (ft)	132	207	225	53
Internal Link Dist (ft)		281	1314	
Turn Bay Length (ft)				
Base Capacity (vph)	2402	3559	2452	2046
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.38	0.27	0.25

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	587	1274	628	0	0	479
Future Volume (vph)	587	1274	628	0	0	479
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	618	1341	661	0	0	504
RTOR Reduction (vph)	0	0	0	0	0	95
Lane Group Flow (vph)	618	1341	661	0	0	409
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	91.0	91.0	24.4			91.0
Effective Green, g (s)	91.0	91.0	24.4			91.0
Actuated g/C Ratio	0.70	0.70	0.19			0.70
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2403	3559	954			1950
v/s Ratio Prot	0.18					0.15
v/s Ratio Perm		c0.26	c0.13			
v/c Ratio	0.26	0.38	0.69			0.21
Uniform Delay, d1	7.1	7.9	49.3			6.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.3	2.2			0.2
Delay (s)	7.4	8.3	51.5			7.1
Level of Service	A	A	D			A
Approach Delay (s)		8.0	51.5		7.1	
Approach LOS		A	D		A	

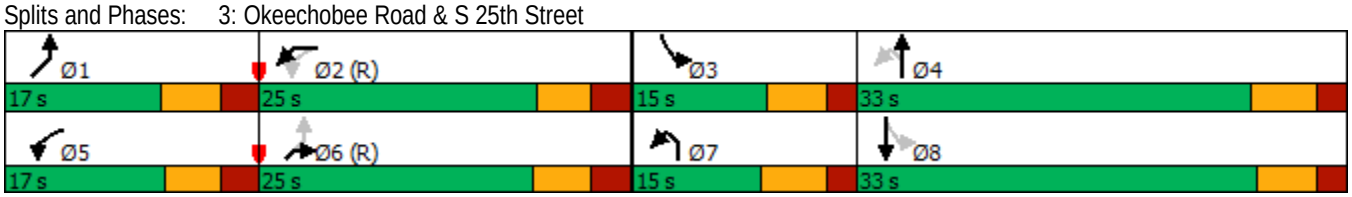
Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	141	322	139	741	51	923	186	515
Future Volume (vph)	141	322	139	741	51	923	186	515
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	25.0	15.0	33.0	15.0	33.0	17.0	25.0
Total Split (%)	18.9%	27.8%	16.7%	36.7%	16.7%	36.7%	18.9%	27.8%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	29.4	18.6	37.8	32.5	36.0	26.9	28.8	18.3
Actuated g/C Ratio	0.33	0.21	0.42	0.36	0.40	0.30	0.32	0.20
v/c Ratio	0.48	0.41	0.60	0.80	0.21	1.08	0.51	0.95
Control Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
LOS	C	B	C	C	B	F	C	D
Approach Delay		17.6		32.4		79.5	43.9	
Approach LOS		B		C		E	D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 59 (66%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 48.1	Intersection LOS: D
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street



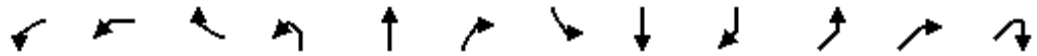


Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	148	359	146	1015	54	1132	196	689
v/c Ratio	0.48	0.41	0.60	0.80	0.21	1.08	0.51	0.95
Control Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
Queue Length 50th (ft)	54	39	47	288	16	~377	74	161
Queue Length 95th (ft)	97	77	#109	#427	37	#507	126	#286
Internal Link Dist (ft)		574		2034		690	4876	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	306	866	243	1261	258	1050	383	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.60	0.80	0.21	1.08	0.51	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	141	322	19	139	741	223	51	923	152	186	515	140
Future Volume (vph)	141	322	19	139	741	223	51	923	152	186	515	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	0.99		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3422		1770	3416		1770	3464		1770	2787	
Flt Permitted	0.25	0.95		0.12	1.00		0.15	1.00		0.47	1.00	
Satd. Flow (perm)	460	3422		229	3416		272	3464		878	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	148	339	20	146	780	235	54	972	160	196	542	147
RTOR Reduction (vph)	0	164	0	0	29	0	0	14	0	0	165	0
Lane Group Flow (vph)	148	195	0	146	986	0	54	1118	0	196	524	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Effective Green, g (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Actuated g/C Ratio	0.30	0.18		0.46	0.36		0.39	0.33		0.29	0.18	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	293	615		251	1233		194	1127		359	492	
v/s Ratio Prot	0.06	0.06		c0.06	c0.29		0.02	c0.32		c0.06	c0.19	
v/s Ratio Perm	0.09			0.21			0.09			0.10		
v/c Ratio	0.51	0.32		0.58	0.80		0.28	0.99		0.55	1.07	
Uniform Delay, d1	25.0	32.1		19.1	25.8		18.8	30.2		25.4	37.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	1.4		3.4	3.7		0.8	24.7		1.7	59.2	
Delay (s)	26.4	33.4		22.6	29.6		19.6	55.0		27.1	96.3	
Level of Service	C	C		C	C		B	D		C	F	
Approach Delay (s)		31.4			28.7			53.3		80.9		
Approach LOS		C			C			D		F		

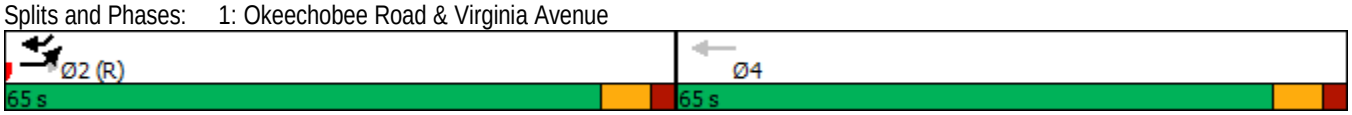
Intersection Summary			
HCM 2000 Control Delay	49.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

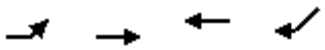
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	688	1141	1048	716
Future Volume (vph)	688	1141	1048	716
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	65.0	65.0	65.0	65.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	57.7	57.7	57.7	57.7
Actuated g/C Ratio	0.44	0.44	0.44	0.44
v/c Ratio	0.48	0.53	0.49	0.59
Control Delay	26.8	27.4	26.6	26.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.8	27.4	26.6	26.9
LOS	C	C	C	C
Approach Delay		27.2	26.6	
Approach LOS		C	C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 103 (79%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 57.5%	ICU Level of Service B
Analysis Period (min) 15	

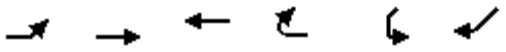
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	724	1201	1103	754
v/c Ratio	0.48	0.53	0.49	0.59
Control Delay	26.8	27.4	26.6	26.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.8	27.4	26.6	26.9
Queue Length 50th (ft)	218	265	237	244
Queue Length 95th (ft)	272	310	279	315
Internal Link Dist (ft)		228	779	
Turn Bay Length (ft)				
Base Capacity (vph)	1523	2256	2256	1274
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.53	0.49	0.59

Intersection Summary



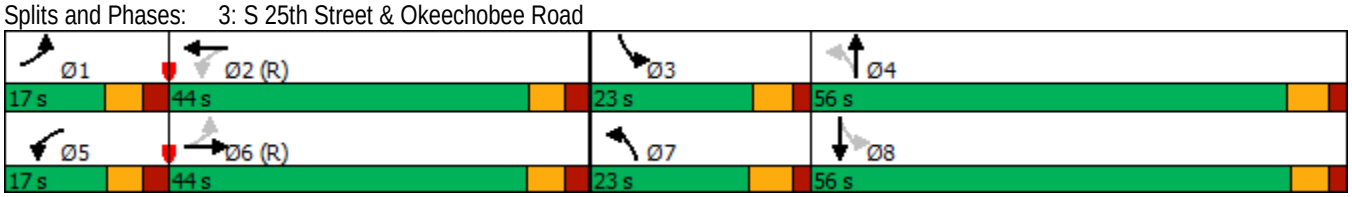
Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	688	1141	1048	0	0	716
Future Volume (vph)	688	1141	1048	0	0	716
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	724	1201	1103	0	0	754
RTOR Reduction (vph)	0	0	0	0	0	37
Lane Group Flow (vph)	724	1201	1103	0	0	717
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	57.7	57.7	57.7			57.7
Effective Green, g (s)	57.7	57.7	57.7			57.7
Actuated g/C Ratio	0.44	0.44	0.44			0.44
Clearance Time (s)	7.3	7.3	7.3			7.3
Lane Grp Cap (vph)	1523	2256	2256			1236
v/s Ratio Prot	0.21					c0.26
v/s Ratio Perm		0.24	c0.22			
v/c Ratio	0.48	0.53	0.49			0.58
Uniform Delay, d1	25.5	26.3	25.7			27.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.1	0.9	0.8			2.0
Delay (s)	26.5	27.2	26.4			29.1
Level of Service	C	C	C			C
Approach Delay (s)		27.0	26.4		29.1	
Approach LOS		C	C		C	

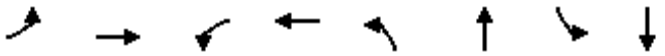
Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	186	515	141	322	139	741	51	923
Future Volume (vph)	186	515	141	322	139	741	51	923
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	10.4	12.0	10.7	12.0	8.6	12.0	9.0	12.0
Minimum Split (s)	17.0	24.7	17.0	24.7	15.0	24.5	15.0	24.1
Total Split (s)	17.0	44.0	17.0	44.0	23.0	56.0	23.0	56.0
Total Split (%)	12.1%	31.4%	12.1%	31.4%	16.4%	40.0%	16.4%	40.0%
Yellow Time (s)	4.0	4.0	3.7	3.7	4.4	4.4	4.0	4.0
All-Red Time (s)	2.6	2.7	2.6	2.7	2.0	2.1	2.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.7	6.3	6.4	6.4	6.5	6.0	6.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	51.5	40.4	51.0	40.1	68.3	57.3	59.5	50.3
Actuated g/C Ratio	0.37	0.29	0.36	0.29	0.49	0.41	0.42	0.36
v/c Ratio	0.51	0.69	0.60	0.36	0.68	0.72	0.24	0.90
Control Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
LOS	C	D	D	D	D	D	C	D
Approach Delay		44.7		40.5		38.0		51.2
Approach LOS		D		D		D		D

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 44.1	Intersection LOS: D
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: S 25th Street & Okeechobee Road

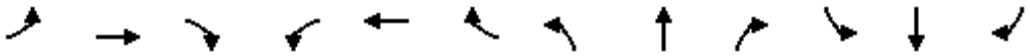




Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	196	689	148	359	146	1015	54	1132
v/c Ratio	0.51	0.69	0.60	0.36	0.68	0.72	0.24	0.90
Control Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
Queue Length 50th (ft)	122	293	89	139	77	390	24	486
Queue Length 95th (ft)	186	367	141	186	149	475	47	#641
Internal Link Dist (ft)		2355		574		2034		690
Turn Bay Length (ft)	225		200		225		200	
Base Capacity (vph)	384	1004	247	1009	258	1414	321	1275
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.69	0.60	0.36	0.57	0.72	0.17	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	515	140	141	322	19	139	741	223	51	923	152
Future Volume (vph)	186	515	140	141	322	19	139	741	223	51	923	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3426		1770	3510		1770	3416		1770	3464	
Flt Permitted	0.46	1.00		0.21	1.00		0.07	1.00		0.16	1.00	
Satd. Flow (perm)	848	3426		385	3510		130	3416		299	3464	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	196	542	147	148	339	20	146	780	235	54	972	160
RTOR Reduction (vph)	0	17	0	0	3	0	0	18	0	0	9	0
Lane Group Flow (vph)	196	672	0	148	356	0	146	997	0	54	1123	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	50.1	39.1		49.7	38.9		70.3	57.3		58.9	51.6	
Effective Green, g (s)	50.1	39.1		49.7	38.9		70.3	57.3		58.9	51.6	
Actuated g/C Ratio	0.36	0.28		0.36	0.28		0.50	0.41		0.42	0.37	
Clearance Time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	375	956		243	975		217	1398		202	1276	
v/s Ratio Prot	0.04	c0.20		c0.05	0.10		c0.06	c0.29		0.01	c0.32	
v/s Ratio Perm	0.15			0.17			0.27			0.10		
v/c Ratio	0.52	0.70		0.61	0.37		0.67	0.71		0.27	0.88	
Uniform Delay, d1	32.7	45.2		33.3	40.6		31.6	34.5		26.2	41.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	4.3		4.3	1.1		8.0	1.7		0.7	7.2	
Delay (s)	34.0	49.5		37.6	41.7		39.5	36.2		26.9	48.5	
Level of Service	C	D		D	D		D	D		C	D	
Approach Delay (s)		46.1			40.5			36.7			47.5	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Appendix H: Turn Lane Warrant Worksheet

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

AR Number:	N/A	Analysis Date:	3/19/2020
County:	Saint Lucie	Conducted By:	MAG
FDOT District:	5	Checked By:	ABK
		Agency/Company Name:	Kimley Horn

Intersection & Approach Description: Okeechobee Road and Project Driveway

Analysis Scenario:	Existing 2020	Number of Approach Lanes:	2
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Divided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	35		
Type of Terrain:	Level		

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	12	2.0%	13
	Through	-	705	2.0%	713
	Right	No		0.0%	N/A
Opposing	Left	No		0.0%	N/A
	Through	-	739	2.0%	747
	Right	Yes	18	2.0%	19

Advancing Volume:	726
Opposing Volume:	766
Left Turn Volume:	13
% Left Turns in Advancing Volume:	1.79%

TURN LANE WARRANT FINDINGS

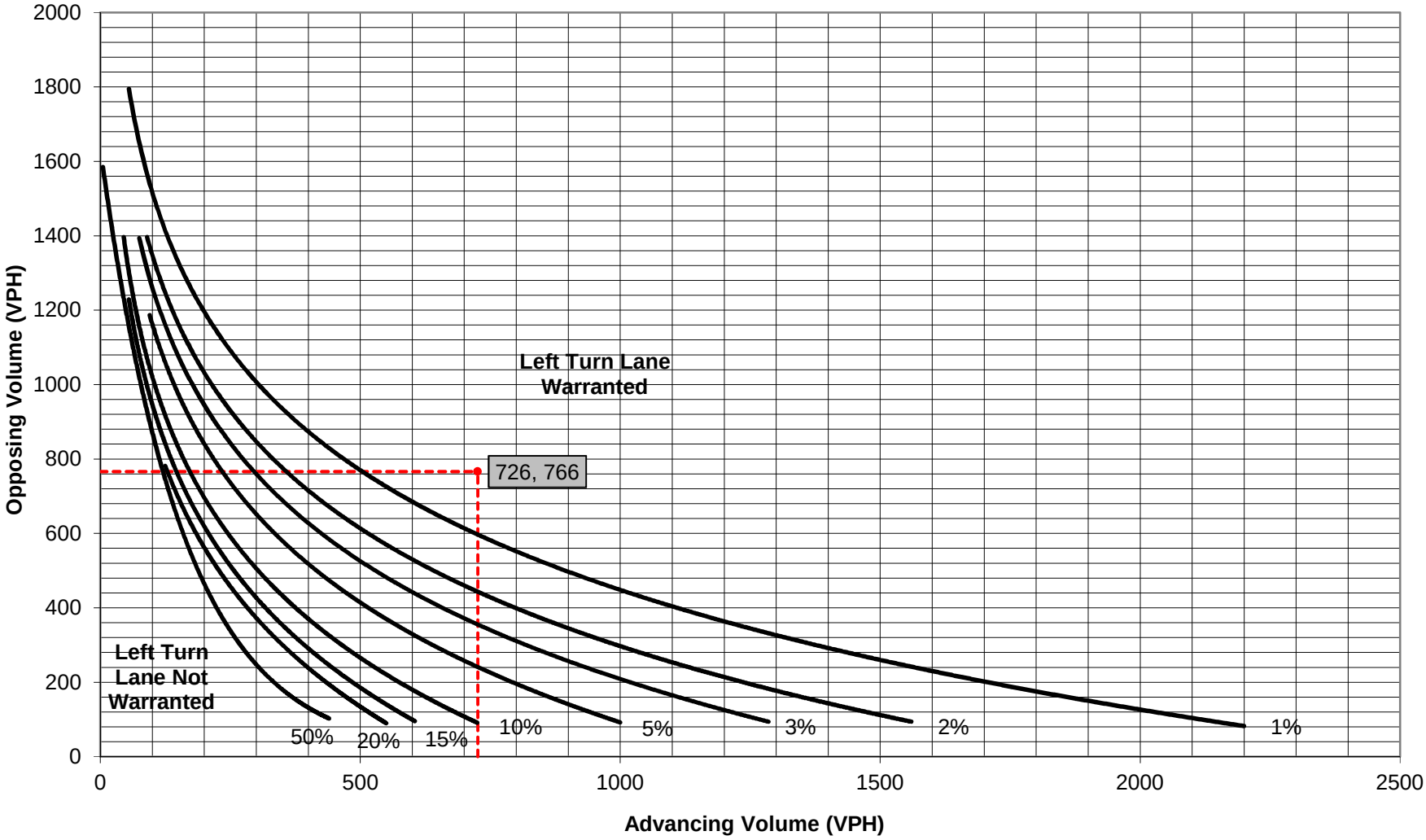
Left Turn Lane Warrant Findings

Applicable Warrant Figure: Figure 8

Warrant Met?: Yes

Additional Comments / Justifications:

Figure 8. Warrant for left turn lanes on four-lane, divided highways (unsignalized and signalized intersections)
(L = % Left Turns in Advancing Volume)





REAR ELEVATION
SCALE: 3/16" = 1'-0"



FRONT ELEVATION
SCALE: 3/16" = 1'-0"

revisions

no.	date
REVIEW	6/17/20

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checked	SBD
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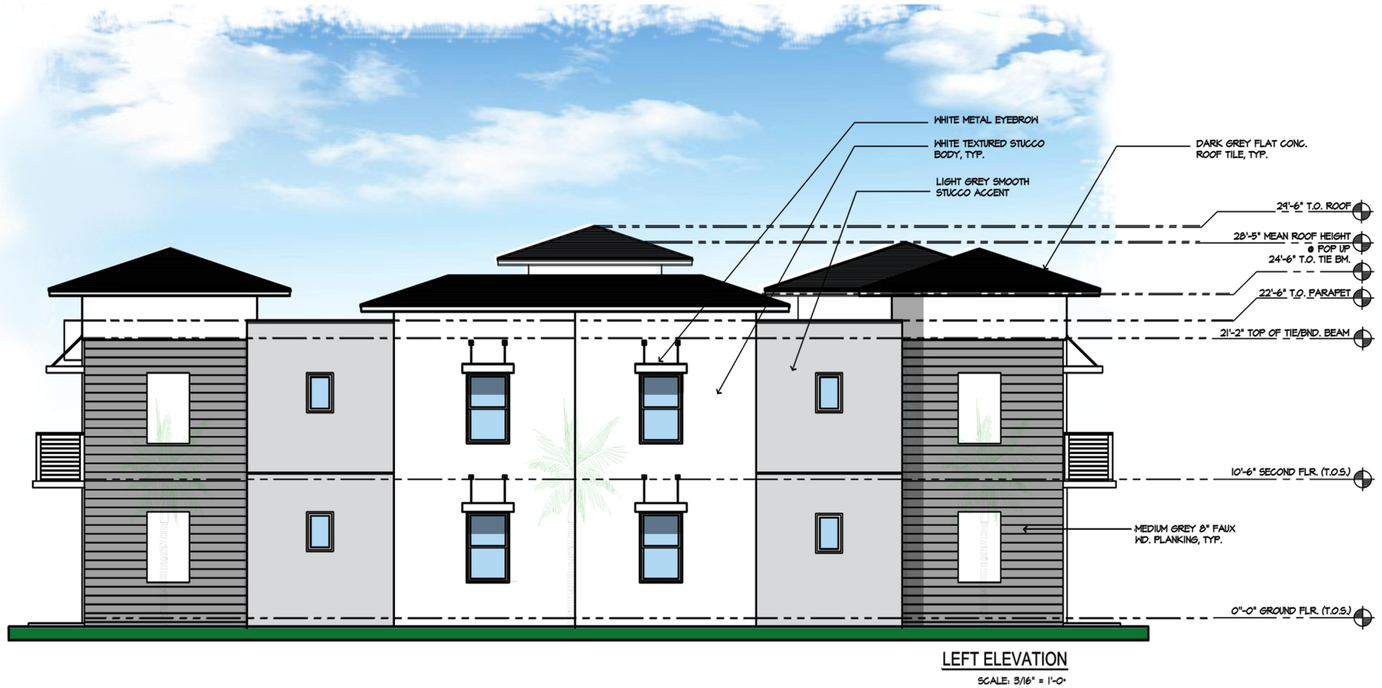
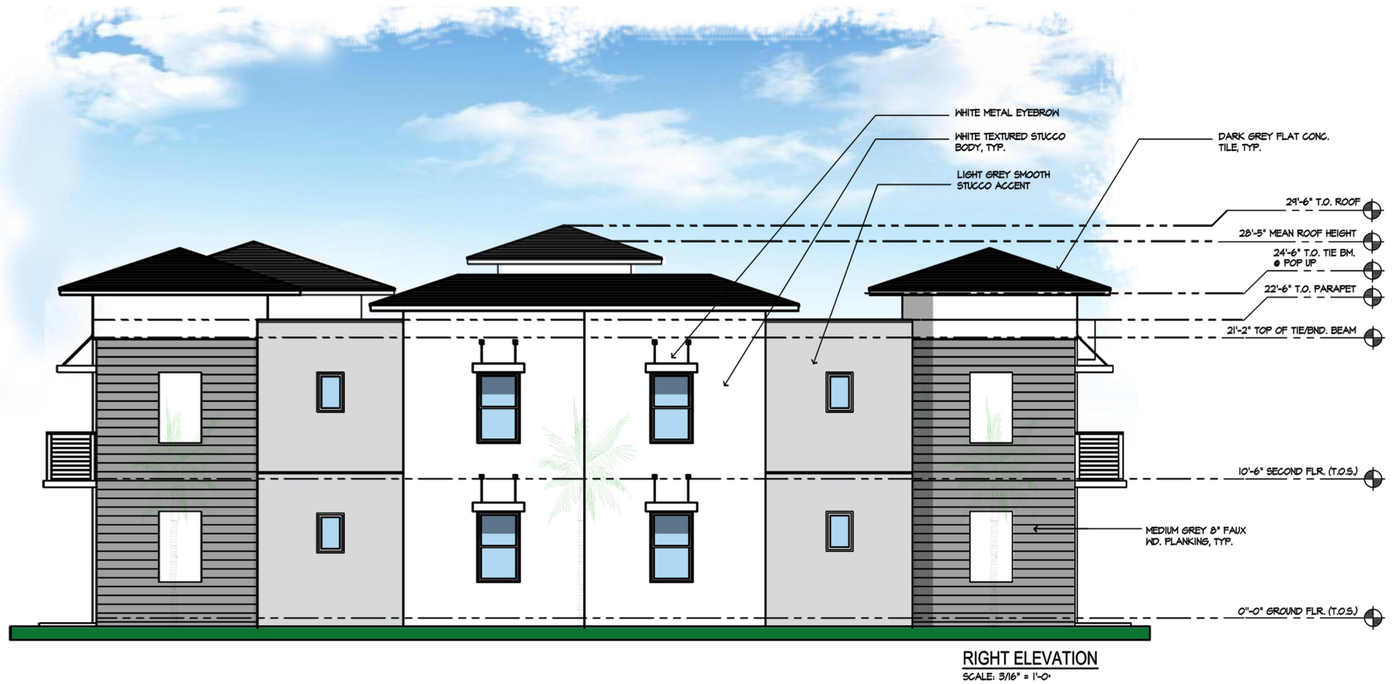
A-3



LEFT ELEVATION

SCALE: 3/16" = 1'-0"



RIGHT ELEVATION

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CALCULATIONS
(PER LEVEL)

AIR CONDITIONED AREAS

AC	UNIT A	735 SF
AC (2)	UNIT B	1227 SF
AC (3)	UNIT C	957 SF
AC (4)	UNIT D	957 SF
AC (4)	UNIT D	957 SF
AC (3)	UNIT C	957 SF
AC (2)	UNIT B	1227 SF
AC	UNIT A	735 SF
	TTL.	7752 SF

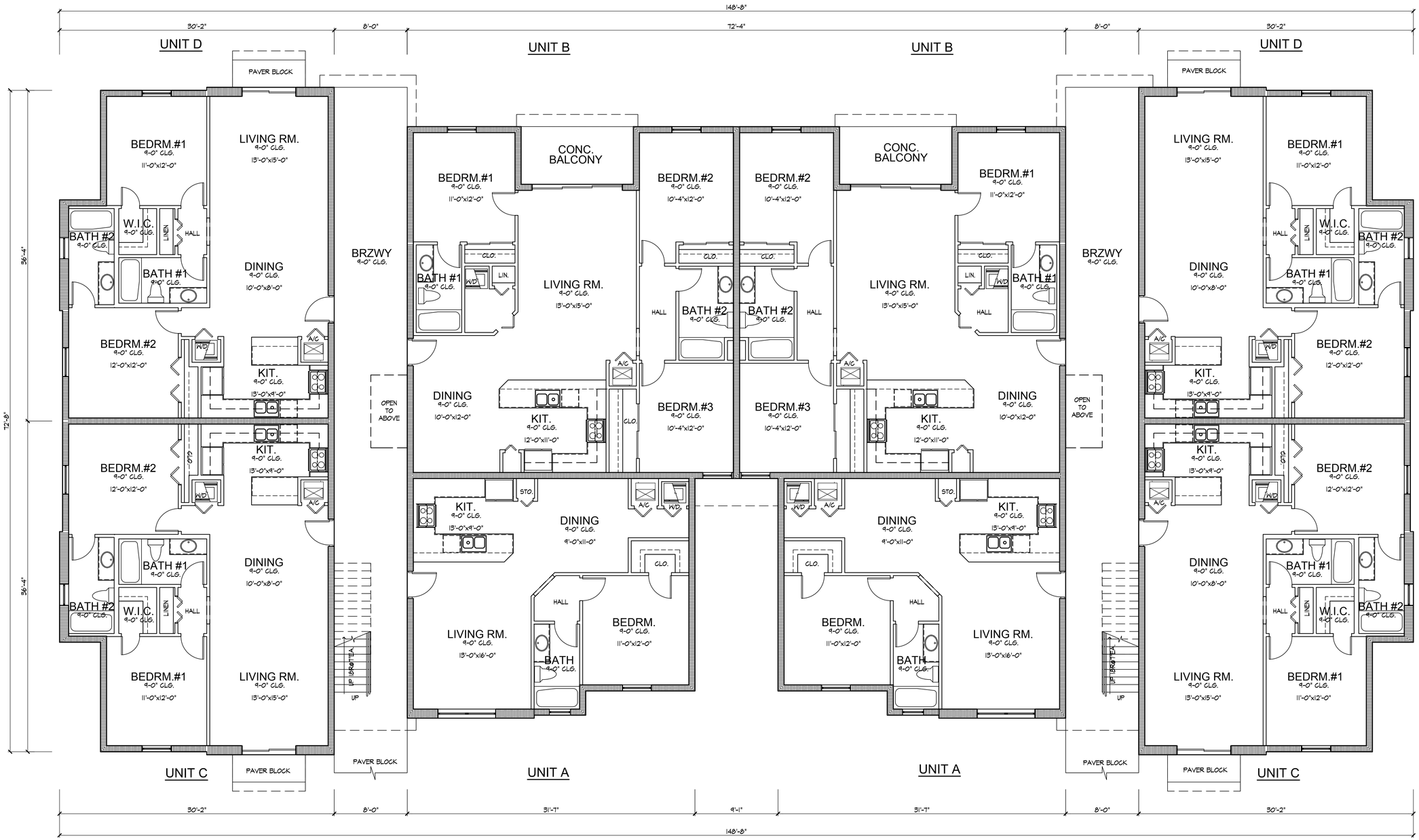
NON CONDITIONED AREAS

NC	BREEZEWAY	522 SF
NC (2)	BREEZEWAY	522 SF
NC (4)	BALCONY(B)	96 SF
NC (8)	BALCONY(B)	96 SF
NC (3)	BALCONY(C)	32 SF
NC (5)	BALCONY(C)	32 SF
NC (7)	BALCONY(D)	32 SF
NC (6)	BALCONY(D)	32 SF
	TTL.	1364 SF

GROSS AREA

GROSS AREA	8159 SF

TOTAL ALL LEVELS:	
TOTAL AC AREA:	23256 SF
TOTAL NON-AC AREA:	4092 SF
TOTAL GROSS AREA:	24477 SF



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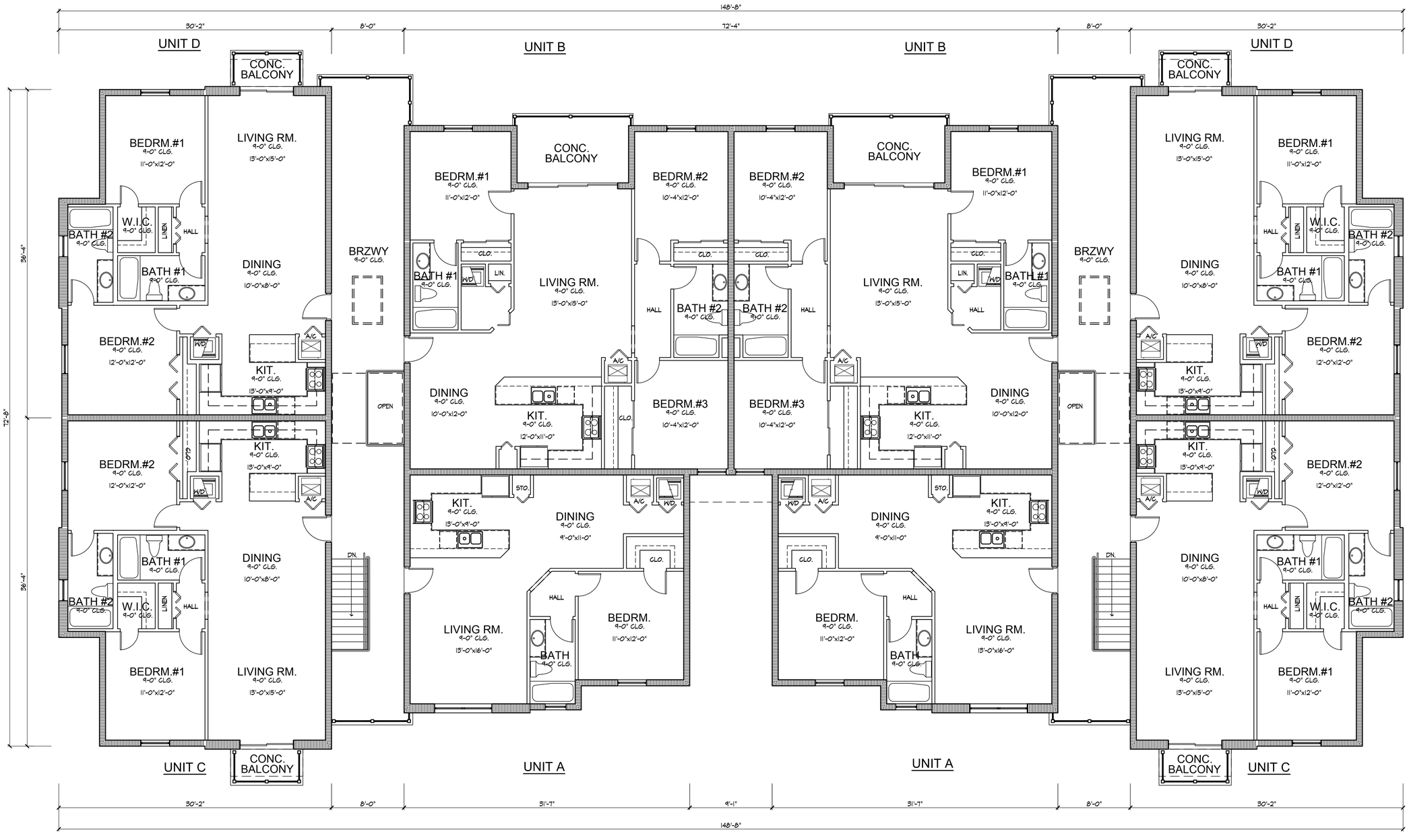

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SECOND FLOOR PLAN

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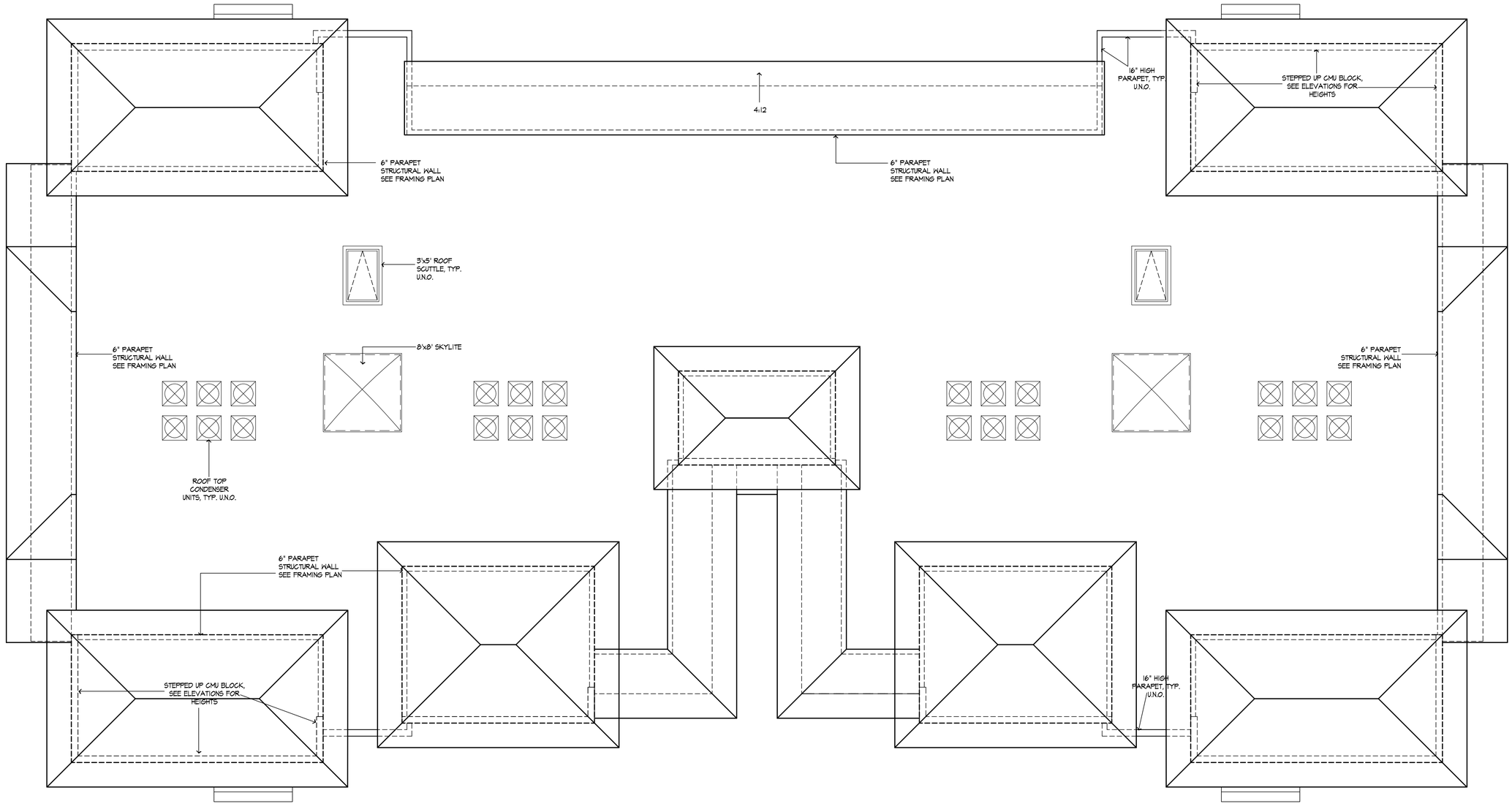

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REAR ELEVATION

SCALE: 3/16" = 1'-0"



FRONT ELEVATION

SCALE: 3/16" = 1'-0"

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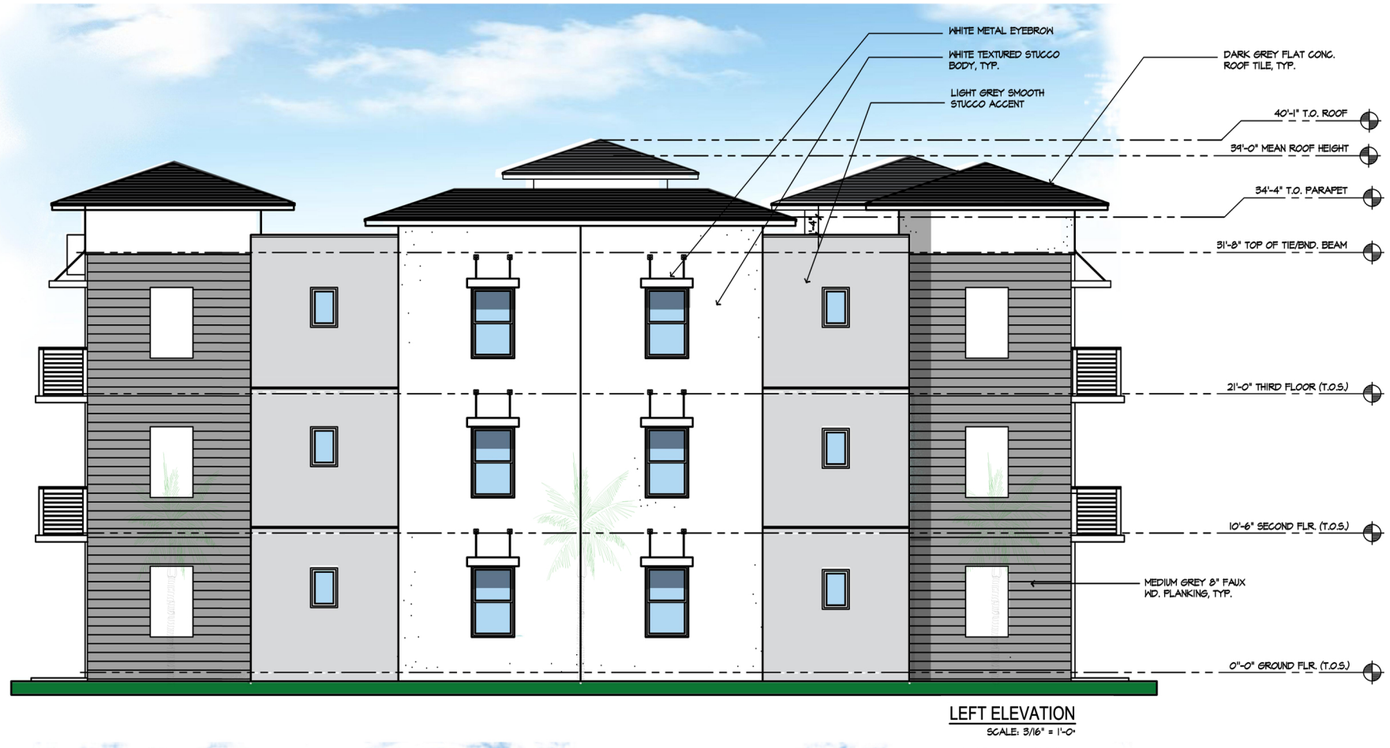

LEFT ELEVATION
SCALE: 3/16" = 1'-0"



RIGHT ELEVATION
SCALE: 3/16" = 1'-0"

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A-5

CALCULATIONS
(PER LEVEL)

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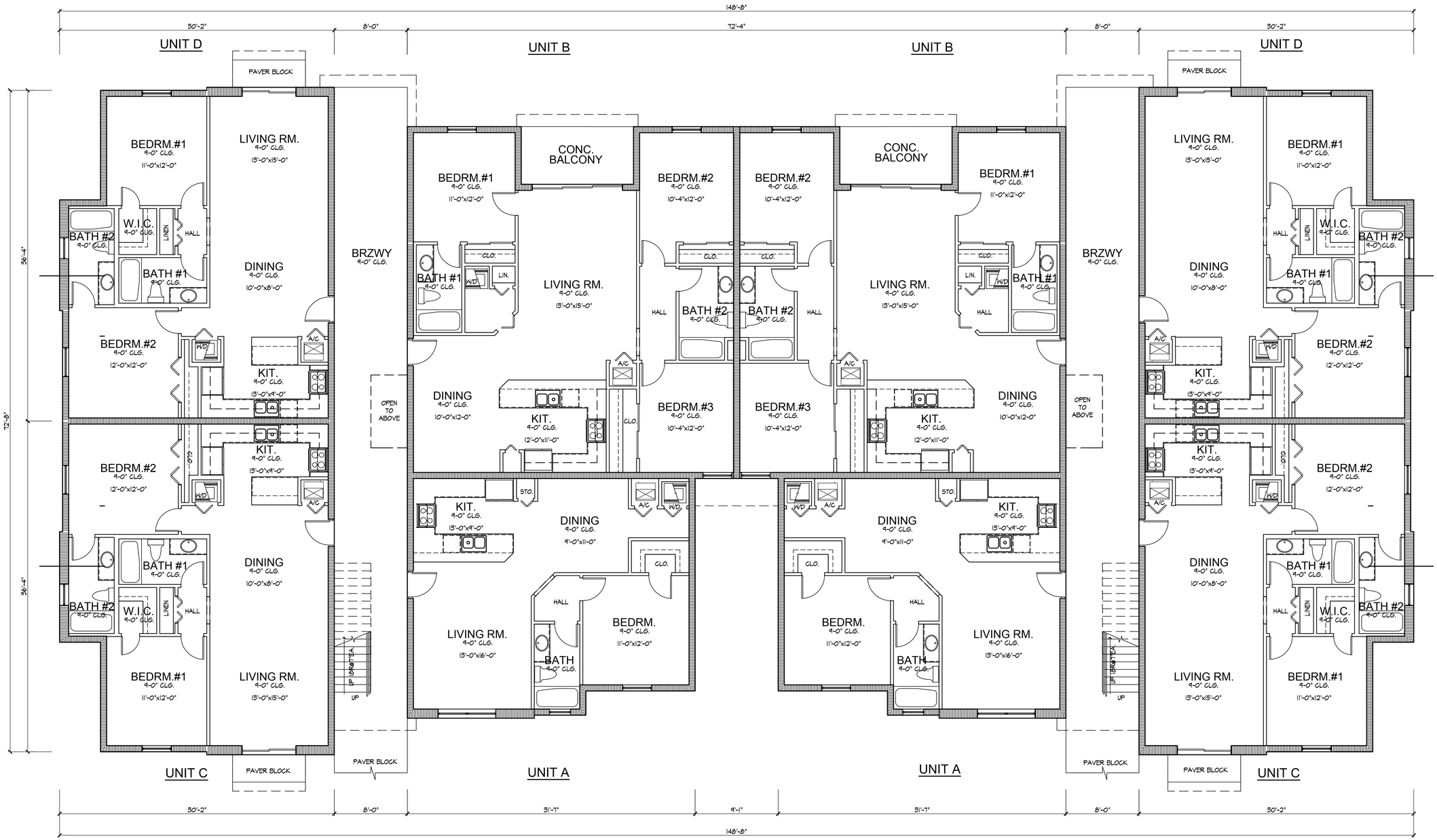

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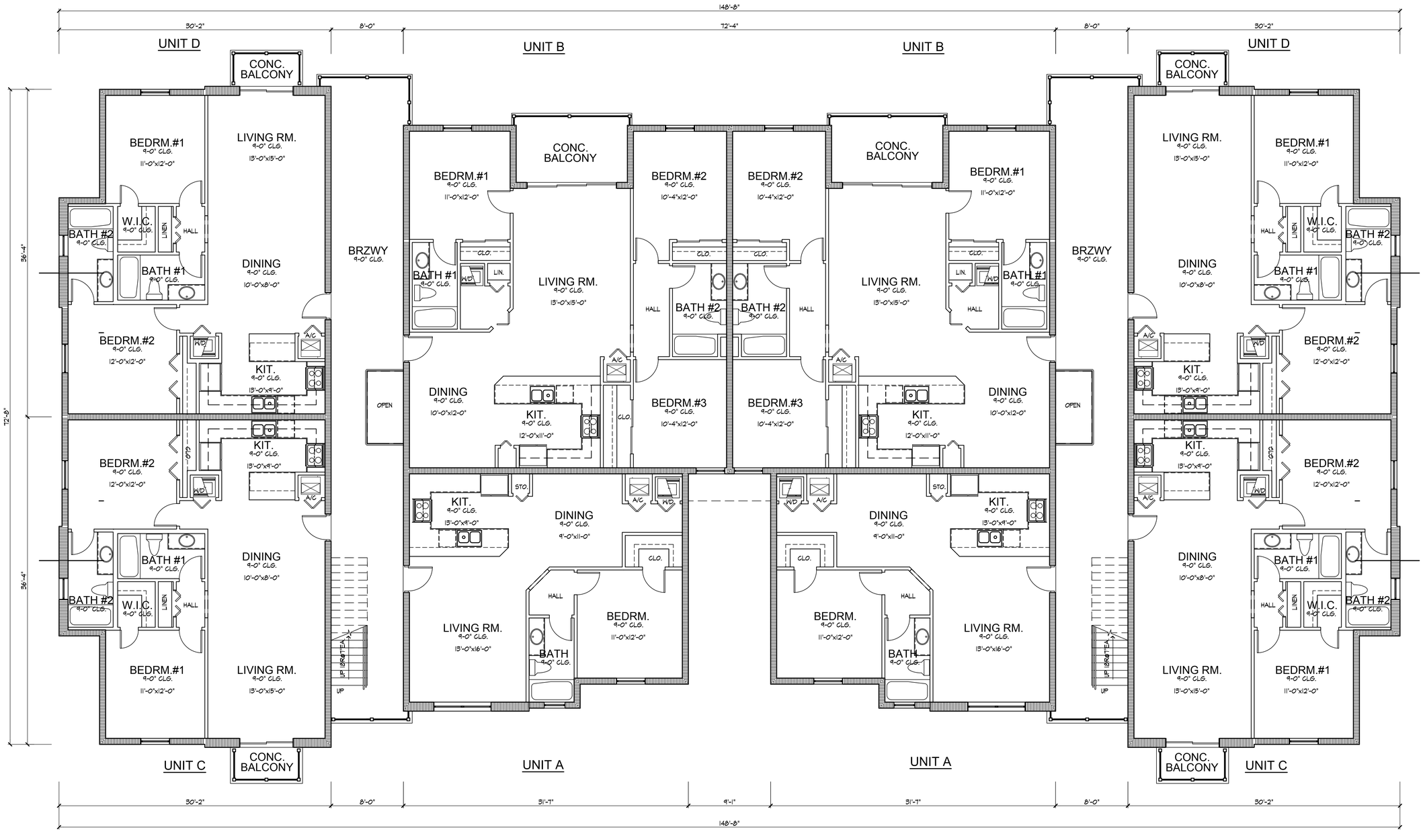

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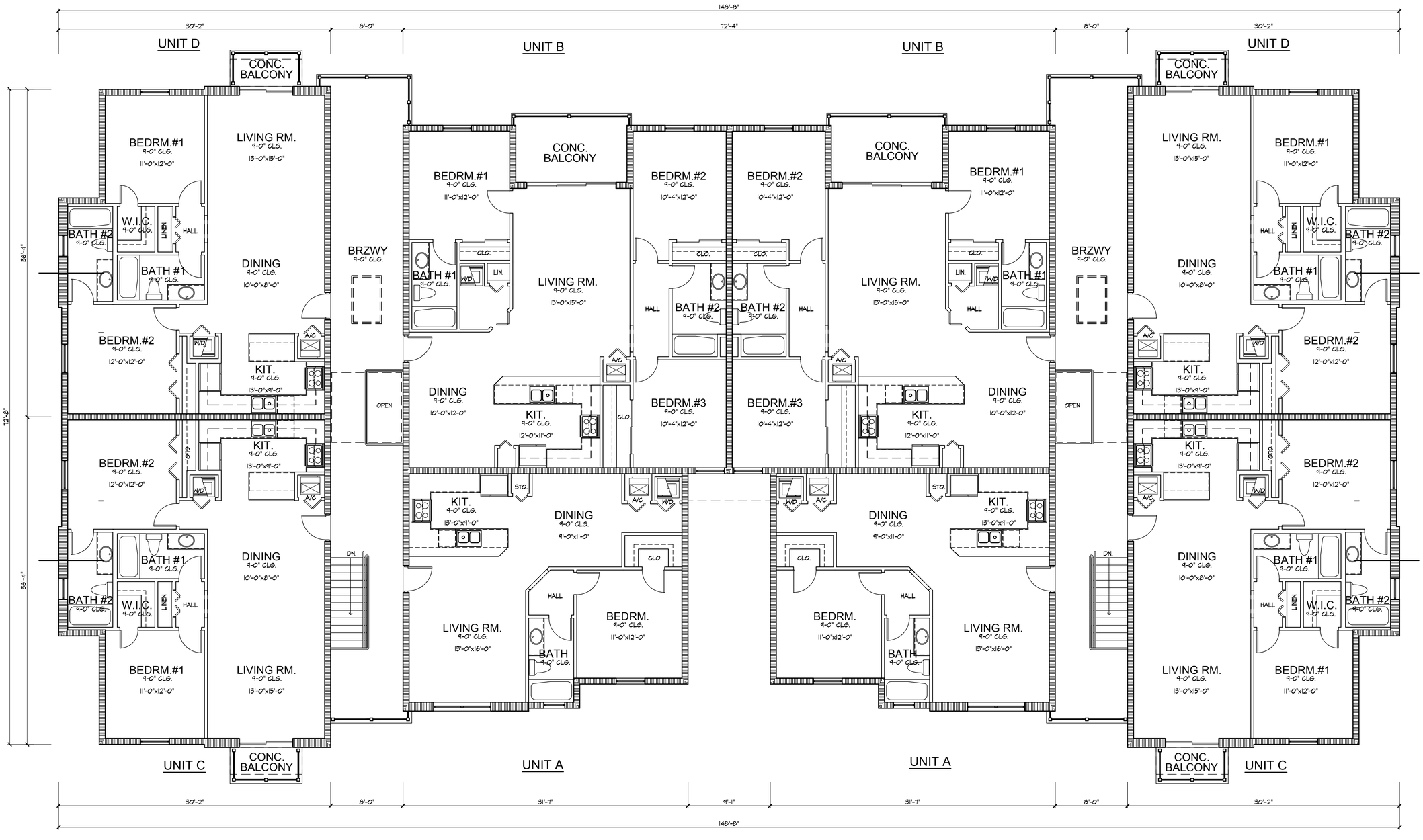

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THIRD FLOOR PLAN

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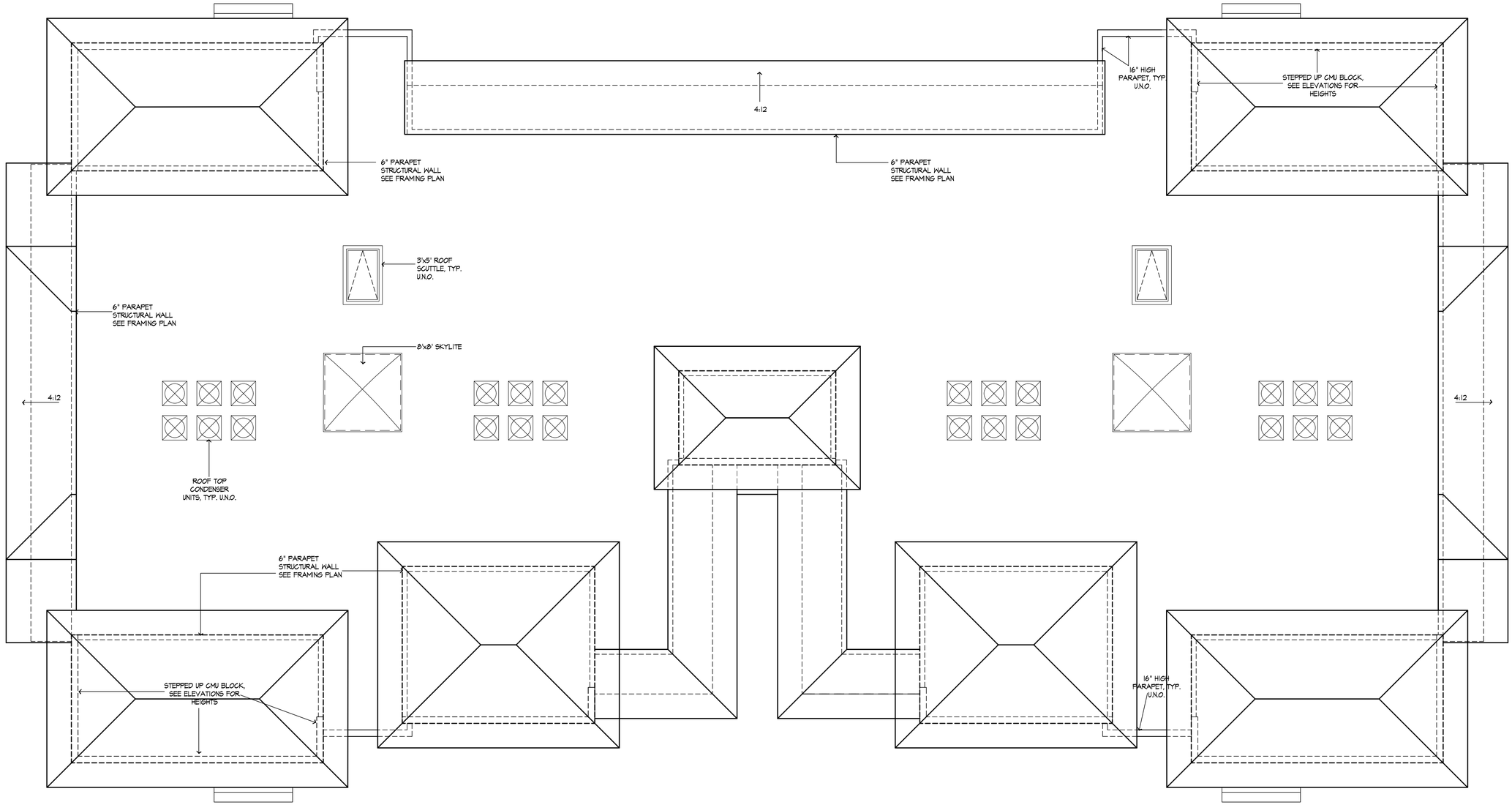
A-3



revisions

no.	date
REVIEW	6/18/20

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drawn	LTH, ST
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scale	3/16"=1'-0" (U.O.N.)
job no.	190725_AIG

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24 UNIT APARTMENT BUILDING

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FORT PIERCE, FLORIDA

by: ARROW INVESMENT GROUP, LLC.

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ROOF PLAN

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A-6



LEFT ELEVATION



REAR ELEVATION



FRONT ELEVATION

revisions

no.	date
0	//

designed	SBD
drawn	VHV
checked	SBD
date	6/19/20
scale	1/4"= 1'-0" (U.O.N.)
job no.	190123_CH.AIG

Scott Blakeslee Disher
AR-0011586 AA-0003285

project

CLUBHOUSE

ARIA APARTMENTS
FT. PIERCE, FLORIDA

by: ARROW INVESMENT GROUP

ARCHITECTURAL Studio, Inc.

Architecture
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Planning

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ELEVATIONS

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A-2



LEFT ELEVATION



RIGHT ELEVATION

revisions

no.	date
0	//

designed	SBD
drawn	VHV
checked	SBD
date	6/19/20
scale	1/4"= 1'-0" (U.O.N.)
job no.	190123_CH.AIG

Scott Blakeslee Disher
AR-0011586 AA-0003285

project

CLUBHOUSE

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FT. PIERCE, FLORIDA

by: ARROW INVESMENT GROUP

ARCHITECTURAL Studio, Inc.

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ELEVATIONS

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A-3

CALCULATIONS

AIR CONDITIONED AREAS

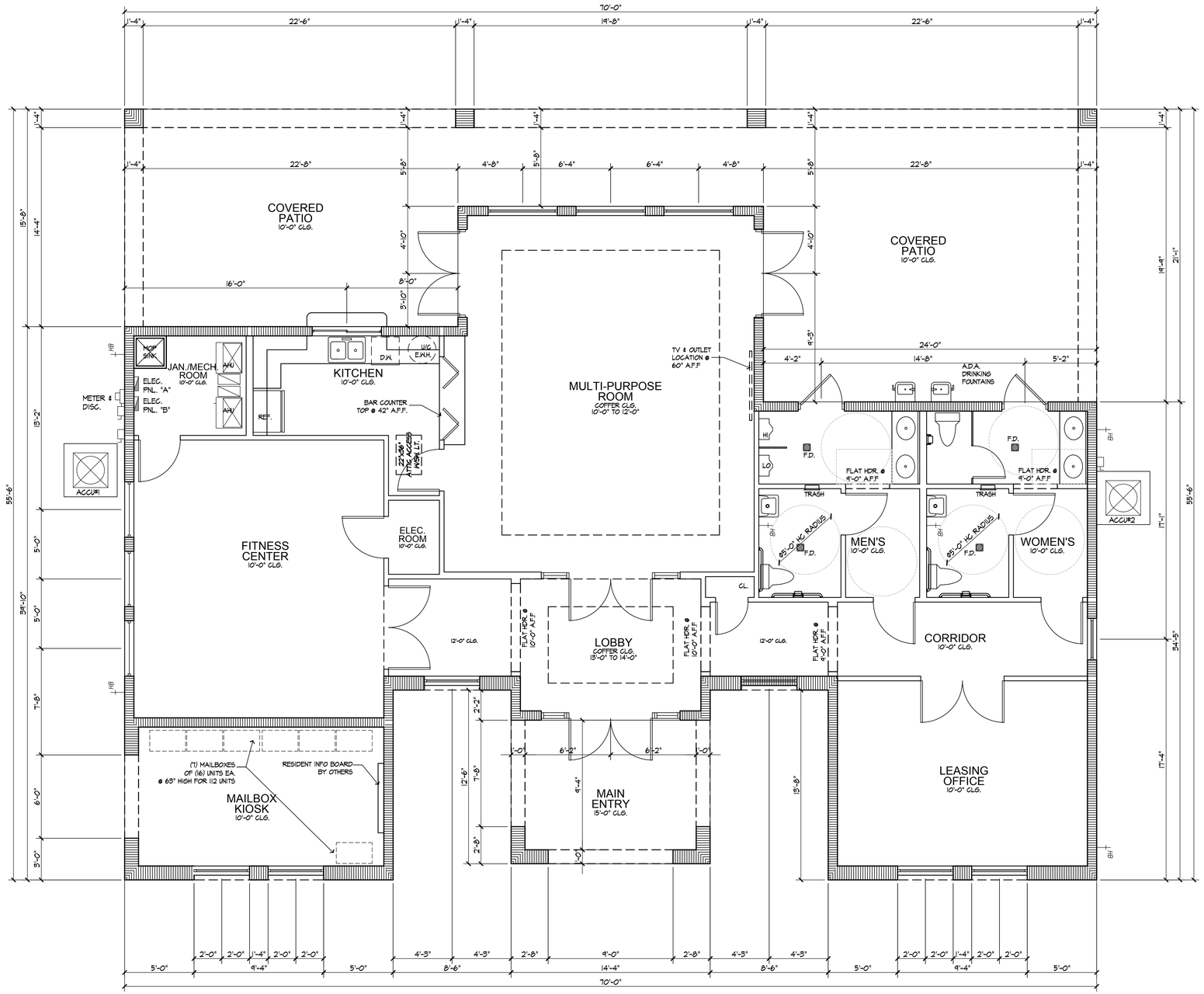
CLUBHOUSE A/C	2239 SF
	2239 SF

NON CONDITIONED AREAS

MAIN ENTRY	148 SF
MAILBOX KIOSK	213 SF
COVERED PATIO	1036 SF
	1397 SF

GROSS AREA

GROSS AREA	3636 SF



revisions

no.	date
0	//

designed	SBD
drawn	VHV
checked	SBD
date	6/19/20
scale	1/4"= 1'-0" (U.O.N.)
job no.	190723_CH.AIG

Scott Blakeslee Disher
AR-0011586 AA-0003285

project

CLUBHOUSE

ARIA APARTMENTS
FT. PIERCE, FLORIDA

by: ARROW INVESMENT GROUP

ARCHITECTURAL Studio, Inc.

Architecture
▪
Planning

300 Avenue of Champions
Suite 260
Palm Beach Gardens, Florida 33418

Phone 561.202.6990
Fax 561.296.2494
archstudiofll.com

drawing

FLOOR PLAN

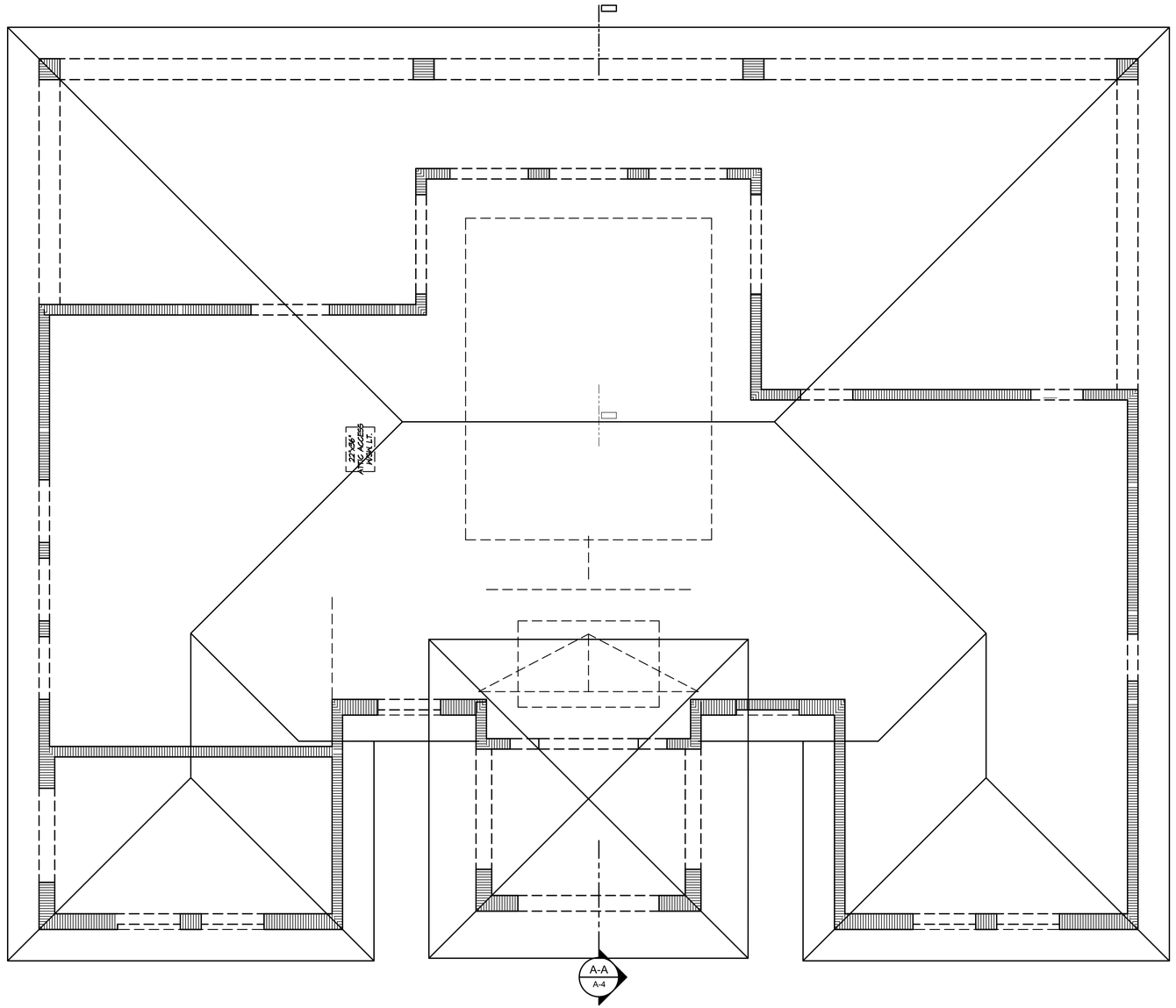
sheet

A-1

revisions

no.	date
0	//

designed	SBD
drawn	VHV
checked	SBD
date	6/19/20
scale	1/4"= 1'-0" (U.O.N.)
job no.	190723_CH.AIG



Scott Blakeslee Disher
AR-0011586 AA-0003285

CLUBHOUSE
project

ARIA APARTMENTS
FT. PIERCE, FLORIDA

by: ARROW INVESMENT GROUP

ARCHITECTURAL Studio, Inc.

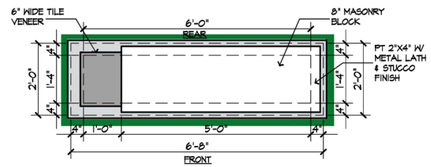
Architecture
•
Planning

300 Avenue of Champions
Suite 260
Palm Beach Gardens, Florida 33418

Phone 561.202.6990
Fax 561.296.2494
archstudiofl.com

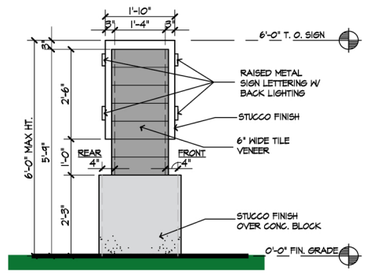
drawing
ROOF
FRAMING
PLAN

sheet
S-2



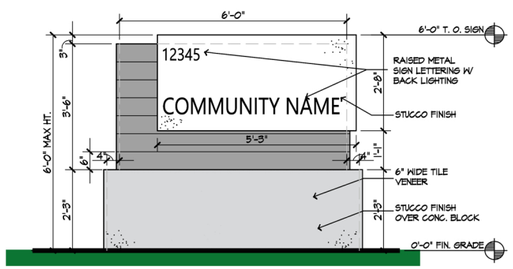
ENTRY MONUMENT PLAN

SCALE: 1/2" = 1'-0"



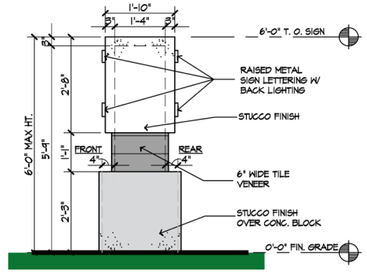
ENTRY MONUMENT LEFT SIDE ELEVATION

SCALE: 1/2" = 1'-0"



ENTRY MONUMENT FRONT ELEVATION

SCALE: 1/2" = 1'-0" (REAR ELEVATION TO MATCH FRONT ELEVATION)



ENTRY MONUMENT RIGHT SIDE ELEVATION

SCALE: 1/2" = 1'-0"

revisions

no.	date
0	//

designed	SBD
drawn	VHV
checked	SBD
date	06/12/20
scale	1/4"= 1'-0" (U.O.N.)
job no.	190724_EM.dig

Scott Blakeslee Disher
AR-0011586 AA-0003285

PROGRESS SET
06/15/20

project

ENTRY MONUMENT

FORT PIERCE NORTH APTS. & COMMERCIAL CENTER
FT. PIERCE, FLORIDA

by: ARROW INVESMENT GROUP

ARCHITECTURAL Studio, Inc.

Architecture
+
Planning

300 Avenue of Champions
Suite 260
Palm Beach Gardens, Florida 33418

Phone 561.202.6990
Fax 561.296.2494
archstudiofl.com

drawing

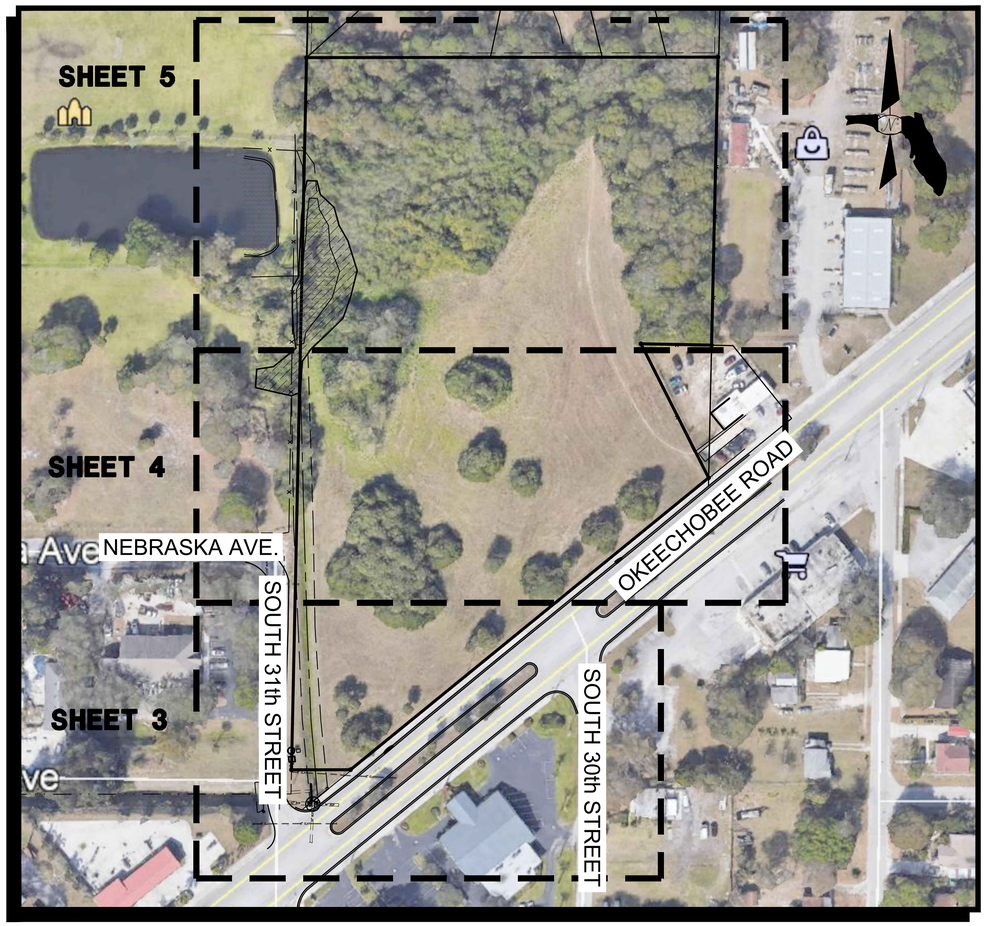
ENTRY MONUMENT

sheet

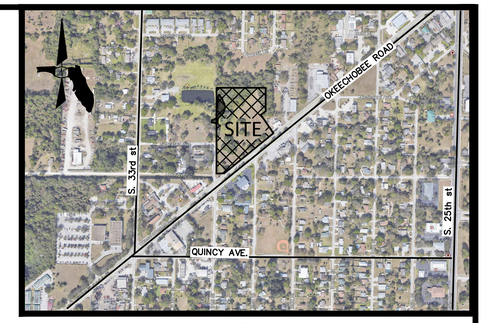
A-1

ST. LUCIE COUNTY
STATE OF FLORIDA

SKETCH OF BOUNDARY SURVEY
FOR
FORT PIERCE NORTH PROPERTY
OKEECHOBEE ROAD



KEY MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

ABBREVIATIONS:
P.O.C.– POINT OF COMMENCEMENT
P.O.B. – POINT OF BEGINNING
P.B. – PLAT BOOK
ORB – OFFICIAL RECORD BOOK
D.B. – DEED BOOK
PG. – PAGE
R/W – RIGHT–OF–WAY
R – RADIUS
Δ – CENTRAL ANGLE
A – ARC LENGTH
U.E. – UTILITY EASEMENT
D.E. – DRAINAGE EASEMENT
(P) – PLAT DIMENSION
(D) – DEED DIMENSION
(M) – MEASURED DIMENSION
℄ – CENTERLINE
IR – IRON ROD
IR/C – IRON ROD WITH CAP AS NOTED
C.M. – 4"x4" CONCRETE MONUMENT
PRM – PERMANENT REFERENCE MONUMENT
PCP – PERMANENT CONTROL POINT
N/D – NAIL & DISK
PK – PARKER KALON
NAD – NORTH AMERICAN DATUM
NAVD – NORTH AMERICAN VERTICAL DATUM
LB – LICENSED BUSINESS
WM – WATER MAIN
TOW – TOP OF WALL
INV – INVERT
DIP – DUCTILE IRON PIPE
PVC – POLYVINYL CHLORIDE PIPE
CMP – CORRUGATED METAL PIPE
CONC – CONCRETE
MON – MONUMENT
RCP – REINFORCED CONCRETE PIPE
HDPE – HIGH DENSITY POLYETHYLENE PIPE
EL. – ELEVATION

LEGAL DESCRIPTION (ORB 3204, PAGE 743):

BLOCK "D", LESS RIGHTS–OF–WAY, COLLIER SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A RAILROAD SPIKE AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST, LUCIE COUNTY, FLORIDA;
THENCE RUN N 88°42'30"E, ALONG THE SOUTH LINE OF THE SAID NORTHEAST 1/4, A DISTANCE OF 661.40 FEET TO THE WEST LINE OF BLOCK "D" OF COLLIER'S SUBDIVISION, AS RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA;
THENCE RUN N 00°00'18" W, ALONG THE WEST LINE OF SAID BLOCK D, A DISTANCE OF 27.01 FEET, TO THE POINT OF BEGINNING;
THENCE CONTINUE N 00°00'18" W, A DISTANCE OF 796.62 FEET, TO THE NORTHWEST CORNER OF SAID BLOCK D;
THENCE RUN N 88°43'25" E, ALONG THE NORTH LINE OF SAID BLOCK D, A DISTANCE OF 460.00 FEET;
THENCE RUN S 00°04'02" W, A DISTANCE OF 470.52 FEET, TO THE NORTHERLY RIGHT–OF–WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE RUN S 49°35'30" W, ALONG THE SAID NORTHERLY RIGHT–OF–WAY LINE, A DISTANCE OF 516.56 FEET;
THENCE RUN S 88°42'30" W, A DISTANCE OF 65.96 FEET, TO THE POINT OF BEGINNING,
ALL LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THE FOLLOWING:

A PORTION OF BLOCK "D", COLLIER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 4, PAGE 63, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SAID BLOCK "D", SAID CORNER BEING SITUATED ON THE NORTHERLY RIGHT–OF–WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE, NORTH 28°00'23" W, A DISTANCE OF 167.87 FEET;
THENCE, NORTH 89°51'15" E, A DISTANCE OF 79.00 FEET TO THE EAST LINE OF SAID BLOCK D;
THENCE, SOUTH 00°04'02" W, ALONG SAID EAST LINE, A DISTANCE OF 148.41 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.
SAID LANDS SITUATE, LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA.

SURVEY REPORT:

1. THIS IS A BOUNDARY SURVEY, PREPARED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF THE STANDARDS OF PRACTICE SET FORTH IN RULE 5J–17.051 THROUGH 5J–17.053, FLORIDA ADMINISTRATIVE CODE. THE FIELD WORK WAS COMPLETED ON SEPTEMBER 30, 2019.
2. THE SURVEY WAS BASED ON INSTRUCTIONS FROM CLIENT, AND ST. LUCIE COUNTY SURVEY DEPARTMENT INFORMATION.
3. BEARINGS ARE BASED ON S49°35'30"W (DEED) ALONG THE NORTH RIGHT–OF–WAY OF OKEECHOBEE ROAD.
4. THE LEGAL DESCRIPTION IS RECORDED IN OFFICIAL RECORD BOOK 3204 PAGE 743.
5. AREA = 6.796 ACRES, MORE OR LESS.
6. EASEMENTS, RESTRICTIONS, AND OTHER ITEMS OF RECORD SHOWN ARE PER OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO.756647, DATED JULY 8, 2019.

   NO SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED BY BROWN & PHILLIPS, INC.

   THERE MAY BE ADDITIONAL EASEMENTS AND/OR RESTRICTIONS NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF ST. LUCIE COUNTY.
7. ALL DISTANCES ARE MEASURED UNLESS NOTED OTHERWISE.
8. THE PROPERTY WAS VACANT AS OF THE DATE OF SURVEY. THE PROPOSED USE IS FOR SITE PLANNING.
9. ALL FIELD–MEASURED CONTROL MEASUREMENTS EXCEEDED AN ACCURACY OF 1:7,500.
10. THE CONTRACTED PURPOSE OF THIS SURVEY IS FOR SITE PLANNING THIS SURVEY IS NOT VALID FOR ANY OTHER USE.
11. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
12. THIS SURVEY WAS PREPARED FOR THE PARTIES LISTED BELOW AND IS NOT ASSIGNABLE:
    –ARROW INVESTMENT GROUP, LLC
    –LIGHTHOUSE GLOBAL INVESTMENTS, INC.
    –OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
13. THIS MAP IS INTENDED TO BE DISPLAYED AT A SCALE OF 1"=20' (SHEET 2) AND 1"=50' (SHEETS 3–5), ON 24"x 36" SHEETS.
14. SOME TOPOGRAPHIC FEATURES MAY BE EXAGGERATED IN SCALE FOR CLARITY. THE CENTER OF THE SYMBOL OF SUCH FEATURES IS THE CORRECT LOCATION.
15. NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED AS PART OF THIS SURVEY.
16. ELEVATIONS SHOWN HEREON ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988, AND ARE REFERENCED TO ST. LUCIE COUNTY BENCHMARK "VIR 3–10", ELEVATION=17.47.
17. +10.0 DENOTES SPOT ELEVATION, REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988.
18. © COPYRIGHT 2019 BY BROWN & PHILLIPS, INC. REPRODUCTIONS OF THIS SURVEY ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND STAMP, OR A DIGITALLY VERIFIED ELECTRONIC SIGNATURE AND SEAL, OF A FLORIDA LICENSED SURVEYOR AND MAPPER EMPLOYED BY BROWN & PHILLIPS, INC.

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561–615–3988, 615–3991 FAX

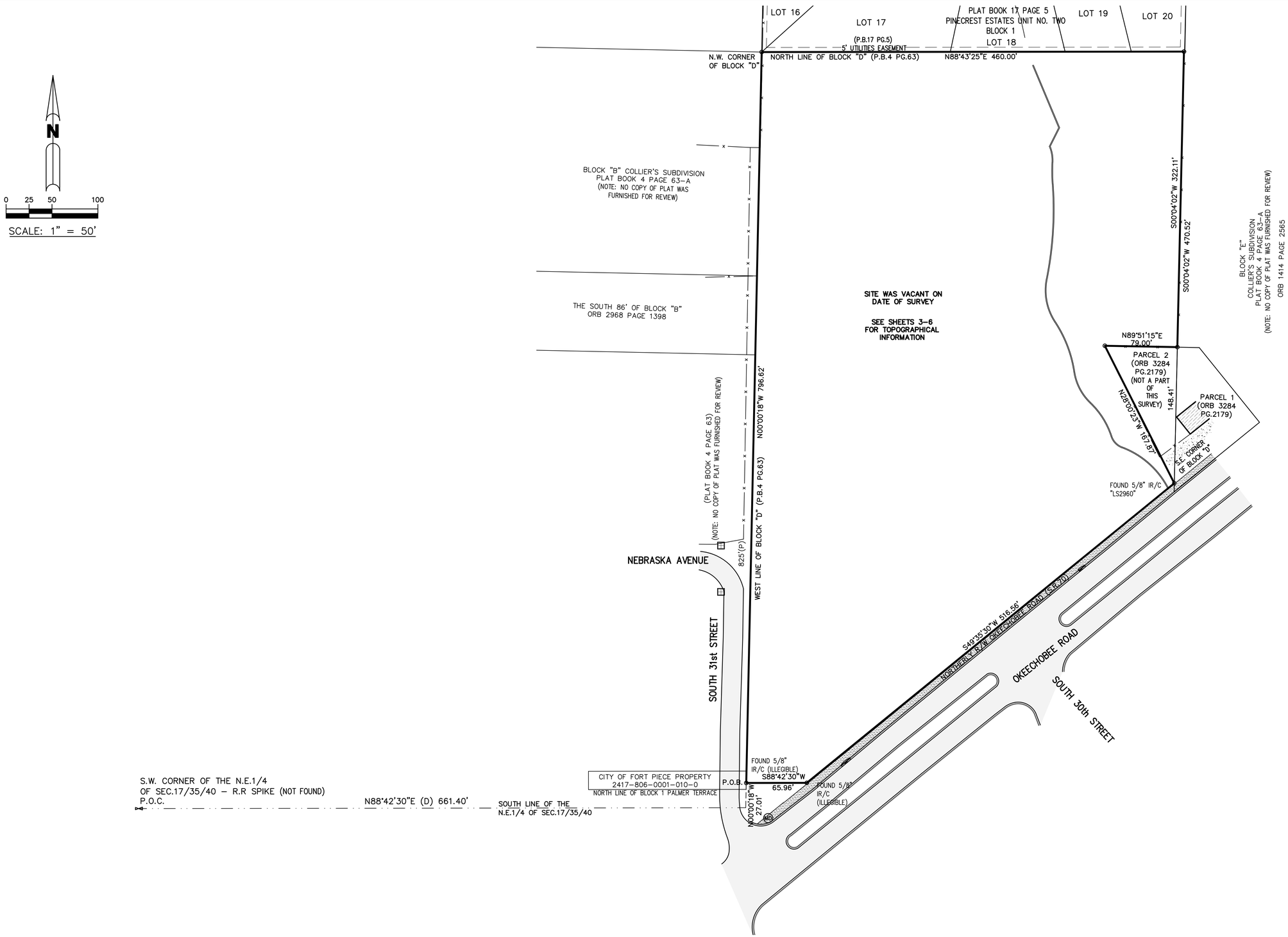
DATE	REVISIONS	#
12/19/19	ADD WETLANDS & TREE CHART	1
3/12/20	ADD'L WETLANDS DATA	2

DRAWN: JAO
CHECKED: JEP
F.B.ST. LUCIE CO.
PAGES: 32 – 33

PROJ. No. 19–098
SCALE: N.T.S.
DATE: SEPT 2019
SHT. 1 OF 6

JOHN E. PHILLIPS III
PROFESSIONAL LAND SURVEYOR
STATE OF FLORIDA No. 4826
DATE: _____

C:\Projects\Brown & Phillips\2019\19-098\19-098 Fort Pierce North Property Boundary Survey.dwg, 3/12/2020 10:39:41 PM, AutoCAD PDF (Smallest File).pc3



BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

SKETCH OF BOUNDARY SURVEY

FORT PIERCE NORTH PROPERTY
OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 - 33

PROJ. No. 19-098
SCALE: 1"=50'
DATE: SEPT. 2019
SHEET 2 OF 6

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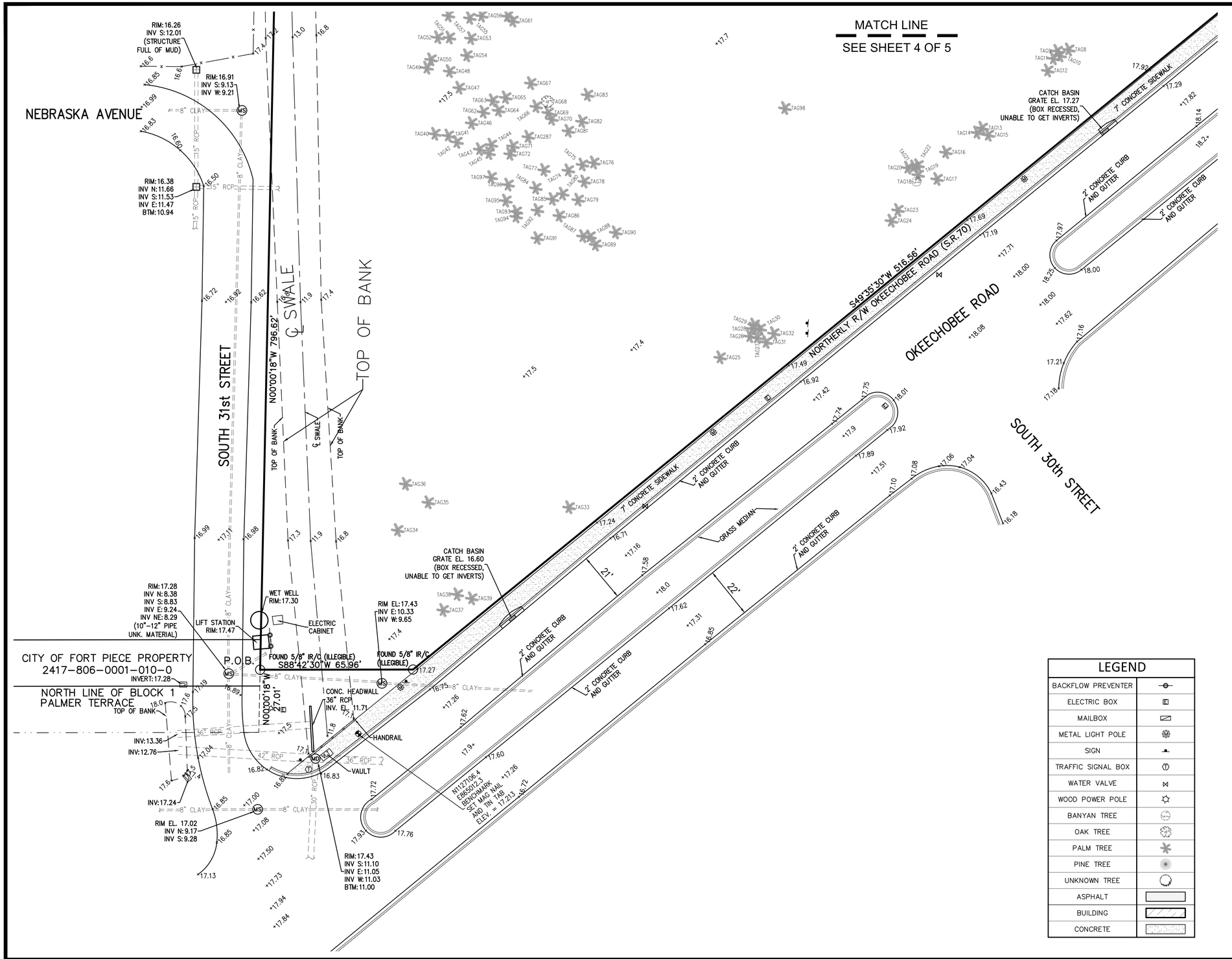

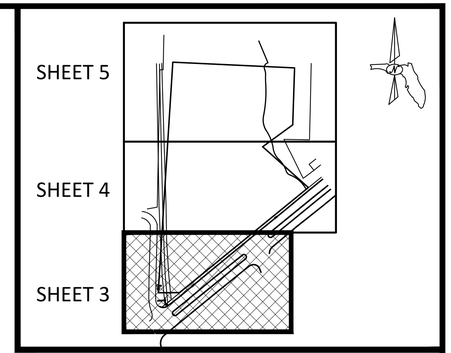

KEY MAP
NOT TO SCALE

N

0 10 20 40

SCALE: 1" = 20'

LEGEND	
BACKFLOW PREVENTER	
ELECTRIC BOX	
MAILBOX	
METAL LIGHT POLE	
SIGN	
TRAFFIC SIGNAL BOX	
WATER VALVE	
WOOD POWER POLE	
BANYAN TREE	
OAK TREE	
PALM TREE	
PINE TREE	
UNKNOWN TREE	
ASPHALT	
BUILDING	
CONCRETE	

ABBREVIATIONS:
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P.O.B. - POINT OF BEGINNING
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C.M. - 4"x4" CONCRETE MONUMENT
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NAVD - NORTH AMERICAN VERTICAL DATUM
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WM - WATER MAIN
TOW - TOP OF WALL
INV - INVERT
DIP - DUCTILE IRON PIPE
PVC - POLYVINYL CHLORIDE PIPE
CMP - CORRUGATED METAL PIPE
CONC - CONCRETE
MON - MONUMENT
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HDPE - HIGH DENSITY POLYETHYLENE PIPE
EL. - ELEVATION

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

SKETCH OF BOUNDARY SURVEY

FORT PIERCE NORTH PROPERTY OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 - 33

PROJ. No. 19-098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 3 OF 6

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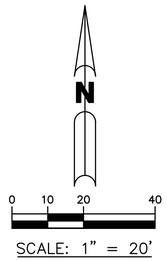

LEGEND			
BACKFLOW PREVENTER		BANYAN TREE	
ELECTRIC BOX		OAK TREE	
MAILBOX		PALM TREE	
METAL LIGHT POLE		PINE TREE	
SIGN		UNKNOWN TREE	
TRAFFIC SIGNAL BOX		ASPHALT	
WATER VALVE		BUILDING	
WOOD POWER POLE		CONCRETE	

ABBREVIATIONS:
P.O.C.– POINT OF COMMENCEMENT
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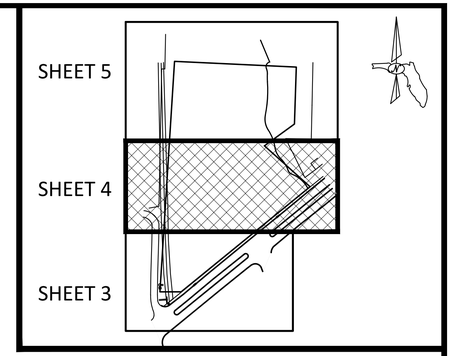
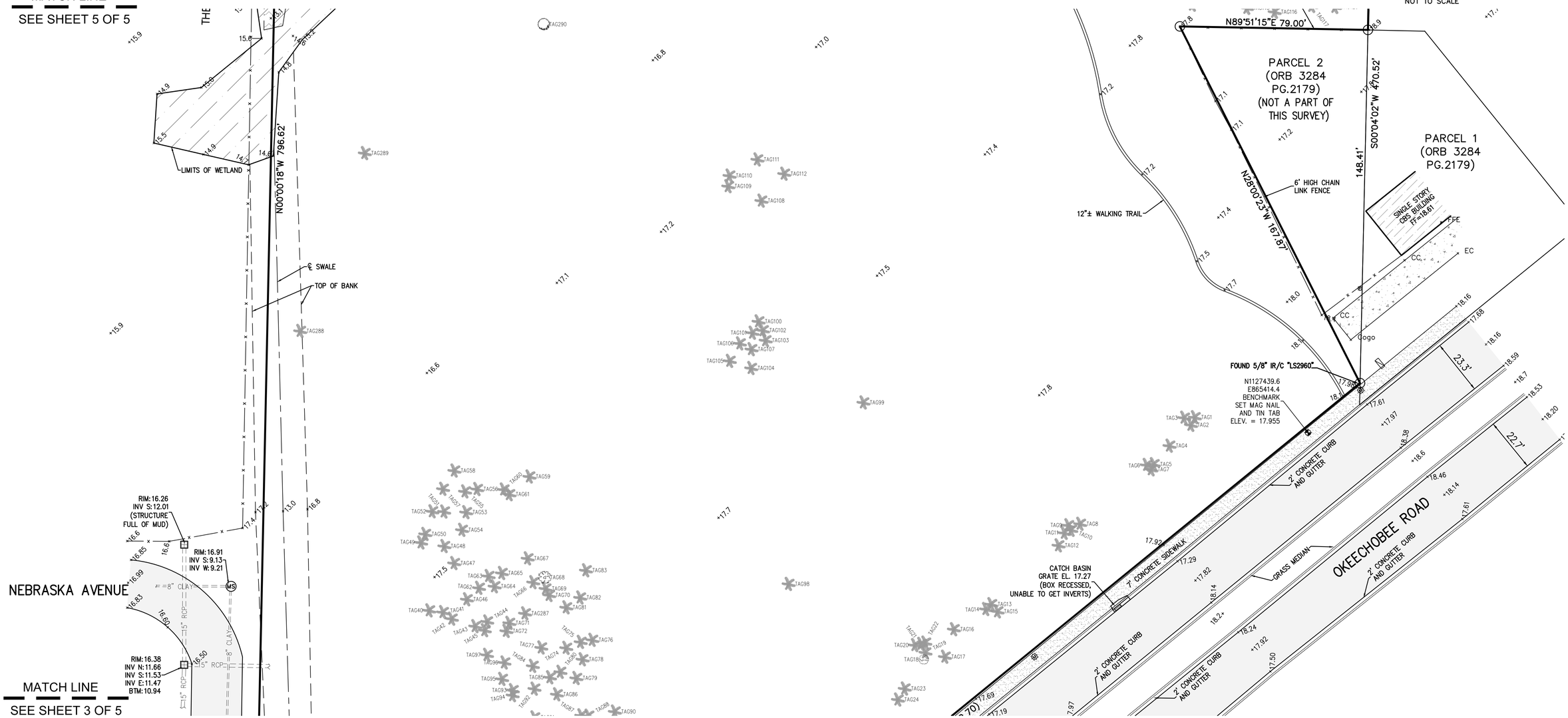


KEY MAP
NOT TO SCALE

MATCH LINE
SEE SHEET 5 OF 5



MATCH LINE
SEE SHEET 3 OF 5

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561–615–3988

DATE	REVISIONS	#

SKETCH OF
BOUNDARY SURVEY

FORT PIERCE NORTH
PROPERTY
OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 – 33

PROJ. No. 19–098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 4 OF 6

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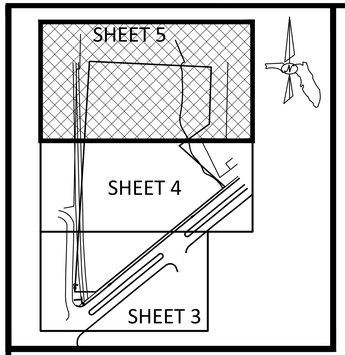

KEY MAP
NOT TO SCALE

LOTS VACANT ON DATE OF SURVEY

LOTS VACANT ON DATE OF SURVEY

℄ WALKING TRAIL

N88°43'25"E 460.00'

N00°00'18"W 796.62'

CHAINLINK FENCE

TOP OF BANK

TOP OF WATER
EL=14.6 ON 11/27/19

TOP OF BANK

EDGE OF WATER

EDGE OF WATER

LIMITS OF WETLAND

CHAINLINK FENCE

WETLAND
AREA=0.186ACRES
(WITHIN PROPOERTY)

TOP OF WATER
EL=13.7 ON 11/27/19

12"± WALKING TRAIL

6' HIGH CHAIN LINK FENCE

S00°04'02"W 322.11'

S00°04'02"W 470.52'

6' HIGH CHAIN LINK FENCE

N89°51'15"E 79.00'

PARCEL 2

MATCH LINE
SEE SHEET 4 OF 5

N

0 10 20 40

SCALE: 1" = 20'

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

SKETCH OF
BOUNDARY SURVEY

FORT PIERCE NORTH
PROPERTY
OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 – 33

PROJ. No. 19-098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 5 OF 6

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TAG NUMBER	TREE TYPE	DBH (INCHES)	CLEAR TRUNK HEIGHT
1	PALM	20	17'
2	PALM	16	17'
3	PALM	18	15'
4	PALM	14	22'
5	PALM	18	18'
6	PALM	16	14'
7	PALM	18	14'
8	PALM	20	18'
9	PALM	16	15'
10	PALM	24	15'
11	PALM	16	18'
12	PALM	16	19'
13	PALM	22	10'
14	PALM	24	15'
15	PALM	24	13'
16	PALM	16	14'
17	PALM	20	17'
18	BANYAN	48	
19	PALM	16	18'
20	PALM	14	18'
21	PALM	16	15'
22	PALM	16	10'
23	PALM	20	14'
24	PALM	18	15'
25	PALM	18	18'
26	PALM	16	15'
27	PALM	20	15'
28	PALM	16	17'
29	PALM	16	11'
30	PALM	18	14'
31	PALM	24	16'
32	PALM	16	7'
33	PALM	18	19'
34	PALM	16	17'
35	PALM	18	17'
36	PALM	18	18'
37	PALM	18	20'
38	PALM	16	21'
39	PALM	14	17'
40	PALM	20	18'
41	PALM	18	20'
42	PALM	16	19'
43	PALM	16	19'
44	PALM	16	21'
45	PALM	18	19'
46	PALM	20	22'
47	PALM	16	19'
48	PALM	16	18'
49	PALM	18	17'
50	PALM	16	20'
51	PALM	18	19'
52	PALM	10	18'
53	PALM	14	18'
54	PALM	18	18'
55	PALM	20	22'
56	PALM	14	19'
57	PALM	10	18'
58	PALM	14	19'
59	PALM	18	16'
60	PALM	16	16'
61	PALM	18	15'
62	PALM	16	23'
63	PALM	16	21'
64	PALM	20	18'
65	PALM	12	19'
66	PALM	18	21'
67	PALM	18	17'
68	OAKK	5	
69	PALM	20	18'
70	PALM	22	20'
71	PALM	20	20'
72	PALM	16	18'
74	PALM	14	18'
75	PALM	14	9'
76	PALM	24	19'
77	PALM	18	18'
78	PALM	18	17'
79	PALM	14	13'
80	PALM	18	18'
81	PALM	24	19'
82	PALM	18	16'
83	PALM	16	15'
84	PALM	16	19'
85	PALM	16	20'
86	PALM	18	17'
87	PALM	16	20'
88	PALM	16	18'
89	PALM	16	16'
90	PALM	18	22'
91	PALM	18	22'
92	PALM	16	19'
93	PALM	18	21'
94	PALM	14	20'
95	PALM	16	20'
96	PALM	18	20'

TAG NUMBER	TREE TYPE	DBH (INCHES)	CLEAR TRUNK HEIGHT
97	PALM	18	20'
98	PALM	18	19'
99	PALM	16	16'
100	PALM	18	17'
101	PALM	16	17'
102	PALM	18	19'
103	PALM	16	18'
104	PALM	16	18'
105	PALM	16	18'
106	PALM	14	15'
107	PALM	10	8'
108	PALM	18	19'
109	PALM	16	35'
110	PALM	14	20'
111	PALM	16	20'
112	PALM	18	18'
113	OAK	6	
114	PALM	14	13'
115	PALM	22	18'
116	PALM	20	20'
117	PALM	10	7'
118	UNKNOWN	12	
119	OAK	38	
120	PALM	14	18'
121	OAK	18	
122	OAK	12	
123	PALM	18	21'
124	PALM	18	16'
125	PALM	16	26'
126	PALM	18	29'
127	OAK	24	
128	PALM	16	32'
129	UNKNOWN	10	
130	PINE	28	
131	PALM	16	24'
132	UNKNOWN	24	
133	OAK	10	
134	OAK	28	
135	PALM	18	30'
136	OAK	40	
137	PALM	18	18'
138	PINE	10	
139	UNKNOWN	8	
140	OAK	36	
141	PALM	16	20'
142	PALM	14	25'
143	PALM	16	25'
144	OAK	20	
145	PALM	14	26'
146	PALM	16	21'
147	PALM	18	23'
148	OAK	16	
149	UNKNOWN	18	
150	PALM	22	18'
151	PALM	14	7'
152	PALM	22	22'
153	PALM	16	20'
154	PALM	22	18'
155	PALM	18	17'
156	PALM	18	16'
157	PALM	16	13'
158	PALM	12	10'
159	OAK	10	
160	OAK	16	
161	PALM	12	7'
162	PALM	18	24'
163	PALM	16	21'
164	OAK	36	
165	UNKNOWN	14	
166	UNKNOWN	10	
167	UNKNOWN	8	
168	OAKK	12	
169	OAKK	22	
170	OAKK	18	
171	PALM	16	17'
172	PALM	18	13'
173	PALM	12	6'
174	UNKNOWN	16	
175	OAKK	16	
176	UNKNOWN	20	
177	PALM	18	28'
178	PALM	8	8'
179	PALM	20	22'
180	PALM	12	6'
181	PALM	18	18'
182	PALM	18	16'
183	PALM	18	17'
184	OAKK	26	
185	PALM	16	28'
186	PALM	14	23'
187	PALM	16	14'
188	PALM	16	18'
189	PALM	16	20'
190	UNKNOWN	24	
191	PALM	16	14'
192	OAKK	36	
193	UNKNOWN	10	

TAG NUMBER	TREE TYPE	DBH (INCHES)	CLEAR TRUNK HEIGHT
194	OAK	36	
195	PALM	18	26'
196	OAK	18	
197	UNKNOWN	8	
198	UNKNOWN	8	
199	UNKNOWN	8	
200	OAK	10	
201	OAK	6	
202	OAK	6	
203	OAK	4	
204	OAK	6	
205	OAK	8	
206	OAK	8	
207	OAK	8	
208	OAK	6	
209	OAK	6	
210	UNKNOWN	10	
211	PALM	16	18'
212	PALM	18	18'
213	PALM	14	
214	OAK	20	
215	OAK	26	
216	OAK	30	
217	UNKNOWN	10	
218	OAK	14	
219	PALM	20	19'
220	OAK	30	
221	UNKNOWN	8	
222	UNKNOWN	12	
223	UNKNOWN	8	
224	PALM	18	20'
225	UNKNOWN	6	
226	UNKNOWN	6	
227	UNKNOWN	4	
228	UNKNOWN	6	
229	OAK	6	
230	UNKNOWN	12	
231	PALM	22	18'
232	UNKNOWN	30	
233	PALM	22	17'
234	OAK	12	
235	OAK	10	
236	UNKNOWN	8	
237	UNKNOWN	6	
238	UNKNOWN	6	
239	OAK	16	
240	OAK	10	
241	UNKNOWN	14	
242	UNKNOWN	8	
243	UNKNOWN	8	
244	UNKNOWN	10	
245	PINE	10	
246	PINE	10	
247	OAK	10	
248	OAK	10	
249	PALM	18	23'
250	PALM	18	20'
251	PINE	10	
252	PALM	16	22'
253	OAK	26	
254	OAK	16	
255	OAK	14	
256	OAK	12	
257	OAK	14	
258	PALM	22	28'
259	UNKNOWN	8	
260	PALM	12	6'
261	PALM	14	10'
262	UNKNOWN	10	
263	PINE	14	
264	OAK	18	
265	PALM	16	21'
266	PALM	18	20'
267	PALM	20	18'
268	PALM	20	20'
269	OAK	20	
270	OAK	10	
271	PALM	16	13'
272	OAK	36	
273	PALM	16	14'
274	UNKNOWN	6	
275	UNKNOWN	6	
276	PALM	16	25'
277	PALM	12	11'
278	PALM	18	18'
279	OAK	18	
280	OAK	18	
281	PALM	18	22'
282	PALM	18	18'
283	PALM	16	10'
284	PINE	16	
285	PINE	12	
286	PINE	10	
287	PALM	18	19'
288	PALM	16	18'
289	PALM	18	19'
290	UNKNOWN	30	

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUNKNOWNHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAKD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

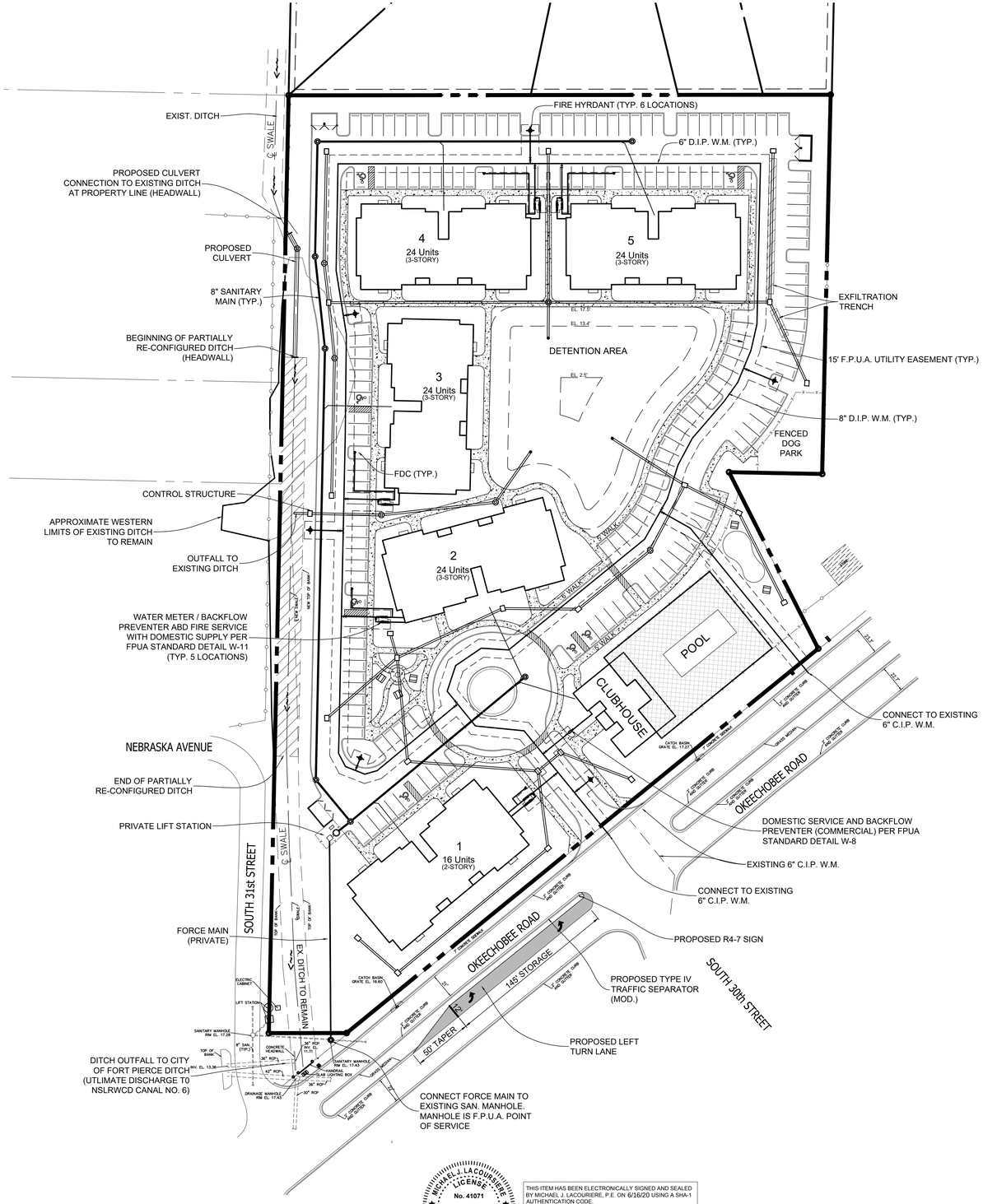
SKETCH OF
BOUNDARY SURVEY

FORT PINEERCE NORTH
PROPERTY
OKEECHOBEE ROAKD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 - 33

PROJ. No. 19-098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 6 OF 6

C:\Projects\Brown & Phillips\2019\19-098\19-098 Fort Pierce North Property Boundary Survey.dwg, 3/12/2020 10:35:47 PM, AutoCAD PDF (Smallest File).pc3



GRAPHIC SCALE

0 25 50 100 150

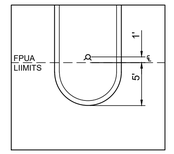
(IN FEET)
1 INCH = 50 FT.

LEGEND

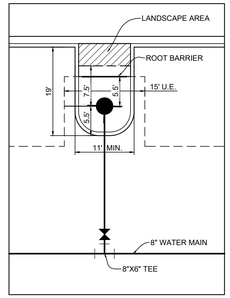
- DRAINAGE PIPE AND INLET (FINAL PIPE SIZES TO BE DETERMINED)
- SANITARY MAIN (8" PVC) AND MANHOLE (SANITARY SYSTEM TO BE PRIVATE)
- WATER MAIN (8" C-900 / D.I.P.)
- FIRE DEPARTMENT CONNECTION (FDC)
- FIRE HYDRANT
- RE-CONFIGURED DITCH

NOTES:

1. MINIMUM FINISHED FLOOR ELEVATION TO BE SET AT OR ABOVE 100 - YEAR, 3 - DAY STAGE (ZERO DISCHARGE)
2. MINIMUM PERIMETER ELEVATION TO BE SET AT OR ABOVE 25 - YEAR, 3- DAY STAGE.
3. RESIDENTIAL BUILDINGS TO BE FIRE SPRINKLED. FIRE DEPARTMENT CONNECTIONS TO BE LOCATED 100' MAXIMUM FROM A FIRE HYDRANT.
4. SANITARY SYSTEM TO BE PRIVATE.
5. WATER DISTRIBUTION SYSTEM TO BE PUBLIC, FORT PIERCE UTILITY AUTHORITY.
6. THIS DRAWING UTILIZES BASE SITE PLAN AND SURVEY INFORMATION PREPARED BY LITTERICK LANDSCAPE ARCHITECTURE AND BROWN AND PHILIPS. INC. USED WITH PERMISSION.

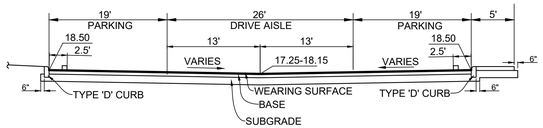


FDC NEAR UTILITY EASEMENT
NOT TO SCALE

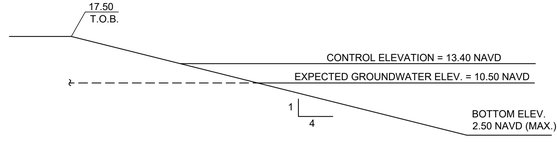


FIRE HYDRANT SHALL HAVE 5' CLEAR ON ALL SIDES
LANDSCAPE MATERIAL SHALL BE LIMITED TO SOD WITHIN 7.5' OF FIRE HYDRANT

HYDRANT LOCATION DETAIL
NOT TO SCALE



TYPICAL PARKING / DRIVE SECTION



DETENTION AREA BANK SECTION

100 YR - 3 D RAINFALL	12.23 INCHES
100 YR - 3 D FLOOD ELEV.	18.58' NAVD
MINIMUM FINISHED FLOOR	19.50' NAVD
25 YR - 3 D RAINFALL	9.5 INCHES
25 YR - 3 D FLOOD ELEV	17.76' NAVD
MINIMUM PERIMETER ELEVATION	17.90' NAVD
10 YR - 1 D RAINFALL	6.0 INCHES
10 YR - 1 D FLOOD ELEV	16.16 NAVD
MINIMUM ROADWAY ELEVATION	17.25' NAVD

CONCEPTUAL SURFACE WATER MANAGEMENT DATA

MICHAEL J. LACOURIERE
LICENSE
No. 41071
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY MICHAEL J. LACOURIERE, P.E. ON 6/16/20 USING A SHA-1 AUTHENTICATION CODE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

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MICHAEL B. SCHORAH & ASSOCIATES, INC.
ENGINEERS ◆ SURVEYORS ◆ DEVELOPMENT CONSULTANTS
TEL. (561) 968.0080 LB# 2438
FAX. (561) 642-9726
www.schorah.com
EB# 2438
1850 FOREST HILL BLVD., SUITE 206
WEST PALM BEACH, FLORIDA 33406

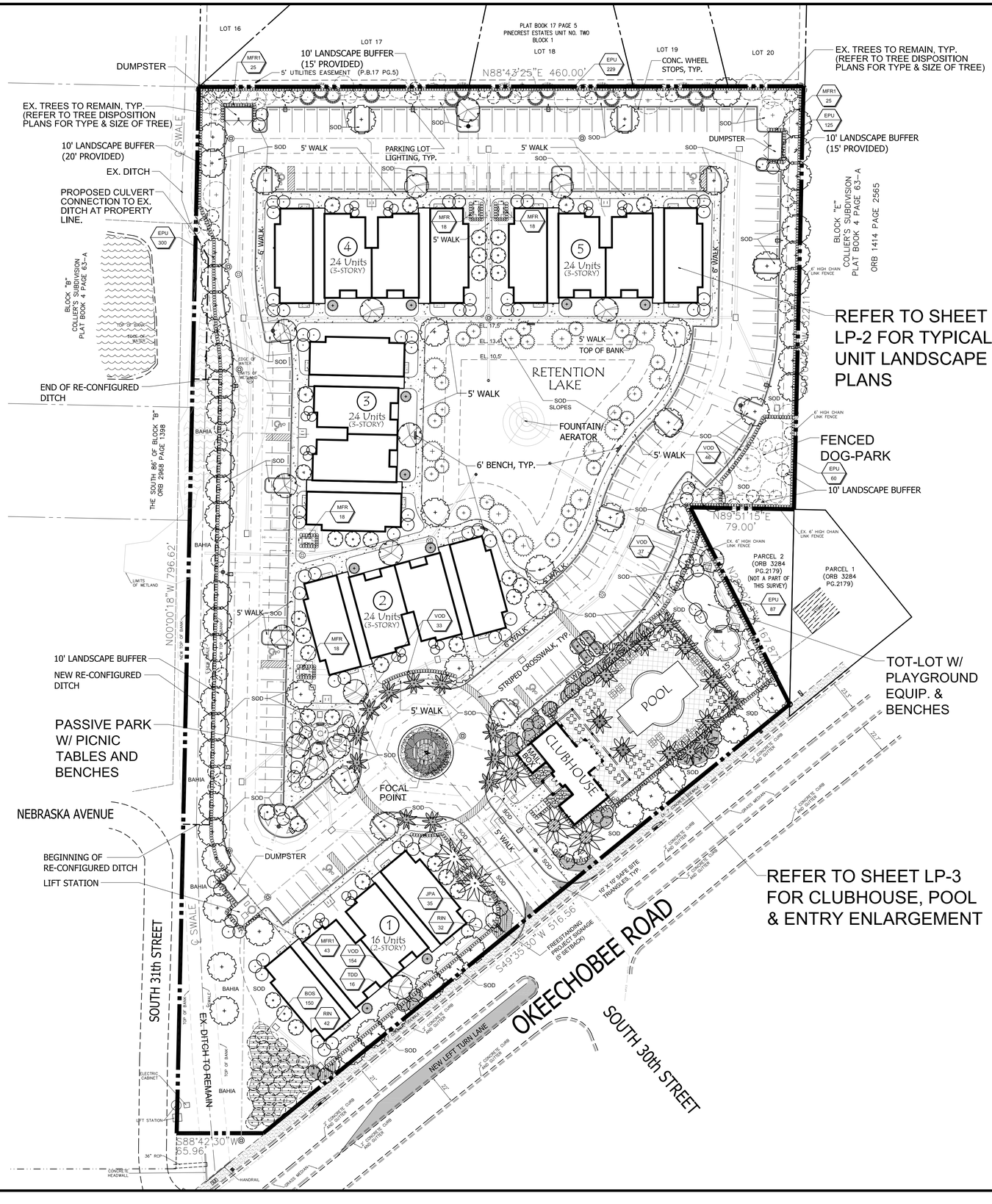
REVISIONS

DRAWN/CHECKED: AMG/MJL
SCALE: 1" = 50'
DATE: MARCH 2020
MICHAEL J. LACOURIERE, P.E. FLORIDA LICENSE NO. 41071 FOR MICHAEL B. SCHORAH AND ASSOCIATES, INC.
DATE:

PROJECT: ARIA APARTMENTS
DESCRIPTION: CONCEPTUAL ENGINEERING PLAN

JOB NO. 1769
SHEET NO. 1
OF 1C

Path\Name : P:\1769 FORT PIERCE NORTH\CIVIL\CAD\1769 SITE.dwg
Date\Time : Tue, 16 Jun 2020 - 8:51am



EXISTING TREE LEGEND

	SYMBOL	QUANTITY
EXISTING PALM TO REMAIN	ESP	20
RELOCATED PALM	RSP	155
EXISTING PINE TO REMAIN	EPE	5
EXISTING OAK TO REMAIN	EQL	11

PROPOSED TREE LEGEND

	SYMBOL	QUANTITY
SPECIMEN LIVE OAK, RANCH STYLE *(QUERCUS VIRGINIANA)*	QV1	1
ROYAL POINCIANA *(DELONIX REGIA)*	DR	1
LIVE OAK *(QUERCUS VIRGINIANA)*	QV	67
SYLVESTER PALM *(PHOENIX SYLVESTRIS)*	PS	5
YELLOW TABEBUIA *(TABEBUIA CARAIBA)*	TC	19
CRAPE MYRTLE (MULTI-TRUNK) *(LAGERSTROEMIA INDICA 'MUSKOGEE')*	LM	25
CRAPE MYRTLE (SINGLE TRUNK) *(LAGERSTROEMIA INDICA 'NATCHEZ')*	LI	33
CABBAGE PALM *(SABAL PALMETTO)*	SP	91
WASHINGTON PALM *(WASHINGTONIA ROBUSTA)*	WR	11
COCONUT PALM *(COCOS NUCIFERA)*	CN	14
JAPANESE BLUEBERRY *(ELAEOCARPUS DECIPIENS)*	ED	10
BALD CYPRESS (SMALL) *(TAXODIUM DISTICHUM)*	TD	23
BALD CYPRESS (LARGE) *(TAXODIUM DISTICHUM)*	TD1	11
CHRISTMAS PALM (TRIPLE) *(ADONIDIA MERRILLII)*	AM3	10
S. FLORIDA SLASH PINE *(PINUS ELLIOTTII 'DENSA')*	PE	15

LANDSCAPE DATA

SITE AREA:	296,012.97 S.F. (6.796 ACRES)
VEHICULAR USE AREA:	82,965.43 S.F. (28.0%)
INTERIOR LANDSCAPE AREA REQUIRED:	5,531 S.F. (1 S.F. PER 15 S.F. OF VEH, USE AREA)
INTERIOR LANDSCAPE AREA PROVIDED:	8,284.25 S.F.
INTERIOR TREES REQUIRED:	56 TREES (1 TREE PER 100 S.F. OF REQ'D. INT. LANDSCAPE AREA)
INTERIOR TREES PROVIDED:	166 TREES (110 ADDITIONAL TREES)

PERIMETER LANDSCAPING REQUIREMENTS

BUFFER (SIDE)	LENGTH (L.F.)	REQ'D. WIDTH	PROVIDED WIDTH	REQ'D. AREA (S.F.)	TREES REQ'D.	TREES PROVIDED
NORTH	460'	10'	15'	4,600	*23	33 TREES
SOUTH	582.52'	10'	25'	5,825.2	**20	25 TREES
EAST	568.98'	10'	10-15'	5,689.8	*29	33 TREES
WEST	796.62'	10'	10-20'	7,966.2	*40	46 TREES
				TOTALS:	112	***137 TREES

* REQUIRES 1 TREE PER 200 S.F. OF BUFFER
** REQUIRES 1 TREE PER 300 S.F. OF BUFFER
*** 25 ADDITIONAL TREES

REFER TO SHEET LP-4 FOR PLANT LIST

Landscape Plan

0 20' 40' 80' 120' 160'

Scale: 1" = 40'

NORTH

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

LANDSCAPE NOTES

1. ALL PLANT MATERIAL SHALL BE FLORIDA NUMBER 1 OR BETTER AS DEFINED BY THE DIVISION OF PLANT INDUSTRY "GRADES AND STANDARDS" LATEST EDITION.
2. ALL LANDSCAPE SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FT. PIERCE CODE.
3. THE LANDSCAPE CONTRACTOR SHALL NOT MAKE ANY SUBSTITUTIONS CHANGES WITHOUT THE AUTHORIZATION OF THE CITY OF FT. PIERCE, THE OWNER AND THE LANDSCAPE ARCHITECT.
4. THE LANDSCAPE CONTRACTOR SHALL REVIEW THE PROJECT DRAINAGE AND UTILITY PLANS PRIOR TO CONSTRUCTION AND AVOID ALL CONFLICTS. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK.
5. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS.
6. ALL TREES SHALL BE LOCATED WITHIN A MULCH PLANTING BED WITH A MINIMUM OF TWO (2) FEET OF CLEARANCE TO THE EDGE OF THE BED.
7. ALL SOD SHALL BE STENOTAPHRUM SECONDATUM 'FLORITAM' (ST. AUGUSTINE SOD), UNLESS OTHERWISE NOTED.
8. ALL VEGETATION SHALL BE SELECTED AND POSITIONED SO THAT IT DOES NOT PRESENT OBSTRUCTIONS TO THE LINE OF SIGHT AT INTERSECTIONS PURSUANT TO FLORIDA DEPARTMENT OF TRANSPORTATION SIGHT LINE GUIDELINES.
9. CLEAR VISIBILITY SHALL BE MAINTAINED BETWEEN 30" AND 8' WITHIN SIGHT VISIBILITY TRIANGLES. 10' X 10' SIGHT VISIBILITY TRIANGLES SHALL BE PROVIDED AT THE INTERSECTIONS WITH THE PUBLIC RIGHT OF WAY. IN ADDITION, ALL LANDSCAPING SHALL CONFORM TO THE REQUIREMENTS OF FDOT INDEX 546.
10. ALL LANDSCAPE ISLANDS AND BEDS WILL BE FREE OF SHELL ROCK AND CONSTRUCTION DEBRIS, EXCAVATED TO A DEPTH OF 30 INCHES OR TO CLEAN NATIVE SOILS AND FILLED WITH THE SPECIFIED BACKFILL MIXTURE.
11. ALL PROPOSED LANDSCAPE AREAS SHALL RECEIVE 100% OVERLAP COVERAGE FROM A FULLY AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH A RAIN SENSING DEVICE ACCORDING TO LOCAL AND STATE CODES. IRRIGATION WATER SHALL BE PULLED FROM A WELL SOURCE AND CITY WATER WILL BE USED AROUND BUILDING.
12. ALL ABOVE GROUND UTILITIES SHALL BE SCREENED FROM VIEW ON THREE SIDES WITH AN APPROPRIATE HEDGE MATERIAL. HEIGHT OF PLANT MATERIAL AT TIME OF INSTALLATION SHALL BE AT LEAST AS TALL AS THE UTILITY BEING SCREENED AND SHALL BE SPACED APPROPRIATELY IN ORDER TO PROVIDE COMPLETE SCREENING OF UTILITY WITHIN ONE YEAR OF INSTALLATION.
13. ALL TREES NOT LOCATED WITHIN A LANDSCAPE BED SHALL RECEIVE A 4-5' DIA. MULCH RING.
14. ALL EXOTIC AND NUISANCE VEGETATION SHALL BE REMOVED FROM SUBJECT PROPERTY PRIOR TO ANY CERTIFICATE OF OCCUPANCY.
15. TREES ARE TO BE INSTALLED WITH A 10' SEPARATION FROM FROM ANY WATER OR SEWER MAIN AND/OR SERVICE, HYDRANTS, AND LIFT STATIONS. IF A 10' SEPARATION CANNOT BE ACHIEVED, THE TREE CAN BE INSTALLED WITH A ROOT BARRIER SYSTEM. HOWEVER IN NO CASE SHALL A TREE ENCROACH CLOSER THAT 5' WITH A ROOT BARRIER PRESENT. ONLY SOD CAN BE INSTALLED WITHIN 7.5' OF A FIRE HYDRANT UNLESS OTHERWISE APPROVED BY THE FIRE MARSHALL.
16. ALL PLANT MATERIAL SHALL BE INSTALLED AT THE HEIGHT, SPREAD AND DBH SHOWN ON THE PLANT LIST, CONTAINER SIZES ARE GIVEN AS A SUGGESTION ONLY.

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

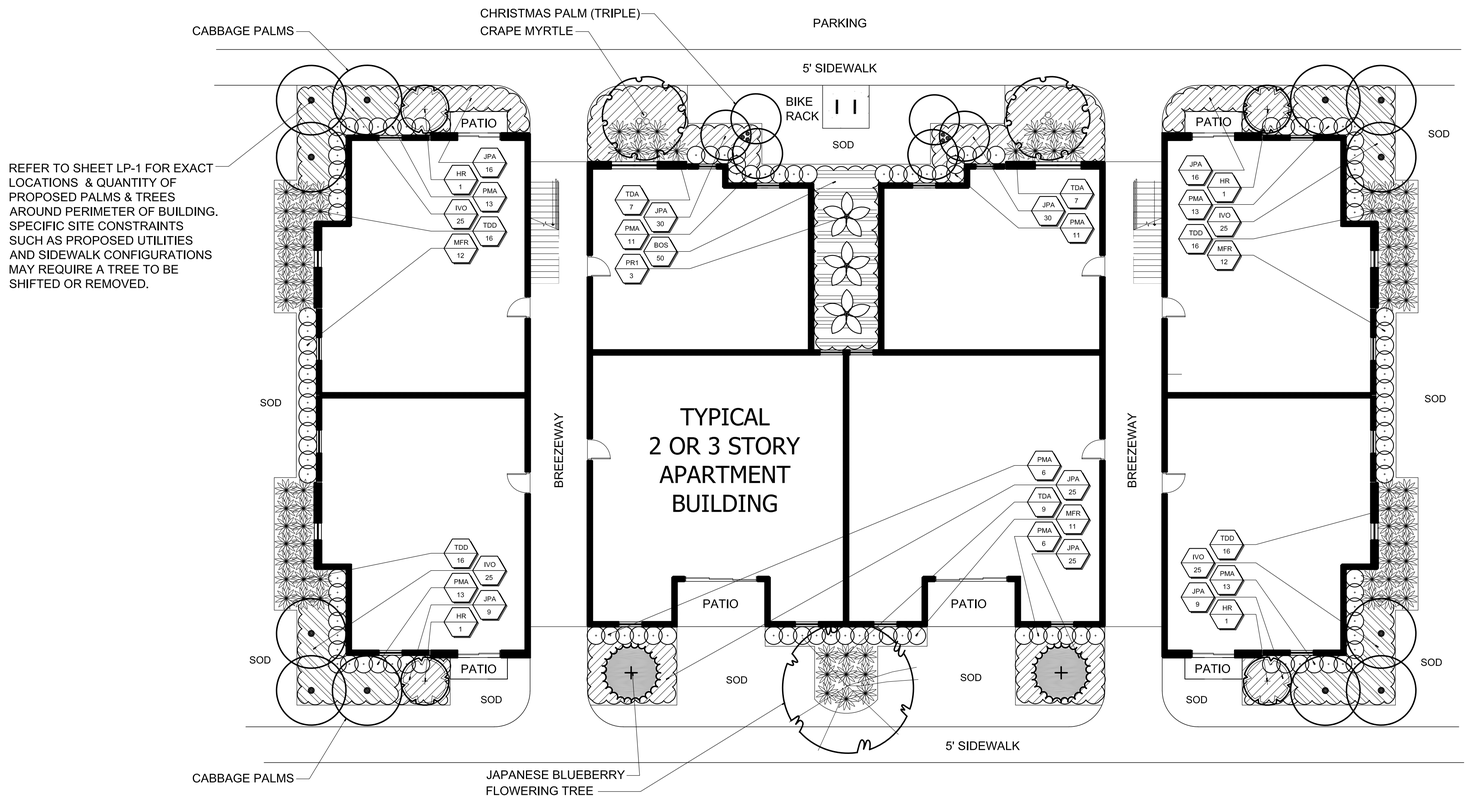
Scale: 1" = 40'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

LP-1

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045



TYPICAL UNIT PLANT LIST (5 BUILDINGS)

QUANTITIES ARE FOR EACH BUILDING

TREES

	SYM	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	SPR.	NOTES:
M	PR1	3	PHOENIX ROEBELENII	PYGMY DATE PALM (SINGLE)	7' O.A.	7'	FULL & THICK, SINGLE TRUNK SPECIMEN, MATCHED
M	HR	4	HIBISCUS ROSA-SINENSIS	PINK HIBISCUS STD.	6-7' O.A. STD.	3-4'	FULL & THICK, SINGLE TRUNK STD.

SHRUBS & GROUNDCOVERS

	SYM	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES:
* V	TDD	64	TRIPSACUM FLORIDANA	FLORIDA GAMA GRASS	#3, 16" O.A.	36" O.C.	FULL & THICK
* V	TDA	23	TRIPSACUM DACTYLOIDES	FAKAHATCHEE GRASS	#3, 24" O.A.	48" O.C.	FULL & THICK
* V	BOS	50	NEPHROLEPIS EXALTATA	BOSTON FERN	#3, 16" O.A.	24" O.C.	FULL & THICK
M	PMA	86	PODOCARPUS MACROPHYLLUS	PODOCARPUS	#3, 24" O.A.	24" O.C.	FULL & THICK
* V	MFR	35	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	#3, 24" O.A.	24" O.C.	FULL & THICK
* V	IVO	100	ILEX VOMITORIA	DWF. YAUPON HOLLY	#3, 14" O.A.	24" O.C.	FULL & THICK
M	JPA	160	JUNIPERUS CHINENSIS 'PARSONII'	PARSON'S JUNIPER	#3, 16" SPD.	24" O.C.	FULL & THICK

* ASTERISK DENOTES NATIVE PLANT MATERIAL
V INDICATES VERY DROUGHT TOLERANT PLANT MATERIAL
M INDICATES MODERATELY DROUGHT TOLERANT PLANT MATERIAL

SOD: ST. AUGUSTINE 'FLORITAM'
MULCH: 3" SHREDDED MELALEUCA MULCH (OR APPROVED RECYCLED MULCH) TO BE APPLIED TO ALL PLANTING BEDS.

IRRIGATION NOTE:
ALL NEW LANDSCAPE AREAS SHALL BE RECEIVE 100% OVERLAP COVERAGE FROM A FULLY AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH A RAIN SENSOR.

Typical Unit Landscape Plan

0 5' 10' 20' 30' 40'
NORTH
Scale: 1" = 10'

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

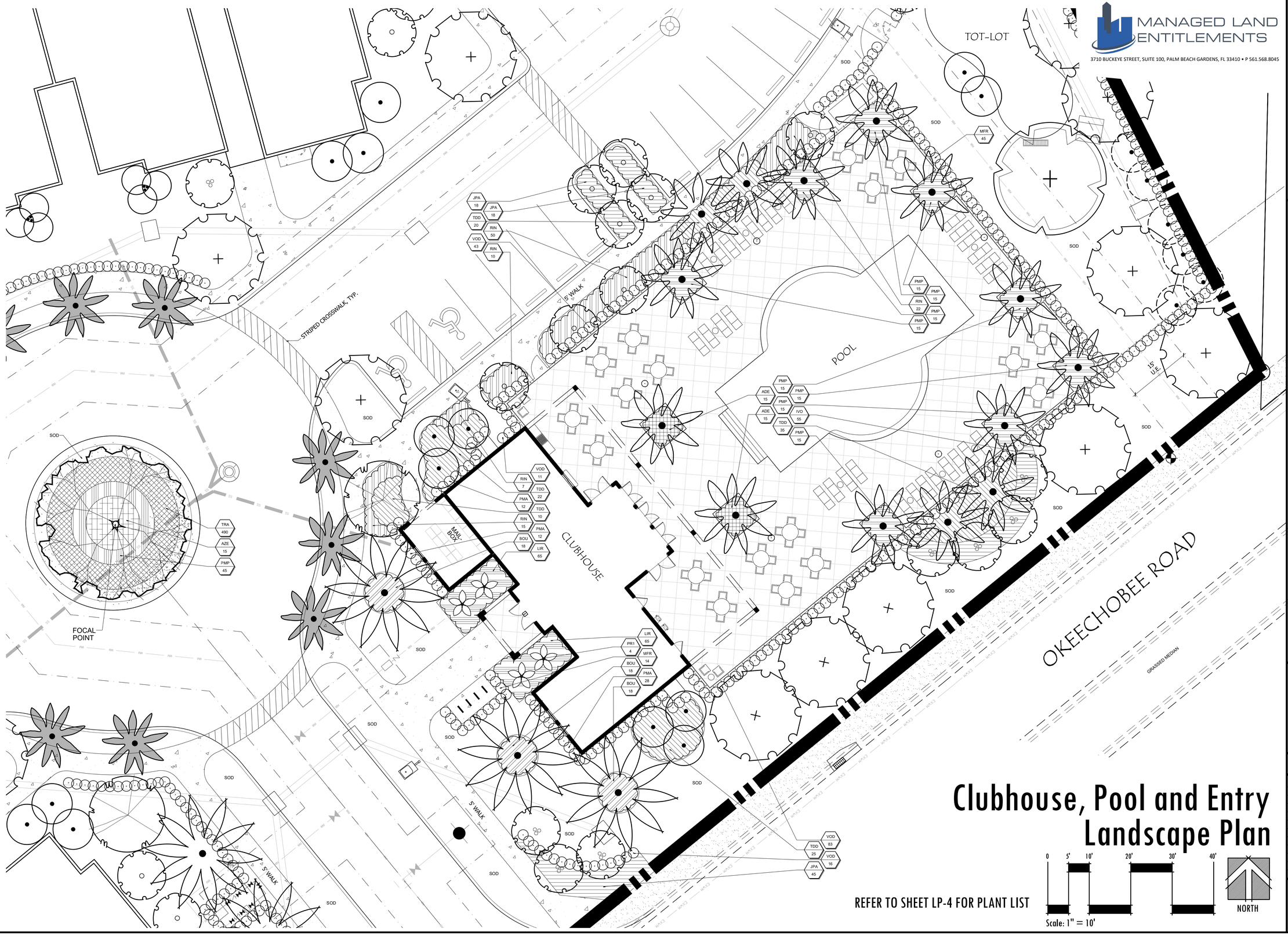
Ft. Pierce, Florida

Landscape Architect of Record
REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA
Jason M. Litterick, RLA
(LA0001677)

Scale: 1" = 10'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.
LP-2


TOT-LOT
SOD
MFR 45
JPA 18
JPA 18
TDD 20
RIN 50
VOD 43
RIN 10
5' WALK
STRIPED CROSSWALK, TYP.
PMP 15
PMP 15
RIN 22
PMP 15
PMP 15
POOL
15' SET
PMP 15
ADE 15
PMP 15
PMP 15
ADE 15
IVO 55
TDD 35
PMP 15
SOD
SOD
SOD

PLANT LIST (LP-1 & LP-3)

NOTE: DOES NOT INCLUDE PLANTS SPECIFIED ON SHEET LP-2, TYPICAL UNIT LANDSCAPE PLAN

	SYM	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	SPR.	NOTES:
* V	RSP	155	SABAL PALMETTO	CABBAGE PALM	SEE DISPOSITION CHART		RELOCATED CABBAGE PALM
* V	ESP	20	SABAL PALMETTO	CABBAGE PALM	SEE DISPOSITION CHART		EXISTING CABBAGE PALM TO REMAIN
* V	EPE	5	PINUS ELLIOTTII 'DENSA'	S. FLA. SLASH PINE	SEE DISPOSITION CHART		EXISTING SLASH PINE TO REMAIN
* V	EQL	11	QUERCUS LAURIFOLIA	LAUREL OAK	SEE DISPOSITION CHART		EXISTING LAUREL OAK TO REMAIN
* V	PE	15	PINUS ELLIOTTII 'DENSA'	S. FLA. SLASH PINE	14' O.A., 3" DBH	6'	FULL & THICK, SINGLE TRUNK
* V	SP	91	SABAL PALMETTO	CABBAGE PALM	12-22' C.T.	N/A	SLICK TRUNK, HURRICANE CUT, STAGGER HEIGHTS
M	DR	1	DELONIX REGIA	ROYAL POINCIANA	14-16' O.A., 3.5" DBH	7'	FULL & THICK, SINGLE TRUNK, 3" CAL.
* V	TD	23	TAXODIUM DISTICHUM	BALD CYPRESS	8' O.A., 1.5" DBH	4'	FULL & THICK, SINGLE TRUNK
* V	TD1	11	TAXODIUM DISTICHUM	BALD CYPRESS	14' O.A., 3" DBH	6'	FULL & THICK, SINGLE TRUNK
M	WR	11	WASHINGTONIA ROBUSTA	WASHINGTON PALM	20' O.A.	N/A	FULL & THICK, MATCHED
* V	QV	67	QUESRCUS VIRGINIANA	LIVE OAK	14' O.A., 3" DBH	6'	FULL & THICK
* V	QV1	1	QUESRCUS VIRGINIANA	RANCH LIVE OAK	20' O.A., 8" DBH	20'	FULL & THICK, RANCH STYLE, MULTI-TRUNK SPECIMEN
V	PS	5	PHOENIX SYLVESTRIS	SYLVESTER PALM	12' WD	-	FULL & THICK, MATCHED SPECIMENS
M	ED	10	ELAEOCARPUS DECIPIENS	JAPANESE BLUEBERRY	14' O.A., 3" DBH	5'	FULL & THICK TO GROUND
M	LM	25	LAGERSTROEMIA INDICA 'MUSKOGEE'	CRAPE MYRTLE (LAVENDER)	14' O.A.	6'	FULL & THICK, MULTI-TRUNK, 5' C.T.
M	LI	33	LAGERSTROEMIA INDICA 'NATCHEZ'	CRAPE MYRTLE (WHITE)	12-14' O.A.	5'	FULL & THICK, SINGLE TRUNK STD., 2.5" DBH
M	TC	19	TABEBUIA CARAIBA	YELLOW TABEBUIA	14' O.A., 3" DBH	5'	FULL & THICK
M	AM3	10	ADONIDIA MERRILLII	CHRISTMAS PALM (TRIPLE)	14' O.A., TRIPLE	-	FULL & THICK, TRIPLE TRUNK
M	CN	14	COCOS NUCIFERA	COCONUT PALM	12' WD.	-	FULL & THICK, MATCHED HEIGHTS
M	PR1	4	PHOENIX ROEBELENII	PYGMY DATE PALM	7' O.A., SINGLE	7'	FULL & THICK, MATCHED HEIGHTS, SINGLE TRUNK

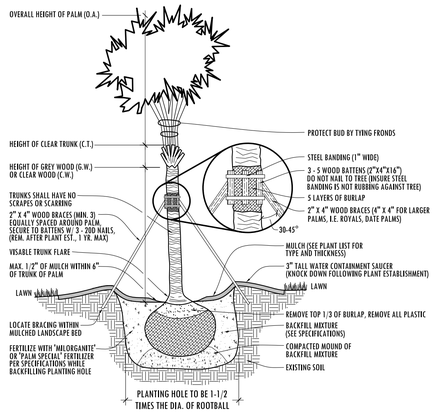
	SYM	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES:
* V	TDD	128	TRIPSACUM FLORIDANA	FLORIDA GAMA GRASS	#3, 16" O.A.	36" O.C.	FULL & THICK
V	PMA	52	PODOCARPUS MACROPHYLLUS	JAPANESE YEW	#7, 30" O.A.	24" O.C.	FULL & THICK
M	PMP	165	PODOCARPUS MACROPHYLLUS 'PRINGLES'	DWF. PODOCARPUS	#3, 14" X 14"	24" O.C.	FULL & THICK
* V	IVO	55	ILEX VOMITORIA	DWF. YAUPON HOLLY	#3, 14" X 14"	24" O.C.	FULL & THICK
* V	MFR	131	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	#3, 24" O.A.	24" O.C.	FULL & THICK
* V	MFR1	93	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	#7, 36" O.A.	24" O.C.	FULL & THICK
M	VOD	423	VIBURNUM ODORITISSIMUM	SWEET VIBURNUM	#3, 24" O.A.	24" O.C.	FULL & THICK
M	LIR	130	LIRIOPE MUSCARI	GREEN LIRIOPE	#3, 14" X 14"	18" O.C.	FULL & THICK
M	EPU	801	ELEAGNUS PUNGENS	SILVERTHORN	#3, 24" O.A.	24" O.C.	FULL & THICK
M	RIN	178	RAPHIOLEPIS INDICA	INDIAN HAWTHORN	#3, 16" X 16"	24" O.C.	FULL & THICK
M	ADE	30	ASPARAGUS DENSIFLORUS 'MYERII'	FOXTAIL FERN	#3, 16" X 16"	24" O.C.	FULL & THICK
M	JPA	116	JUNIPERUS CHINENSIS 'PARSONII'	PARSON'S JUNIPER	#3, 16" SPD.	24" O.C.	FULL & THICK
* V	BOS	150	NEPHROLEPIS BISSERATA	BOSTON FERN	#3, 16" O.A.	36-48" O.C.	FULL & THICK
V	BOU	54	BOUGAINVILLEA 'HELEN JOHNSON'	DWF. BUGAINVILLEA	#3, 16" X 16"	24" O.C.	FULL & THICK
M	AZE	15	ALPINIA ZERUMBET	VAR. SHELL GINGER	#3, 20" O.A.	36" O.C.	FULL & THICK
M	TRA	490	TRACHELOSPERMUM ASIATICUM 'MINIMA'	DWF. JASMINE	#1, 12" SPD.	12" O.C.	FULL & THICK

* ASTERISK DENOTES NATIVE PLANT MATERIAL
V INDICATES VERY DROUGHT TOLERANT PLANT MATERIAL
M INDICATES MODERATELY DROUGHT TOLERANT PLANT MATERIAL

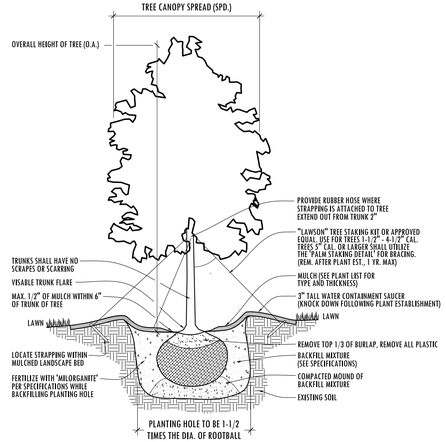
SOD: ST. AUGUSTINE 'FLORITAM' (BAHIA WHERE NOTED)
MULCH: 3" SHREDDED MELALEUCA MULCH (OR APPROVED RECYCLED MULCH) TO BE APPLIED TO ALL PLANTING BEDS.

IRRIGATION NOTE:
ALL NEW LANDSCAPE AREAS SHALL BE RECEIVE 100% OVERLAP COVERAGE FROM A FULLY AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH A RAIN SENSOR.
IRRIGATION WATER SOURCE: WELL & PUMP

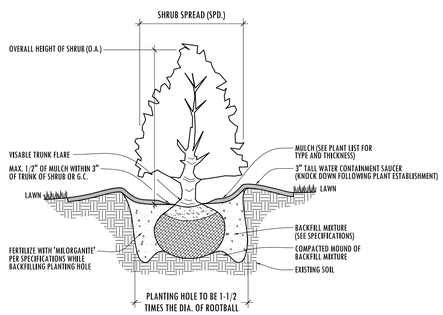
PLANTING DETAILS



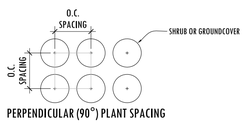
PALM PLANTING DETAIL



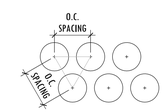
TREE PLANTING DETAIL



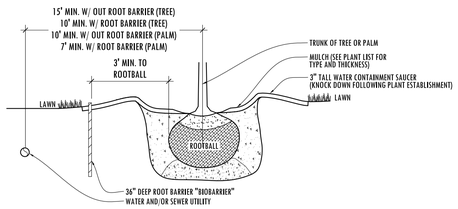
SHRUB & GROUNDCOVER PLANTING DETAIL



PERPENDICULAR (90°) PLANT SPACING



TRIANGULAR PLANT SPACING (RECOMMENDED)



ROOT BARRIER DETAIL

PLANTING SPECIFICATIONS

1. SCOPE OF WORK

LANDSCAPE CONTRACT WORK INCLUDES, BUT IS NOT LIMITED TO, SOIL PREPARATION, FINE OR FINISH GRADING, FURNISHING AND INSTALLING PLANT MATERIAL, WATERING, STAKING, GUYING AND MULCHING.

ALL LABOR AND MATERIAL FOR SOIL AMENDMENTS AND FERTILIZER THAT IS REQUIRED TO INSURE THE SUCCESSFUL ESTABLISHMENT AND SURVIVAL OF THE PROPOSED VEGETATION, AS WELL AS ALL THE COST FOR THE REMOVAL OF UNSUITABLE OR EXCESS BACKFILL MATERIAL, SHALL BE INCLUDED IN THE CONTRACTOR'S BID TO PERFORM THE WORK REPRESENTED IN THIS PLAN SET.

2. QUALITY ASSURANCE

LANDSCAPE CONTRACTOR MUST BE REGULARLY ENGAGED IN THE INSTALLATION OF LIVING PLANT MATERIAL. LABOR CREWS SHALL BE CONTROLLED AND DIRECTED BY A LANDSCAPE FOREMAN WELL VERSED IN LANDSCAPE INSTALLATION, PLANT MATERIALS, READING PLANS AND COORDINATION BETWEEN THE JOB AND NURSERY.

THE LANDSCAPE CONTRACTOR AND IRRIGATION CONTRACTOR SHALL REVIEW LAYOUT AND SCHEDULING PRIOR TO INSTALLATION OF MATERIAL. MINOR ADJUSTMENT TO IRRIGATION DESIGN MAY BE MADE IN RESPONSE TO THE NEEDS OF SPECIFIC PLANT MATERIAL. THE LANDSCAPE ARCHITECT MUST BE NOTIFIED OF SUCH CHANGES.

3. MATERIALS

PLANT SIZE AND QUALITY
PLANT SPECIES AND SIZES SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS, NOMENCLATURE SHALL CONFORM TO STANDARD PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS PARTS I & II, LATEST EDITION PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE FLORIDA GRADE NUMBER 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. TIGHTLY KNIT PLANT, SO TRAINED OR FAVORED IN ITS DEVELOPMENT THAT FIRST APPEARANCE IS UNQUESTIONABLE AND IT IS OUTSTANDINGLY SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND FREE OF DISEASE AND INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES AND PALMS FOR PLANTING ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT. THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY AND FLORIDA NUMBER 1. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. ALL PLANTS SHALL BE FREE OF WEEDS OR ANY OTHER OBJECTIONABLE VEGETATION.

ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS OF GOOD QUALITY AND BE IN A HEALTHY GROWING CONDITION.

CONTAINER GROWN PLANTS SHALL HAVE A DEVELOPED ROOT STRUCTURE SO THAT THE ROOT MASS STAYS IN TACT WHEN REMOVED FROM CONTAINER. IN NO CASE SHALL THE PLANT CONTAIN CIRCLING ROOTS NOR BE ROOT-BOUND.

QUANTITIES
ALL QUANTITIES INDICATED ON THE PLANT LIST ARE INTENDED AS A GUIDE FOR THE BIDDERS AND DOES NOT RELIEVE THE BIDDER OF HIS RESPONSIBILITY TO DO A COMPREHENSIVE PLANT TAKE OFF. SHALL A DISCREPANCY OCCUR BETWEEN THE BIDDER'S TAKE OFF AN THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT IS TO BE NOTIFIED FOR CLARIFICATION PRIOR TO THE SUBMISSION OF THE BID.

MULCH
MULCH SHALL BE A SHREDDED VARIETY AS SPECIFIED IN THE PLANT LIST. ALL MULCH IS TO BE APPLIED TO A DEPTH OF 3" EXCEPT FOR THOSE SPECIFIC SITUATIONS SHOWN BELOW IN SECTION 4 AND IN PLANTING DETAILS.

FERTILIZER
FERTILIZER IN BACKFILL MIXTURE FOR ALL PLANTS SHALL CONSIST OF 'MILORGANITE' ACTIVATED SLUDGE MIXED WITH THE BACKFILL AT A RATE OF NOT LESS THAN 50 LBS. PER CUBIC YARD.

FERTILIZER FOR TREES AND SHRUBS MAY BE TABLET FORM OR GRANULAR. GRANULAR FERTILIZER SHALL BE UNIFORM IN COMPOSITION, DRY AND FREE-FLOWING. THIS FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED BAGS, EACH BEARING THE MANUFACTURER'S STATEMENT OF ANALYSIS. FERTILIZE ALL NEW PLANTINGS PER RATES SHOWN BELOW:

TREES:
FERTILIZE NEW TREES WITH 'MILORGANITE' AT THE FOLLOWING RATES:
- 8' AND SMALLER: 2-4 LBS.
- 8'-12' TALL: 4-6 LBS.
- 12' AND TALER: 6-8 LBS.

(3 CUPS = 1 LB.)

SHRUBS:
FERTILIZE NEW SHRUBS AND ACCENTS WITH 'MILORGANITE' AT THE FOLLOWING RATES:
- 4-6" POTS: ⅛ CUP
- 1 GAL.: ¼ CUP
- 3 GAL.: 1 CUP
- 7-10 GAL.: 2 CUPS
- 15 GAL. AND GREATER: 3 CUPS

PALM TREES:
FERTILIZE NEW PALM TREES WITH A "PALM SPECIAL" FERTILIZER IN SLOW RELEASE FORM. FERTILIZER SHALL CONTAIN AN ADDITIONAL MAGNESIUM AND MICRO-NUTRIENT AMENDMENT

SOIL
PLANTING SOIL SHALL BE SANDY LOAM AND SHALL CONTAIN A 25% MINIMUM AMOUNT OF DECOMPOSED ORGANIC MATTER. PLANTING SOIL SHALL BE FREE OF CLAY, STONES, PLANTS, ROOTS AND OTHER FOREIGN MATERIALS WHICH MIGHT BE A HINDRANCE TO PLANTING OPERATIONS OR BE DETRIMENTAL TO GOOD PLANT GROWTH. SOIL SHALL BE DELIVERED IN A LOOSE FRIABLE CONDITION AND APPLIED IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS.

ALL SHRUBS, TREES AND GROUND COVER WILL HAVE IMPROVED SOIL AS PER PLANTING SOIL NOTES. THE SOILS SHALL BE PLACED IN THE HOLE DURING PLANTING. TOP DRESSING ONLY IS NOT ACCEPTABLE.

DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. ALL TREES SHALL BE SPIKED IN UTILIZING WATER AND A TREE BAR.

WATER
WATER FOR PLANTING WILL BE AVAILABLE AT THE SITE AND WILL BE PROVIDED BY THE OWNER. LANDSCAPE CONTRACTOR SHALL NOT ASSUME THAT THE IRRIGATION SYSTEM WILL BE OPERATIONAL AT THE TIME OF PLANTING. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO PROVIDE ALL THE REQUIRED WATER NECESSARY TO MAINTAIN THE PLANT MATERIAL IN A HEALTHY GROWING CONDITION. THE WATERING MAY INCLUDE DEEP WATERING OF TREES ANT THE WATERING OF SHRUB AND GROUND COVER AREAS. ANY PLANT MATERIALS THAT DIE OR THAT ARE NOT IN A HEALTHY GROWING CONDITION DUE TO LACK OF WATER SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

4. EXECUTION

FIELD GROWN TREES AND PALMS PREVIOUSLY ROOT PRUNED SHALL OBTAIN A ROOT BALL WITH SUFFICIENT ROOTS FOR CONTINUED GROWTH WITHOUT RESULTING SHOCK.

CONTRACTOR SHALL NOT MARK OR SCAR TRUNK IN ANY FASHION.

PLANTS SHALL BE WATERED AS NECESSARY OR WITHIN 24 HOURS AFTER NOTIFICATION BY THE LANDSCAPE ARCHITECT.

THE LOCATIONS OF PLANTS, AS SHOWN IN THESE PLANS, ARE APPROXIMATE. THE FINAL LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN FIELD CONDITIONS. MAJOR ADJUSTMENTS TO THE LAYOUT ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT.

ALL PLASTIC FABRIC SHALL BE REMOVED FROM PLANT MATERIAL AT TIME OF INSTALLATION.

ALL TREES MUST BE STAKED AS SHOWN ON THE PLANTING DETAILS WITHIN 24 HOURS OF PLANTING. STAKES TO REMAIN FOR A MINIMUM OF 9 MONTHS, BUT NO LONGER THAN 18 MONTHS. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF THE STAKES.

ALL TREES MUST BE PRUNED AS PER LANDSCAPE ARCHITECT'S DIRECTION. SABAL PALMS MAY BE HURRICANE CUT.

ALL SHRUBS, TREES AND GROUND COVER WILL HAVE IMPROVED SOIL AS PER PLANTING SOIL NOTES. THE SOILS SHALL BE PLACED IN THE HOLE DURING PLANTING. TOP DRESSING ONLY IS NOT ACCEPTABLE.

DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. ALL TREES SHALL BE SPIKED IN UTILIZING WATER AND A TREE BAR.

AFTER FINAL SETTLING OF BALLED AND BURLAPED PLANTS, LOOSEN BURLAP WRAPPING EXPOSING THE TOP OF THE ROOTBALL, LEAVING THE BALL UNBROKEN. REMOVE EXCESS AMOUNTS OF BURLAP TO ELIMINATE VOIDS WHICH MAY BE CAUSED UPON DECOMPOSITION.

CONTAINER GROWN PLANTS SHALL, WHEN DELIVERED, SHALL HAVE SUFFICEINCY GROWTH TO HOLD EARTH INTACT WHEN REMOVED FROM CONTAINER AND SHALL NOT BE ROOT BOUND. PLANT PITS FOR CONTAINER MATERIALS SHALL BE FORMED FLAT ON THE BOTTOM TO AVOID AIR POCKETS AT THE BOTTOM OF ROOT BALLS AND CONTAINERS SHALL BE REMOVED CAREFULLY TO PREVENT DAMAGE TO THE PLANT OR ROOT SYSTEMS.

TEST TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE.PERCOLATION IS AVAILABLE. PITS WHICH ARE FOUND NOT TO BE ADEQUATELY DRAINING SHALL BE EXCAVATED TO A A DEPTH SUFFICIENT FOR DRAINAGE AND BACKFILLING WITH GRAVEL OR CRUSHED ROCK. NO ALLOWANCES WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE.

PLANTING BED PREPARATION
ALL PLANTING BEDS SHALL BE PROPERLY PREPARED PRIOR TO THE COMMENCEMENT OF ANY PLANTING. PLANTING AREAS, INCLUDING LAWNS SHALL BE FREE OF ALL WEEDS AND NUISANCE VEGETATION. IF TORPEDO GRASS (PANICUM REPENS) IS PRESENT OR ENCOUNTERED DURING PLANTING, THE LANDSCAPE CONTRACTOR SHALL STOP ALL PLANTING UNTIL IT CAN BE DEMONSTRATED THAT IT HAS BEEN COMPLETELY REMOVED OR ERADICATED. THERE SHALL BE NO EXCEPTIONS TO THIS PROVISION.

ALL LANDSCAPE ISLANDS AND BEDS WILL BE FREE OF SHELL ROCK AND CONSTRUCTION DEBRIS AND WILL BE EXCAVATED TO A DEPTH OF 30 INCHES OR TO CLEAN, NATIVE SOIL AND FILLED WITH THE SPECIFIED BACKFILL MIXTURE.

PLANTING TREES

EXCAVATE PIT AS PER PLANTING DETAILS. COMPACT LAYER OF TOPSOIL IN PIT WITH A SLIGHTLY DISHED GRADE TO CENTER.

BACKFILL AROUND BALL WITH TOPSOIL AND SLIGHTLY COMPACT, WATER THOROUGHLY AS LAYERS ARE PLACED TO ELIMINATE VOIDS AND AIR POCKETS. BUILD A 6" HIGH BERM OF TOPSOIL BEYOND EDGE OF EXCAVATION. APPLY 3" (AFTER SETTLEMENT) OF MULCH.

PRUNE TREE TO REMOVE DAMAGED BRANCHES, IMPROVE NATURAL SHAPE AND THIN OUT STRUCTURE. DO NOT REMOVE MORE THAN 15% OF BRANCHES. DO NOT PRUNE BACK TERMINAL LEADER.

GUY AND STAKE TREE IN ACCORDANCE WIT THE STAKING DETAILS IMMEDIATELY AFTER PLANTING.

PLANTING SHRUBS

LAYOUT SHRUBS TO CREATE A CONTINUOUS SMOOTH FRONT LINE AND FILL IN BEHIND.

EXCAVATE PIT OR TRENCH TO 1-1/2 TIMES THE DIAMETER OF THE BALLS OR CONTAINERS OR 1'-0" WIDER THAN THE SPREAD OF ROOTS AND 3" DEEPER THAN REQUIRED FOR POSITIONING AT PROPER HEIGHT. COMPACT A LAYER OF TOPSOIL IN BOTTOM BEFORE PLACING PLANTS. BACKFILL AROUND PLANTS WITH PLANTING MIXTURE, COMPACTED TO ELIMINATE VOIDS AND AIR POCKETS. FORM GRADE SLIGHTLY DISHED AND BERMED AT EDGES OF EXCAVATION. APPLY 3" OF MULCH.

PRUNE SHRUBS TO REMOVE DAMAGED BRANCHES, IMPROVE NATURAL SHAPE AND THIN OUT STRUCTURE. DO NOT REMOVE MORE THAN 15% OF BRANCHES.

PLANTING GROUND COVER

LOOSEN SUBGRADE TO DEPTH OF 4" IN AREAS WHERE TOPSOIL HAS BEEN STRIPPED AND SPREAD SMOOTH.

SPACE PLANTS AS OTHERWISE INDICATED. DIG HOLES LARGE ENOUGH TO ALLOW SPREADING OF ROOTS. COMPACT BACKFILL TO ELIMINATE VOIDS AND LEAVE GRADE SLIGHTLY DISHED AT EACH PLANT. WATER THOROUGHLY. APPLY 3" OF MULCH OVER ENTIRE PLANTING BED, LIFTING PLANT FOLIAGE ABOVE MULCH. PURPLE QUEEN GROUNDCOVER, IF SPECIFIED, SHALL ONLY RECEIVE 1" OF MULCH.

DURING PERIODS OF HOT SUN AND/OR WIND AT TIME OF PLANTING, PROVIDE PROTECTIVE COVER FOR SEVERAL DAYS OR AS NEEDED.

PLANTING SOD

SODDING: SOD TYPE SPECIFIED ON PLANT LIST SHALL BE MACHINE STRIPPED NOT MORE THAN 24 HOURS PRIOR TO LAYING. SOD SHALL BE FIRM, TOUGH TEXTURE, HAVING A COMPACT GROWTH OF GRASS WITH GOOD ROOT DEVELOPMENT, AND SHALL CONTAIN NO BERMUDA GRASS, WEEDS OR ANY OTHER OBJECTIONABLE VEGETATION.

LOOSEN SUBGRADE TO DEPTH OF 4" AND GRADE WITH TOPSOIL EITHER PROVIDED ON SITE OR IMPORTED TO FINISH DESIGN ELEVATIONS. IF SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO FINISH GRADE ALL LANDSCAPE AREAS, ELIMINATING ALL BUMPS, DEPRESSIONS, STICKS, STONES AND OTHER DEBRIS. ROLL PREPARED LAWN SURFACE. WATER THOROUGHLY, BUT DO NOT CREATE MUDDY SOIL CONDITION.

FERTILIZE SOIL AT THE RATE OF APPROXIMATELY 10 LBS. PER 1,000 S.F. SPREAD FERTILIZER OVER THE AREA TO RECEIVE GRASS BY USING AN APPROVED DISTRIBUTION DEVICE CALIBRATED TO DISTRIBUTE THE APPROPRIATE QUANTITY. DO NOT FERTILIZE WHEN WIND VELOCITY EXCEEDS 15 M.P.H. THOROUGHLY MIX FERTILIZER INTO THE TOP 2" OF TOPSOIL.

LAY SOD STRIPS WITH TIGHT JOINTS, DO NOT OVERLAP, STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. WORK SIFTED SOIL MIX INTO MINOR CRACKS BETWEEN PIECES OF SOD AND REMOVE EXCESS SOIL DEPOSITS FROM SODDED AREAS. SOD ON SLOPES GREATER THAN 3:1 SHALL BE STAKED IN PLACE. ROLL OR STAMP LIGHTLY AND WATER THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.

5. MISCELLANEOUS LANDSCAPE WORK

LANDSCAPE MAINTENANCE
MAINTAIN LANDSCAPE WORK IMMEDIATELY AFTER PLANTING AND UNTIL FINAL ACCEPTANCE IS ISSUED BY THE OWNER'S REPRESENTATIVE. INCLUDE WATERING, WEEDING, CULTIVATING, RESTORATION OF GRADE, MOWING AND TRIMMING GRASS, PRUNING TREES AND SHRUBS, PROTECTION FROM INSECTS AND DISEASES, FERTILIZING AND SIMILAR OPERATIONS AS NEEDED TO INSURE NORMAL GROWTH AND GOOD HEALTH FOR LIVE PLANT MATERIAL. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE, PLANTING SAUCERS RESTORED, AND DEFECTIVE WORK CORRECTED.

IN THE EVENT OF SERIOUS DAMAGE FROM INSECTS OR DISEASE PRIOR TO FINAL ACCEPTANCE, THE PLANTS SHALL BE TREATED BY PREVENTATIVE OR REMEDIAL MEASURES APPROVED FOR GOOD HORTICULTURAL PRACTICE AT NO ADDITIONAL COST TO THE OWNER.

CLEAN UP
THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR DEBRIS CAUSED BY HIS CREWS DURING THE PERFORMANCE OF THE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROMPTLY REMOVE ALL WASTE MATERIALS, DEBRIS, UNUSED PLANT MATERIAL, EMPTY PLANT CONTAINERS AND ALL EQUIPMENT FROM THE PROJECT SITE.

ANY SOIL, PEAT OR SIMILAR MATERIAL WHICH HAS BEEN BROUGHT ONTO ANY PAVED AREAS SHALL BE REMOVED PROMPTLY KEEPING THESE AREAS CLEAN AS THE WORK PROGRESSES. UPON COMPLETION OF THE PLANTING, ALL EXCESS SOIL, STONES AND DEBRIS WHICH HAS NOT BEEN PREVIOUSLY CLEANED UP SHALL BE REMOVED FROM THE SITE.

INSPECTION & ACCEPTANCE
THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT UPON COMPLETION OF THE WORK TO REQUEST A FINAL INSPECTION OF THE INSTALLATION AND PLANT MATERIALS. THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE WILL NOTIFY THE LANDSCAPE CONTRACTOR OF ANY DEFICIENCIES VIA A "PUNCH LIST" WHICH SHALL BE PROMPTLY CORRECTED BY THE LANDSCAPE CONTRACTOR. CONDITIONAL LANDSCAPE ACCEPTANCE OF ALL PLANT MATERIAL AND WORKMANSHIP WILL BE GIVEN IN WRITING BY THE LANDSCAPE ARCHITECT AFTER ALL "PUNCH LIST" ITEMS HAVE BEEN CORRECTED AND ANY PLANT REPLACEMENTS MADE. THIS ACCEPTANCE WILL BEGIN THE WARRANTEE PERIOD. DEFICIENCIES NOTED AFTER THE CONDITIONAL LANDSCAPE ACCEPTANCE SHALL BE RECTIFIED DURING THE WARRANTEE PERIOD AND PRIOR TO FINAL LANDSCAPE ACCEPTANCE.

GUARANTEE AND REPLACEMENT
ALL PLANT MATERIAL AND WORKMANSHIP SHALL BE GUARANTEED BY THE LANDSCAPE CONTRACTOR FOR A PERIOD OF SIX (6) MONTHS FROM THE DATE OF CONDITIONAL LANDSCAPE ACCEPTANCE BY THE LANDSCAPE ARCHITECT. ANY PLANT MATERIAL OR WORKMANSHIP THAT IS DEFICIENT OR HAS DIED SHALL BE REPLACED AT THE SAME SPECIFICATION NOTED IN THE APPROVED LANDSCAPE PLANS. REPLACEMENTS SHALL BE MADE BY THE LANDSCAPE CONTRACTOR WITHIN TWO (2) WEEKS OF NOTIFECTION BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER. WARRANTEES OF REPLACEMENT MATERIAL SHALL BE SIX (6) MONTHS FROM THE DATE OF REPLACEMENT INSTALLATION. DEATH OR DAMAGE RESULTING FROM LIGHTNING, VANDALISM OR AUTOMOBILES OR BY NEGLIGENCE BY THE OWNER SHALL NOT BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. UNLESS OTHERWISE ARRANGED WITH THE OWNER, THE CONTRACTOR IS RESPONSIBLE FOR GENERAL PLANT MAINTENANCE INCLUDING WATERING AND MOWING UP UNTIL THE DATE OF CONDITIONAL ACCEPTANCE.

PLANT MATERIAL SUBSTITUTION

THERE WILL BE NO SUBSTITUTION OF PLANT MATERIAL UNLESS AUTHORIZED BY THE LANDSCAPE ARCHITECT AND/OR OWNER. THIS INCLUDES SPECIES AND SIZE OF PLANT MATERIAL.

Landscape Specifications & Planting Details

ARROW FORT PIERCE NORTH

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	VOLT	LAMP TYPE	DIM TYPE	WATTS	MOUNTING	NOTES
SA	LED SITE HEAD	LUMARK	PRV-PA2A-740-U-T3-FINISH / MA1017-FINISH	UNV	LED	N/A	112W	20' POLE	NOTE 1, 2
SB	LED SITE HEAD	LUMARK	PRV-PA2A-740-U-T4W	UNV	LED	N/A	112W	20' POLE	NOTE 1, 2
SC	LED SITE HEAD	LUMARK	PRV-PA2A-740-U-T4W-HSS-FINISH / MA1017-FINISH	UNV	LED	N/A	112W	20' POLE	NOTE 1, 2
SD	LED DECORATIVE LUMINAIRE	INVUE	LXS-B3-LED-D1-T4-FINISH-S / ARPA2	UNV	LED	N/A	99W	13' POLE	NOTE 1, 3
SE	LED DECORATIVE LUMINAIRE	INVUE	LXS-B3-LED-D1-T5-FINISH-S / ARPA2	UNV	LED	N/A	86W	13' POLE	NOTE 1, 3
SF	LED BOLLARD	ILP	BLDT-15WLED-UNIV-4000K	UNV	LED	N/A	16.5W	IN-GROUND	
SW	LED WALL PACK	McGRAW-EDISON	GWC-AF-01-LED-E1-T4FT-FINISH-600	UNV	LED	N/A	34W	WALL	NOTE 1

FIXTURE SCHEDULE NOTES

NOTE 1: ADVISE FINISH

NOTE 2: FIXTURE MOUNTED ON 20' CONCRETE POLE #: USI28TI+4-9666

NOTE 3: FIXTURE MOUNTED ON 13' DIRECT BURIAL ALUMINUM POLE #: 1208-30504TE TO ACHIEVE 15FT AFG

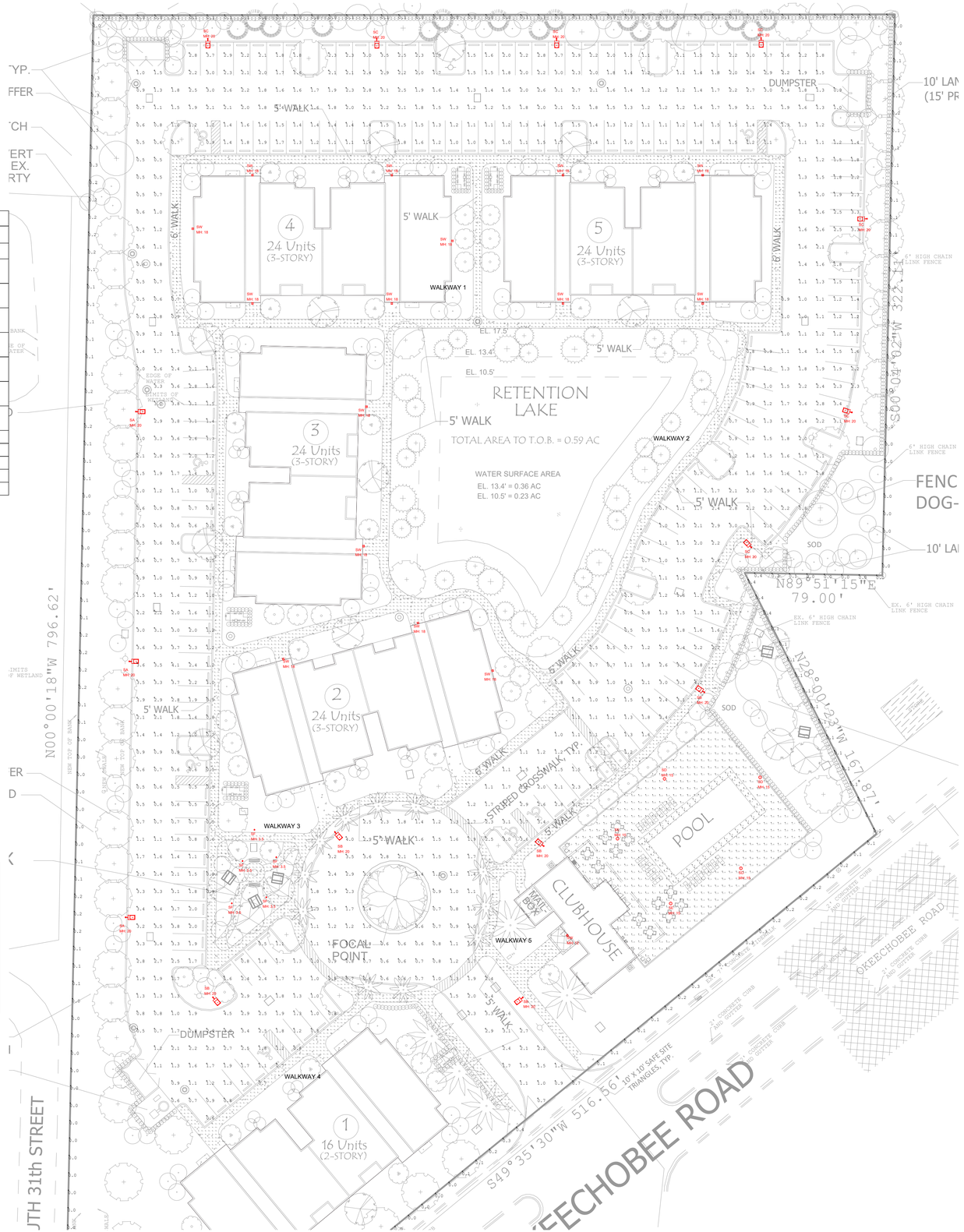
FOR QUESTIONS PERTAINING TO THIS FIXTURE SCHEDULE PLEASE CONTACT RYAN HUFF @ LIGHTING DYNAMICS- 772-285-7169

Photometrics Calculation Software Generated Luminaire Schedule

Symbol	Qty	Label	Arrangement	Lum. Lumens	Arr. Lum. Lumens	LLF	Lum. Watts	Arr. Watts
	3	SA	SINGLE	15749	15749	0.900	112	112
	5	SB	SINGLE	15560	15560	0.900	112	112
	7	SC	SINGLE	11268	11268	0.900	112	112
	3	SD	SINGLE	8200	8200	0.900	99	99
	2	SE	SINGLE	9131	9131	0.900	86	86
	5	SF	SINGLE	1209	1209	0.900	16.5	16.5
	16	SW	SINGLE	4311	4311	0.900	34	34

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING & ROADWAY	Illuminance	Fc	1.65	4.5	0.5	3.30	9.00
POOL AREA	Illuminance	Fc	2.79	5.2	0.7	3.99	7.43
PROPERTY LINE	Illuminance	Fc	0.08	0.4	0.0	N.A.	N.A.
WALKWAY 1	Illuminance	Fc	1.10	2.0	0.4	2.75	5.00
WALKWAY 2	Illuminance	Fc	0.95	2.0	0.3	3.17	6.67
WALKWAY 3	Illuminance	Fc	1.29	15.1	0.4	3.23	37.75
WALKWAY 4	Illuminance	Fc	0.67	1.3	0.3	2.23	4.33
WALKWAY 5	Illuminance	Fc	2.11	4.4	0.3	7.03	14.67
WET DECK	Illuminance	Fc	3.65	5.3	3.0	1.22	1.77



LIGHTING DYNAMICS INCORPORATED

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions. This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions.

NOTES:

No.	Revision/Issue	Date
3	UPDATE LFS	06/22/20
2	PHOTOMETRIC STUDY	06/19/20
1	PHOTOMETRIC STUDY	06/17/20

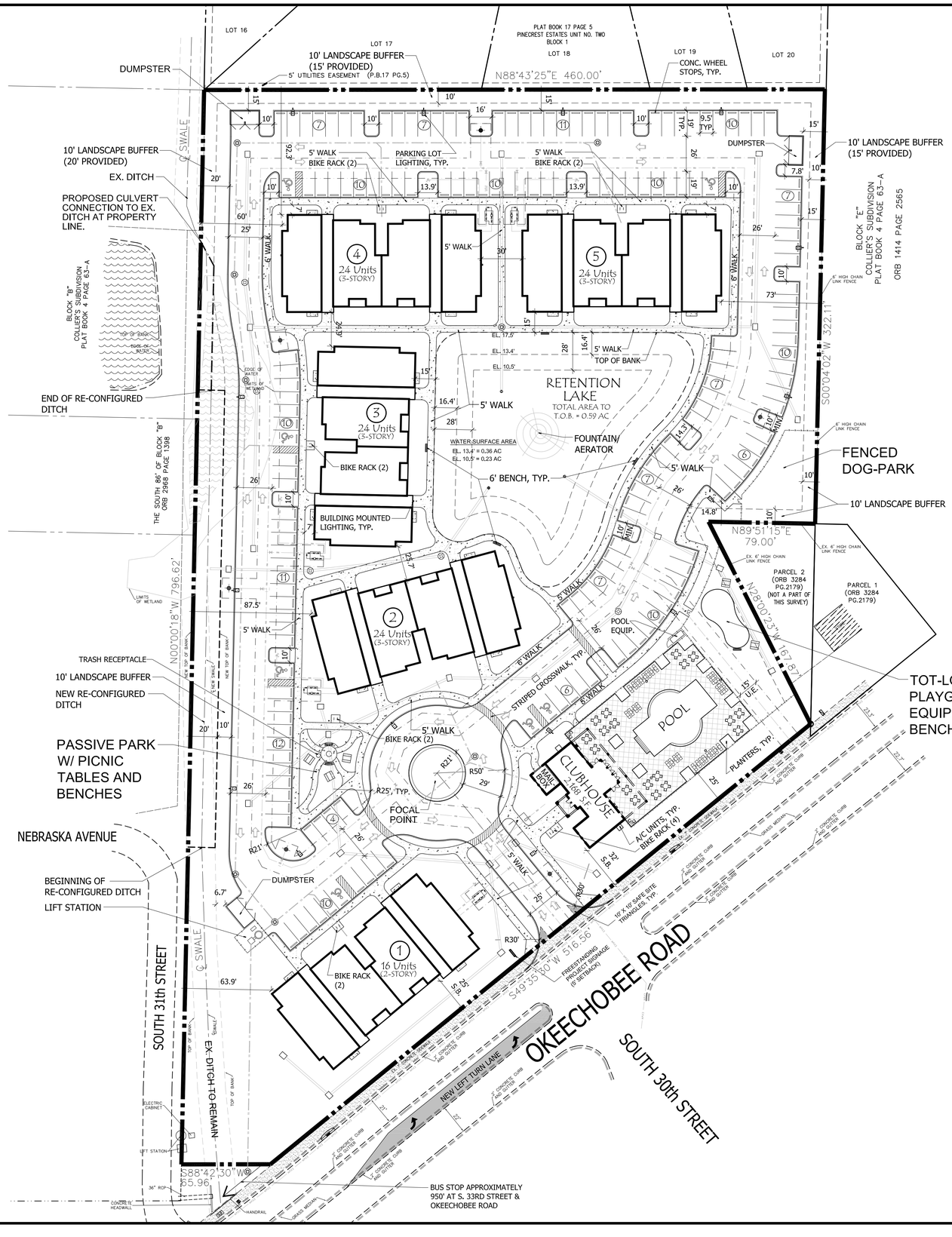
LIGHTING DYNAMICS, INC.
7835 West Commercial Blvd.
Tamarac, FL 33351
(954) 944-0286
www.lightingdynamics.com

Project Name and Address

ARROW FORT PIERCE
Site lighting layout
Fort Pierce, FL

FILE P:\PROJECTS\2020\MARCH
CLIENT Managed Land Entitlements

Project	Arrow Fort Pierce North
Date	06/22/2020
Scale	1/32" = 1'-0"
Sheet	L0
DRAWN BY	E.MONTERO



APPLICATION DATA:

NAME OF APPLICATION:	ARIA AAPARTMENTS
PARCEL ID:	2417-504-0020-001-6
SITE ADDRESS:	TBD
EXISTING FUTURE LAND USE:	GENERAL COMMERCIAL (GC)
PROPOSED FUTURE LAND USE:	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING DESIGNATION:	GENERAL COMMERCIAL (C3)
PROPOSED ZONING DESIGNATION:	MEDIUM DENSITY RESIDENTIAL (R-4)
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (112 UNITS)
PROPOSED DENSITY:	*16.48 D.U.'S PER ACRE

*PROJECT UTILIZES DENSITY BONUS FOR PROXIMITY TO TRANSIT STOP (+5 D.U.'S/ACRE) AND FOR INNOVATIVE DESIGN (+2 D.U.'S/ACRE)

SITE DATA:

GROSS SITE AREA:	296,012.97 S.F. (6.796 ACRES)
OPEN SPACE REQUIRED:	118,405.19 S.F. (40%)
PERVIOUS AREA PROVIDED:	102,259.94 S.F. (34.5%)
RETENTION AREA PROVIDED:	25,674.63 S.F. (8.7%)
TOTAL OPEN SPACE AREA:	127,934.57 S.F. (43.2%)
MAX. BUILDING COVERAGE:	50% (148,006.5 S.F.)
BUILDING COVERAGE PROVIDED:	18.0% (53,184 S.F.)

SETBACKS

SETBACK	REQUIRED:	PROVIDED:
FRONT	25'	25'
SIDE:	10'	60'
REAR:	20'	92.3'

BUILDING HEIGHT

REQUIRED:	45' (MAX)
PROVIDED:	39'-0"

PARKING DATA:

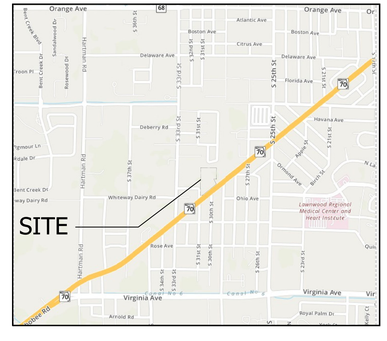
PROPOSED USES (FLEX SPACE)

USE	UNITS	PARKING RATE	REQUIRED PARKING
MULTI-FAMILY RESIDENTIAL	112 UNITS	1.5/UNIT	168 SPACES
	TOTAL PARKING REQUIRED:		168 SPACES
	TOTAL PARKING PROVIDED:		172 SPACES
	HANDICAP SPACES REQ'D.:		6 SPACES
	HANDICAP SPACES PROV.:		7 SPACES

BICYCLE PARKING REQUIRED: 12 SPACES (1 PER 10 UNITS)
BICYCLE PARKING PROVIDED: 14 SPACES

REFER TO SHEET SP-2 FOR SITE PLAN DETAILS

LOCATION MAP



Site Plan

0 20' 40' 80' 120' 160'

NORTH

Scale: 1" = 40'

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

PROJECT TEAM

OWNER
Arrow Investment Group, LLC
4512 North Flagler Drive, Suite 2056
West Palm Beach, Florida 33407

ARCHITECT
Architectural Studios, Inc.
300 Avenue of the Champios, Suite 260
Palm Beach Gardens, Florida 33418
Contact: Scott Disher (561-202-6990)

CIVIL ENGINEER/SURVEYOR
Michael B. Schorah & Associates, Inc.
1850 Forest Hill Blvd., Suite 206
West Palm Beach, Florida 33406
Contact: Michael LaCoursiere (561-968-0080)

DEVELOPMENT MANAGER/AGENT
Managed Land Entitlements, LLC
3710 Buckeye Street, Suite 100
Palm Beach Gardens, Florida 33410
Contact: Michael Sanchez (561-568-8045)

LANDSCAPE ARCHITECT
Litterick Landscape Architecture
2740 SW Martin Downs Blvd., #199
Palm City, Florida 34990
Contact: Jason LItterick (561-719-3876)

SURVEYOR
Brown & Phillips, Inc.
1860 Old Okeechobee Road, Suite 509
West Palm Beach, Florida 33409
Contact: John Phillips (561-615-3988)

Litterick Landscape Architecture
LC26000482
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Aria Apartments

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: 1" = 40'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

SP-1

STANDARD LIGHTING POLE DETAIL

(1) LIGHTING POLE. THE MANUFACTURER IS TO PROVIDE CERTIFICATION BY FLORIDA PE, SHOWING WIND LOAD RATING OF 170 MPH WITH SPECIFIED FIXTURES INSTALLED. THE FINAL POLE SET IS TO BE DETERMINED BY THE PROFESSIONAL ENGINEER.

(2) INTERNAL WIRING. INTERNAL WIRING TO BE IN UL LISTED CONDUITS, INSIDE POLE. SEE NOTE 3.

(3) LIGHT FIXTURE CONNECTIONS. REFER TO LIGHT MANUFACTURER FOR REQUIREMENTS, INCLUDING TEMPERATURE REQUIREMENTS (COMMONLY 150C). CONDUCTORS TO BE UL LISTED "FIXTURE" CONDUCTORS. (UL "RECOGNIZED" APPLIANCE WIRES NOT PERMITTED.) OBTAIN BUILDING DEPARTMENT APPROVAL FOR CONDUCTORS, CONNECTORS, AND ACCESSIBILITY.

(4) CONDUITS. CONDUITS BELOW HAND HOLE IN POLE TO BE UL LISTED WITH "BRANCH CIRCUIT" THWN CONDUCTORS.

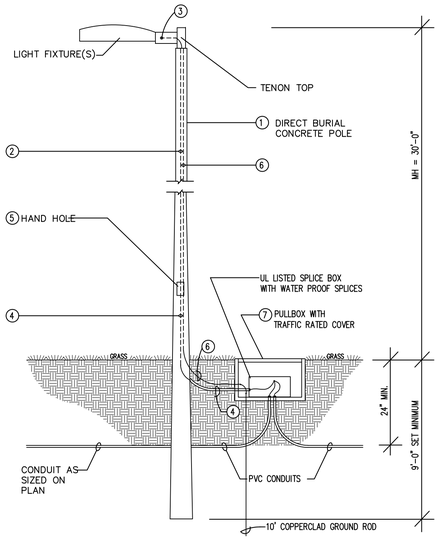
(5) HAND HOLE. HAND HOLE WITH UL LISTED BOX CAST IN POLE WITH WATERPROOF SPLICES.

(6) GROUND WIRE IN POLE. CONNECT BOTTOM TO #4 BARE GROUND CONDUCTOR. CONNECT TOP TO GROUND LUG IN FIXTURES.

(7) TRAFFIC RATED PULL BOX. HIGH STRENGTH COMPOSITE CONSTRUCTION RATED FOR DESIGN LOAD OF 5,000 LBS OVER A 10" SQUARE. COVER LETTERING = "LIGHTING". DO NOT PLACE IN PAVED AREA, KEEP IN GRASSED AREAS. QUAZITE COMPOSOLITE PX STYLE. 1-800-346-3067

(8) MUCK. IF SOFT SOILS ARE FOUND ON THE PROPERTY, THIS POLE DESIGN WILL BE MODIFIED TO ACCOMMODATE. NOTIFY ENGINEER IMMEDIATELY.

(9) SITE CONDITIONS. IF SITE CONDITIONS ARE DISCOVERED WHICH REQUIRE ANY POLE (S) TO BE MOVED OVER 4 FEET, NOTIFY THE ENGINEER IMMEDIATELY.



CONCRETE LIGHT POLE DETAIL

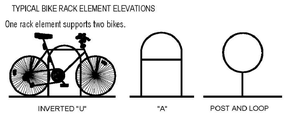
TO BE USED ON ALL PARKING LOT LIGHTING (20' MOUNTING HEIGHT) N.T.S.



"LANDSCAPEFORMS - CHASE PARK LITTER"

TRASH RECEPTACLE DETAIL

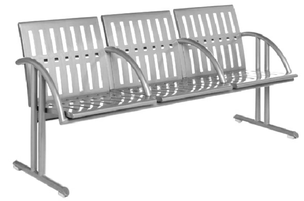
N.T.S.



- ELEMENT STYLE CONSISTENT WITH THE ABOVE TYPICAL ELEVATION TO BE SELECTED BY OWNER AT TIME OF BUILDING PERMIT, SUBJECT TO APPROVAL BY ZONING STAFF.
- A RACK IS ONE OR MORE ELEMENTS JOINED ON A COMMON BASE
- BIKE RACK AND RACK AREA DIMENSIONAL CRITERIA BASED ON RECOMMENDATIONS FROM THE ASSOCIATION OF PEDESTRIAN AND BICYCLE PROFESSIONALS (APBP)

BIKE RACK DETAIL

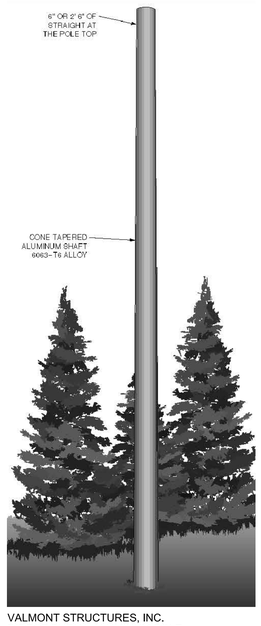
N.T.S.

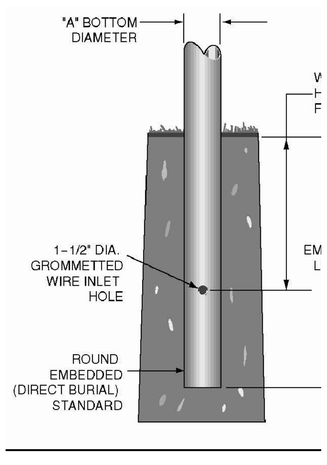


LANDSCAPE FORMS - CHASE PARK BENCH
CAST ALUM. W/ STEEL FRAMES & DIVIDER ARMS

BENCH DETAIL

N.T.S.

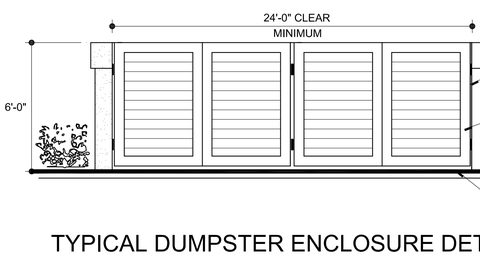




VALMONT STRUCTURES, INC.
DIRECT BURIAL ALUMINUM POLE

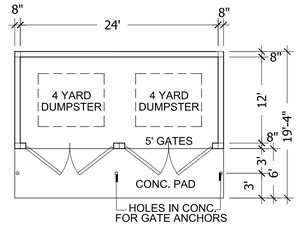
ALUMINUM LIGHT POLE DETAIL

TO BE USED ON ALL POOL LIGHTING (13' MOUNTING HEIGHT) N.T.S.

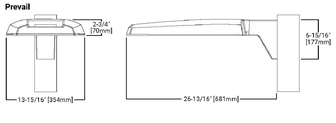


TYPICAL DUMPSTER ENCLOSURE DETAIL

N.T.S.







VALMONT STRUCTURES, INC.
DIRECT BURIAL CONCRETE POLE

PARKING LOT LIGHTING FIXTURE

TO BE USED ON ALL PARKING LOT LIGHTING (20' MOUNTING HEIGHT) N.T.S.



LXS LUXESCAPE COLLECTION

DECORATIVE LUMINAIRE

INVUE LED LIGHT FIXTURE
ON DIRECT BURIAL ALUMINUM POLE

POOL AREA LIGHTING FIXTURE

TO BE USED ON ALL POOL AREA POLE LIGHTING (13' MOUNTING HEIGHT) N.T.S.



ILP 15W LED BOLLARD

BOLLARD LIGHTS

N.T.S.



GWC GALLEON WALL

1-2 Light Squares
Solid State LED

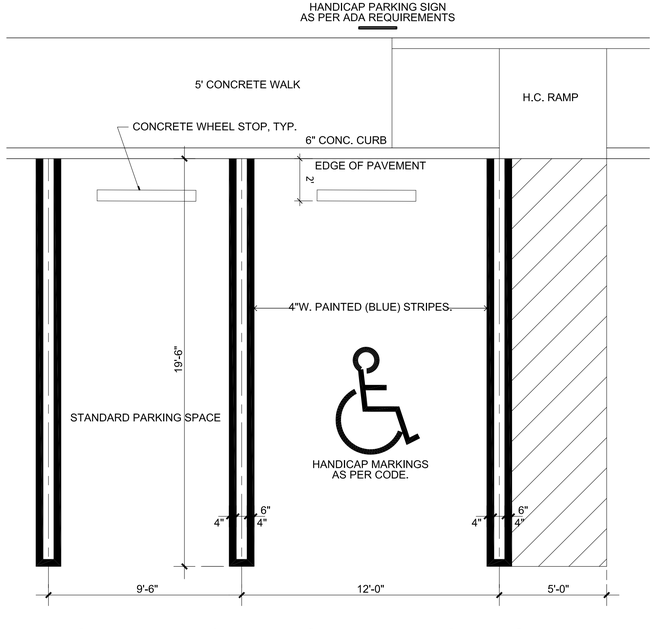
WALL MOUNT LUMINAIRE

WaveLinx

MCGRAW - EDISON WALL MOUNT LED LUMIERE

BUILDING MOUNTED LIGHTING

N.T.S.



STANDARD & HANDICAP PARKING LAYOUT

N.T.S.

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

Site Plan Details

Litterick Landscape Architecture
LC26000482
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Aria Apartments

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

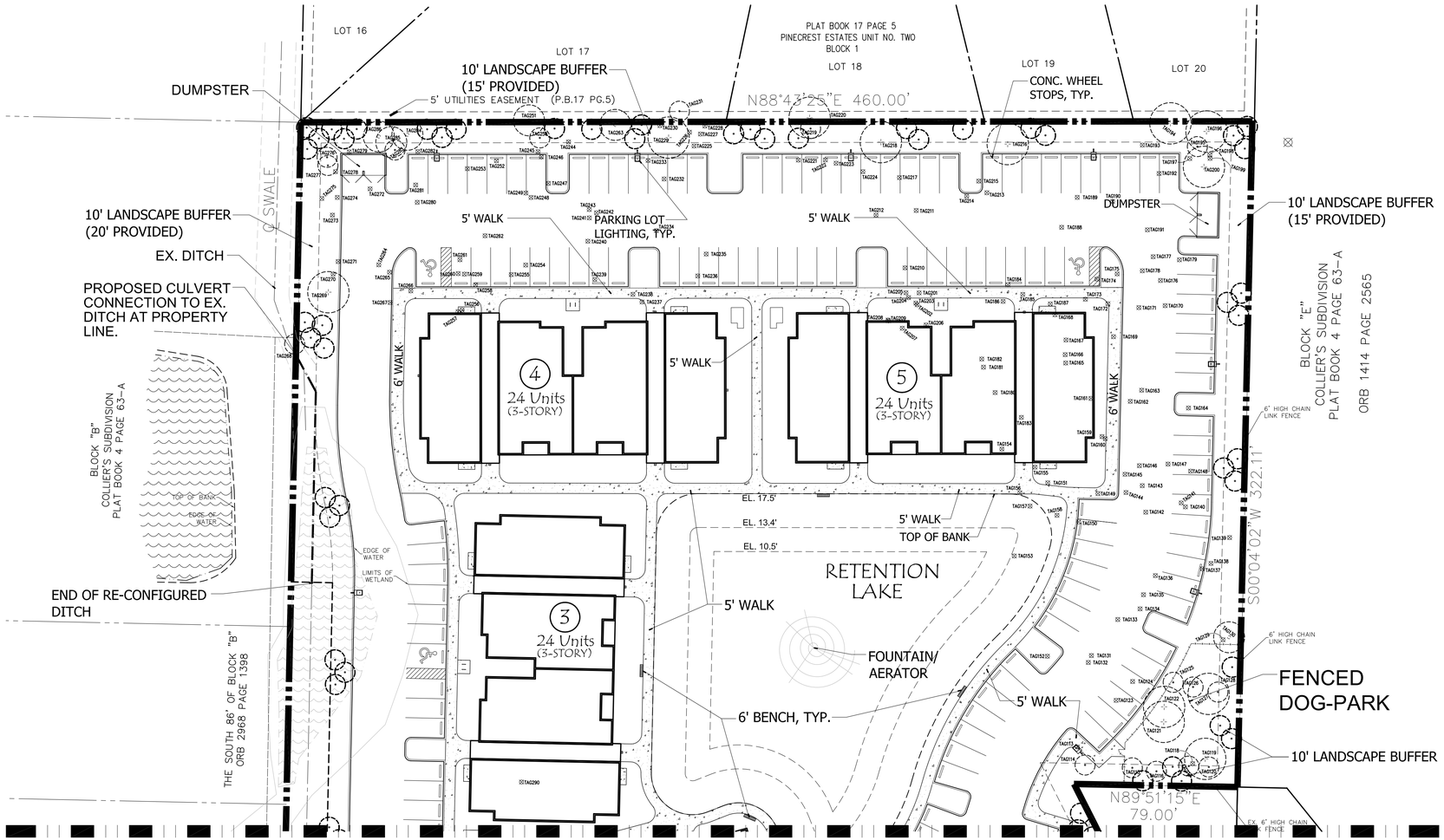
Jason M. Litterick, RLA
(LA0001677)

Scale: As Noted

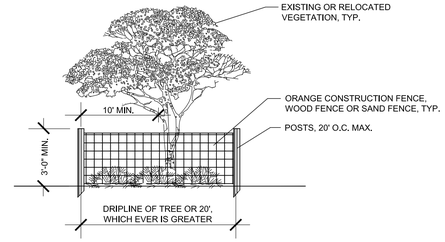
Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

SP-2



MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045



FENCING OF UNDISTURBED AREAS AND/OR EXISTING TREES:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL ENCLOSE THE ENTIRE UNDISTURBED AREA, OR TREE, WITHIN A FENCE OR SIMILAR BARRIER AS SHOWN. THE PLACEMENT OF SUCH BARRIER OR FENCE SHALL BE LOCATED NO CLOSER THAN THE DRIP LINE OF THE PRESERVED OR RELOCATED TREE OR A MIN. OF 10' FROM TRUNK, WHICHEVER IS GREATER. WOODEN (OR EQUIVALENT) POSTS AT LEAST 2 x 2 INCHES SHALL BE IMPLANTED IN THE GROUND DEEP ENOUGH TO BE STABLE AND WITH AT LEAST 3 FEET VISIBLE ABOVE THE GROUND. THE PROTECTIVE POSTS SHALL BE PLACED NOT MORE THAN 20 FEET APART, AND SHALL BE LINKED TOGETHER BY ORANGE NET FENCE FABRIC, OR OTHER. NO HEAVY EQUIPMENT, VEHICLES, STORAGE OF MATERIALS, ETC., SHALL OCCUR WITHIN THE VEG. PROTECTION ZONE. EXTREME CARE SHALL BE TAKEN WHEN WORKING NEAR THE BASE OF TREES. NO FINISH GRADE FILL SHALL BE PLACED WITHIN A ZONE OF 2/3 THE DIAMETER OF THE TREE CANOPY.

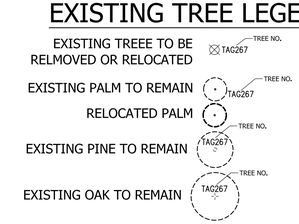
CONSTRUCTION WITHIN CANOPY & TREE BARRICADE SHALL BE BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL.

UTILITY WORK (TRENCHING) WITHIN THE CANOPY & TREE BARRICADE SHALL BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL. THE TREE BARRICADE WILL BE MODIFIED TEMPORARILY TO ALLOW ONLY THE MINIMUM WORK ZONE TRESPASS INTO THE CANOPY AREA, CONTINUING TO PROTECT THE REST OF THE CANOPY AREA WITH BARRICADE. NO FILL, EVEN TEMPORARY, SHALL BE PLACED IN ANY PROTECTED ZONE. AT THE CONCLUSION OF SAID ACTIVITY, THE WORKZONE SHALL BE CLEANED UP & TREE BARRICADES REPLACED TO THEIR ORIGINAL CONFIGURATION.

TREE PROTECTION DETAIL

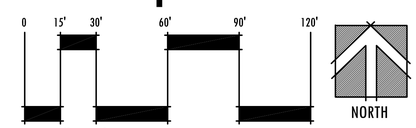
N.T.S.

EXISTING TREE LEGEND



REFER TO SHEET TR-3 FOR TREE DISPOSITION CHART

Tree Dispostion Plan



Scale: 1" = 30'

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: 1" =30'-0"

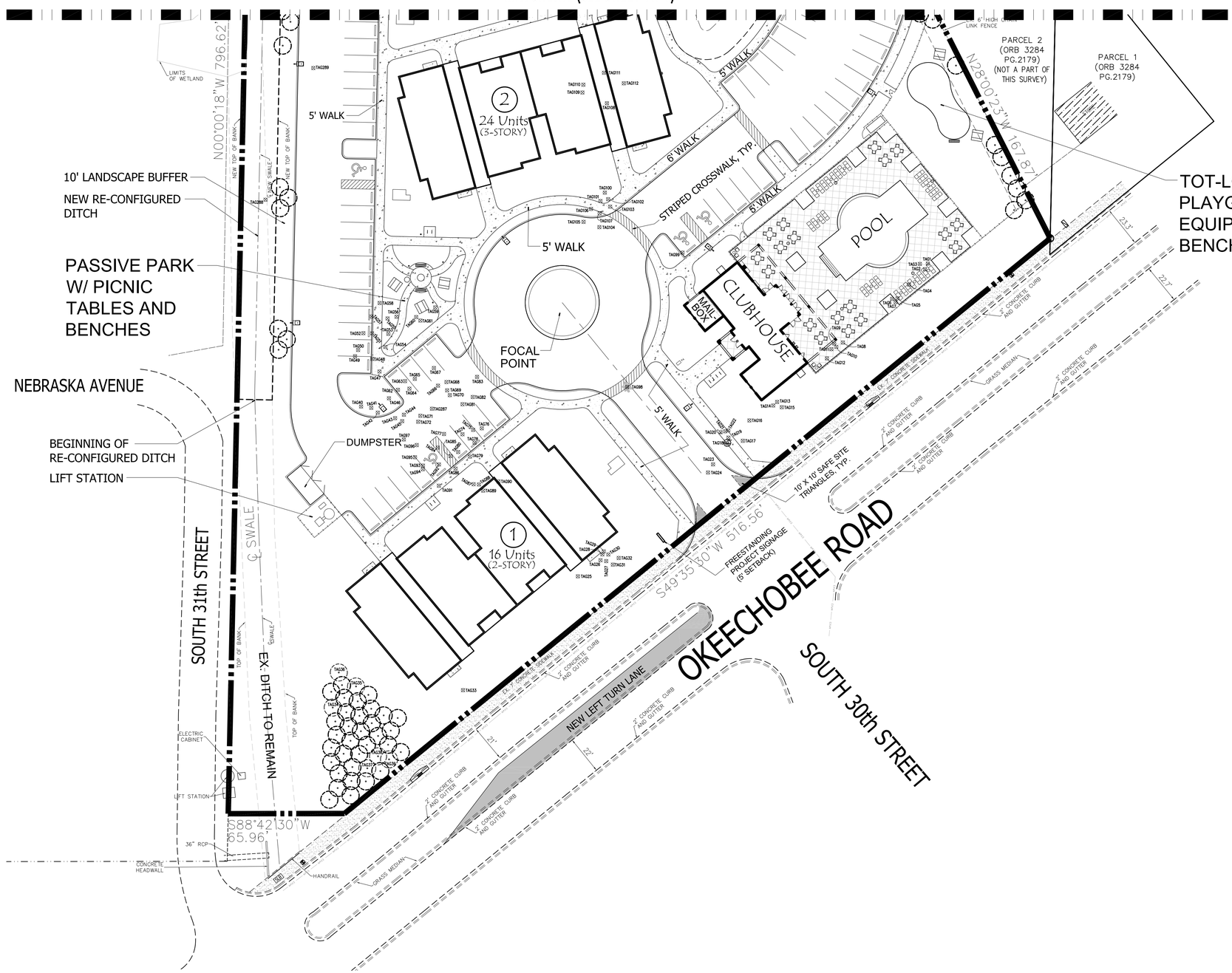
Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

TR-1

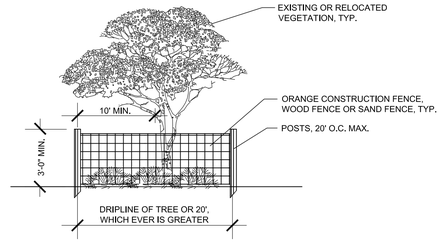
MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

MATCHLINE (SEE SHEET TR-1)



EXISTING TREE LEGEND

EXISTING TREEE TO BE RELMOVED OR RELOCATED — TREE NO. TAG267
EXISTING PALM TO REMAIN — TREE NO. TAG267
RELOCATED PALM — TREE NO. TAG267
EXISTING PINE TO REMAIN — TREE NO. TAG267
EXISTING OAK TO REMAIN — TREE NO. TAG267



FENCING OF UNDISTURBED AREAS AND/OR EXISTING TREES:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL ENCLOSE THE ENTIRE UNDISTURBED AREA, OR TREE, WITHIN A FENCE OR SIMILAR BARRIER AS SHOWN. THE PLACEMENT OF SUCH BARRIER OR FENCE SHALL BE LOCATED NO CLOSER THAN THE DRIP LINE OF THE PRESERVED OR RELOCATED TREE OR A MIN. OF 10' FROM TRUNK, WHICHEVER IS GREATER. WOODEN (OR EQUIVALENT) POSTS AT LEAST 2 x 2 INCHES SHALL BE IMPLANTED IN THE GROUND DEEP ENOUGH TO BE STABLE AND WITH AT LEAST 3 FEET VISIBLE ABOVE THE GROUND. THE PROTECTIVE POSTS SHALL BE PLACED NOT MORE THAN 20 FEET APART, AND SHALL BE LINKED TOGETHER BY ORANGE NET FENCE FABRIC, OR OTHER. NO HEAVY EQUIPMENT, VEHICLES, STORAGE OF MATERIALS, ETC., SHALL OCCUR WITHIN THE VEG. PROTECTION ZONE. EXTREME CARE SHALL BE TAKEN WHEN WORKING NEAR THE BASE OF TREES. NO FINISH GRADE FILL SHALL BE PLACED WITHIN A ZONE OF 2/3 THE DIAMETER OF THE TREE CANOPY.

CONSTRUCTION WITHIN CANOPY & TREE BARRICADE SHALL BE BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL.

UTILITY WORK (TRENCHING) WITHIN THE CANOPY & TREE BARRICADE SHALL BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL. THE TREE BARRICADE WILL BE MODIFIED TEMPORARILY TO ALLOW ONLY THE MINIMUM WORK ZONE TRESPASS INTO THE CANOPY AREA, CONTINUING TO PROTECT THE REST OF THE CANOPY AREA WITH BARRICADE. NO FILL, EVEN TEMPORARY, SHALL BE PLACED IN ANY PROTECTED ZONE. AT THE CONCLUSION OF SAID ACTIVITY, THE WORKZONE SHALL BE CLEANED UP & TREE BARRICADES REPLACED TO THEIR ORIGINAL CONFIGURATION.

TREE PROTECTION DETAIL

N.T.S.

Tree Dispostion Plan

REFER TO SHEET TR-3 FOR TREE DISPOSITION CHART

0 15' 30' 60' 90' 120'
Scale: 1" = 30'

NORTH

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

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REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
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Scale: 1" =30'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.
TR-2

TREE DISPOSITION CHART

TAG NUMBER	TREE TYPE	NATIVE	DBH (INCHES)	CLEAR TRUNK HEIGHT	DISPOSITION	MITIGATION REQ'D.
1	PALM	YES	20	17'	RELOCATE	
2	PALM	YES	16	17'	RELOCATE	
3	PALM	YES	18	15'	RELOCATE	
4	PALM	YES	14	22'	RELOCATE	
5	PALM	YES	18	18'	RELOCATE	
6	PALM	YES	16	14'	RELOCATE	
7	PALM	YES	18	14'	RELOCATE	
8	PALM	YES	20	18'	RELOCATE	
9	PALM	YES	16	15'	RELOCATE	
10	PALM	YES	24	15'	RELOCATE	
11	PALM	YES	16	18'	RELOCATE	
12	PALM	YES	16	19'	RELOCATE	
13	PALM	YES	22	10'	RELOCATE	
14	PALM	YES	24	15'	RELOCATE	
15	PALM	YES	24	13'	RELOCATE	
16	PALM	YES	16	14'	RELOCATE	
17	PALM	YES	20	17'	RELOCATE	
18	BANYAN	NO	48		REMOVE	
19	PALM	YES	16	18'	RELOCATE	
20	PALM	YES	14	18'	RELOCATE	
21	PALM	YES	16	15'	RELOCATE	
22	PALM	YES	16	10'	RELOCATE	
23	PALM	YES	20	14'	RELOCATE	
24	PALM	YES	18	15'	RELOCATE	
25	PALM	YES	18	18'	RELOCATE	
26	PALM	YES	16	15'	RELOCATE	
27	PALM	YES	20	15'	RELOCATE	
28	PALM	YES	16	17'	RELOCATE	
29	PALM	YES	16	11'	RELOCATE	
30	PALM	YES	18	14'	RELOCATE	
31	PALM	YES	24	16'	RELOCATE	
32	PALM	YES	16	7'	REMOVE	NONE
33	PALM	YES	18	19'	RELOCATE	
34	PALM	YES	16	17'	REMAIN	
35	PALM	YES	18	17'	REMAIN	
36	PALM	YES	18	18'	REMAIN	
37	PALM	YES	18	20'	REMAIN	
38	PALM	YES	16	21'	REMAIN	
39	PALM	YES	14	17'	REMAIN	
40	PALM	YES	20	18'	RELOCATE	
41	PALM	YES	18	20'	RELOCATE	
42	PALM	YES	16	19'	RELOCATE	
43	PALM	YES	16	19'	RELOCATE	
44	PALM	YES	16	21'	RELOCATE	
45	PALM	YES	18	19'	RELOCATE	
46	PALM	YES	20	22'	RELOCATE	
47	PALM	YES	16	19'	RELOCATE	
48	PALM	YES	16	18'	RELOCATE	
49	PALM	YES	18	17'	RELOCATE	
50	PALM	YES	16	20'	RELOCATE	
51	PALM	YES	18	19'	RELOCATE	
52	PALM	YES	10	18'	RELOCATE	
53	PALM	YES	14	18'	RELOCATE	
54	PALM	YES	18	18'	RELOCATE	
55	PALM	YES	20	22'	RELOCATE	
56	PALM	YES	14	19'	RELOCATE	
57	PALM	YES	10	18'	RELOCATE	
58	PALM	YES	14	19'	RELOCATE	
59	PALM	YES	18	16'	RELOCATE	
60	PALM	YES	16	16'	RELOCATE	
61	PALM	YES	18	15'	RELOCATE	
62	PALM	YES	16	23'	RELOCATE	
63	PALM	YES	16	21'	RELOCATE	
64	PALM	YES	20	18'	RELOCATE	
65	PALM	YES	12	19'	RELOCATE	
66	PALM	YES	18	21'	RELOCATE	
67	PALM	YES	18	17'	RELOCATE	
68	OAK	YES	5		REMOVE	NONE
69	PALM	YES	20	18'	RELOCATE	
70	PALM	YES	22	20'	RELOCATE	
71	PALM	YES	20	20'	RELOCATE	
72	PALM	YES	16	18'	RELOCATE	
74	PALM	YES	14	18'	RELOCATE	
75	PALM	YES	14	9'	REMOVE	NONE
76	PALM	YES	24	19'	RELOCATE	
77	PALM	YES	18	18'	RELOCATE	
78	PALM	YES	18	17'	RELOCATE	
79	PALM	YES	14	13'	RELOCATE	
80	PALM	YES	18	18'	RELOCATE	
81	PALM	YES	24	19'	RELOCATE	
82	PALM	YES	18	16'	RELOCATE	
83	PALM	YES	16	15'	RELOCATE	
84	PALM	YES	16	19'	RELOCATE	
85	PALM	YES	16	20'	RELOCATE	
86	PALM	YES	18	17'	RELOCATE	
87	PALM	YES	16	20'	RELOCATE	
88	PALM	YES	16	18'	RELOCATE	
89	PALM	YES	16	16'	RELOCATE	
90	PALM	YES	18	22'	RELOCATE	
91	PALM	YES	18	22'	RELOCATE	
92	PALM	YES	16	19'	RELOCATE	
93	PALM	YES	18	21'	RELOCATE	
94	PALM	YES	14	20'	RELOCATE	
95	PALM	YES	16	20'	RELOCATE	
96	PALM	YES	18	20'	RELOCATE	

OAK – LAUREL OAK (QUERCUS LAURIFOLIA)
PINE – SLASH PINE (PINUS ELLIOTTII)
PALM – CABBAGE PALM (SABAL PALMETTO)
UNKNOWN – NON-NATIVE EXOTIC

TOTAL MITIGATION (COLUMN)	0"
TOTAL PRESERVED TREES (IN)	0"
TOTAL RELOCATED PALMS	86 PALMS

TAG NUMBER	TREE TYPE	NATIVE	DBH (INCHES)	CLEAR TRUNK HEIGHT	DISPOSITION	MITIGATION REQ'D.
97	PALM	YES	18	20'	RELOCATE	
98	PALM	YES	18	19'	RELOCATE	
99	PALM	YES	16	16'	RELOCATE	
100	PALM	YES	18	17'	RELOCATE	
101	PALM	YES	16	17'	RELOCATE	
102	PALM	YES	18	19'	RELOCATE	
103	PALM	YES	16	18'	RELOCATE	
104	PALM	YES	16	18'	RELOCATE	
105	PALM	YES	16	18'	RELOCATE	
106	PALM	YES	14	15'	RELOCATE	
107	PALM	YES	10	8'	REMOVE	NONE
108	PALM	YES	18	19'	RELOCATE	
109	PALM	YES	16	35'	RELOCATE	
110	PALM	YES	14	20'	RELOCATE	
111	PALM	YES	16	20'	RELOCATE	
112	PALM	YES	18	18'	RELOCATE	
113	OAK	YES	6		REMOVE	NONE
114	PALM	YES	14	13'	REMAIN	
115	PALM	YES	22	18'	REMAIN	
116	PALM	YES	20	20'	REMAIN	
117	PALM	YES	10	7'	REMAIN	
118	UNKNOWN	NO	12		REMOVE	NONE
119	OAK	YES	38		REMAIN	
120	PALM	YES	14	18'	REMAIN	
121	OAK	YES	18		REMAIN	
122	OAK	YES	12		REMAIN	
123	PALM	YES	18	21'	RELOCATE	
124	PALM	YES	18	16'	RELOCATE	
125	PALM	YES	16	26'	REMAIN	
126	PALM	YES	18	29'	REMAIN	
127	OAK	YES	24		REMAIN	
128	PALM	YES	16	32'	REMAIN	
129	UNKNOWN	NO	10		REMOVE	NONE
130	PINE	YES	28		REMAIN	
131	PALM	YES	16	24'	RELOCATE	
132	UNKNOWN	NO	24		REMOVE	NONE
133	OAK	YES	10		REMOVE	NONE
134	OAK	YES	28		REMOVE	28"
135	PALM	YES	18	30'	RELOCATE	
136	OAK	YES	40		REMOVE	40"
137	PALM	YES	18	18'	RELOCATE	
138	PINE	YES	10		REMOVE	NONE
139	UNKNOWN	NO	8		REMOVE	NONE
140	OAK	YES	36		REMOVE	36"
141	PALM	YES	16	20'	RELOCATE	
142	PALM	YES	14	25'	RELOCATE	
143	PALM	YES	16	25'	RELOCATE	
144	OAK	YES	20		REMOVE	20"
145	PALM	YES	14	26'	RELOCATE	
146	PALM	YES	16	21'	RELOCATE	
147	PALM	YES	18	23'	RELOCATE	
148	OAK	YES	16		REMOVE	16"
149	UNKNOWN	NO	18		REMOVE	NONE
150	PALM	YES	22	18'	RELOCATE	
151	PALM	YES	14	7'	REMOVE	NONE
152	PALM	YES	22	22'	RELOCATE	
153	PALM	YES	16	20'	RELOCATE	
154	PALM	YES	22	18'	RELOCATE	
155	PALM	YES	18	17'	RELOCATE	
156	PALM	YES	18	16'	RELOCATE	
157	PALM	YES	16	13'	RELOCATE	
158	PALM	YES	12	10'	RELOCATE	
159	OAK	YES	10		REMOVE	NONE
160	OAK	YES	16		REMOVE	16"
161	PALM	YES	12	7'	REMOVE	
162	PALM	YES	18	24'	RELOCATE	
163	PALM	YES	16	21'	RELOCATE	
164	OAK	YES	36		REMOVE	36"
165	OAK	YES	14		REMOVE	14"
166	OAK	YES	10		REMOVE	NONE
167	POINCIANA	NO	8		REMOVE	NONE
168	OAK	YES	12		REMOVE	NONE
169	OAK	YES	22		REMOVE	22"
170	OAK	YES	18		REMOVE	18"
171	PALM	YES	16	17'	RELOCATE	
172	PALM	YES	18	13'	RELOCATE	
173	PALM	YES	12	6'	REMOVE	
174	UNKNOWN	NO	16		REMOVE	NONE
175	OAK	YES	16		REMOVE	16"
176	UNKNOWN	NO	20		REMOVE	NONE
177	PALM	YES	18	28'	RELOCATE	
178	PALM	YES	8	8'	REMOVE	NONE
179	PALM	YES	20	22'	RELOCATE	
180	PALM	YES	12	6'	REMOVE	
181	PALM	YES	18	18'	RELOCATE	
182	PALM	YES	18	16'	RELOCATE	
183	PALM	YES	18	17'	RELOCATE	
184	OAK	YES	26		REMOVE	26"
185	PALM	YES	16	28'	RELOCATE	
186	PALM	YES	14	23'	RELOCATE	
187	PALM	YES	16	14'	RELOCATE	
188	PALM	YES	16	18'	RELOCATE	
189	PALM	YES	16	20'	RELOCATE	
190	UNKNOWN	NO	24		REMOVE	NONE
191	PALM	YES	16	14'	RELOCATE	
192	OAK	YES	36		REMOVE	36"
193	UNKNOWN	NO	10		REMOVE	NONE

OAK – LAUREL OAK (QUERCUS LAURIFOLIA)
PINE – SLASH PINE (PINUS ELLIOTTII)
PALM – CABBAGE PALM (SABAL PALMETTO)
UNKNOWN – NON-NATIVE EXOTIC

TOTAL MITIGATION (COLUMN)	324"
TOTAL PRESERVED TREES (IN)	120"
TOTAL RELOCATED PALMS	49

TAG NUMBER	TREE TYPE	NATIVE	DBH (INCHES)	CLEAR TRUNK HEIGHT	DISPOSITION	MITIGATION REQ'D.
194	OAK	YES	36		REMAIN	
195	PALM	YES	18	26'	REMAIN	
196	OAK	YES	18		REMAIN	
197	UNKNOWN	NO	8		REMOVE	
198	UNKNOWN	NO	8		REMOVE	
199	UNKNOWN	NO	8		REMOVE	
200	OAK	YES	10		REMAIN	
201	OAK	YES	6		REMOVE	NONE
202	OAK	YES	6		REMOVE	NONE
203	OAK	YES	4		REMOVE	NONE
204	OAK	YES	6		REMOVE	NONE
205	OAK	YES	8		REMOVE	NONE
206	OAK	YES	8		REMOVE	NONE
207	OAK	YES	8		REMOVE	NONE
208	OAK	YES	6		REMOVE	NONE
209	OAK	YES	6		REMOVE	NONE
210	UNKNOWN	NO	10		REMOVE	NONE
211	PALM	YES	16	18'	RELOCATE	
212	PALM	YES	18	18'	RELOCATE	
213	PALM	YES	14		RELOCATE	
214	OAK	YES	20		REMOVE	26"
215	OAK	YES	26		REMOVE	26"
216	OAK	YES	30		REMAIN	
217	SILK OAK	NO	10		REMOVE	NONE
218	OAK	YES	14		REMAIN	
219	PALM	YES	20	19'	REMAIN	
220	OAK	YES	30		REMAIN	OFF-SITE
221	UNKNOWN	NO	8		REMOVE	NONE
222	UNKNOWN	NO	12		REMOVE	NONE
223	UNKNOWN	NO	8		REMOVE	NONE
224	PALM	YES	18	20'	RELOCATE	
225	UNKNOWN	NO	6		REMOVE	NONE
226	UNKNOWN	NO	6		REMOVE	NONE
227	UNKNOWN	NO	4		REMOVE	NONE
228	UNKNOWN	NO	6		REMOVE	NONE
229	OAK	YES	6		REMAIN	
230	UNKNOWN	NO	12		REMOVE	NONE
231	PALM	YES	22	18'	REMAIN	OFF-SITE
232	UNKNOWN	NO	30		REMOVE	NONE
233	PALM	YES	22	17'	RELOCATE	
234	OAK	YES	12		REMOVE	NONE
235	OAK	YES	10		REMOVE	NONE
236	UNKNOWN	NO	8		REMOVE	NONE
237	UNKNOWN	NO	6		REMOVE	NONE
238	UNKNOWN	NO	6		REMOVE	NONE
239	OAK	YES	16		REMOVE	16"
240	OAK	YES	10		REMOVE	NONE
241	UNKNOWN	NO	14		REMOVE	NONE
242	UNKNOWN	NO	8		REMOVE	NONE
243	UNKNOWN	NO	8		REMOVE	NONE
244	UNKNOWN	NO	10		REMOVE	NONE
245	PINE	YES	10		REMOVE	NONE
246	PINE	YES	10		REMOVE	NONE
247	OAK	YES	10		REMOVE	NONE
248	OAK	YES	10		REMOVE	NONE
249	PALM	YES	18	23'	RELOCATE	
250	PALM	YES	18	20'	REMAIN	
251	PINE	YES	10		REMAIN	OFF-SITE
252	PALM	YES	16	22'	RELOCATE	
253	OAK	YES	26		REMOVE	26"
254	OAK	YES	16		REMOVE	16"
255	OAK	YES	14		REMOVE	14"
256	OAK	YES	12		REMOVE	NONE
257	OAK	YES	14		REMOVE	14"
258	PALM	YES	22	28'	RELOCATE	
259	UNKNOWN	NO	8		REMOVE	NONE
260	PALM	YES	12	6'	REMOVE	NONE
261	PALM	YES	14	10'	RELOCATE	
262	UNKNOWN	NO	10		REMOVE	NONE
263	PINE	YES	14		REMAIN	
264	OAK	YES	18		REMOVE	18"
265	PALM	YES	16	21'	RELOCATE	
266	PALM	YES	18	20'	RELOCATE	
267	PALM	YES	20	18'	RELOCATE	
268	PALM	YES	20	20'	REMAIN	OFF-SITE
269	OAK	YES	20		REMAIN	
270	OAK	YES	10		REMOVE	NONE
271	PALM	YES	16	13'	RELOCATE	
272	OAK	YES	36		REMOVE	36"
273	PALM	YES	16	14'	RELOCATE	
274	UNKNOWN	NO	6		REMOVE	NONE
275	UNKNOWN	NO	6		REMOVE	NONE
276	PALM	YES	16	25'	REMAIN	
277	PALM	YES	12	11'	REMAIN	
278	PALM	YES	18	18'	RELOCATE	
279	OAK	YES	18		REMOVE	18"
280	OAK	YES	18		REMOVE	18"
281	PALM	YES	18	22'	RELOCATE	
282	PALM	YES	18	18'	RELOCATE	
283	PALM	YES	16	10'	REMAIN	
284	PINE	YES	16		REMAIN	
285	PINE	YES	12		REMAIN	
286	PINE	YES	10		REMAIN	
287	PALM	YES	18	19'	RELOCATE	
288	PALM	YES	16	18'	RELOCATE	
289	PALM	YES	18	19'	RELOCATE	
290	UNKNOWN	NO	30		REMOVE	NONE

OAK – LAUREL OAK (QUERCUS LAURIFOLIA)
PINE – SLASH PINE (PINUS ELLIOTTII)
PALM – CABBAGE PALM (SABAL PALMETTO)
UNKNOWN – NON-NATIVE EXOTIC

TOTAL MITIGATION (COLUMN)	228"
TOTAL PRESERVED TREES (IN)	196"
TOTAL RELOCATED PALMS	20

TOTAL RELOCATED PALMS: 155 PALMS
TOTAL MITIGATION REQUIRED (IN.): 552"
TOTAL PRESERVED TREES (IN.): 316"
TOTAL MITIGATION: 236"

ADDITIONAL TREES PROVIDED ON LANDSCAPE PLANS: 135 TREES OR 337.5" @ 2.5" PER TREE

SINCE THE ADDITIONAL TREES PROVIDED AMOUNT TO MORE DBH INCHES THAN IS REQUIRED TO BE MITIGATED, NO ADDITIONAL MITIGATION IS NEEDED.

Tree Dispostion Plan

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential
Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: Not to Scale

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.
TR-3

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

PUBLIC NOTIFICATION CERTIFICATION

PROJECT NAME: Future Land Use Amendment - Aria Apartments - 3000 Okeechobee Road

NOTICES PROVIDED PURSUANT TO: Florida State Statues 163.3187(3) & 166.041(3)(a)

NOTICE BY NEWSPAPER: September 6th, 2020

NOTICE BY MAIL: N/A

NOTICE BY SIGNS: N/A

VERIFIED BY: Vennis Gilmore **TITLE:** Planner

SIGNATURE: **DATE:** September 9th, 2020

City Commission Regular Meeting - 6:00 pm **12. c.**

Meeting Date: 10/05/2020

Re: Zoning Atlas Amendment - Aria Apartments - 3000 Okeechobee Road

Submitted For: Jennifer Hofmeister, Planning Director, Planning & Zoning

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SUBJECT:

Legislative Hearing - Ordinance 20-024 REZONING THE PROPERTY GENERALLY LOCATED AT OR NEAR 3000 OKEECHOBEE ROAD, FROM C-3, GENERAL COMMERCIAL ZONE, TO R-4, MEDIUM DENSITY RESIDENTIAL ZONE; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; AND PROVIDING FOR AN EFFECTIVE DATE. SECOND READING

SUMMARY:

- The subject Future Land Use Map Amendment from General Commercial (GC) to Medium Density Residential (RM) will provide for a land use that is consistent with the applicant's proposed vision of an Innovative Residential Multi-Family Development and the City's desired development pattern for the subject site and surrounding area.
- The RM Future Land Use Category, as defined in the Future Land Use Element of the City's Comprehensive Plan, calls for parcels that are best suited for multi-family residential uses.
- As the City's Zoning Map and Land Development Regulations must be consistent with the Future Land Use and accompanying land use category specifications contained in the Future Land Use Element, the subject application also includes a rezoning for the same subject parcel from General Commercial (C-3) to Medium Density Residential (R-4).

RECOMMENDATION:

The requested Application for Zoning Atlas Map Amendment meets the criteria specified in Section 125-136 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience and general welfare. Therefore, Staff recommends **APPROVAL** of the request to change the Zoning Designation from General Commercial (C-3) to Medium Density Residential (R-4).

ALTERNATIVES:

Denial

RESPONSIBLE STAFF:

Vennis Gilmore, Planner

COORDINATED WITH:

Technical Review Committee

Fiscal Impact

OTHER INFORMATION:

Potential Increase in Ad-Valorem Tax Revenue

Attachments

Ordinance 20-024
staff presentation
Staff Report & Supporting Documents
Application Packet & Supporting Documents
Affidavit of Mailing & Public Notice Certification

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	09/11/2020 12:07 PM

Form Started By: Vennis Gilmore
Started On: 09/09/2020 04:13 PM
Final Approval Date: 09/22/2020

ORDINANCE NO. 20-024

AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA; **REZONING** THE PROPERTY GENERALLY LOCATED AT OR NEAR **3000 OKEECHOBEE ROAD**, FROM C-3, GENERAL COMMERCIAL ZONE, TO R-4, MEDIUM DENSITY RESIDENTIAL ZONE; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR REPEAL OF ORDINANCES OR PARTS THEREOF IN CONFLICT; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the subject property is generally located at or near 3000 Okeechobee Road, within the City of Fort Pierce, Florida, representing approximately 6.796 Acres of land; and

WHEREAS, the subject property is presently designated General Commercial Zone (C-3); and

WHEREAS, the applicant seeks rezoning the subject property, generally located at or near 3000 Okeechobee Road, from General Commercial Zone (C-3) to Medium Density Residential Zone (R-4); and

WHEREAS, the proposed zoning atlas amendment (rezoning) is consistent with the comprehensive plan, and will not have an adverse effect on the ability of the city to satisfy land and water use needs, and meet transportation demands and provide community facilities and services, and will promote and protect the public health, safety and general welfare as required by City Code section 125.136; and

WHEREAS, the City of Fort Pierce Planning Board, at their August 11, 2020 meeting, voted to recommend approval of the proposed Zoning Atlas Amendment for this parcel.

NOW, THEREFORE, BE IT ORDAINED by the City Commission of the City of Fort Pierce, Florida as follows:

SECTION 1. From and after the effective date hereof, the following property legally described as:

Parcel ID: 2417-504-0020-001-6

LEGAL DESCRIPTION:

BLOCK "D", LESS RIGHTS-OF-WAY, COLLIER SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A RAILROAD SPIKE AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST, LUCIE COUNTY, FLORIDA; THENCE RUN N 88°42'30"E, ALONG THE SOUTH LINE OF THE SAID NORTHEAST 1/4, A DISTANCE OF 661.40 FEET TO THE WEST LINE OF BLOCK "D" OF COLLIER'S SUBDIVISION, AS RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE RUN N 00°00'18" W, ALONG THE WEST LINE OF SAID BLOCK D, A DISTANCE OF 27.01 FEET, TO THE POINT OF BEGINNING; THENCE CONTINUE N

00°00'18" W, A DISTANCE OF 796.62 FEET, TO THE NORTHWEST CORNER OF SAID BLOCK D; THENCE RUN N 88°43'25" E, ALONG THE NORTH LINE OF SAID BLOCK D, A DISTANCE OF 460.00 FEET; THENCE RUN S 00°04'02" W, A DISTANCE OF 470.52 FEET, TO THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70]; THENCE RUN S 49°35'30" W, ALONG THE SAID NORTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 516.56 FEET; THENCE RUN S 88°42'30" W, A DISTANCE OF 65.96 FEET, TO THE POINT OF BEGINNING, ALL LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THE FOLLOWING:

A PORTION OF BLOCK "D", COLLIER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 4, PAGE 63, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SAID BLOCK "D", SAID CORNER BEING SITUATED ON THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70]; THENCE, NORTH 28°001/23" W, A DISTANCE OF 167.87 FEET; THENCE, NORTH 89°51'15" E, A DISTANCE OF 79.00 FEET TO THE EAST LINE OF SAID BLOCK D; THENCE, SOUTH 00°04'02" W, ALONG SAID EAST LINE, A DISTANCE OF 148.41 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.

SAID LANDS SITUATE, LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST,
CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA.

Shall be and the same is hereby rezoned from C-3, General Commercial Zone, to R-4, Medium Density Residential Zone; said property being generally located at or near 3000 Okeechobee Road in Fort Pierce, Florida.

SECTION 2. The provisions of this Ordinance are declared to be severable and if any section, sentence, clause, or phrase of this Ordinance shall, for any reason, be held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining sections, sentences, clauses, and phrases of this Ordinance but shall remain in effect, it being the legislative intent that this Ordinance shall stand notwithstanding the invalidity of any part.

SECTION 3. All ordinances or parts of ordinances in conflict herewith are and the same shall be repealed and shall be of no further force or effect whatsoever.

SECTION 4. This Ordinance is and the same shall become effective immediately upon final passage.

APPROVED AS TO FORM & CORRECTNESS:

_____
Peter J. Sweeney, Esq.
City Attorney

STATE OF FLORIDA

COUNTY OF ST. LUCIE

WE, THE UNDERSIGNED, Mayor Commissioner and the City Clerk of the City of Fort Pierce, Florida, do hereby certify that the foregoing and above Ordinance No. 20-024 was duly advertised by title only in the St. Lucie News Tribune on September 6th, 2020; copy of said Ordinance was made available at the office of the City Clerk to the public upon request; said Ordinance was duly introduced, read by title only, and passed on first reading by the City Commission of the City of Fort Pierce, Florida, on September 21st, 2020; and was duly introduced, read by title only, and passed on second and final reading October 5th, 2020 by the City Commission of the City of Fort Pierce, Florida.

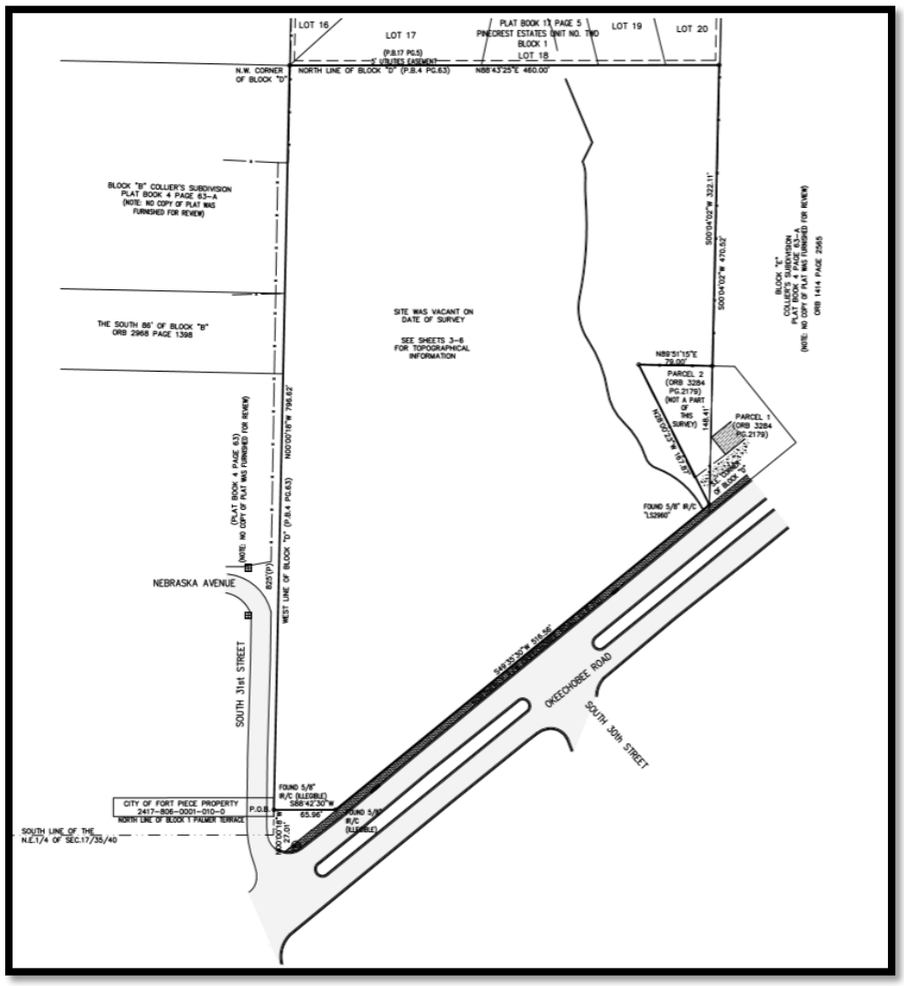
IN WITNESS HEREWITH, we hereunto set our hands and affix the Official Seal of the City of Fort Pierce, Florida, this 6th day of October 2020.

_____
Linda Hudson
MAYOR COMMISSIONER

_____
Linda W. Cox
CITY CLERK

(CITY SEAL)

EXHIBIT A
Sketch & Legal Description of Subject Property



Parcel ID: 2417-504-0020-001-6
LEGAL DESCRIPTION:
BLOCK "D", LESS RIGHTS-OF-WAY, COLLIER SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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SAID LANDS SITUATE, LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST,
CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA.

Aria Apartments
Rezoning, Development Review, Design Review, & Conditional use

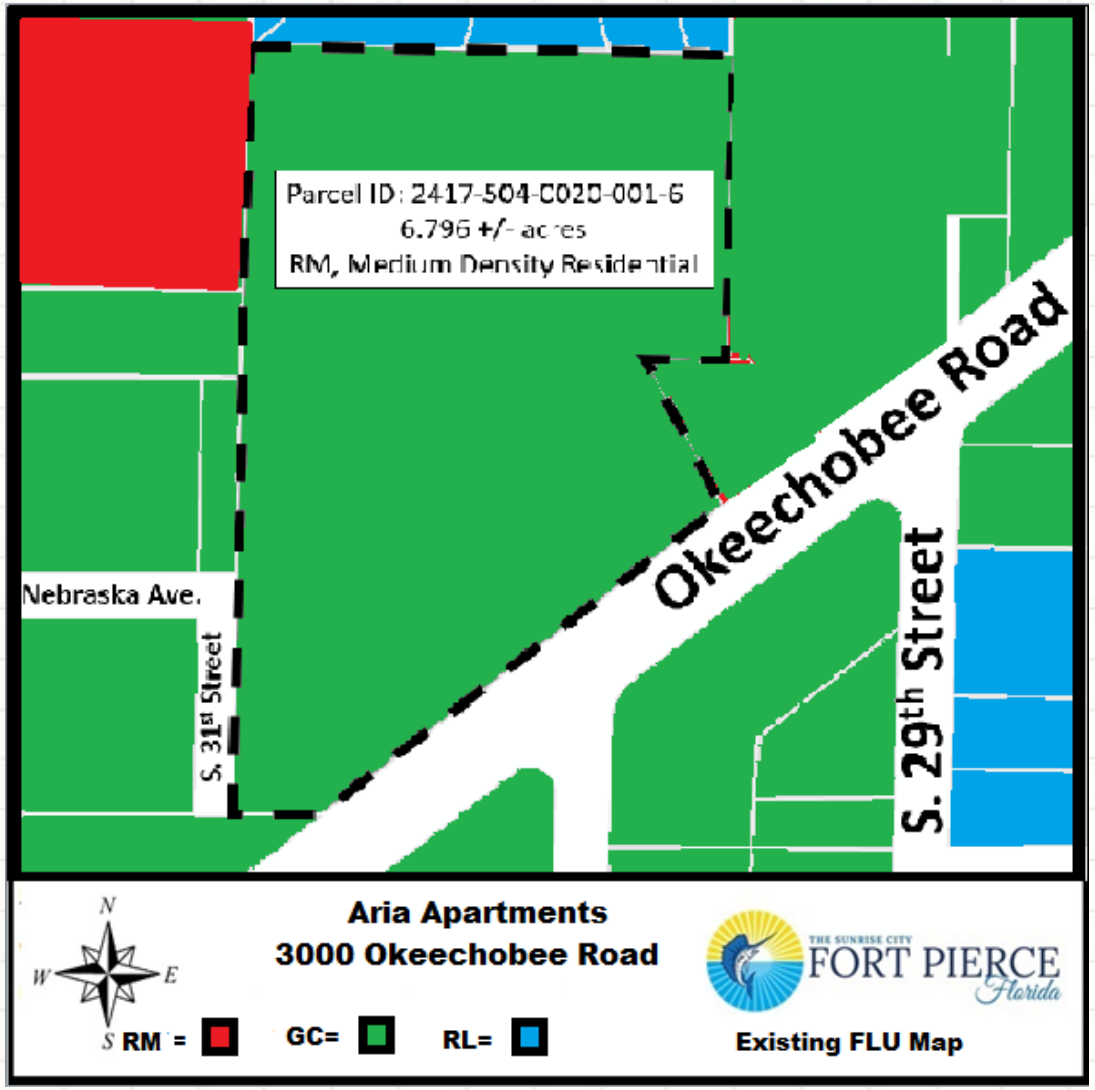


3000 Okeechobee Road

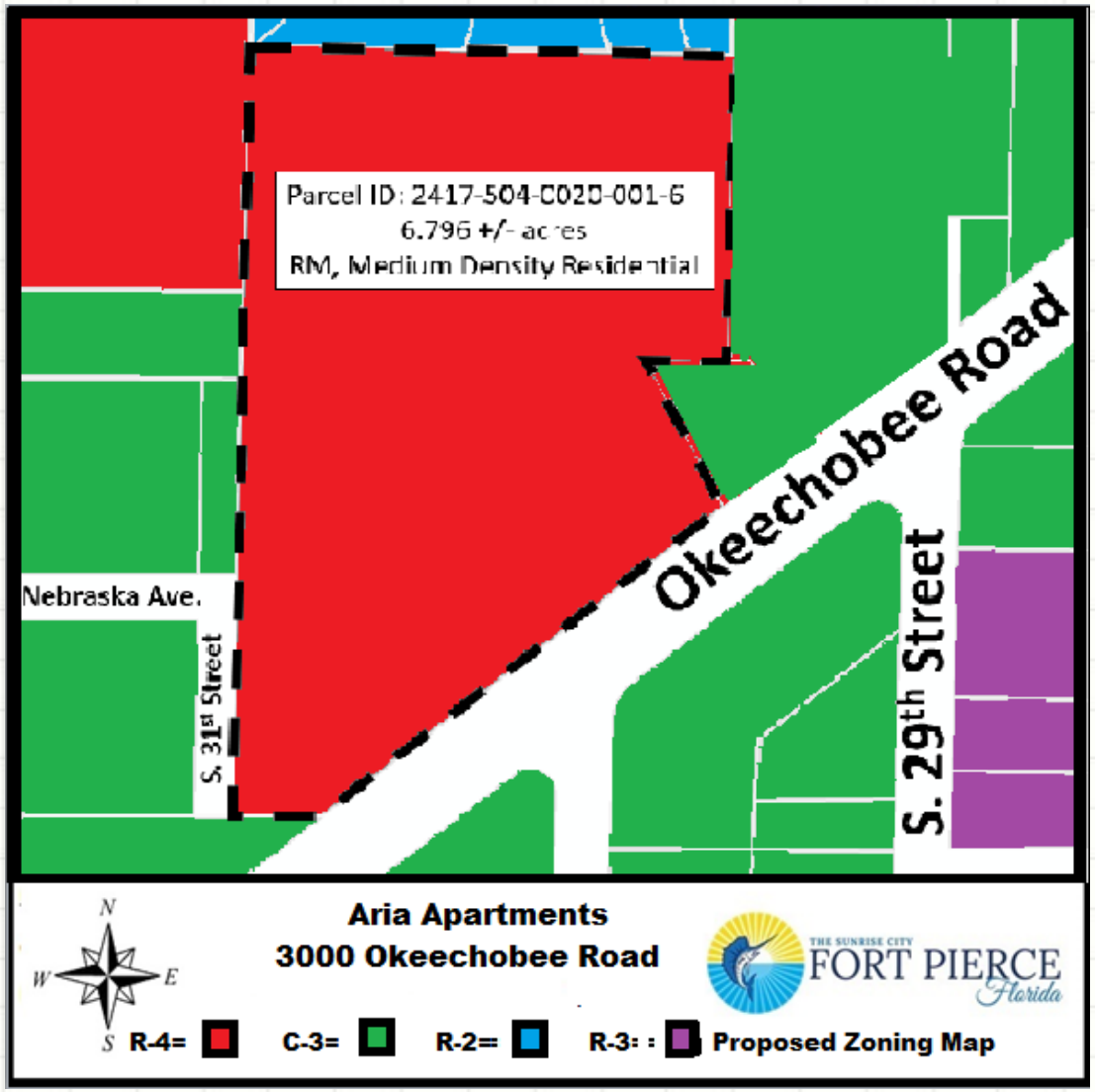
Site Map


OKEECHOBEE RD
N
W
E
S
Aria Apartments
3000 Okeechobee Road
THE SUNRISE CITY
FORT PIERCE
Florida
Aerial Map

Existing Future Land Use Map



Proposed Zoning Map

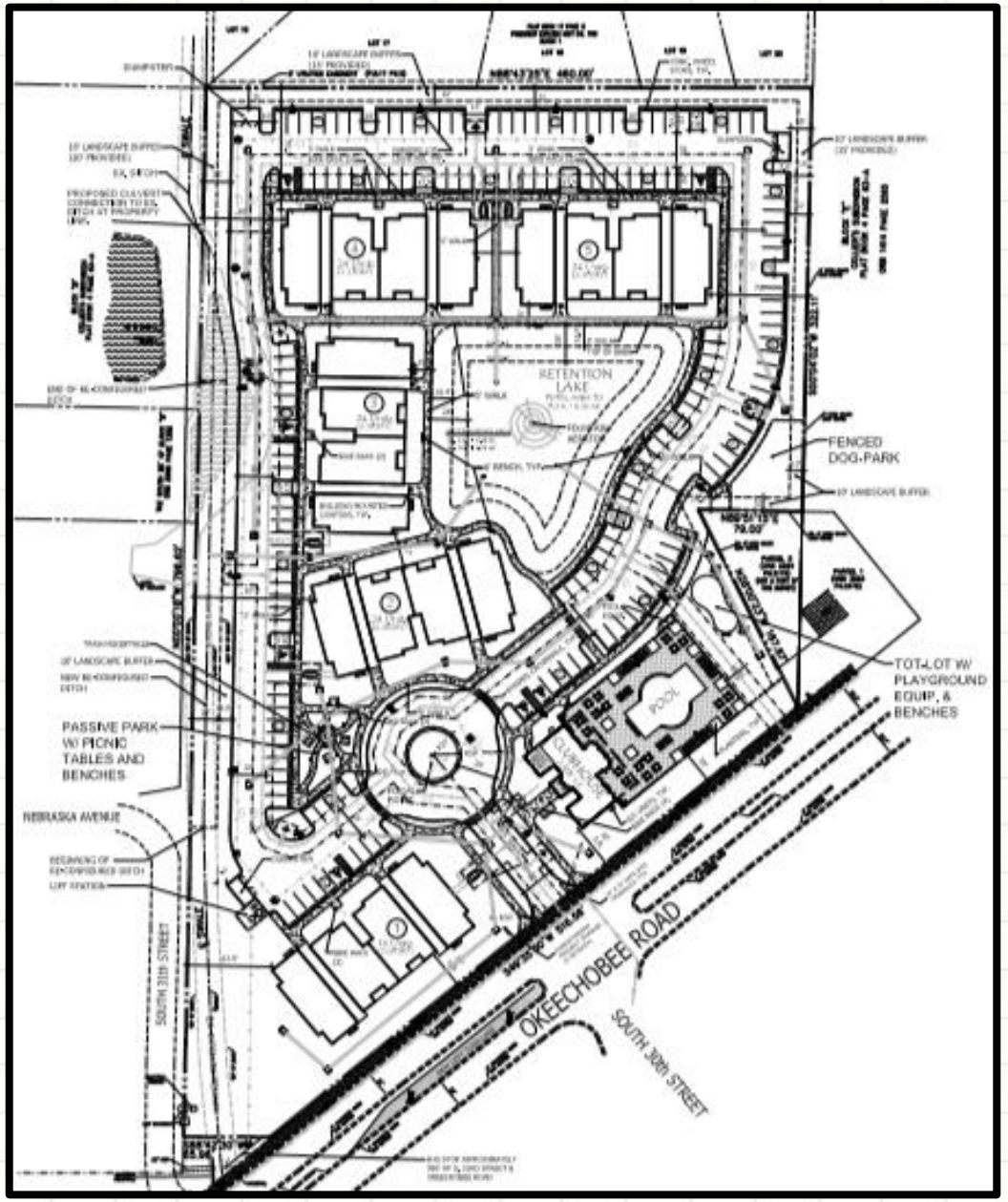


Request

Zoning Atlas Map Amendment -AND-
Development Review, Design Review & Conditional Use for the construction and operation of a multi-family development with 112 units.

- Staff recommends **Approval** of the request:
  - ❑ Consistent with the City Code & the Comprehensive Plan. (including Section 125-136 that has standards for review of zoning change requests).
  - ❑ Does not adversely affect the public health, safety, convenience and general welfare.
  - ❑ Is within proximity to key commercial and institutional amenities.

Site Plan


RETENTION LAKE
FENCED DOG PARK
TOT LOT W/ PLAYGROUND EQUIP. & BENCHES
POOL
PASSIVE PARK W/ PICNIC TABLES AND BENCHES
NEBRASKA AVENUE
SOUTH 31th STREET
OKEECHOBEE ROAD
SOUTH 30th STREET

Design Review



Conditional Use

Conditional Use for the construction and operation of a “Innovative Residential Multi-family Development” with 112 units.

- Staff recommends **Approval** of the request:
  - ❑ Consistent with the City Code & the Comprehensive Plan.
  - ❑ Does not adversely affect the public health, safety, convenience and general welfare.
  - ❑ The site is within ¼ mile of a transit stop and is eligible for a density bonus of up to 5 units per acre pursuant to Comp Plan Policies 1.1.6(a) and 1.1.7.

Staff Recommendation

Staff recommends **APPROVAL** of the request, subject to four (4) conditions:

1. A Landscape Bond will need to be provided at the time of Certificate of Occupancy for each building pursuant to City Code 123-6. The Landscape Bond for the common areas, clubhouse, lakes, & parking areas shall be submitted before the Certificate of Occupancy is issued for the first building in each phase.

2. At the time of Building Permit submit a signed and sealed boundary and topographic survey to the City Engineering Department in accordance with City Code 119-2 (a)(7).

3. Remove the light grey from the color scheme and use colors from the blue-violet or blue-green color palette.

Staff Recommendation (cont.)

4. Include a landscaped area around base of the monument sign which extends a minimum distance of three (3) feet in all directions. Such landscaped area shall be completely covered by ground cover and shrubs, hedges or similar vegetative materials. Vegetation in the area surrounding said sign shall be maintained at a height of less than twelve (12) inches.

***Advisory Comment:**

Consider a gated entry for the health, safety, and welfare of the future tenants of the proposed development. Details need to be worked out between the design team and the Planning Department.

Planning Board Recommendation

At the Planning Board August 11, 2020 meeting,
recommended 6-0 **Approval** of the Zoning Atlas Map Amendment,
Development Review & Design Review, and the Conditional Use.

This presentation requires three (3) separate motions

CC Actions

Possible actions of the City Commission:

- **APPROVAL** of the proposed Rezoning, Development Review, Design Review, & Conditional Use with no changes
    - Staff recommends approval of the request with four (4) conditions.
- **APPROVAL** of the proposed Rezoning, Development Review, Design Review, & Conditional Use with changes.
- **DISAPPROVAL** of the proposed Rezoning, Development Review, Design Review, & Conditional Use

Aria Apartments
Rezoning, Development Review, Design Review, & Conditional Use

3000 Okeechobee Road

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO:	Nick C. Mimms, P.E., ICMA-CM, City Manager
THROUGH:	Jennifer Hofmeister, AICP, LCAM, Planning Director
FROM:	Vennis Gilmore, Planner
RE:	**Application for Future Land Use Map Amendment** **Application for Zoning Atlas Map Amendment** **Aria Apartments**
BOARD DATE:	September 21, 2020

STAFF REPORT

Property Owner/Applicant:	Arrow Investment Group, LLC 4512 N. Flagler Drive, Suite 2056 West Palm Beach, FL 33407
Requested Action:	Approval to amend the Future Land Use Map designation for one (1) parcel from General Commercial (GC) to Medium Density Residential (RM) Approval to Rezone one (1) parcel from General Commercial (C-3) to Medium Density Residential (R-4).
Site Location:	3000 Okeechobee Road
Parcel IDs:	2417-504-0020-001-6
Existing Use:	Vacant
Parcel Size:	6.796 +/- Acres
Current Future Land Use:	General Commercial (GC)
Current Zoning:	General Commercial (C-3)
Proposed Future Land Use:	Medium Density Residential (RM)
Proposed Zoning:	Medium Density Residential (R-4)

	North	East	South	West
Surrounding FLU:	Low Density Residential (RL)	General Commercial (GC)	General Commercial (GC)	(GC) and Medium Density Residential (RM)
Surrounding Zoning:	Single-Family Intermediate (R-2)	General Commercial (C-3)	General Commercial (C-3)	(C-3) and Medium Density Residential (R-4)

Staff Analysis

Request

The subject Future Land Use Map Amendment from General Commercial (GC) to Medium Density Residential (RM) will provide for a land use that is consistent with the applicant's proposed vision of an Innovative Residential Multi-Family Development and the City's desired development pattern for the subject site and surrounding area. The RM Future Land Use Category, as defined in the Future Land Use Element of the City's Comprehensive Plan, calls for parcels that are best suited for multi-family residential uses. As the City's Zoning Map and Land Development Regulations must be consistent with the Future Land Use and accompanying land use category specifications contained in the Future Land Use Element, the subject application also includes a rezoning for the same subject parcel from General Commercial (C-3) to Medium Density Residential (R-4).

Subsequent to the subject map amendments, separate applications for Development Review, Design Review, and Conditional Use (Innovative Residential Development) will be submitted for review and approval that will include a request for density bonuses specific to the subject property.

Future Land Use and Zoning Designation Comparison

The subject property currently has a Future Land Use and Zoning designation of Commercial, which was, at a point in time, an appropriate designation as the site abuts Okeechobee Road, a major east/west corridor in the City. More recently, however, the development pattern has shifted to a horizontal mix of both residential and commercial uses as this corridor transitions into Delaware Avenue, a corridor that transverses the Peacock District. The Peacock Overlay District is envisioned as a destination for neighborhood serving uses. The proposed land use and zoning map amendments will promote the City's vision for this corridor and the surrounding area.

As the development of the subject parcel is a vital component to the redevelopment effort of this targeted area, it is staff's professional opinion that the proposed land use and zoning for the

subject property of Residential Medium (RM) and Medium Density Residential (R-4), respectfully, is appropriate and supported.

Standards for Review

Pursuant to Chapter 163.3187, F.S., a small-scale development amendment may be adopted under the following conditions:

a) The proposed amendment involves a use of 10 acres or fewer; and
b) The proposed amendment does not involve a text change to the goals, policies, and objectives of the local government's comprehensive plan, but only proposes a land use change to the future land use map for a site-specific small-scale development activity. However, text changes that relate directly to, and are adopted simultaneously with, the small-scale future land use map amendment shall be permissible under this section.

Small scale development amendments adopted pursuant to this section require only one public hearing before the governing board, which shall be the adoption hearing.

Regarding the requested rezoning, pursuant to Article IX, City Code of Ordinances, a proposed change of district or text may be initiated by the City Commission, the City Planning Board or by petition of one or more of the property owners or affected residents within the area proposed to be changed or affected by a change in the district map or text.

The following standards must be satisfied per Section 125-136 of the City Code prior to the approval of the requested amendment:

(1) The amendment is consistent with the Comprehensive Plan.
(2) The amendment will not have an adverse effect on the ability of the City to:
    a. Satisfy land and water use needs; and
    b. Meet transportation demands and provide community facilities and services.
(3) The amendment will promote and protect the public health, safety, and general welfare.

The proposed amendment is consistent with and furthers the Goals, Objectives, and Policies of the City's Comprehensive Plan. The Zoning Atlas Map Amendment promotes and protects the public health, safety, and general welfare as the request as proposed is in character and similar with the surrounding area, land uses and zoning designations.

Technical Review Committee (TRC)

All affected City and County Departments have reviewed the proposed Future Land Use Map and Zoning Atlas Map Amendments and there were no comments from the TRC.

Property Owner Response Summary

A total of 64 notifications of the Zoning Atlas Amendment proposal were mailed to the owners of property located within 500 feet of the subject property. An update will be provided to the City Commission at the public hearing.

Planning Board Recommendation

The Planning Board, at their August 11th, 2020 meeting, voted unanimously to recommend **Approval** of both requests.

Staff Recommendation Future Land Use Map Amendment

The requested Application for Future Land Use Map Amendment meets the criteria specified in Section 125-136 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience, and general welfare. Therefore, Staff recommends **APPROVAL** of the request to change the Future Land Use Designation from General Commercial (GC) to Medium Density Residential (RM).

Staff Recommendation Zoning Atlas Map Amendment

The requested Application for Zoning Atlas Map Amendment meets the criteria specified in Section 125-136 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience and general welfare. Therefore, Staff recommends **APPROVAL** of the request to change the Zoning Designation from General Commercial (C-3) to Medium Density Residential (R-4).



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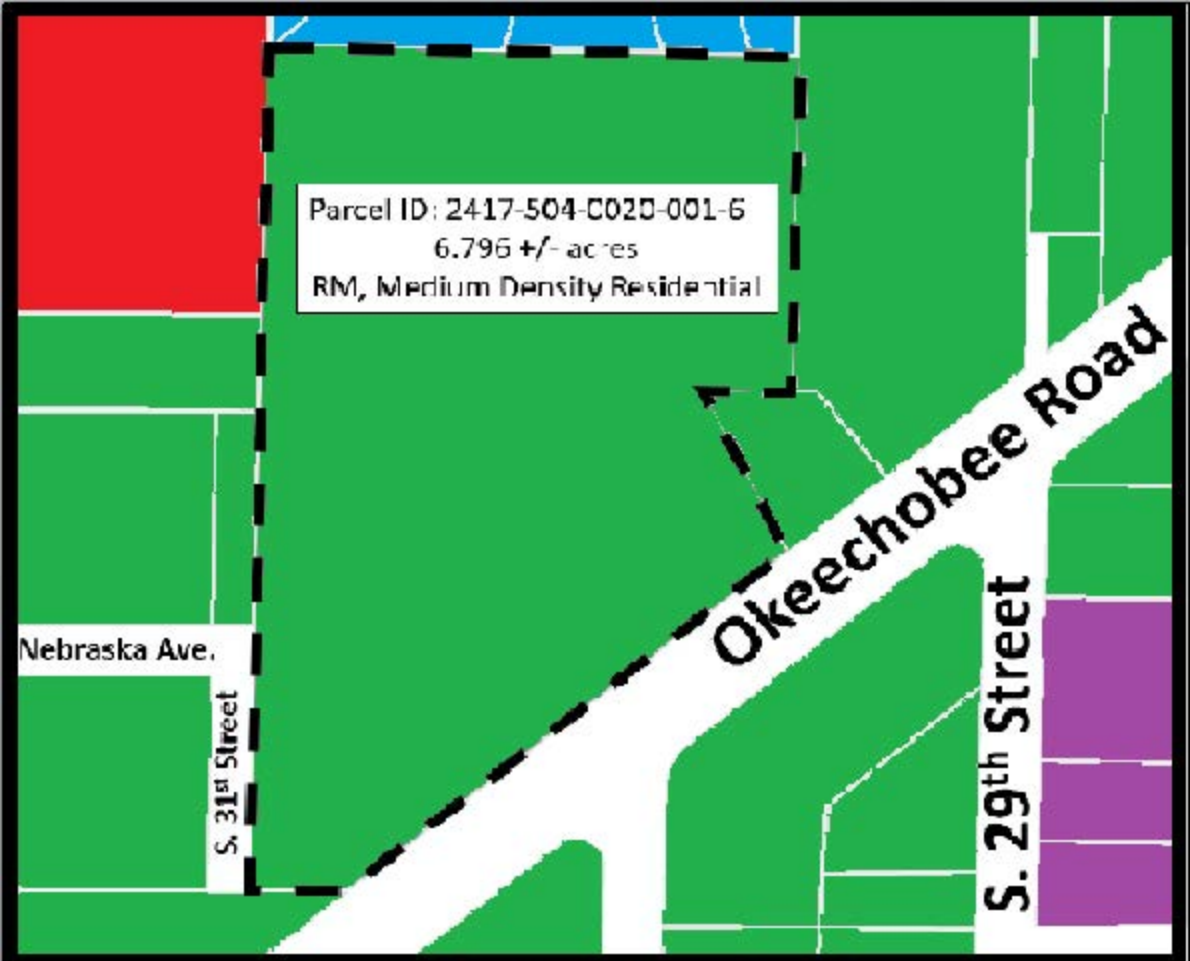
Aria Apartments
3000 Okeechobee Road

THE SUNRISE CITY
FORT PIERCE
Florida

Aerial Map



N
W E
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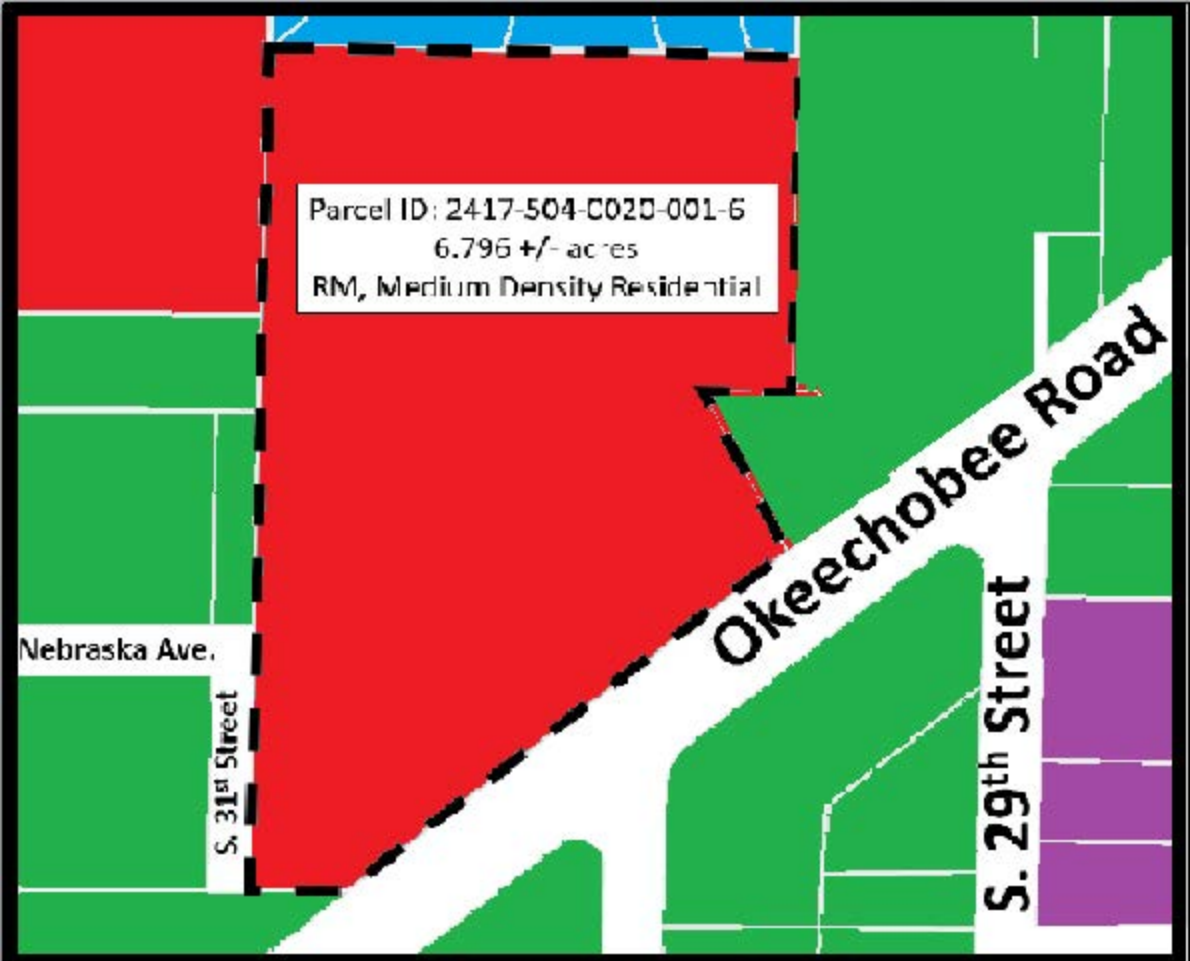
Aria Apartments
3000 Okeechobee Road

THE SUNRISE CITY FORT PIERCE Florida

R-4= C-3= R-2= R-3: :

Existing Zoning Map



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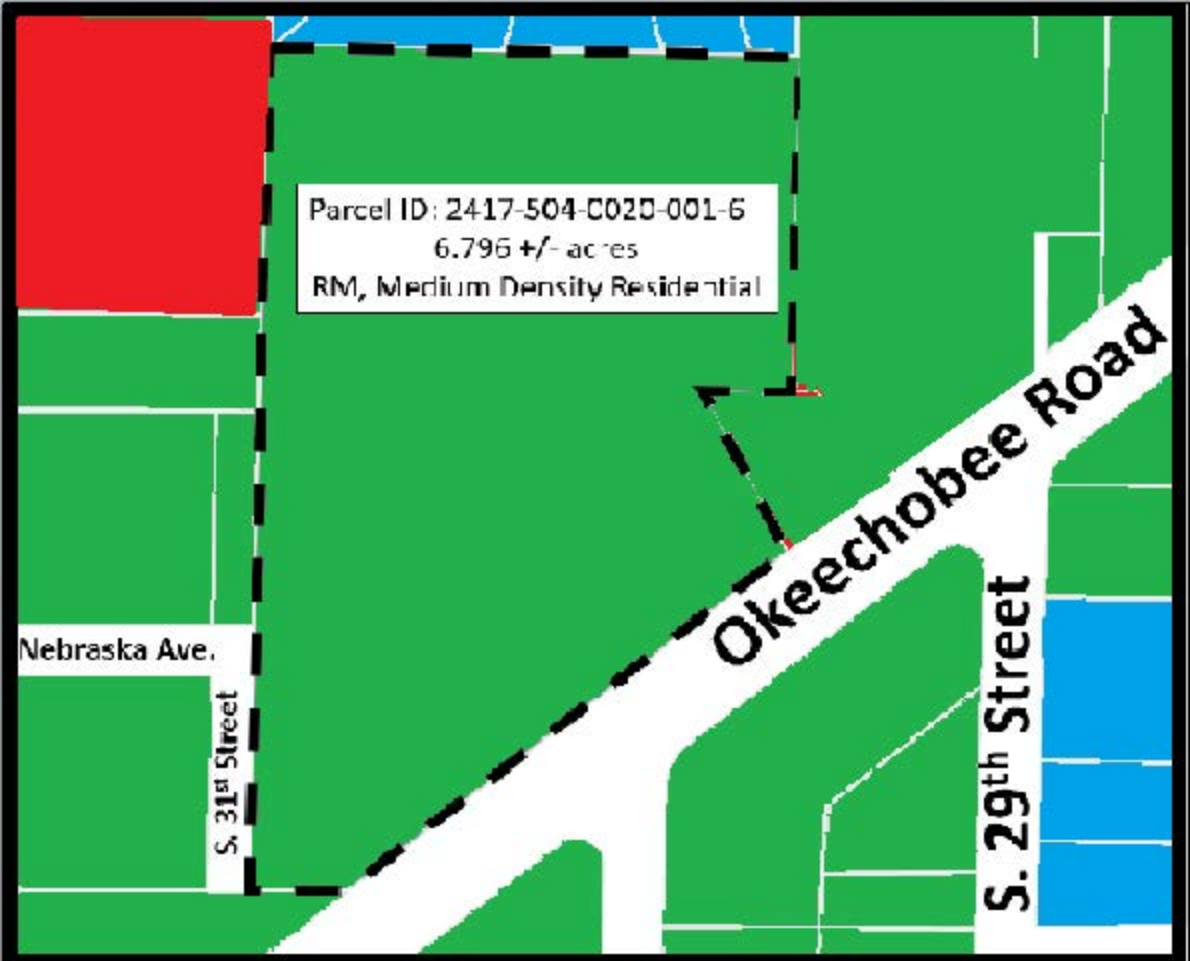
Aria Apartments
3000 Okeechobee Road

THE SUNRISE CITY FORT PIERCE Florida

R-4= C-3= R-2= R-3: : Proposed Zoning Map



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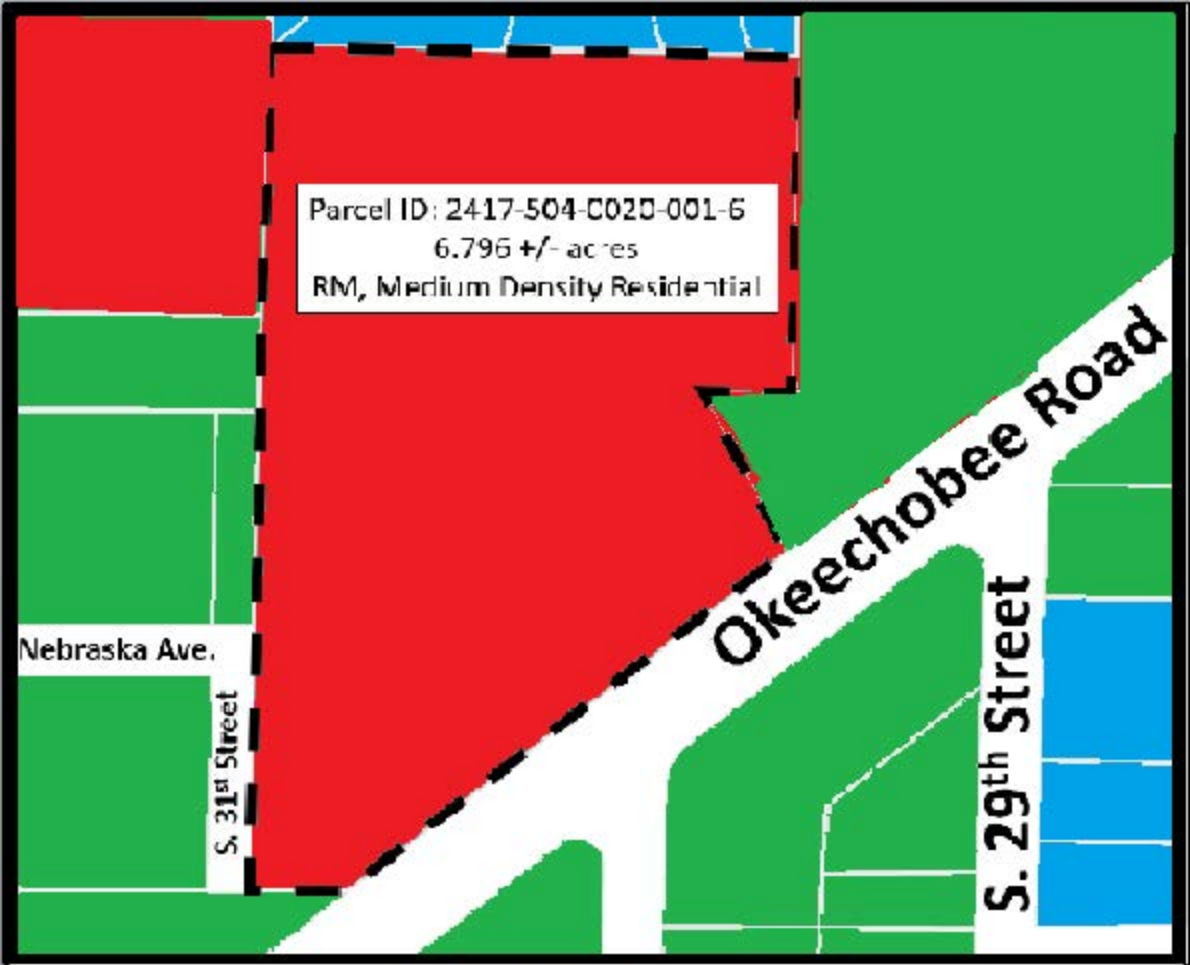
Aria Apartments
3000 Okeechobee Road

RM = GC= RL=

THE SUNRISE CITY FORT PIERCE Florida

Existing FLU Map



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Aria Apartments
3000 Okeechobee Road

RM = GC= RL=

THE SUNRISE CITY FORT PIERCE Florida

Proposed FLU Map

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

July 16, 2020

Michael Sanchez/Managed Land Entitlements
3710 Buckeye Street, Suite 100
Palm Beach Gardens, FL 33410

Subject: 3000 Okeechobee Road – TRC Comments for July 16th, 2020 conference call

City of Fort Pierce Planning Department

1. Install a landscaped area around the proposed monument sign base which extends a minimum distance of three (3) feet in all directions. Such landscaped area shall be completely covered by ground cover and shrubs, hedges or similar vegetative materials. Vegetation in the area surrounding said sign shall be maintained at a height of less than twelve (12) inches.

2. Provide a separate gated entrance to the refuse collection areas for resident and employee access.

3. Pursuant to City Code Section 22-62(b)(4) Sidewalks. In order to provide continual access for pedestrians, sidewalks and sidewalk linkages shall be required to be provided by the property owner or permit applicant, when plans are submitted for condition use applications or pay a payment into the city sidewalk fund pursuant to City Code Section 22-62(g).

   Please submit payment in-lieu for sidewalks that would be otherwise required along S. 31st Street and the Southwest corner of the subject property to the City of Fort Pierce within ninety (90) days of Conditional Use Approval.

4. Please note that the City of Fort Pierce will have a new Code of Ordinances effective July 20, 2020. This new code represents a renumbering and reshuffling of code sections from what the current code reflects. The new Planning sections will start with Chapter 111, which is Historic Preservation through Chapter 125, which is Zoning. Should you have any questions; the new proposed code can be found on the City Website, under Agenda & Minutes, City Commission 7/6/2020, Item 12(i).

Fort Pierce Engineering Department

Recommends approval.

Advisory Comment: 1. The drainage plan was reviewed as a conceptual plan and will be further reviewed at time of Building Permit submittal.

Fort Pierce Utility Authority

FPUA W/WW Engineering: Water and sewer services are available to serve this location. Please Submit 3 complete sets of utility construction plan along with a completed commercial service application to Water and Wastewater Engineering for review at 1701 S 37th Street Fort Pierce Florida. For more information, please contact John Biggs at 772 466 1600 ext. 3474 or click on the following link below: https://www.fpua.com/Business/StartStopNewServices/DevelopmentServicesResponsibilitiesWWW.asp

FPUA Electric & Gas Engineering: Approved - Electric service is available to the site (from S. 33rd Street and Nebraska Avenue). Please provide electric load information for the AutoCAD drawing. Customer will be responsible for all transformer pads, conduits and secondary conductors. For more information and project coordination, please contact Sal Scimeca. Engineering Technician II Electric and Gas Engineering 1701 S. 37th Street, Fort Pierce, FL 34947 sscimeca@fpua.com Office: (772)466-1600 Ext. 6957

Gas service is available to the site (from S. 33rd Street and Nebraska Avenue). Please provide a copy of the gas riser diagram with the anticipated load (if developer is interested in natural gas service to the propose complex). For more information and incentive available, please contact Billy Dupre. Business Development Representative Gas Operations 1701 S. 37th Street, Fort Pierce, FL 34947 Bdupre@fpua.com Office: (772)-466-1600 Ext.4705

Utility easement will be required for all propose FPUA electric and gas facilities within the site. If the developer should have any questions, please have them contact individuals listed above. Attached are copies of the FPUA GIS Maps (Electric and Gas).

Please see attached utility maps of the area.

Fort Pierce Building Department

The Building Official or his representative has no comment at the time of this meeting, but reserves submission of comments upon completion of the official plan review.

Fort Pierce Police Department

Overall, a very nice project and site plan that would, once finished, bring "substantial enhancement to the area" as stated in the project narrative.
I do, however, have one concern. It is to do with the "indented, mini-courtyard like" area in the center of each of the apartment structures. That indented area is part of the building's design and is shown on the "front elevation" and floor plans. Specifically, it is the open courtyard like space that is between the two "one bedroom" apartment units. Even though there are a total of four (or six in the 3 story building) windows (located in "bedroom 3" of the

3 bedroom apartment units) which allow residents to see into that courtyard like area, it is still an area that may have potential use for nefarious activity as it offers a fair amount of concealment. The "indent" creates an area that may offer cover for abnormal users and unwanted activities.
One suggestion to mitigate this concern is to place an additional window in each of the one bedroom apartment's bedroom on the wall that currently does not feature a window. This will allow for greater levels of natural surveillance by residents into that courtyard area which would aide in the deterrence of unwanted activities. Additionally, consider some form of pedestrian scale illumination to ensure that courtyard area receives adequate illumination to deter (or identify) unwanted activities (but with consideration to light trespass into the bedrooms)

Officer Damian Spotts
Crime Prevention Practitioner
Fort Pierce Police Department.

City of Fort Pierce Arborist

Please contact Paul Bertram for further review. He will need to send the Planning Department his comments as well.

Paul Bertram
Office: 772-467-3821
Email: PBertram@cityoffortpierce.com

St. Lucie County Planning Department

No Comments

St. Lucie County PW/Engineering

1. A County Roadway Improvement Agreement, Right-of-Way permit, and bond will be required for turn lane construction to Okeechobee Road. Plans and cost estimates should be provided to Grant Chambers, P.E. at chambersg@stlucieco.org .
2. The County asks to be copied on the correspondence regarding the City's review of the traffic impact analysis.

City Clerk Office

No Comments

St Lucie County Fire District

This entity had issues opening your file packet, please contact Lieutenant Wayne Boyer:

Lieutenant Wayne Boyer, M.S., FO, C.F.E.I.
Water Supply Officer
Community Risk Reduction Bureau
St. Lucie County Fire District
Office: 772-621-3322 Mobile: 772-631-8877
Email: WBoyer@slcfd.org

Lieutenant Boyd will need to send the Planning Department his comments as well.

Code Enforcement

No Comments

Florida Department of Transportation

No Comments



Legend

- Electric Primary Wire
- Transmission Wire
- Gas Main
- Fiber Optic Cable
- Potable Water Main
- Raw Water Main
- Wastewater Force Main
- WW Gravity Main
- Pole
- Fuse
- Transformers
  - Overhead
  - Pad Mount
- Valves
  - Gas
  - Water
  - Raw Water
  - Waste Water
- Fire Hydrant
- Well
- Lift Station

Disclaimer:

The data contained herein is offered "as is", with no claim or warranty as to its accuracy or completeness. The data is for reference only and should not be considered to be of survey precision. Due to formatting restrictions, the information provided in the map may not be represented in the legend.

811 Know what's below. Call before you dig.

Date: 7/6/2020

FPUA COMMUNITY PROUD

N

1 inch = 181 feet

FPUA Utility Map

Created By:
Name

(772) 466-1600
FAX (772) 461-1938



Legend

- Electric Primary Wire
- Transmission Wire
- Gas Main
- Fiber Optic Cable
- Potable Water Main
- Raw Water Main
- Wastewater Force Main
- WW Gravity Main
- Pole
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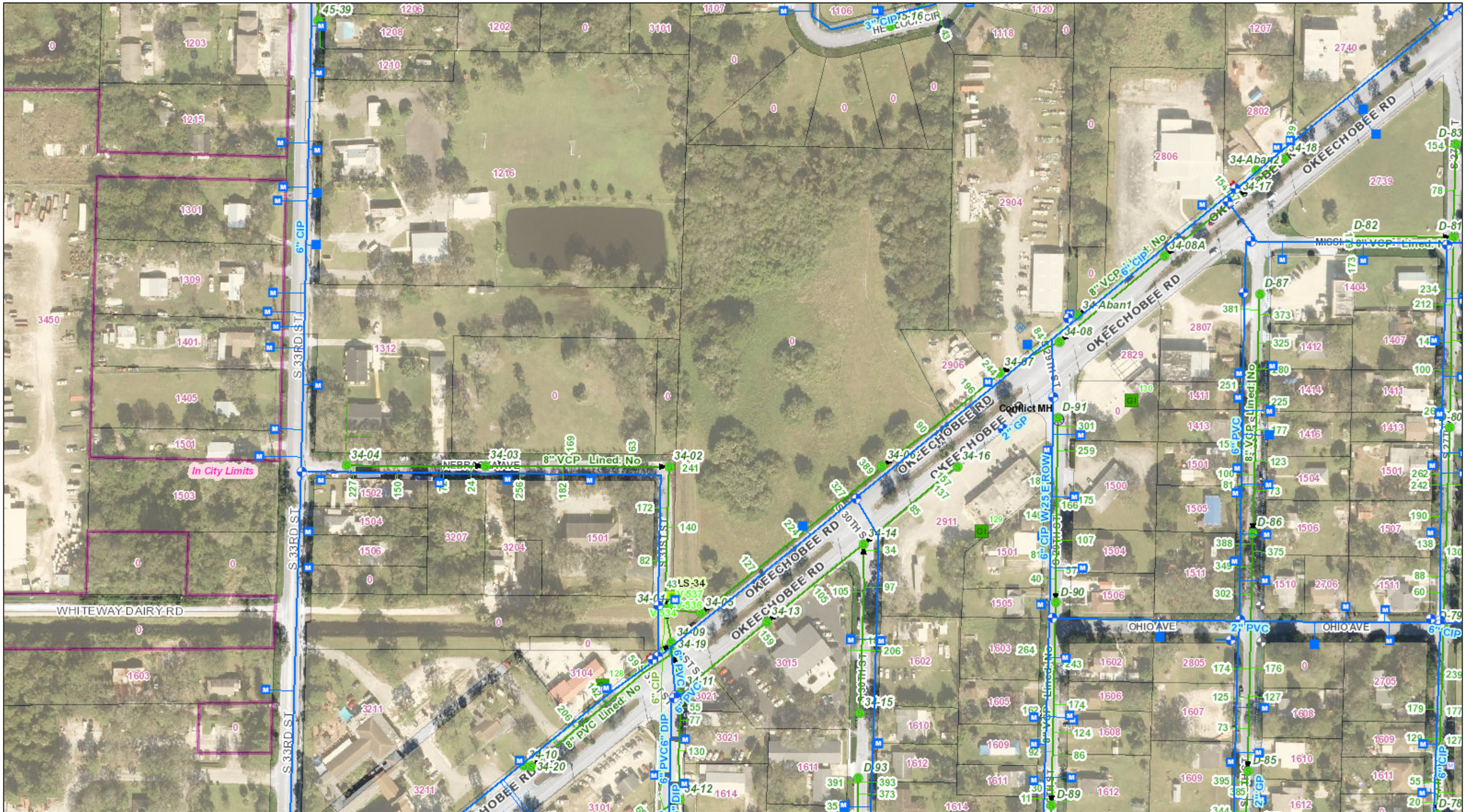

Legend

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Transformers

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- Water
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- Waste Water

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- PS Lift Station

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811 Know what's below. Call before you dig.

Date: 7/7/2020

FPUA COMMUNITY PROUD

N

1 inch = 170 feet

FPUA Utility Map

Created By:
Name

(772) 466-1600
FAX (772) 461-1938

D R A F T

CITY OF FORT PIERCE

PLANNING BOARD

Planning Board Minutes

OF THE REGULAR MEETING OF THE FORT PIERCE CITY PLANNING BOARD HELD ON TUESDAY, SEPTEMBER 8, 2020, IN FORT PIERCE CITY HALL, COMMISSION CHAMBERS, 100 NORTH US HIGHWAY 1, FORT PIERCE, FLORIDA.

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Chairman Creyaufmiller welcomed new Planning Board member, Marsha Baker.

Present: **Marcia Baker**; **Bob Burdge**; **Gloria Johnson-Scott**; **Michael Broderick**; **Solomon Lee**; **Patricia Diaz**; **Frank Creyaufmiller**, **Chairman**

Staff Present: **Jennifer Hofmeister**, **Planning Director**
Tanya Earley, **Assistant City Attorney**
Vennis Gilmore, **Planner**
Brandon Creagan, **Planner**
Alicia Rosenthal, **Executive Assistant**

4. CONSIDERATION OF ABSENCES

All Planning Board members were in attendance.

5. APPROVAL OF MINUTES

a. Minutes from the August 11, 2020 meeting

Motion was made by Michael Broderick, and seconded by Bob Burdge to approve the minutes from the August 11, 2020 meeting.

AYE: **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Chairman Frank Creyaufmiller**

Passed

6. NEW BUSINESS

a. Conditional Use - Barsotti Dwelling Rental - 1040 Windward Drive, Unit 3402

Mr. Gilmore gave an overview of the application.

Mr. Broderick asked if the updated recommendations to the dwelling rental conditions, that will heard at the September 14, 2020 Conference Agenda, should be included.

Ms. Hofmeister stated it may be premature and best to hold off until the City Commission approves the modifications to the conditions.

Ms. Baker suggested adding a condition that business liability insurance is required.

Board discussion ensued on the benefits of adding liability insurance as a condition to dwelling rentals.

Ms. Hofmeister suggested adding the condition to the updated recommendations being presented at the Conference Agenda.

Ms. Johnson Scott noted that adding an additional fee may limit some people from renting out their property which in turn could hurt the city.

No one spoke for or against the application.

Motion was made by Bob Burdge, **and seconded by Marcia Baker to recommend approval with the following six (6) conditions:**

1. **The property manager for the dwelling rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.**
2. **Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.**
3. **The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.**
4. **There shall be a limitation of no more than no two (2) vehicles per unit.**
5. **The City of Fort Pierce Business Tax License number shall be included on all advertising.**
6. **Third-party liability insurance is required.**

AYE: **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Chairman Frank Creyaufmiller**

NAY: **Gloria Johnson-Scott**

Passed

b. Conditional Use - Ballantyne Dwelling Rental - 715 S. Ocean Drive, Unit B

Ms. Hofmeister gave an overview of the application and answered questions from the Board on guest parking spaces and the number of Conditional Use approvals for the building. Ms. Hofmeister stated since the application triggers the state requirement for a change of use and fire sprinklers, she does not foresee any more rentals at the building due to being cost prohibitive.

No one spoke for or against the application.

Motion was made by Bob Burdge, and seconded by Michael Broderick to recommend approval with the following six (6) conditions:

1. **The property manager for the vacation rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.**
2. **Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.**
3. **The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.**
4. **There shall be a limitation of no more than no two (2) vehicles per unit.**
5. **The City of Fort Pierce Business Tax License number shall be included on all advertising.**
6. **Third-party liability insurance is required.**

AYE: **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Chairman Frank Creyaufmiller**

Passed

c. **Conditional Use - Danaluk Dwelling Rental - 715 S. Ocean Drive, Unit L**

Ms. Hofmeister gave an overview of the application and answered questions from the Board. Ms Hofmeister explained the 2-story duplex is a separate building located on the parcel and the building does not trigger the states 25% requirements because it is only two units.

No one spoke for or against the application.

Motion was made by Bob Burdge, and seconded by Patricia Diaz to approve with the following six (6) conditions:

1. **The property manager for the vacation rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.**
2. **Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.**
3. **The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.**
4. **There shall be a limitation of no more than no two (2) vehicles per unit.**
5. **The City of Fort Pierce Business Tax License number shall be included on all advertising.**
6. **Third-party liability insurance is required.**

AYE: **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Chairman Frank Creyaufmiller**

Passed

d. **Annexation - Jetson - 504 Tumblin Kling Road**

Mr. Creagan gave an overview of the application and answered questions from the Board on the residential area. Mr. Creagan explained that the property is zoned commercial in St. Lucie County and the city is not allowed to down zone the property.

Mr. Burdge noted that a barrier would be required between the commercial development and residential property.

Ms. Hofmeister stated the Planning department will put the elements in the review process for Jetson's expansion and the site plan will come before the Planning Board.

Motion was made by Bob Burdge, **and seconded by Michael Broderick to recommend approval of the proposed annexation Future Land Use designation of GC and the Zoning designation of C-3.**

AYE: **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Chairman Frank Creyaufmiller**

Passed

7. **ELECTION OF CHAIR AND VICE-CHAIR**

Mr. Broderick nominated the current Chair, Mr. Creyaufmiler, for Chairman.

Mr. Burdge nominated Mr. Broderick as Chair but Mr. Broderick stated he would be more effective in the Vice-Chair position and Mr. Creyaufmiller would be better suited as Chairman.

Motion was made by Michael Broderick, **and seconded by Patricia Diaz to elect Mr. Creyaufmiller as Chairman.**

AYE: **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Chairman Frank Creyaufmiller**

Passed

Motion was made by Patricia Diaz, **and seconded by Marcia Baker to elect Mr. Broderick as Vice-Chair.**

AYE: **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Chairman Frank Creyaufmiller**

Passed

8. **COMMENTS FROM THE PUBLIC**

Any person who wishes to comment on any subject may be heard at this time. Please limit your comments to three (3) minutes or less, as directed by the Chair, as this section of the Agenda is limited to thirty minutes. The Planning Board will not be able to take any official actions under Comments from the Public. Speakers will address the Board and the Public with respect. Inappropriate language will not be tolerated.

There were no comments from the public.

9. **DIRECTOR'S REPORT**

Ms. Hofmeister reminded the Board that Mr. Broderick will be presenting the proposed dwelling rental conditions to the City Commission at the Conference Agenda on Monday, September 14, 2020 at 9:00 AM.

10. BOARD COMMENTS

Ms. Baker suggested the dwelling rental insurance condition be limited to third-party liability insurance, so the owner is spending the least amount of money on insurance to protect the general public and adjoining neighbors.

Chairman Creyaufmiller reminded the Board of the upcoming CeeCee Ross Lyles 9/11 Virtual Memorial Ceremony.

Motion was made by Michael Broderick, and seconded by Bob Burdge to add the condition that third-party liability insurance be required on all dwelling rentals.

AYE: **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Chairman Frank Creyaufmiller**

Passed

11. ADJOURNMENT

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

DEVELOPMENT REVIEW

Property address or Location: North side of Okeechobee Road - Approximately 1/4 mile NE of S 33rd Street

Parcel ID #(s): 2417-504-0020-001-6

Project description: Aria Apartments

Arrow Investment Group, LLC	Michael Sanchez/Managed Land Entitlements
Property Owner(s)	**Applicant/Representative, Title, Company**
4512 N. Flagler Drive, Suite 2056	3710 Buckeye Street, Suite 100
Street Address	Street Address
West Palm Beach, FL 33407	Palm Beach Gardens, FL 33410
City State Zip	City State Zip
(561) 324-4439	561-568-8045
Phone Number	Phone Number
capitalinvestments@usa.com	michael@mylandentitlements.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below sholl also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 24 day of June, 2020, by Mustafa Alnok who is personally known to me or has produced FLDL as identification.

Signature of Notary (seal)

NOTARY PUBLIC
MARIA TELLEZ-HURST
Notary Public. State of Florida
Commission# GG 104011
My comm. expires June 13, 2021

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____ Fees_____ Control #_____ B. Permit #_____

Intake Planner_____

Planner Assigned_____

Approved By_____ Date _____

Comments_____

Intake Date Stamp

❑ DEVELOPMENT REVIEW

General Information

- ❑ Incomplete application packets cannot be accepted.
- ❑ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
☒ Site Plan	☒ Conditional Use with New Const.	❑ Major Amendment
❑ Conceptual Development Plan		❑ Minor Amendment

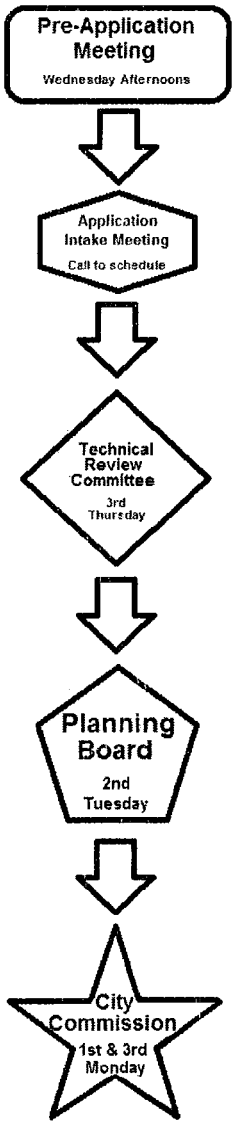
Site Information:

Non-Residential: Proposed Sq. Ft.: _____ Residential: Proposed Units: 112 Units

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West
Single Family	Commercial	Commercial	Multifamily/Commercial

Application Outlook



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ❑ Complete notarized application
- ❑ Warranty Deed
- ❑ SLC Property Record Card
- ❑ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ❑ General location map (see Section 22-58.d.2)
- ❑ Survey (see Section 22-58.d.3)
- ❑ Site Plan (see Section 22-58.d.4)
- ❑ Landscaping Plan (see Section 22-187)
- ❑ Storm Drainage Plan (see Section 22-58.d.6)
- ❑ Environmental Impact Report
- ❑ Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ❑ Lighting Plan (see Section 22-58.d.8)
- ❑ Design Review submittals (see Design Review application)
- ❑ Traffic Impact Report
- ❑ Concurrency Review submittals (see Concurrency Review application)

ARIA APARTMENTS

CITY OF FORT PIERCE

FUTURE LAND USE MAP AMENDMENT, REZONING, CONDITIONAL USE AND SITE PLAN APPROVAL

PROJECT NARRATIVE/JUSTIFICATION STATEMENT

JUNE 26, 2020

REQUEST SUMMARY

Arrow Investments Group, LLC (the "Applicant"), hereby respectfully requests approval from the City of Fort Pierce (the "City") of the following applications related to the Aria Apartments project proposed on a 6.796-acre property located on the north side of Okeechobee Road approximately ¼ mile east of S. 33rd Street (the "Property"):

- Future Land Use Map Amendment to change the land use designation of the Property from General Commercial (GC) to Medium Density Residential (RM);
- Zoning Map Amendment to change the zoning designation of the Property from General Commercial (C3) to Medium Density Residential (R-4);
- Site Plan Approval to allow the construction of a 112-unit luxury rental apartment project on the Property to be referred to as the "Aria" apartment complex (the "Project"); and
- Conditional Use Approval to allow for an "Innovative Residential Development" for the Project.

PROPERTY DETAILS

The Property is currently vacant and, to the best knowledge of the Applicant, has never been developed. Limited clearing had previously occurred on the Property, and the Property is currently dominated by cleared land with some remnant forest communities consisting of Cabbage Palm and Brazilian Pepper (please see "Environmental" section of this narrative for additional information regarding existing vegetation and a small, isolated wetland). A drainage ditch exists along the west perimeter of the Property.

The Property contains a General Commercial (CG) Future Land Use Designation and a General Commercial (C3) zoning designation.

ADJACENT PROPERTIES DETAILS

Details regarding the land use, zoning and existing uses of the properties adjacent to the Property are noted below:

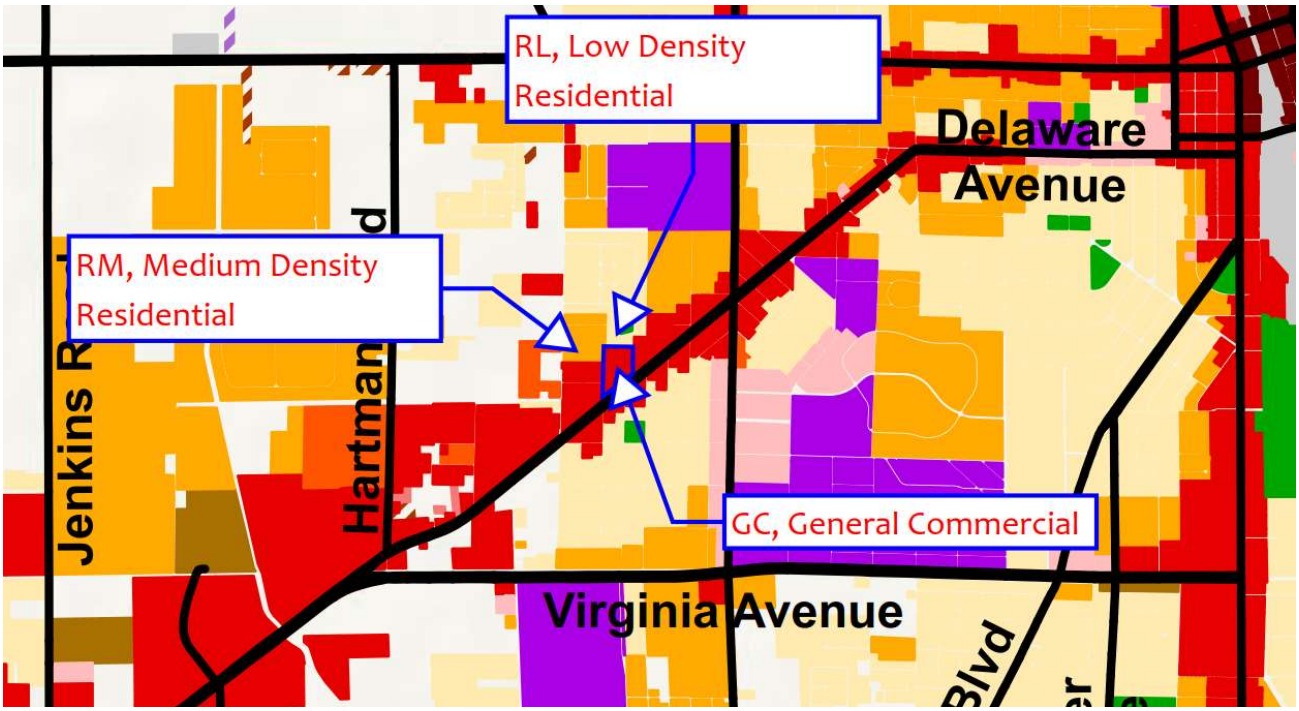
	Current FLU	Current Zoning	Existing Uses
North	RL, Residential Low Density	R2, Single Family Intermediate Residential	Vacant single family
South	GC, General Commercial	C3, General Commercial	Funeral home; grocery store
East	GC, General Commercial	C3, General Commercial	Used car sales; Habitat for Humanity
West	GC, General Commercial; RM, Medium Density Residential	C3, General Commercial; R4, Medium Density Residential	Contractor's Office; Religious Institutions

The graphic below identifies the Property in red and identifies the existing uses of the adjacent properties:

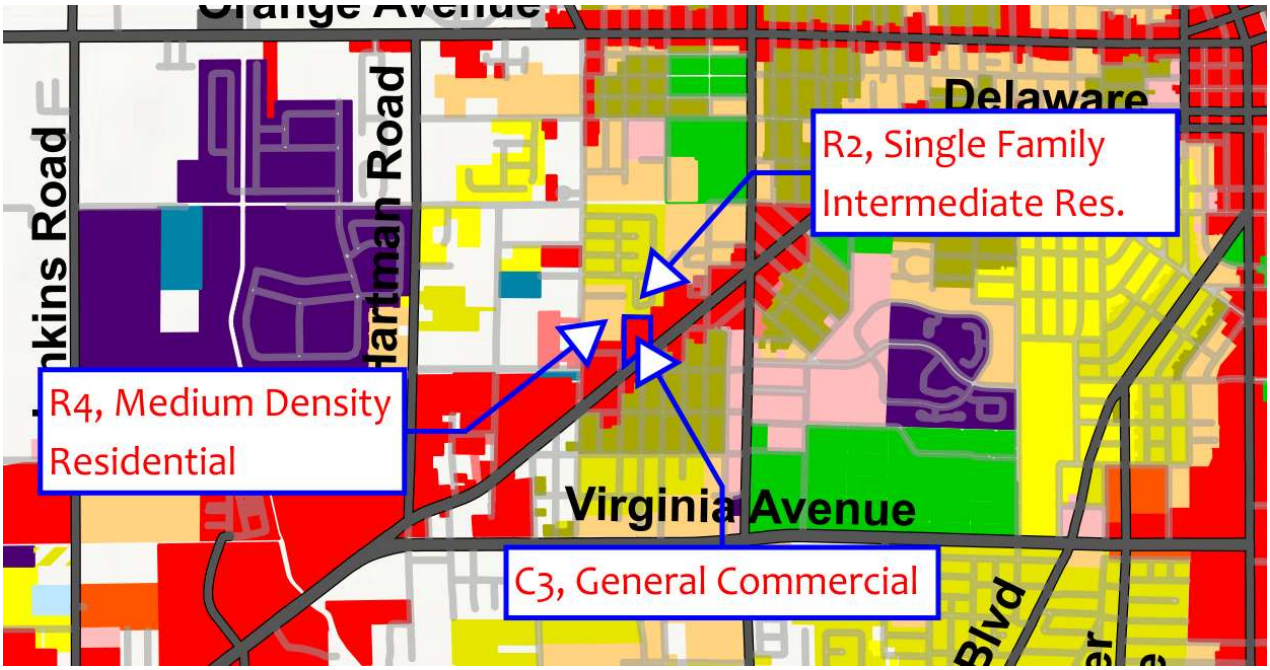


The graphics below identify the Future Land Use and Zoning of the subject property and adjacent properties:

FUTURE LAND USE



ZONING



GENERAL DESCRIPTION OF SUBJECT REQUEST AND NARRATIVE FORMAT

The Applicant is proposing to change the future land use designation of the Property to Medium Density Residential (RM) and rezone the Property to Medium Density Residential (R4) in order to allow for the development of a 112-unit residential apartment project consisting of five (5) residential buildings of between two (2) and three (3) stories in height, a clubhouse, a pool and other amentities.

The balance of this Narrative will provide (1) discussion regarding the proposed change from commercial to residential future land use and zoning designations; (2) discussion regarding the proposed density within the Project; (3) descriptions of the physical improvements proposed for the Project and related issues; and (4) demonstration of compliance with the Innovative Residential Development criteria.

FUTURE LAND USE MAP AMENDMENT AND REZONING FROM COMMERCIAL TO RESIDENTIAL

The Property currently has commercial land use and zoning designations similar to other properties that front along the north and south sides of Okeechobee Road. The portion of Okeechobee Road extending from Virginia Avenue to Delaware Avenue is developed on both sides of the road with an eclectic mix of uses including, but not limited to, smaller retail strip centers, automobile repair, used auto sales, small restaurants, small personal service uses, small office uses, day care, convenience stores, gas stations, bank, religious institutions and other uses. There are no large-scale commercial developments within said stretch of Okeechobee Road since those developments would typically locate on a road with a higher traffic volume such as Virginia Avenue.

It is the Applicant's opinion that (1) an approximately 6.8-acre property such as the Property is not suitable for large scale commercial development given its location along a lesser traveled roadway, and (2) a much more suitable and feasible use for the Property would be medium-scale multifamily development that would be appropriate along a four-lane divided roadway such as the section of Okeechobee Road in front of the Property and which would provide a logical transition from the single family and multi-family residential uses to the north to Okeechobee Road.

The requested Medium Density Residential (RM) future land use designation is consistent with the land use designation of properties to the west and northwest of the Property, provides for a logical transition from the Low Density Residential (RL) land use designation of the properties to the north to Okeechobee Road and is compatible with the General Commercial (GC) land use designations to the west, east and south.

The same logic as above applies to the requested Medium Density Residential (R4) zoning district as it relates to the zoning designations of surrounding properties.

Consistency with Comprehensive Plan

The following are excerpts from the Future Land Use Element of the County's Comprehensive Plan as it relates to the requested Medium Density Residential (RM) designation, each followed by the Applicant's demonstration of the proposed Project's compliance with the referenced provisions of the Comprehensive Plan:

- Section A: *The Medium Density Residential designation is intended for parcels that are best suited for multifamily residential uses ranging in density from 6.5 to 12 du/ac. This category allows small-lot single family units and multifamily dwellings including duplexes, condominiums and townhouses. Limited*

commercial uses intended to serve the residential uses shall be allowed. Compatible public, quasi-public, and special uses including parks, churches, non-profit clubs, schools, and daycare facilities shall be allowed.

Demonstration of compliance: *The proposed land use designation is consistent with the intended use of the property as multi-family apartments, and uses allowed with the RM future land use designation are consistent with other uses existing along Okeechobee Road based on the allowable uses within the RM designation noted above.*

- Objective 1.2: *The City shall use innovative Land Development Regulations to encourage flexibility in development to support compact, mixed-uses compatible with local context and character.*

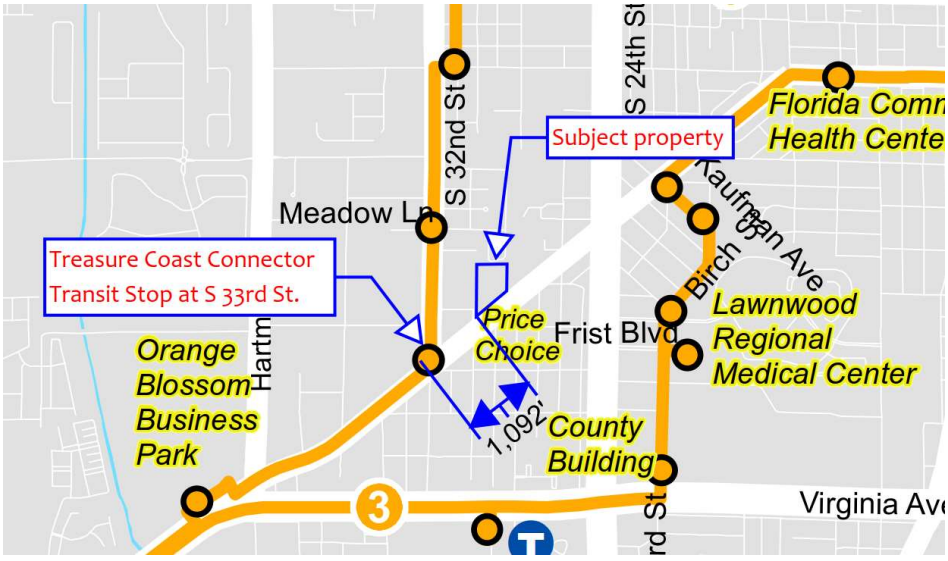
  Demonstration of compliance: *The proposed Project will be a compact development providing new, high-quality apartment housing for residents of the City which is compatible with the local context and character of the area. The increased residential density in the area will help to support the neighboring commercial uses along Okeechobee Road, and the Project's compact, walkable design will help to further the interrelationship between the residential and commercial uses in the area.*

Density

The proposed Project provides for a density of 16.48 du/ac.

The County's Comprehensive Plan provides that the Medium Density Residential (RM) future land use designation allows for between 6.5-12 du/ac. However, Policy 1.1.5 states "The City will allow a density bonus of 5 dwelling units per acre above the maximum density for developments within ¼ mile of a rail station, multimodal transit center or transit stop."

As demonstrated the map below, the Property is located less than ¼ mile from a transit stop for the County's Treasure Coast Connector bus system that is located at the northwest corner of the intersection of Okeechobee Road and S. 33rd Avenue. Accordingly, the Applicant intends to utilize the additional five (5) du/ac authorized by the above-referenced Policy 1.1.5 of the Comprehensive Plan bringing the total density permitted under the RM future land use designation to 17 du/ac.



With respect to zoning, the Medium Density Residential Zone (R-4) allow for a maximum density of ten (10) du/ac for conventional developments and twelve (12) du/ac for innovative developments. The Applicant is requesting approval of a Conditional Use to allow an "Innovative Residential Development" as demonstrated in the "Innovative Residential Development/Conditional Use Approval" section of this narrative and, thus, will be utilizing the additional density allowed for such developments (12 du/ac) for the purposes of this application. The maximum density for the Project with respect to zoning has been calculated at 17 du/ac based on the 12 du/ac allowed with an innovative development + the additional five (5) du/ac density bonus authorized by the above-referenced Policy 1.1.5 of the Comprehensive Plan for developments within a ¼ mile of a transit stop.

The proposed density of 16.48 du/ac per acre complies with the 17 du/ac maximum allowed by the future land use and zoning designations noted above.

PROJECT DETAILS

General Project Improvements

A summary of proposed Project improvements depicted in the development plans provided with this submittal is contained below:

- Development program: The Project comprises a multifamily apartment project consisting of 112 dwelling units ranging from one (1) to three (3) bedrooms in five (5) buildings. Four (4) of the buildings will be three (3) stories in height; and the fifth building will be two (2) stories in height. A clubhouse, pool area and other amenities listed below are also proposed.

- General design intent/summary: The design intent of the Project was to create an innovative, walkable and compact apartment project with high quality architecture, landscaping and amenities that raise the bar for new development in the area, increase property values and create an inviting sense of place for its residents. Four (4) of the residential building are placed around a central retention lake which has been provided an amenity for the Project. The lake will have a fountain and littoral plantings to enhance the amenity, and a sidewalk has been provided around the entire lake with benches so that residents can enjoy the lake views and recreate/exercise around the lake. A palm tree-lined roundabout is proposed at the entrance into the Project which will have a specimen tree as a focal point and will provide for an aesthetically pleasing entry into the Project. Parking and dumpsters are evenly and conveniently distributed throughout the Project. Other amenities include a clubhouse with a fitness center, kitchen, multipurpose room, restrooms and a covered area over the pool deck for shade lounging; a passive park with picnic tables, benches and shade trees; a large pool with seating areas and planters; a tot lot with playground equipment and fenced dog park. Additionally, Building 1 and the clubhouse have been placed against the street to add visual interest and to help screen the parking area from the adjacent roadway.

- Parking: Parking is provided within the Project based on a rate of 1.5 spaces/unit. 168 spaces are required, and 172 spaces are provided.

- Open Space/Outdoor Amenities: Section 22-27(b)(3) of the City's Land Development Code requires that buildings within multi-family housing developments in the Medium Density Residential (R-4) zoning district not cover more than 50% of the lot area. The Project proposes a building coverage of only 18.0% and a total open space of 127,934 square feet or 43.2% of the project site. Outdoor amenities include

walking paths throughout the site including around the retention lake, seating areas around the lake; a passive park with benches, tables and shade trees; a large pool; a fenced dog park and a tot lot.

Architecture

Both the two story and three buildings are designed in a contemporary style that mirrors current trends in many residential projects. The building footprints allow the building mass to be broken up reducing overall scale and creating a more visually interesting facade. The fenestration utilizes contemporary features and materials including cantilevered balconies, horizontal railing, variations in roof types and heights, metal eyebrow shades, faux horizontal wood siding, and smooth stucco broken into different wall panels by the building mass and vinyl stucco joints. The color and material palette is contemporary and brings good contrast for visual interest using white for trim, window frames, walls, sun shades and railings; light grey for wall panels, medium grey for the faux wood siding and dark grey for the flat concrete roof tiles.

The maximum height allowed in the Medium Density Residential (R-4) zoning district is 45'-0". The maximum height of the tallest building is 39'-0".

Mechanical equipment will be located on the roof and screened from view.

A monument sign is proposed on the south side of the Project entrance, and details regarding said sign are provided with this submittal on the "Sheet A-1 – Entry Monument" plan. The design of the monument sign incorporates the same colors and materials as the buildings on site and has been sized in accordance with the City's requirements for residential development signage.

Landscaping/Tree Mitigation

The Applicant has gone to every effort to save and/or relocate existing native trees on site which include Pine, Live Oak and Cabbage Palm. The Tree Mitigation Plans provided with this submittal provide that (1) 155 cabbage palms will be relocated on site; (2) 552" of trees will be removed in order to allow for the Project; and (3) 316" of trees will be preserved in place. The total mitigation requirement is 236".

The Applicant is proposing an very dense landscape design in order to satisfy the minimum landscape requirements of the City, provide additional trees to satisfy the mitigation requirement and provide additional landscaping to satisfy the "Innovative Residential Development" requirements as further discussed in the "Innovative Residential Development/Conditional Use Approval" section of this narrative.

The Project requires 56 interior trees, where 166 interior trees are being provided (110 additional trees or 196% additional). The project requires 112 buffer trees, where 137 trees are being provided (25 additional trees or 22.3% additional). A total of 137 additional trees are proposed on the Project. Additionally, the height of trees and palms proposed (Slash Pine, Bald Cypress, Live Oak, Japanese Blueberry, Crape Mrytle, Yellow Tabebuia, Royal Poinciana, Christmas Palm, Washington Palms, etc.) have been increased by at least 10% beyond the minimum size requirements at planting to provide additional justification for the Innovative Residential Development proposal.

The Applicant has increased the landscape buffers along the west, north and east sides beyond the minimum 10-foot requirement to 20', 15' and 15', respectively in order to further justify the Project and provide additional buffering for adjacent properties.

The proposed landscape palette provides native vegetation and careful placement of trees to provide shade in open spaces areas, screening where required, planting of the littoral areas of the retention pond for aesthetics and enhanced aesthetics at the Project entrance, residential buildings, clubhouse and other areas.

A cabbage palm hammock is proposed at the southwest corner of the Project, and a "Range Live Oak" is proposed at the roundabout at the Project entrance to serve as a focal point and enhance the Project.

Site Lighting

A photometric plan has been provided with this submittal which depicts the proposed exterior lighting within the Project. Pole mounted lights and building lights are proposed to provide lighting within the parking areas and pedestrian walks, bollard lighting is provided at the passive park and pedestrian scale pole-mounted lights are provided within the pool area. All lighting will be high efficiency LED lighting.

Drainage

The proposed surface water management system will collect stormwater runoff and direct it to the on-site detention area via a network of underground pipes. Stormwater will be stored in the detention area and on surface for large, infrequent storm events. A small exfiltration system is provided to assist with pre-treatment prior to discharge. Finished floors will be protected from the 100-year 3-day storm event. Roadways will be protected from the 10-year 1-day storm event. A perimeter berm will be established and retain the 25-year 3-day storm event on-site.

The drainage ditch along the west side of the property will lie outside the storage basin and act as the receiving body for controlled discharge. Water from the ditch will exit to the west via a culvert under South 31st Street into a City of Fort Pierce drainage ditch that runs west to and under South 33rd Street. At that point, the drainage system becomes part of North St. Lucie River Water Control District Canal 6 and stormwater flows west to Five Mile Creek.

Utilities

Domestic and Fire Water supply will be provided through an 8" water main loop through the project with two connection points to the existing water main located within Okeechobee Road right-of-way. This system will be constructed to Fort Pierce Utility Authority standards and be turned over to the utility for operation and maintenance.

Sanitary sewage will be collected via a service from each building that connects to a sanitary main. The main directs flow to an on-site private lift station located near Building 1 at the southwest corner of the site. The lift station will pump flow to an existing manhole operated and maintained by Fort Pierce Utility Authority. The on-site sanitary system is proposed to be privately operated and maintained.

Traffic Concurrency and Capacity Analysis

Included with this submittal are (1) a future land use amendment traffic analysis (the "FLUA Analysis"), and (2) a traffic impact analysis for the Project (the "TIA").

The FLUA Analysis concludes that the proposed change in land use will be a decrease in project trips and will not impact roadways in the vicinity of the project and, therefore, the proposed change in future land use for the Project meets applicable criteria for an amendment to the City's Comprehensive Plan.

The TIA concludes that (1) the roadway links are sufficient to accommodate the Project traffic in the AM and PM peak hours; (2) the existing geometry at the intersections of S 25th Street & Okeechobee Road and Okeechobee Road and Virginia Avenue are expected to operate acceptably under existing, background and future total conditions; and (3) an eastbound left turn lane is required. The Project plans provided with this submittal include the required eastbound left turn lane.

INNOVATIVE RESIDENTIAL DEVELOPMENT/CONDITIONAL USE APPROVAL

Section 22-82 of the City's Land Development Code contains the following standards applicable to a multifamily residential developments that shall be satisfied in order to qualify for the two (2) additional dwelling units per acre and the related Conditional Use approval by the City. The Applicant's demonstration of compliance with said criteria is contained below in *italics* typeface:

(a) Purpose. Innovative residential developments are developments which achieve a more creative and imaginative housing environment than normally occurs by use of the clustering technique, by employing various other methods to achieve distinctiveness and excellence in siting, design and/or landscaping. Density bonuses and reductions in various building restrictions are used to encourage these developments.

Demonstration of Compliance: *The Project has been thoughtfully and carefully designed to create a more innovative project than normally occurs. Factors that, in the opinion of the Applicant, qualify the Project as an innovative residential development that are above-and-beyond a "normal" apartment building project and the minimum requirements of the City are listed below:*

- *Four (4) of the five (5) residential building have been clustered around a central retention lake which is proposed as an amenity (as opposed to a depressed grassed stormwater detention area).*
- *The central lake will have a fountain and a walking trail with sitting areas.*
- *A passive park is proposed as a project amenity with picnic tables, benches and shade trees.*
- *A luxurious clubhouse with a multipurpose room, kitchen, fitness center, etc. is proposed.*
- *A large pool with a large pool deck area decorated with planters is proposed.*
- *A fenced dog park is being provided as an extra amenity.*
- *A fenced tot lot is provided as an extra amenity.*
- *Pedestrian paths are provided throughout the Project.*
- *A central roundabout with a large Oak Tree will serve as a focal point upon entry into the Project.*
- *A high quality of architecture is proposed as discussed in the "Architecture" section of this narrative.*
- *The fifth residential building and the clubhouse have been located against Okeechobee Road to provide visual interest and screen the parking area from view.*
- *A large number of trees and palms are either being preserved or relocated on site.*
- *The landscape buffer along the west side has been increased to 20 feet and the landscape buffers on the north and east sides have been increased to 15, where ten (10) feet is required on the sides and rear of the Project.*

- *Significant enhancements to landscaping beyond the minimum requirements are provided as further discussed in the "Landscaping" section below.*

(e)(1) Landscaping. Landscaping. The gross density may be increased up to one unit per acre for landscaping plans which provide for effective use of existing vegetation and/or for approved landscape plans for streetscapes, pedestrian ways, bicycle paths, areas near buildings, open spaces and/or recreation areas. This increased density may only be awarded if the landscaping of the innovative residential development will exceed the requirements in section for landscaped area by ten (10) per cent, for amount of trees by ten (10) per cent and/or in terms of qualitative characteristics of the landscaping.

Demonstration of Compliance: *As depicted on the landscape plans provided with this submittal, the Applicant is proposing a carefully designed, very dense landscape design and substantial additional landscaping in order to create an aesthetically pleasing project and to satisfy the innovative residential development criteria. Details regarding the "extra" landscaping proposed are noted below:*

- *The landscape buffer along the west side has been increased to 20 feet and the landscape buffers on the north and east sides have been increased to 15, where ten (10) feet is required on the sides and rear of the Project.*
- *The passive park has been densely landscaped to create an inviting and shaded sitting area for enjoyment of the tenants.*
- *The Project entry and roundabout are lined with palms typical of a luxury development.*
- *The residential buildings, clubhouse and pool are densely landscaped typical of a luxury development.*
- *43.2% open space is provided where only 40% is required.*
- *166 interior trees are provided where only 56 are required (196% additional).*
- *137 buffer trees are provided where only 112 trees are required (25 additional trees = 22.3% additional).*
- *Littoral plantings are proposed around the lake as an added aesthetic enhancement for the Project.*
- *The height of trees and palms proposed (Slash Pine, Bald Cypress, Live Oak, Japanese Blueberry, Crape Mrytle, Yellow Tabebuia, Royal Poinciana, Christmas Palm, Washington Palms, etc.) have been increased by at least 10% beyond the minimum size requirements at planting to provide additional justification for the Innovative Residential Development proposal.*

(e)(2) Siting. The gross density may be increased (up to one-half unit per acre in R-3 and R-4 zones and one unit per acre in an R-5 zone) for creative placement of buildings and/or other facilities in terms of visual focal points, use of existing physical features such as topography, views, sun and wind orientation, the circulation pattern, variation in building setbacks and/or building and facility groupings.

Demonstration of Compliance: *As demonstrated below, the site design and placement of buildings have been creatively designed in order to establish an innovative residential development by use of visual focal points and physical features as much as possible on a 6.796-acre property.*

- *Four (4) of the five (5) residential building have been clustered around a central retention lake which is proposed as an amenity (as opposed to a depressed grassed stormwater detention area).*

The placement of the buildings around the lake will enhance views from both the residential units and from tenants recreating/exercising/sitting around the lake.

- ❖ *A central roundabout lined with palm trees and with a large Oak Tree in the center will serve as a focal point upon entry into the Project.*
- ❖ *The fifth residential building and the clubhouse have been located against Okeechobee Road to provide visual interest and screen the parking area from view.*
- ❖ *Pedestrian pathways are provided throughout the development to create a walkable community.*

(e)(3) Design. The gross density may be increased (up to one-half unit per acre in R-3 and R-4 zones and one unit per acre in an R-S zone) for imaginative design features including architectural styles, harmonious use of building materials, varied use of housing types and/or other design elements of the innovative residential development.

Demonstration of Compliance: *The Applicant is proposing enhanced architectural features beyond a standard multi-family housing project as demonstrated in the "Architecture" section of this narrative.*

(g) Open Spaces. Innovative residential developments which receive density bonuses in accordance with subsection (e) of this section shall comply with the following provisions: (1) In all such innovative residential developments, at least forty (40) percent of the site, exclusive of aquatic areas, shall be devoted to open space. Of this required open space area, no more than twenty-five (25) percent may be utilized privately by individuals or users of the innovated residential development. At least seventy-five (75) per cent of the required open space area must be common open space.

Demonstration of Compliance: *Open space is provided at 43.2% of the site where only 40 is required. Additionally, all open space on site will be for the enjoyment of all residents of the community.*

CLOSING

The Applicant respectfully requests the City's consideration and approval of the subject application based on the justification provided herein. The Applicant believes that the Project will provide a substantial enhancement to the area and help to spur other redevelopment in the area. The Applicant looks forward to working with the City to bring a high-quality project to the City.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Application for Future Land Use Map Amendment

☐ Future Land Use Map Amendment – Large Scale (>10 acres)

☒ Future Land Use Map Amendment – Small Scale (<10 acres)

In accordance with Chapter 163.3187, Florida Statutes, The City of Fort Pierce will consider applications for land use changes on parcels in excess of 10 aces ("Large Scale Amendments") only twice each calendar year. The City Commission will consider applications for land use changes on parcels less than or equal to 10 acres with a maximum density of 10 units per acres or less at any time during the calendar year. You are encouraged to schedule a pre-application meeting with the planning staff and to submit your application up to three months in advance of the application deadline.

Application submission shall include the following:

•**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**Planning Board**: One (1) original and (13) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**City Commission**: One (1) original and (11) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

In addition to a complete application, packets shall include:

- ☐ Warranty Deed & Legal Description
- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: North side of Okeechobee Road - Approximately 1/4 mile NE of S 33rd Street
2. Property Tax ID(s): 2417-504-0020-001-6
3. Total Acreage: 6.796 acres
4. Existing Future Land Use Designation: GC - General Commercial
5. Existing Zoning Classification: C3 - General Commercial
6. Proposed Zoning Classification: (FLU) RM - Medium Density Residential (ZONING) R4 - Medium Density Residential
7. Other applications being submitted concurrent with this application, if any: Zoning Map Amendment, Design Review
8. Describe the existing uses, improvements and structures on the amendment lands: Vacant
9. Are there any identified or possible historical structures on the amendment lands? No
10. The reason for making this request: Proposed luxury apartment project. See Project Narrative.

11. **Capacity Analysis:**

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Single Family	RL - Low Density Residential	R2 - Single Family Intermediate Density
South	Commercial	GC - General Commercial	C3 - General Commercial
East	Commercial	GC - General Commercial	C3 - General Commercial
West	Commercial/Religious Institution	RM - Medium Density Residential GC - General Commercial	R4 - Medium Density Residential C3 - General Commercial

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	GC - General Commercial	C3 - General Commercial	1.0 FAR = 296,033 SF	6.796 acres	
Proposed	RM - Medium Density Residential	R4 - Medium Density Residential	12 du/ac + 5 du/ac bonus per FLUE Policy 1.1.5 = 17 du/ac = 115 units	6.796 acres	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 37,004
Change in Demand	**Total gallons per day** -7,104

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 29,603
Change in Demand	**Total gallons per day** +297

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	884.54	890.52	+5.98
Urban District	5 acres per 1,000 people	221.14	222.63	+1.49
Community	2.5 acres per 1,000 people	110.57	113.32	+0.75
Neighborhood	1.36 acres per 1,000 people	60.15	60.56	+0.41

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name	Chester A Moore Elementary/Dan McCarty Middle	Fort Pierce Central High
City	Fort Pierce	Fort Pierce
Distance	0.5-0.8 mile	0.5 mile
Current Zoning Enrollment Demand	N/A	N/A
Proposed Zoning Enrollment Demand	34.01	79.35
Change in Demand	+34.01	+79.35

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	Demand for commercial not listed above.
Proposed Zoning	16 yards
Change in Demand	Need demand for commercial

F. Stormwater: Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)	
Impact	See drainage report provided with submittal.

G. Transportation Analysis: Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning	8,300	65/83
Proposed Zoning	609	38/49
Change in Demand	Trips	Trips
Impact to Capacity	-7,691	-27/-34

12. Name of Owner(s): Arrow Investment Group, LLC
Mailing Address: 4512 N. Flagler Drive, Suite 2056
City West Palm Beach State FL Zip 33407
Phone # (561) 324-4439
E-mail: capitalinvestments@usa.com

13. Name of Applicant: Same as Owner
Mailing Address: _____
City _____ State _____ Zip _____
Phone # _____ Fax # _____
E-mail: _____

14. Name of Representative: Michael Sanchez/Managed Land Entitlements
Mailing Address: 3710 Buckeye Street, Suite 100
City Palm Beach Gardens State FL Zip 33410
Phone # 561-568-8045 Fax # _____
E-mail: michael@mylandentitlements.com

15. Applicant Acknowledgements (Owner's signature must be notarized)

I certify that: (Check One)

X I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

_____ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

_____

Same as Owner

Applicant's Signature Date

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

(561) 324-4439 capitalinvestments@usa.com

Phone Fax E-mail Address

16. Property Owners Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application for a change in zoning classification. The property owner's signature(s) below shall also authorize the Applicant (if other than the property owner) and/or Agent to act in his/her behalf for the purposes of seeking this change to the City' Land Development Regulations for the property described herein.

Arrow Investment Group, LLC

by: (561) 324-4439

Property Owner's Name (Please Print) Phone

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

Property Owner's Signature Date

STATE OF FLORIDA)
ST LUCIE COUNTY)

The foregoing instrument was acknowledged before me this 24 day of June, 2020, by MUSTAFA ACUNOK who is personally known to me or has produced FL DL as identification.

Signature of Notary (seal)

MARIA TELLEZ-HURST
Notary Public. State of Florida
Commission# GG 104011
My comm. expires June 13, 2021

OFFICE USE:		
DATE RECEIVED:	Signed:	
File Number:	Check No:	Receipt No:
TRC Review:	Planning Board Review:	City Commission:
Ordinance No:	Date Approved:	

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CAPACITY ANALYSIS

I. Site Data:

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F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	See drainage report provided with submittal.

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	8,300	65/83
****Proposed Zoning/FLU**	609	38/49
***Change in Demand**	Trips	Trips
Impact to Capacity	-7,691	-27/-34

IV. Project Description

PHASING
Is this project (phase) part of a larger project? [ ] Yes [X] No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: 112 Single Family: Multifamily: 112
Non-residential (square footage):
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family		112	6.796	03/21	03/22
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. [ ] Yes [X] No

B. 1. Does this application involve demolition or re-use of any structure(s)? [ ] Yes [X] No
If yes, what is the size of the structure(s) to be demolished or re-used? _____
2. What is the current use of the structure to be demolished or re-used? _____
3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? [ ] Yes [ ] No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Application for Zoning Atlas Map Amendment

Application submission shall include the following:

•**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

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- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: North side of Okeechobee Road - Approximately 1/4 mile NE of S 33rd Street
2. Property Tax ID(s): 2417-504-0020-001-6
3. Total Acreage: 6.796 acres
4. Existing Future Land Use Designation: GC - General Commercial
5. Existing Zoning Classification: C3 - General Commercial
6. Proposed Zoning Classification: (ZONING) R4 - Medium Density Residential
7. Other applications being submitted concurrent with this application, if any: FLU Amendment, Design Review

8. Describe the existing uses, improvements and structures on the amendment lands: Vacant

9. Are there any identified or possible historical structures on the amendment lands? No

10. The reason for making this request: Proposed luxury apartment project. See Project Narrative.

11. CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Single Family	RL - Low Density Residential	R2 - Single Family Intermediate Density
South	Commercial	GC - General Commercial	C3 - General Commercial
East	Commercial	GC - General Commercial	C3 - General Commercial
West	Commercial/Religious Institution	RM - Medium Density Residential GC - General Commercial	R4 - Medium Density Residential C3 - General Commercial

	Future Land Use	Zoning Classification	Maximum Intensity **Residential: Dwelling Units per Acre** **Other: Square Footage**	Total Acreage	Flood Zone
Current	GC - General Commercial	C3 - General Commercial	1.0 FAR = 296,033 SF	6.796 acres	
Proposed	RM - Medium Density Residential	R4 - Medium Density Residential	12 du/ac + 5 du/ac bonus per FLUE Policy 1.1.5 = 17 du/ac = 115 units	6.796 acres	N/A

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 37,004
Change in Demand	**Total gallons per day** -7,104

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 29,603
Change in Demand	**Total gallons per day** +297

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	884.54	890.52	+5.98
Urban District	5 acres per 1,000 people	221.14	222.63	+1.49
Community	2.5 acres per 1,000 people	110.57	113.32	+0.75
Neighborhood	1.36 acres per 1,000 people	60.15	60.56	+0.41

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name	Chester A Moore Elementary/Dan McCarty Middle	Fort Pierce Central High
City	Fort Pierce	Fort Pierce
Distance	0.5-0.8 mile	0.5 mile
Current Zoning Enrollment Demand	N/A	N/A
Proposed Zoning Enrollment Demand	34.01	79.35
Change in Demand	+34.01	+79.35

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	Demand for commercial not listed above.
Proposed Zoning	16 yards
Change in Demand	Need demand for commercial

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	See drainage report provided with submittal.

III. Transportation Analysis

G. Traffic Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning	8,300	65/83
Proposed Zoning	609	38/49
Change in Demand	Trips	Trips
Impact to Capacity	-7,691	-27/-34

12. Name of Owner(s): Arrow Investment Group, LLC
Mailing Address: 4512 N. Flagler Drive, Suite 2056
City West Palm Beach State FL Zip 33407
Phone # (561) 324-4439
E-mail: capitalinvestments@usa.com

13. Name of Applicant: Same as Owner
Mailing Address: _____
City _____ State _____ Zip _____
Phone # _____ Fax # _____
E-mail: _____

14. Name of Representative: Michael Sanchez/Managed Land Entitlements
Mailing Address: 3710 Buckeye Street, Suite 100
City Palm Beach Gardens State FL Zip 33410
Phone # 561-568-8045 Fax # _____
E-mail: michael@mylandentitlements.com

15. **Applicant Acknowledgements** (Owner's signature must be notarized)

I certify that: (Check One)

X I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

_____ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

Same as Owner
Applicant's Signature Date

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

(561) 324-4439 capitalinvestments@usa.com

Phone Fax E-mail Address

16. Property Owners Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application for a change in zoning classification. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Agent to act in his/her behalf for the purposes of seeking this change to the City' Land Development Regulations for the property described herein.

Arrow Investment Group, LLC
by: (561) 324-4439

Property Owner's Name (Please Print) Phone

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

6/24/20

Property Owner's Signature Date

STATE OF FLORIDA)
ST LUCIE COUNTY)

The foregoing instrument was acknowledged before me this 24 day of June, 2020, by Mustafa Altinok who is personally known to me or has produced _____ as identification.

Signature of Notary (seal)

MARIA TELLEZ-HURST
Notary Public. State of Florida
Commission# GG 104011
My comm. expires June 13, 2021

OFFICE USE:

DATE RECEIVED:_____ Signed:_____

File Number:_____ Check No: _____ Receipt No: _____

TRC Review:_____ Planning Board Review: _____ City Commission: _____

Ordinance No:_____ Date Approved: _____

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

GENERAL ADDRESS REQUEST

[X] Assigned [ ] Corrected [ ] Changed

Property Owner(s): Arrow Investment Group, LLC

Parcel Identification(s): 2417-504-0020-001-6

Legal Description: See attached survey

Current Address: No address assigned

Use of Property: Proposed 112 unit multifamily apartment project

Reason for Request: New development.

Applicants Signature: _____ **Date:** 6/24/20

Arrow Investment Group, LLC

Printed Name: by: MUSTAFA ALTINOK

_____I am not the owner of the described property; however, the owner(s) authorizes me to act as agent for the owner(s) of record. (Provide copy of authorization).

Contact Information: Phone: (561) 324-4439 Email: capitalinvestments@usa.com

Office Use Only

PROPOSED NEW ADDRESS: _____

Signature of City Representative: _____

LOCATION MAP



Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address:	OKEECHOBEE RD
Parcel ID:	2417-504-0020-001-6
Account #:	26668
Map ID:	24/17N
Use Type:	1000
Zoning:	General Co
City/County:	Fort Pierce

Ownership

Arrow Investment Group LLC
4512 N Flagler DR # 2056
West Palm Beach, FL 33407

Legal Description

COLLIER`S S/D BLK D ALL BLK D-LESS S 27 FT AND SELY 7 FT FOR RD R/W AND LESS THAT PART MPDAF: BEG INT OF SE COR OF BLK D AND NLY RD R/W LI OF OKEEC RD RUN N 28 00 23 W 167.87 FT,TH N 89 51 15 E 79 FT TO E LI OF BLK D,TH S 00 04 02 W ALG E LI 148.41 FT TO NLY RD R/W LI OF OKEEC RD AND POB- (6.86 AC)



Current Values

Just/Market Value:	$732,700
Assessed Value:	$732,700
Exemptions:	$0
Taxable Value:	$732,700

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.87
Land Size (SF):	299,058

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Sale History

Date:	Sep 26, 2019
Book/Page:	4327 / 0333
Sale Code:	0002
Deed:	SP
Grantor:	Cypress Trust Company (TR)
Price:	$450,000
Date:	May 27, 2010
Book/Page:	3204 / 0743
Sale Code:	0112
Deed:	SP
Grantor:	Cypress Trust Company (TR)
Price:	$100
Date:	Dec 17, 2008
Book/Page:	3049 / 2156

Sale Code:	XX01
Deed:	CT
Grantor:	Mid South Acquisitions LLC
Price:	$299,000
Date:	Mar 9, 2006
Book/Page:	2511 / 0830
Sale Code:	XX00
Deed:	WD
Grantor:	Zog Limited Partnership
Price:	$1,728,800
Date:	Mar 25, 2004
Book/Page:	1936 / 0579
Sale Code:	XX00
Deed:	WD
Grantor:	B + M Construction Co Inc
Price:	$448,500
Date:	Sep 16, 1999
Book/Page:	1251 / 1882
Sale Code:	XX00
Deed:	WD
Grantor:	B + M Construction Co Inc
Price:	$260,000
Date:	Sep 14, 1998
Book/Page:	1171 / 1672
Sale Code:	XX01
Deed:	WD
Grantor:	SCOTTY`S INC
Price:	$95,700
Date:	Jan 1, 1986
Book/Page:	0489 / 2883
Sale Code:	XX00
Deed:	CV
Grantor:	
Price:	$725,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Special Features and Yard Items

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$732,700
Just/Market:	$732,700
Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$732,700
Exemption(s):	$0
Taxable:	$732,700

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2006	0041	18.1	Fort Pierce Stormwater Charge	$1,248.90

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office .

Historical Values

Permits

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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/

LEGAL DESCRIPTION

LEGAL DESCRIPTION (ORB 3204, PAGE 743):

BLOCK "D", LESS RIGHTS-OF-WAY, COLLIER SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A RAILROAD SPIKE AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST, LUCIE COUNTY, FLORIDA;
THENCE RUN N 88°42'30"E, ALONG THE SOUTH LINE OF THE SAID NORTHEAST 1/4, A DISTANCE OF 661.40 FEET TO THE WEST LINE OF BLOCK "D" OF COLLIER'S SUBDIVISION, AS RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA;
THENCE RUN N 00°00'18" W, ALONG THE WEST LINE OF SAID BLOCK D, A DISTANCE OF 27.01 FEET, TO THE POINT OF BEGINNING;
THENCE CONTINUE N 00°00'18" W, A DISTANCE OF 796.62 FEET, TO THE NORTHWEST CORNER OF SAID BLOCK D;
THENCE RUN N 88°43'25" E, ALONG THE NORTH LINE OF SAID BLOCK D, A DISTANCE OF 460.00 FEET;
THENCE RUN S 00°04'02" W, A DISTANCE OF 470.52 FEET, TO THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE RUN S 49°35'30" W, ALONG THE SAID NORTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 516.56 FEET;
THENCE RUN S 88°42'30" W, A DISTANCE OF 65.96 FEET, TO THE POINT OF BEGINNING,
ALL LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THE FOLLOWING:

A PORTION OF BLOCK "D", COLLIER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 4, PAGE 63, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SAID BLOCK "D", SAID CORNER BEING SITUATED ON THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE, NORTH 28°00'23" W, A DISTANCE OF 167.87 FEET;
THENCE, NORTH 89°51'15" E, A DISTANCE OF 79.00 FEET TO THE EAST LINE OF SAID BLOCK D;
THENCE, SOUTH 00°04'02" W, ALONG SAID EAST LINE, A DISTANCE OF 148.41 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.
SAID LANDS SITUATE, LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA.

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 4623280 OR BOOK 4327 PAGE 333, Recorded 10/01/2019 12:37:51 PM Doc Tax: $3150.00

Prepared by and return to:
James H. Ryan
Attorney at Law
Gary, Dytrych & Ryan, P.A.
701 U. S. Highway One Suite 402
North Palm Beach, FL 33408
561-844-3700
File Number: **84101**

[Space Above This Line For Recording Data]

Special Warranty Deed

This Special Warranty Deed made this **30th** day of **September, 2019** between **Cypress Trust Company, a Florida corporation**, as Trustee under Special Purpose Revocable Trust Agreement dated November 22, 2013, as modified; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated May 18, 2004, as modified; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated June 8, 2004; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated June 2, 2004; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated October 17, 2003; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated March 23, 2005; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated February 21, 2006; and Cypress Trust Company, as Trustee under IRA Self-directed Trust Agreement dated February 13, 2005, whose post office address is **251 Royal Palm Way, Suite 500, Palm Beach, FL 33480**, grantor, and **Arrow Investment Group LLC, a Florida limited liability company**, whose post office address is **4512 North Flagler Dr., #2056, West Palm Beach, FL 33407**, grantee:

(Whenever used herein the terms grantor and grantee include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Saint Lucie County, Florida**, to-wit:

Block "D", Less rights-of-way, COLLIER'S SUBDIVISION, according to the Plat thereof, recorded in Plat Book 4, Page 63, Public Records of St. Lucie County, Florida, being more particularly described as follows:
Commence at a railroad spike at the Southwest corner of the Northeast 1/4 of Section 17, Township 35 South, Range 40 East, St, Lucie County, Florida; thence run N 88°42'30"E, along the South line of the said Northeast 1/4, a distance of 661.40 feet to the West line of Block "D" of Collier's Subdivision, as recorded in Plat Book 4, Page 63, Public Records of St. Lucie County, Florida; thence run N 00°00'18" W, along the West line of said Block D, a distance of 27.01 feet, to the POINT OF BEGINNING; thence continue N 00°00'18" W, a distance of 796.62 feet, to the Northwest corner of said Block D; thence run N 88°43'25" E, along the North line of said Block D, a distance of 460.00 feet; thence run S 00°04'02" W, a distance of 470.52 Feet, to the Northerly right-of-way line of Okeechobee Road [State Road 70]; thence run S 49°35'30" W, along the said Northerly right-of-way line, a distance of 516.56 feet; thence run S 88°42'30" W, a distance of 65.96 feet, to the POINT OF BEGINNING, all lying and being in Section 17, Township 35 South, Range 40 East, St. Lucie County, Florida.
Less and excepting the following:
A portion of Block "D", COLLIER'S SUBDIVISION, according to the Plat thereof as recorded in Plat Book 4, Page 63, of the Public Records of St. Lucie County, Florida.
Being more particularly described as follows:

Begin at the Southeast corner of said Block "D", said corner being situated on the Northerly right-of-way line of Okeechobee Road [State Road 70]; thence, North 28°00'23" W, a distance of 167.87 feet; thence, North 89°51'15" E, a distance of 79.00 feet to the East line of said Block D; thence,
South 00°04'02" W, along said East line, a distance of 148.41 feet to the Point of Beginning of the herein described parcel of land.
Said lands situate, lying and being in Section 17, Township 35 South, Range 40 East, City of Fort Pierce, St. Lucie County, Florida.

Parcel Identification Number: 2417-504-0020-001-6

Subject to taxes for 2019 and subsequent years; covenants, conditions, restrictions, easements, reservations and limitations of record, if any.

Grantor is an institutional lender and is acting solely in a fiduciary capacity.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under grantors.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Witness Name: Donna Pfister

Witness Name: Jamie Reid

Cypress Trust Company, a Florida corporation, as Trustee

By: _____
Roxanne Ertle, Vice President

(Corporate Seal)

State of Florida
County of Palm Beach

The foregoing instrument was acknowledged before me this 26 day of September, 2019 by Roxanne Ertle, Vice President of Cypress Trust Company, a Florida corporation, as Trustee, on behalf of the corporation. He/she [ ] is personally known to me or [ ] has produced a driver's license as identification.

[Notary Seal]

JAMIE REID
Notary Public - State of Florida
Commission # FF 936732
My Comm. Expires Jan 21, 2020
Bonded through National Notary Assn.

Notary Public

Printed Name: Jamie Reid

My Commission Expires: 01 | 21 | 2020

DoubleTime®

CONCEPTUAL SURFACE WATER MANAGEMENT REPORT AND CALCULATIONS

For

ARIA APARTMENTS

June 2020

SINCE 1979

Prepared by:

Michael B. Schorah and Associates, Inc.
1850 Forest Hill Blvd., Suite 206
West Palm Beach, Florida 33406
(561) 968-0080
EB#2438

MICHAEL J. LACOURSIERE LICENSE No. 41071 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY MICHAEL J. LACOURIERE, P.E. ON 6/16/20 USING A SHA-1 AUTHENTICATION CODE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Michael J. LaCoursiere, P.E.
Florida Registration No. 41071
for Michael B. Schorah and Associates, Inc.

Date

MICHAEL J. LaCOURSIERE LICENSE 41071 STATE OF FLORIDA PROFESSIONAL ENGINEER 6/16/2020

INTRODUCTION

This drainage report is prepared and presented as a support document for an application being submitted to City of Fort Pierce Technical Review Committee. The application proposes development of 112 multi-family residential units located in five (5) two- and three-story buildings on approximately 6.8 acres. The site is located on Okeechobee Road at the intersection with South 30th Street. A clubhouse and pool amenity are also proposed. The site is currently undeveloped. An existing ditch runs along the west side of the property. This on-stie ditch appears to provide conveyance of off-site water south to an existing culvert located off-site near the southwest corner of property. Water from the ditch passes through the culvert, under South 31st Street, and into a City of Fort Pierce (CFP) drainage ditch. Flow from the CFP ditch continues westward under South 33rd Avenue and into the North St. Lucie River Water Control District (NSLRWCD) Canal 6 and ultimately to Five Mile Creek (NSLRWCD Canal 29). Therefore, the subject parcel has legal positive outfall.

PROPOSED SURFACE WATER MANAGEMENT SYSTEM

The proposed surface water management design considers the existing on-site ditch as the receiving body (receiving ditch) for stormwater discharge. Discharge from the receiving ditch into the CFP ditch is controlled by an existing 36" RCP pipe with a west invert elevation of 13.4. Therefore, we can assume that water elevations in the receiving ditch can rise to this elevation and artificially control the new system at the same elevation. Conservatively, the following surface water management calculations assume an on-site control elevation of 13.4. The calculations demonstrate the proposed development can meet regulatory criteria for finished floors (100-year 3-day stage), perimeter grades (25-year 3-day stage), and minimum pavement (10-year 1-day stage). We expect, however, that the on-site detention area water level will

fluctuate between elevation 13.4 and 10.5 (expected groundwater elevation). Elevation 10.5 is also the control elevation of NSLRWCD Canal 6. Accordingly, on-site storm stages will only rise as high as presented in the summary shown below during instances where the receiving ditch is full.

The site plan shows modifications to the receiving ditch. More specifically, as shown on the Conceptual Engineering Plan, a portion of the receiving ditch will be piped within the property limits. Sizing of the pipe will be determined based upon expected off-site flows. The site plan also considers re-grading the east bank of the receiving ditch.

We also note that the water surface of the proposed on-site detention area is less than 0.5 acres. This falls short of the minimum dimensional criteria established by South Florida Water Management District for water quality credit. Therefore, an exfiltration trench system is being established to provide necessary water quality treatment prior to off-site discharge.

WATER MANAGEMENT CALCULATIONS

Land Use Assumptions:

Total Site Area	=	6.50 ac.	(area within perimeter berm)	
Lake Area (Water)	=	0.36 ac.	el. 13.4	(100% imp.)
Lake Bank Area	=	0.23 ac.	el. 13.4→17.5	(0% imp.)
Building Area	=	1.39 ac.	el. 19.5 min.	(100% imp.)
Pavement Area	=	1.97 ac.	el. 17.25→18.5	(100% imp.)
Walk Area	=	0.29 ac.	el. 17.5→19.0	(100% imp.)
Remainder	=	2.26 ac.	el. 17.5→19.0	(0% imp.)

Soil Storage:

Wet Season Groundwater elevation is 13.4 NAVD.
Using Flatwoods Soil Storage:
Lake Bank (avg. 2.05' above GWT) = 0.23 ac. x 2.64 in. x 0.75= 0.46 ac.-in.

Remainder (avg. 4'+ above GWT) = 2.26 ac. x 9 in. x 0.75 = 15.26 ac.-in.

Total Soil Storage = 15.26 + 0.46 = 15.72 ac.-in. or 2.42 inches

Water Quality Retention Required:

Drainage Area= 6.5 ac.
1" over site:
V = 1" x 6.5 ac. x 1'/12" = 0.54 ac.-ft.`

2.5" x % impervious:
Site area for water quality = 6.5 – 1.39 – 0.36 = 4.75 ac.
Imp. area for water quality = 4.75 – 2.26– 0.23 = 2.26 ac.
% Impervious = 2.26 / 4.75 = 47.58%
2.5" x % impervious = 2.5" x 0.4758 = 1.19"
V = 1.19" x (6.5 – 0.36) ac. x 1'/12" = 0.61 ac.-ft.

Maximum controls, therefore, V = 0.61 ac.-ft.

Note: Detention area does not meet SFWMD dimensional criteria. Therefore, water quality will be provided by other means, see following exfiltration design.

Bleeder Criteria:

Type: Circular
Invert Elevation: 13.40'
Diameter: 3.75 in.
Weir Flow: 0.6
Orifice Flow: 0.6

Allowable Discharge:

Allowable Discharge = 0.216/24 x 6.5 x (43560 S.F. /3600 sec.) = 0.71 cfs*
Weir Top Elevation has been set above the 25-year 3-day flood stage.

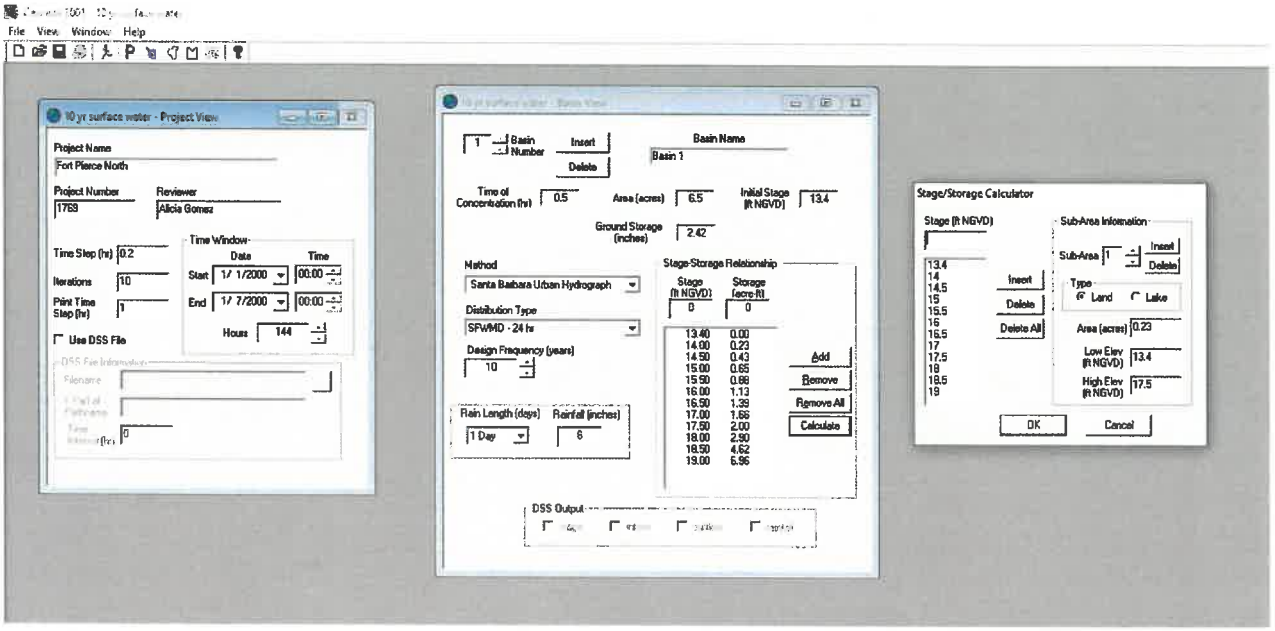
*Based on NSLRWCD criteria which is more restrictive than City of Fort Pierce pre vs. post analysis. NSLRWCD criteria = 2.6" in 24 hours.

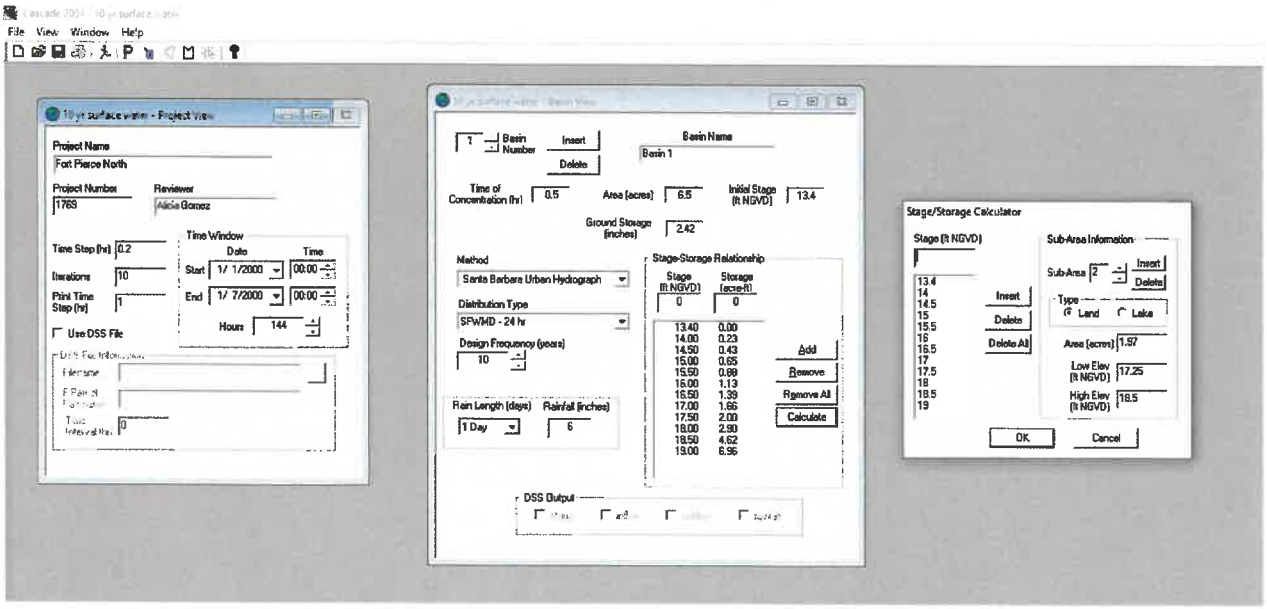
SUMMARY OF CONCEPTUAL DESIGN CRITERIA:

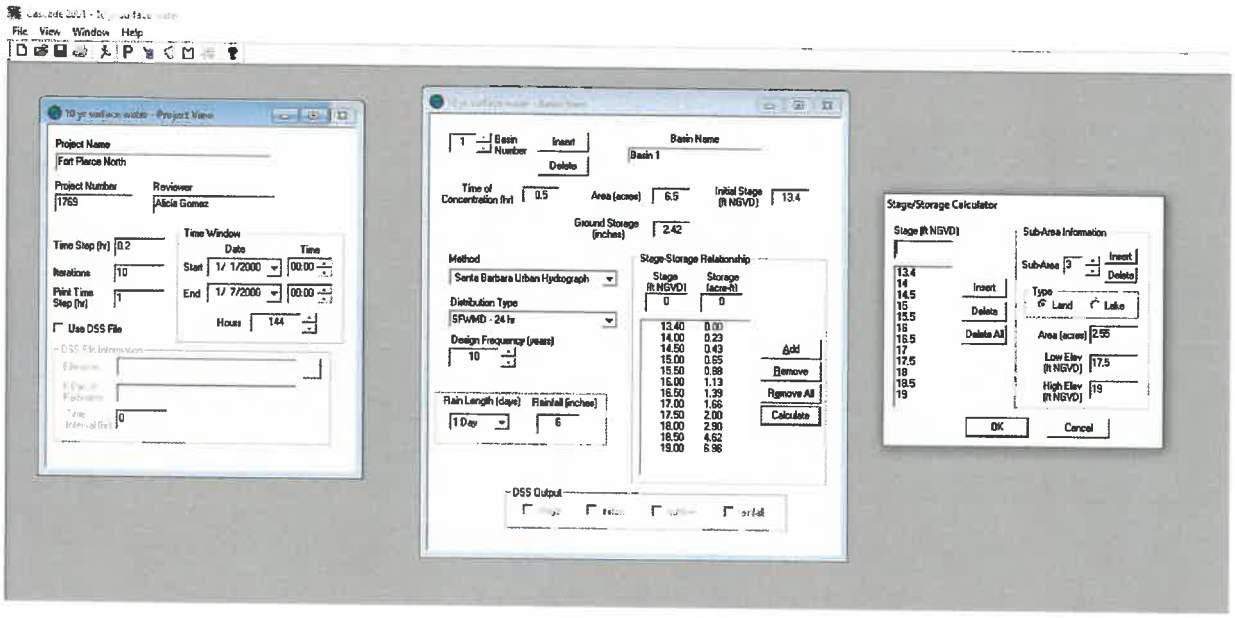
100 year –3 day Rainfall	12.23 inches
100 year - 3 day Flood Elevation	18.58' NAVD (zero discharge)
Minimum Finished Floor Elevation	19.50' NAVD
25 year – 3 day Rainfall	9.5 inches
25 year - 3 day Flood Elevation	17.76' NAVD
Minimum Perimeter Elevation	17.90' NAVD
Weir Elevation	17.90' NAVD
10 year - 1 day Rainfall	6 inches
10 year - 1 day Flood Elevation	16.16' NAVD
Minimum Pavement Elevation	17.25' NAVD

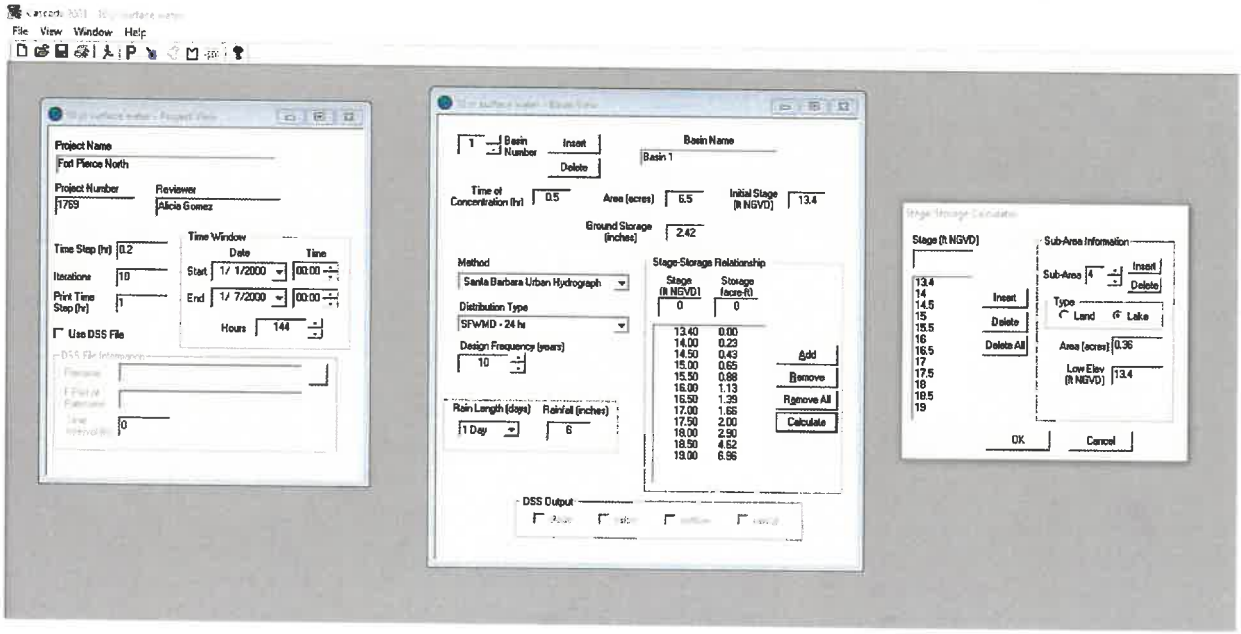
Stage/Storage Calculations on Cascade (Screenshots)

The following screenshots are presented to show the stage-storage table generated by the Cascade/SBWW program prior to hand entering storage associated with the proposed exfiltration trench.






File View Window Help
Project Name
Fort Pierce North
Project Number
1769
Reviewer
Alicia Gomez
Time Window
Time Step (hr) 0.2
Iterations 10
Print Time Step (hr) 1
Use DSS File
Start 1/ 1/2000
End 1/ 7/2000
Hours 144
Basin Number
Insert
Delete
Basin Name
Basin 1
Time of Concentration (hr) 0.5
Area (acres) 6.5
Initial Stage (ft NGVD) 13.4
Ground Storage (inches) 2.42
Method
Santa Barbara Urban Hydrograph
Distribution Type
SFWMD - 24 hr
Design Frequency (years) 10
Rain Length (days) 1 Day
Rainfall (inches) 6
Stage-Storage Relationship
Stage (ft NGVD) Storage (acre-ft)
13.40 0.00
14.00 0.23
14.50 0.43
15.00 0.65
15.50 0.88
16.00 1.13
16.50 1.39
17.00 1.66
17.50 2.00
18.00 2.90
18.50 4.62
19.00 6.96
Add
Remove
Remove All
Calculate
DSS Output
Stage/Storage Calculator
Stage (ft NGVD)
Sub-Area Information
Sub-Area 3
Type Land Lake
Area (acres) 2.55
Low Elev (ft NGVD) 17.5
High Elev (ft NGVD) 19
Delete All
OK
Cancel


File View Window Help
Project Name
Fort Pierce North
Project Number
1769
Reviewer
Alicia Gomez
Time Window
Time Step (hr) 0.2
Iterations 10
Print Time Step (hr) 1
Use DSS File
Start 1/ 1/2000
End 1/ 7/2000
Hours 144
Basin Number
Insert
Delete
Basin Name
Basin 1
Time of Concentration (hr) 0.5
Area (acres) 6.5
Initial Stage (ft NGVD) 13.4
Ground Storage (inches) 2.42
Method
Santa Barbara Urban Hydrograph
Distribution Type
SFWMD - 24 hr
Design Frequency (years) 10
Rain Length (days) 1 Day
Rainfall (inches) 6
Stage-Storage Relationship
Stage (ft NGVD) Storage (acre-ft)
13.40 0.00
14.00 0.23
14.50 0.43
15.00 0.65
15.50 0.88
16.00 1.13
16.50 1.39
17.00 1.66
17.50 2.00
18.00 2.90
18.50 4.62
19.00 6.96
Add
Remove
Remove All
Calculate
DSS Output
Stage (ft NGVD)
Sub-Area Information
Sub-Area 4
Type Land Lake
Area (acres) 0.36
Low Elev (ft NGVD) 13.4
Delete All
OK
Cancel

EXFILTRATION TRENCH DATA:

18" PERFORATED H.D.P.E PIPE
TRENCH DEPTH 3.5', TRENCH WIDTH 6'
OVERFLOW ELEVATION = 13.40 NAVD
PIPE INVERT ELEVATION = 12.75 NAVD
12" MINIMUM COVER OF COARSE ROCK OVER PIPE
TOP OF TRENCH ELEVATION = 15.25 NAVD
BOTTOM OF TRENCH ELEVATION = 11.75 NAVD
WATER TABLE ELEVATION = 13.40 NAVD

k = HYDRAULIC CONDUCTIVITY *	6.32E-05 cfs/sq.ft-ft-head	
V = VOLUME TO BE TREATED	0.61 Ac-in	Max. Allowed Volume
W = TRENCH WIDTH	6.00 feet	
Ds = SATURATED TRENCH DEPTH	1.65 feet	
Du = NON-SATURATED TRENCH DEPTH	1.85 feet	
H2 = DEPTH OF WT FROM CONTROL ELEV.	3.85 feet	(17.25-13.40)

EXFILTRATION TRENCH LENGTH

L = V / K(H2xW+2xH2xDu-Du^2+2xH2xDs) +(1.39x10-4)WxDu

L = 135.86 feet

*HYDRAULIC CONDUCTIVITY FROM SOIL REPORT. SEE ATTACHED EXHIBIT.

STAGE-STORAGE TABLE:

Stage (Ft NAVD)	Storage (acre-ft)	+	Exfiltration Trench (acre-ft)	=	Total Storage (acre-ft)
13.40	0	+	0.31	=	0.31
14.00	0.23	+	0.41	=	0.64
14.50	0.43	+	0.49	=	0.92
15.00	0.65	+	0.57	=	1.22
15.50	0.88	+	0.61	=	1.49
16.00	1.13	+	0.61	=	1.74
16.50	1.39	+	0.61	=	2.00
17.00	1.66	+	0.61	=	2.27
17.50	2.00	+	0.61	=	2.61
18.00	2.90	+	0.61	=	3.51
18.50	4.62	+	0.61	=	5.23
19.00	6.96	+	0.61	=	7.57
	Generated from Cascade				

Project Name: Fort Pierce North
Reviewer: Alicia Gomez
Project Number: 1769
  Period Begin: Jan 01, 2000;0000 hr End: Jan 07, 2000;0000 hr Duration: 144 hr
  Time Step: 0.2 hr, Iterations: 10

Basin 1: Basin 1

  Method: Santa Barbara Unit Hydrograph
  Rainfall Distribution: SFWMD - 3day
  Design Frequency: 100 year
  3 Day Rainfall: 12.23 inches
  Area: 6.5 acres
  Ground Storage: 2.42 inches
  Time of Concentration: 1 hours
  Initial Stage: 13.4 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
13.40	0.31
14.00	0.64
14.50	0.92
15.00	1.22
15.50	1.49
16.00	1.74
16.50	2.00
17.00	2.27
17.50	2.61
18.00	3.51
18.50	5.23
19.00	7.57

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NAVD)
0.00	13.40
1000.00	13.40

Structure: 1

  From Basin: Basin 1
  To Basin: Offsite1
  Structure Type: Gravity
    Weir: None
    Bleeder: None
    Pipe: None

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
0.00	0.00	0.00	0.00	0.00	13.40	13.40
1.00	0.05	0.00	0.00	0.00	13.40	13.40
2.00	0.11	0.00	0.00	0.00	13.40	13.40
3.00	0.16	0.00	0.00	0.00	13.40	13.40
4.00	0.22	0.00	0.00	0.00	13.40	13.40
5.00	0.27	0.00	0.00	0.00	13.40	13.40
6.00	0.33	0.00	0.00	0.00	13.40	13.40
7.00	0.38	0.00	0.00	0.00	13.40	13.40
8.00	0.44	0.00	0.00	0.00	13.40	13.40
9.00	0.49	0.00	0.00	0.00	13.40	13.40
10.00	0.55	0.01	0.00	0.00	13.40	13.40
11.00	0.60	0.02	0.00	0.00	13.40	13.40
12.00	0.66	0.03	0.00	0.00	13.41	13.40
13.00	0.71	0.05	0.00	0.00	13.41	13.40
14.00	0.77	0.06	0.00	0.00	13.42	13.40
15.00	0.82	0.07	0.00	0.00	13.43	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
16.00	0.88	0.08	0.00	0.00	13.44	13.40
17.00	0.93	0.09	0.00	0.00	13.45	13.40
18.00	0.99	0.10	0.00	0.00	13.47	13.40
19.00	1.04	0.11	0.00	0.00	13.49	13.40
20.00	1.09	0.12	0.00	0.00	13.50	13.40
21.00	1.15	0.13	0.00	0.00	13.52	13.40
22.00	1.20	0.14	0.00	0.00	13.54	13.40
23.00	1.26	0.15	0.00	0.00	13.56	13.40
24.00	1.31	0.15	0.00	0.00	13.59	13.40
25.00	1.39	0.21	0.00	0.00	13.61	13.40
26.00	1.47	0.24	0.00	0.00	13.65	13.40
27.00	1.55	0.26	0.00	0.00	13.68	13.40
28.00	1.63	0.27	0.00	0.00	13.72	13.40
29.00	1.71	0.28	0.00	0.00	13.77	13.40
30.00	1.79	0.29	0.00	0.00	13.81	13.40
31.00	1.87	0.30	0.00	0.00	13.85	13.40
32.00	1.95	0.31	0.00	0.00	13.90	13.40
33.00	2.03	0.32	0.00	0.00	13.95	13.40
34.00	2.11	0.33	0.00	0.00	14.00	13.40
35.00	2.19	0.34	0.00	0.00	14.04	13.40
36.00	2.27	0.34	0.00	0.00	14.09	13.40
37.00	2.35	0.35	0.00	0.00	14.15	13.40
38.00	2.43	0.36	0.00	0.00	14.20	13.40
39.00	2.51	0.36	0.00	0.00	14.25	13.40
40.00	2.59	0.37	0.00	0.00	14.30	13.40
41.00	2.67	0.37	0.00	0.00	14.36	13.40
42.00	2.75	0.38	0.00	0.00	14.42	13.40
43.00	2.83	0.38	0.00	0.00	14.47	13.40
44.00	2.91	0.39	0.00	0.00	14.53	13.40
45.00	2.99	0.39	0.00	0.00	14.58	13.40
46.00	3.07	0.40	0.00	0.00	14.63	13.40
47.00	3.15	0.40	0.00	0.00	14.69	13.40
48.00	3.23	0.40	0.00	0.00	14.75	13.40
49.00	3.32	0.44	0.00	0.00	14.80	13.40
50.00	3.41	0.46	0.00	0.00	14.87	13.40
51.00	3.52	0.53	0.00	0.00	14.93	13.40
52.00	3.64	0.59	0.00	0.00	15.01	13.40
53.00	3.79	0.74	0.00	0.00	15.11	13.40
54.00	3.98	0.93	0.00	0.00	15.24	13.40
55.00	4.20	1.13	0.00	0.00	15.40	13.40
56.00	4.46	1.34	0.00	0.00	15.60	13.40
57.00	4.77	1.61	0.00	0.00	15.84	13.40
58.00	5.15	1.98	0.00	0.00	16.13	13.40
59.00	5.65	2.65	0.00	0.00	16.49	13.40
60.00	9.13	16.79	0.00	0.00	17.45	13.40
61.00	10.13	9.84	0.00	0.00	18.05	13.40
62.00	10.59	5.41	0.00	0.00	18.22	13.40
63.00	10.88	3.12	0.00	0.00	18.32	13.40
64.00	11.15	2.23	0.00	0.00	18.38	13.40
65.00	11.31	1.47	0.00	0.00	18.43	13.40
66.00	11.47	1.19	0.00	0.00	18.46	13.40
67.00	11.64	1.09	0.00	0.00	18.49	13.40
68.00	11.80	1.05	0.00	0.00	18.51	13.40
69.00	11.91	0.82	0.00	0.00	18.52	13.40
70.00	12.01	0.74	0.00	0.00	18.54	13.40
71.00	12.12	0.70	0.00	0.00	18.55	13.40
72.00	12.23	0.69	0.00	0.00	18.56	13.40
73.00	12.23	0.26	0.00	0.00	18.57	13.40
74.00	12.23	0.09	0.00	0.00	18.57	13.40
75.00	12.23	0.03	0.00	0.00	18.57	13.40
76.00	12.23	0.01	0.00	0.00	18.58	13.40
77.00	12.23	0.00	0.00	0.00	18.58	13.40
78.00	12.23	0.00	0.00	0.00	18.58	13.40
79.00	12.23	0.00	0.00	0.00	18.58	13.40
80.00	12.23	0.00	0.00	0.00	18.58	13.40
81.00	12.23	0.00	0.00	0.00	18.58	13.40
82.00	12.23	0.00	0.00	0.00	18.58	13.40
83.00	12.23	0.00	0.00	0.00	18.58	13.40
84.00	12.23	0.00	0.00	0.00	18.58	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
85.00	12.23	0.00	0.00	0.00	18.58	13.40
86.00	12.23	0.00	0.00	0.00	18.58	13.40
87.00	12.23	0.00	0.00	0.00	18.58	13.40
88.00	12.23	0.00	0.00	0.00	18.58	13.40
89.00	12.23	0.00	0.00	0.00	18.58	13.40
90.00	12.23	0.00	0.00	0.00	18.58	13.40
91.00	12.23	0.00	0.00	0.00	18.58	13.40
92.00	12.23	0.00	0.00	0.00	18.58	13.40
93.00	12.23	0.00	0.00	0.00	18.58	13.40
94.00	12.23	0.00	0.00	0.00	18.58	13.40
95.00	12.23	0.00	0.00	0.00	18.58	13.40
96.00	12.23	0.00	0.00	0.00	18.58	13.40
97.00	12.23	0.00	0.00	0.00	18.58	13.40
98.00	12.23	0.00	0.00	0.00	18.58	13.40
99.00	12.23	0.00	0.00	0.00	18.58	13.40
100.00	12.23	0.00	0.00	0.00	18.58	13.40
101.00	12.23	0.00	0.00	0.00	18.58	13.40
102.00	12.23	0.00	0.00	0.00	18.58	13.40
103.00	12.23	0.00	0.00	0.00	18.58	13.40
104.00	12.23	0.00	0.00	0.00	18.58	13.40
105.00	12.23	0.00	0.00	0.00	18.58	13.40
106.00	12.23	0.00	0.00	0.00	18.58	13.40
107.00	12.23	0.00	0.00	0.00	18.58	13.40
108.00	12.23	0.00	0.00	0.00	18.58	13.40
109.00	12.23	0.00	0.00	0.00	18.58	13.40
110.00	12.23	0.00	0.00	0.00	18.58	13.40
111.00	12.23	0.00	0.00	0.00	18.58	13.40
112.00	12.23	0.00	0.00	0.00	18.58	13.40
113.00	12.23	0.00	0.00	0.00	18.58	13.40
114.00	12.23	0.00	0.00	0.00	18.58	13.40
115.00	12.23	0.00	0.00	0.00	18.58	13.40
116.00	12.23	0.00	0.00	0.00	18.58	13.40
117.00	12.23	0.00	0.00	0.00	18.58	13.40
118.00	12.23	0.00	0.00	0.00	18.58	13.40
119.00	12.23	0.00	0.00	0.00	18.58	13.40
120.00	12.23	0.00	0.00	0.00	18.58	13.40
121.00	12.23	0.00	0.00	0.00	18.58	13.40
122.00	12.23	0.00	0.00	0.00	18.58	13.40
123.00	12.23	0.00	0.00	0.00	18.58	13.40
124.00	12.23	0.00	0.00	0.00	18.58	13.40
125.00	12.23	0.00	0.00	0.00	18.58	13.40
126.00	12.23	0.00	0.00	0.00	18.58	13.40
127.00	12.23	0.00	0.00	0.00	18.58	13.40
128.00	12.23	0.00	0.00	0.00	18.58	13.40
129.00	12.23	0.00	0.00	0.00	18.58	13.40
130.00	12.23	0.00	0.00	0.00	18.58	13.40
131.00	12.23	0.00	0.00	0.00	18.58	13.40
132.00	12.23	0.00	0.00	0.00	18.58	13.40
133.00	12.23	0.00	0.00	0.00	18.58	13.40
134.00	12.23	0.00	0.00	0.00	18.58	13.40
135.00	12.23	0.00	0.00	0.00	18.58	13.40
136.00	12.23	0.00	0.00	0.00	18.58	13.40
137.00	12.23	0.00	0.00	0.00	18.58	13.40
138.00	12.23	0.00	0.00	0.00	18.58	13.40
139.00	12.23	0.00	0.00	0.00	18.58	13.40
140.00	12.23	0.00	0.00	0.00	18.58	13.40
141.00	12.23	0.00	0.00	0.00	18.58	13.40
142.00	12.23	0.00	0.00	0.00	18.58	13.40
143.00	12.23	0.00	0.00	0.00	18.58	13.40
144.00	12.23	0.00	0.00	0.00	18.58	13.40

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	0.00	0.00	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Basin 1	18.58	81.60	13.40	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Basin 1	5.27	0.00	0.00	0.31	5.58	0.00

Project Name: Fort Pierce North
Reviewer: Alicia Gomez
Project Number: 1769
  Period Begin: Jan 01, 2000;0000 hr End: Jan 07, 2000;0000 hr Duration: 144 hr
  Time Step: 0.2 hr, Iterations: 10

Basin 1: Basin 1

  Method: Santa Barbara Unit Hydrograph
  Rainfall Distribution: SFWMD - 3day
  Design Frequency: 25 year
  3 Day Rainfall: 9.5 inches
  Area: 6.5 acres
  Ground Storage: 2.42 inches
  Time of Concentration: 1 hours
  Initial Stage: 13.4 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
13.40	0.31
14.00	0.64
14.50	0.92
15.00	1.22
15.50	1.49
16.00	1.74
16.50	2.00
17.00	2.27
17.50	2.61
18.00	3.51
18.50	5.23
19.00	7.57

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NAVD)
0.00	13.40
24.00	13.40
48.00	13.60
68.00	14.50
360.00	13.40
1000.00	13.40

Structure: 1

  From Basin: Basin 1
  To Basin: Offsite1
  Structure Type: Gravity
    Weir: None
    Bleeder: Circular, Invert Elev = 13.4 ft NAVD, Diameter = 0.31 ft
      Default Coefs: Weir Coef = 0.6, Orifice Coef = 0.6
    Pipe: Diameter = 2 ft, Manning's n = 0.012, Length = 20 ft
      US Invert Elev = 11.8 ft NAVD, DS Invert Elev = 11.8 ft NAVD, flap gate

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
0.00	0.00	0.00	0.00	0.00	13.40	13.40
1.00	0.04	0.00	0.00	0.00	13.40	13.40
2.00	0.09	0.00	0.00	0.00	13.40	13.40
3.00	0.13	0.00	0.00	0.00	13.40	13.40
4.00	0.17	0.00	0.00	0.00	13.40	13.40
5.00	0.21	0.00	0.00	0.00	13.40	13.40
6.00	0.26	0.00	0.00	0.00	13.40	13.40
7.00	0.30	0.00	0.00	0.00	13.40	13.40
8.00	0.34	0.00	0.00	0.00	13.40	13.40
9.00	0.38	0.00	0.00	0.00	13.40	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
10.00	0.43	0.00	0.00	0.00	13.40	13.40
11.00	0.47	0.00	0.00	0.00	13.40	13.40
12.00	0.51	0.00	0.00	0.00	13.40	13.40
13.00	0.55	0.01	0.00	0.00	13.40	13.40
14.00	0.60	0.02	0.00	0.00	13.40	13.40
15.00	0.64	0.02	0.00	0.00	13.41	13.40
16.00	0.68	0.03	0.00	0.00	13.41	13.40
17.00	0.72	0.04	0.00	0.00	13.42	13.40
18.00	0.77	0.05	0.00	0.00	13.42	13.40
19.00	0.81	0.05	0.00	0.00	13.43	13.40
20.00	0.85	0.06	0.00	0.00	13.44	13.40
21.00	0.89	0.07	0.00	0.00	13.45	13.40
22.00	0.94	0.07	0.01	0.00	13.46	13.40
23.00	0.98	0.08	0.01	0.00	13.47	13.40
24.00	1.02	0.09	0.01	0.00	13.48	13.40
25.00	1.08	0.12	0.02	0.00	13.49	13.41
26.00	1.14	0.14	0.02	0.01	13.51	13.42
27.00	1.21	0.15	0.03	0.01	13.53	13.42
28.00	1.27	0.16	0.04	0.01	13.55	13.43
29.00	1.33	0.17	0.05	0.01	13.56	13.44
30.00	1.39	0.18	0.06	0.02	13.58	13.45
31.00	1.45	0.19	0.07	0.02	13.60	13.46
32.00	1.52	0.20	0.08	0.03	13.62	13.47
33.00	1.58	0.21	0.09	0.04	13.64	13.48
34.00	1.64	0.21	0.10	0.05	13.65	13.48
35.00	1.70	0.22	0.11	0.06	13.67	13.49
36.00	1.77	0.23	0.12	0.06	13.69	13.50
37.00	1.83	0.23	0.13	0.08	13.70	13.51
38.00	1.89	0.24	0.15	0.09	13.72	13.52
39.00	1.95	0.24	0.15	0.10	13.73	13.52
40.00	2.01	0.25	0.16	0.11	13.74	13.53
41.00	2.08	0.25	0.16	0.13	13.76	13.54
42.00	2.14	0.26	0.17	0.14	13.77	13.55
43.00	2.20	0.26	0.17	0.15	13.78	13.56
44.00	2.26	0.27	0.17	0.17	13.80	13.57
45.00	2.32	0.27	0.18	0.18	13.81	13.58
46.00	2.39	0.28	0.18	0.20	13.83	13.58
47.00	2.45	0.28	0.18	0.21	13.84	13.59
48.00	2.51	0.28	0.18	0.23	13.86	13.60
49.00	2.58	0.31	0.17	0.24	13.87	13.65
50.00	2.65	0.32	0.16	0.26	13.90	13.69
51.00	2.73	0.37	0.16	0.27	13.92	13.74
52.00	2.82	0.42	0.15	0.28	13.96	13.78
53.00	2.94	0.53	0.16	0.29	14.01	13.83
54.00	3.09	0.66	0.16	0.31	14.07	13.87
55.00	3.26	0.81	0.18	0.32	14.16	13.91
56.00	3.47	0.97	0.20	0.34	14.26	13.96
57.00	3.70	1.16	0.22	0.36	14.39	14.01
58.00	4.00	1.44	0.25	0.38	14.54	14.05
59.00	4.39	1.95	0.29	0.40	14.73	14.10
60.00	7.10	12.58	0.42	0.43	15.45	14.14
61.00	7.87	7.41	0.60	0.47	16.95	14.19
62.00	8.23	4.08	0.66	0.52	17.52	14.23
63.00	8.45	2.36	0.67	0.58	17.63	14.27
64.00	8.66	1.69	0.67	0.63	17.69	14.32
65.00	8.79	1.12	0.67	0.69	17.72	14.36
66.00	8.91	0.91	0.66	0.74	17.74	14.41
67.00	9.04	0.83	0.66	0.80	17.75	14.45
68.00	9.16	0.80	0.66	0.85	17.76	14.50
69.00	9.25	0.63	0.66	0.91	17.76	14.50
70.00	9.33	0.56	0.66	0.96	17.76	14.49
71.00	9.42	0.54	0.66	1.02	17.75	14.49
72.00	9.50	0.53	0.66	1.07	17.74	14.48
73.00	9.50	0.19	0.66	1.12	17.73	14.48
74.00	9.50	0.07	0.65	1.18	17.71	14.48
75.00	9.50	0.03	0.65	1.23	17.68	14.47
76.00	9.50	0.01	0.65	1.29	17.65	14.47
77.00	9.50	0.00	0.65	1.34	17.62	14.47
78.00	9.50	0.00	0.64	1.39	17.59	14.46

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
79.00	9.50	0.00	0.64	1.45	17.56	14.46
80.00	9.50	0.00	0.64	1.50	17.53	14.45
81.00	9.50	0.00	0.63	1.55	17.50	14.45
82.00	9.50	0.00	0.63	1.60	17.43	14.45
83.00	9.50	0.00	0.62	1.66	17.35	14.44
84.00	9.50	0.00	0.61	1.71	17.28	14.44
85.00	9.50	0.00	0.60	1.76	17.20	14.44
86.00	9.50	0.00	0.60	1.81	17.13	14.43
87.00	9.50	0.00	0.59	1.85	17.06	14.43
88.00	9.50	0.00	0.58	1.90	16.98	14.42
89.00	9.50	0.00	0.57	1.95	16.90	14.42
90.00	9.50	0.00	0.56	2.00	16.81	14.42
91.00	9.50	0.00	0.55	2.04	16.72	14.41
92.00	9.50	0.00	0.54	2.09	16.64	14.41
93.00	9.50	0.00	0.53	2.13	16.56	14.41
94.00	9.50	0.00	0.52	2.18	16.48	14.40
95.00	9.50	0.00	0.51	2.22	16.39	14.40
96.00	9.50	0.00	0.50	2.26	16.31	14.39
97.00	9.50	0.00	0.49	2.30	16.23	14.39
98.00	9.50	0.00	0.48	2.34	16.16	14.39
99.00	9.50	0.00	0.47	2.38	16.08	14.38
100.00	9.50	0.00	0.46	2.42	16.00	14.38
101.00	9.50	0.00	0.45	2.46	15.93	14.38
102.00	9.50	0.00	0.44	2.50	15.86	14.37
103.00	9.50	0.00	0.43	2.53	15.78	14.37
104.00	9.50	0.00	0.42	2.57	15.71	14.36
105.00	9.50	0.00	0.41	2.60	15.64	14.36
106.00	9.50	0.00	0.40	2.63	15.58	14.36
107.00	9.50	0.00	0.39	2.67	15.51	14.35
108.00	9.50	0.00	0.38	2.70	15.45	14.35
109.00	9.50	0.00	0.37	2.73	15.39	14.35
110.00	9.50	0.00	0.36	2.76	15.34	14.34
111.00	9.50	0.00	0.35	2.79	15.28	14.34
112.00	9.50	0.00	0.34	2.82	15.23	14.33
113.00	9.50	0.00	0.33	2.85	15.18	14.33
114.00	9.50	0.00	0.33	2.87	15.13	14.33
115.00	9.50	0.00	0.32	2.90	15.08	14.32
116.00	9.50	0.00	0.31	2.93	15.03	14.32
117.00	9.50	0.00	0.30	2.95	14.99	14.32
118.00	9.50	0.00	0.29	2.97	14.95	14.31
119.00	9.50	0.00	0.28	3.00	14.91	14.31
120.00	9.50	0.00	0.27	3.02	14.87	14.30
121.00	9.50	0.00	0.26	3.04	14.83	14.30
122.00	9.50	0.00	0.26	3.06	14.79	14.30
123.00	9.50	0.00	0.25	3.09	14.76	14.29
124.00	9.50	0.00	0.24	3.11	14.73	14.29
125.00	9.50	0.00	0.23	3.13	14.69	14.29
126.00	9.50	0.00	0.22	3.14	14.66	14.28
127.00	9.50	0.00	0.22	3.16	14.63	14.28
128.00	9.50	0.00	0.21	3.18	14.60	14.27
129.00	9.50	0.00	0.20	3.20	14.57	14.27
130.00	9.50	0.00	0.19	3.21	14.55	14.27
131.00	9.50	0.00	0.18	3.23	14.52	14.26
132.00	9.50	0.00	0.18	3.24	14.50	14.26
133.00	9.50	0.00	0.17	3.26	14.47	14.26
134.00	9.50	0.00	0.16	3.27	14.45	14.25
135.00	9.50	0.00	0.15	3.28	14.42	14.25
136.00	9.50	0.00	0.14	3.30	14.40	14.24
137.00	9.50	0.00	0.14	3.31	14.38	14.24
138.00	9.50	0.00	0.13	3.32	14.36	14.24
139.00	9.50	0.00	0.12	3.33	14.34	14.23
140.00	9.50	0.00	0.11	3.34	14.33	14.23
141.00	9.50	0.00	0.11	3.35	14.31	14.23
142.00	9.50	0.00	0.10	3.36	14.29	14.22
143.00	9.50	0.00	0.09	3.36	14.28	14.22
144.00	9.50	0.00	0.08	3.37	14.27	14.21

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	0.67	64.00	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Basin 1	17.76	68.80	13.40	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Basin 1	3.85	0.00	3.37	0.31	0.79	0.00

Project Name: Fort Pierce North
Reviewer: Alicia Gomez
Project Number: 1769
  Period Begin: Jan 01, 2000;0000 hr End: Jan 07, 2000;0000 hr Duration: 144 hr
  Time Step: 0.2 hr, Iterations: 10

Basin 1: Basin 1

  Method: Santa Barbara Unit Hydrograph
  Rainfall Distribution: SFWMD - 24 hr
  Design Frequency: 10 year
  1 Day Rainfall: 6 inches
  Area: 6.5 acres
  Ground Storage: 2.42 inches
  Time of Concentration: 1 hours
  Initial Stage: 13.4 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
13.40	0.31
14.00	0.64
14.50	0.92
15.00	1.22
15.50	1.49
16.00	1.74
16.50	2.00
17.00	2.27
17.50	2.61
18.00	3.51
18.50	5.23
19.00	7.57

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NAVD)
0.00	13.40
24.00	13.40
48.00	13.60
68.00	14.50
360.00	13.40
1000.00	13.40

Structure: 1

  From Basin: Basin 1
  To Basin: Offsite1
  Structure Type: Gravity
    Weir: None
    Bleeder: Circular, Invert Elev = 13.4 ft NAVD, Diameter = 0.31 ft
      Default Coefs: Weir Coef = 0.6, Orifice Coef = 0.6
    Pipe: Diameter = 2 ft, Manning's n = 0.012, Length = 20 ft
      US Invert Elev = 11.8 ft NAVD, DS Invert Elev = 11.8 ft NAVD, flap gate

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
0.00	0.00	0.00	0.00	0.00	13.40	13.40
1.00	0.06	0.00	0.00	0.00	13.40	13.40
2.00	0.12	0.00	0.00	0.00	13.40	13.40
3.00	0.19	0.00	0.00	0.00	13.40	13.40
4.00	0.27	0.00	0.00	0.00	13.40	13.40
5.00	0.37	0.00	0.00	0.00	13.40	13.40
6.00	0.50	0.00	0.00	0.00	13.40	13.40
7.00	0.65	0.05	0.00	0.00	13.40	13.40
8.00	0.82	0.15	0.00	0.00	13.42	13.40
9.00	1.03	0.31	0.01	0.00	13.45	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
10.00	1.28	0.53	0.02	0.00	13.51	13.40
11.00	1.61	0.91	0.07	0.01	13.61	13.40
12.00	3.94	8.63	0.26	0.02	14.06	13.40
13.00	4.60	5.35	0.44	0.05	15.01	13.40
14.00	4.91	3.04	0.51	0.09	15.56	13.40
15.00	5.10	1.81	0.55	0.14	15.86	13.40
16.00	5.28	1.33	0.57	0.18	16.02	13.40
17.00	5.39	0.89	0.58	0.23	16.10	13.40
18.00	5.50	0.72	0.58	0.28	16.13	13.40
19.00	5.60	0.67	0.58	0.33	16.15	13.40
20.00	5.71	0.65	0.59	0.37	16.16	13.40
21.00	5.78	0.51	0.59	0.42	16.15	13.40
22.00	5.86	0.46	0.58	0.47	16.14	13.40
23.00	5.93	0.44	0.58	0.52	16.11	13.40
24.00	6.00	0.43	0.58	0.57	16.09	13.40
25.00	6.00	0.16	0.57	0.62	16.04	13.41
26.00	6.00	0.06	0.56	0.66	15.97	13.42
27.00	6.00	0.02	0.55	0.71	15.88	13.42
28.00	6.00	0.01	0.54	0.75	15.79	13.43
29.00	6.00	0.00	0.53	0.80	15.70	13.44
30.00	6.00	0.00	0.52	0.84	15.62	13.45
31.00	6.00	0.00	0.51	0.88	15.53	13.46
32.00	6.00	0.00	0.50	0.93	15.45	13.47
33.00	6.00	0.00	0.49	0.97	15.38	13.48
34.00	6.00	0.00	0.48	1.01	15.30	13.48
35.00	6.00	0.00	0.47	1.05	15.23	13.49
36.00	6.00	0.00	0.46	1.08	15.16	13.50
37.00	6.00	0.00	0.45	1.12	15.09	13.51
38.00	6.00	0.00	0.44	1.16	15.02	13.52
39.00	6.00	0.00	0.43	1.19	14.96	13.52
40.00	6.00	0.00	0.42	1.23	14.90	13.53
41.00	6.00	0.00	0.41	1.26	14.84	13.54
42.00	6.00	0.00	0.40	1.30	14.79	13.55
43.00	6.00	0.00	0.39	1.33	14.73	13.56
44.00	6.00	0.00	0.38	1.36	14.68	13.57
45.00	6.00	0.00	0.37	1.39	14.63	13.58
46.00	6.00	0.00	0.36	1.42	14.58	13.58
47.00	6.00	0.00	0.35	1.45	14.53	13.59
48.00	6.00	0.00	0.34	1.48	14.48	13.60
49.00	6.00	0.00	0.32	1.51	14.43	13.65
50.00	6.00	0.00	0.30	1.53	14.38	13.69
51.00	6.00	0.00	0.28	1.56	14.34	13.74
52.00	6.00	0.00	0.26	1.58	14.30	13.78
53.00	6.00	0.00	0.24	1.60	14.26	13.83
54.00	6.00	0.00	0.22	1.62	14.23	13.87
55.00	6.00	0.00	0.19	1.64	14.20	13.91
56.00	6.00	0.00	0.17	1.65	14.17	13.96
57.00	6.00	0.00	0.14	1.66	14.15	14.01
58.00	6.00	0.00	0.10	1.67	14.13	14.05
59.00	6.00	0.00	0.06	1.68	14.12	14.10
60.00	6.00	0.00	0.00	1.68	14.12	14.14
61.00	6.00	0.00	0.00	1.68	14.12	14.19
62.00	6.00	0.00	0.00	1.68	14.12	14.23
63.00	6.00	0.00	0.00	1.68	14.12	14.27
64.00	6.00	0.00	0.00	1.68	14.12	14.32
65.00	6.00	0.00	0.00	1.68	14.12	14.36
66.00	6.00	0.00	0.00	1.68	14.12	14.41
67.00	6.00	0.00	0.00	1.68	14.12	14.45
68.00	6.00	0.00	0.00	1.68	14.12	14.50
69.00	6.00	0.00	0.00	1.68	14.12	14.50
70.00	6.00	0.00	0.00	1.68	14.12	14.49
71.00	6.00	0.00	0.00	1.68	14.12	14.49
72.00	6.00	0.00	0.00	1.68	14.12	14.48
73.00	6.00	0.00	0.00	1.68	14.12	14.48
74.00	6.00	0.00	0.00	1.68	14.12	14.48
75.00	6.00	0.00	0.00	1.68	14.12	14.47
76.00	6.00	0.00	0.00	1.68	14.12	14.47
77.00	6.00	0.00	0.00	1.68	14.12	14.47
78.00	6.00	0.00	0.00	1.68	14.12	14.46

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
79.00	6.00	0.00	0.00	1.68	14.12	14.46
80.00	6.00	0.00	0.00	1.68	14.12	14.45
81.00	6.00	0.00	0.00	1.68	14.12	14.45
82.00	6.00	0.00	0.00	1.68	14.12	14.45
83.00	6.00	0.00	0.00	1.68	14.12	14.44
84.00	6.00	0.00	0.00	1.68	14.12	14.44
85.00	6.00	0.00	0.00	1.68	14.12	14.44
86.00	6.00	0.00	0.00	1.68	14.12	14.43
87.00	6.00	0.00	0.00	1.68	14.12	14.43
88.00	6.00	0.00	0.00	1.68	14.12	14.42
89.00	6.00	0.00	0.00	1.68	14.12	14.42
90.00	6.00	0.00	0.00	1.68	14.12	14.42
91.00	6.00	0.00	0.00	1.68	14.12	14.41
92.00	6.00	0.00	0.00	1.68	14.12	14.41
93.00	6.00	0.00	0.00	1.68	14.12	14.41
94.00	6.00	0.00	0.00	1.68	14.12	14.40
95.00	6.00	0.00	0.00	1.68	14.12	14.40
96.00	6.00	0.00	0.00	1.68	14.12	14.39
97.00	6.00	0.00	0.00	1.68	14.12	14.39
98.00	6.00	0.00	0.00	1.68	14.12	14.39
99.00	6.00	0.00	0.00	1.68	14.12	14.38
100.00	6.00	0.00	0.00	1.68	14.12	14.38
101.00	6.00	0.00	0.00	1.68	14.12	14.38
102.00	6.00	0.00	0.00	1.68	14.12	14.37
103.00	6.00	0.00	0.00	1.68	14.12	14.37
104.00	6.00	0.00	0.00	1.68	14.12	14.36
105.00	6.00	0.00	0.00	1.68	14.12	14.36
106.00	6.00	0.00	0.00	1.68	14.12	14.36
107.00	6.00	0.00	0.00	1.68	14.12	14.35
108.00	6.00	0.00	0.00	1.68	14.12	14.35
109.00	6.00	0.00	0.00	1.68	14.12	14.35
110.00	6.00	0.00	0.00	1.68	14.12	14.34
111.00	6.00	0.00	0.00	1.68	14.12	14.34
112.00	6.00	0.00	0.00	1.68	14.12	14.33
113.00	6.00	0.00	0.00	1.68	14.12	14.33
114.00	6.00	0.00	0.00	1.68	14.12	14.33
115.00	6.00	0.00	0.00	1.68	14.12	14.32
116.00	6.00	0.00	0.00	1.68	14.12	14.32
117.00	6.00	0.00	0.00	1.68	14.12	14.32
118.00	6.00	0.00	0.00	1.68	14.12	14.31
119.00	6.00	0.00	0.00	1.68	14.12	14.31
120.00	6.00	0.00	0.00	1.68	14.12	14.30
121.00	6.00	0.00	0.00	1.68	14.12	14.30
122.00	6.00	0.00	0.00	1.68	14.12	14.30
123.00	6.00	0.00	0.00	1.68	14.12	14.29
124.00	6.00	0.00	0.00	1.68	14.12	14.29
125.00	6.00	0.00	0.00	1.68	14.12	14.29
126.00	6.00	0.00	0.00	1.68	14.12	14.28
127.00	6.00	0.00	0.00	1.68	14.12	14.28
128.00	6.00	0.00	0.00	1.68	14.12	14.27
129.00	6.00	0.00	0.00	1.68	14.12	14.27
130.00	6.00	0.00	0.00	1.68	14.12	14.27
131.00	6.00	0.00	0.00	1.68	14.12	14.26
132.00	6.00	0.00	0.00	1.68	14.12	14.26
133.00	6.00	0.00	0.00	1.68	14.12	14.26
134.00	6.00	0.00	0.00	1.68	14.12	14.25
135.00	6.00	0.00	0.00	1.68	14.12	14.25
136.00	6.00	0.00	0.00	1.68	14.12	14.24
137.00	6.00	0.00	0.00	1.68	14.12	14.24
138.00	6.00	0.00	0.00	1.68	14.12	14.24
139.00	6.00	0.00	0.00	1.68	14.12	14.23
140.00	6.00	0.00	0.00	1.68	14.12	14.23
141.00	6.00	0.00	0.00	1.68	14.12	14.23
142.00	6.00	0.00	0.00	1.68	14.12	14.22
143.00	6.00	0.00	0.00	1.68	14.12	14.22
144.00	6.00	0.00	0.00	1.68	14.12	14.21

STRUCTURE MAXIMUM AND MINIMUM DISCHARGE

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	0.59	20.40	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Basin 1	16.16	20.40	13.40	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Basin 1	2.08	0.00	1.68	0.31	0.71	0.00

ENVIRONMENTAL ASSESSMENT

6.87-ACRE PARCEL ALONG OKEECHOBEE ROAD

FT. PIERCE, ST. LUCIE COUNTY, FLORIDA

August 2019
Updated June 2020

For

Michael Moore
Arrow Investments
4512 North Flagler Drive, Ste. 216
West Palm Beach, Florida 33412

Prepared by:
David Nickerson, Inc.
6687 SE. Silverbell Avenue
Stuart, Florida 34997
561-891-1572

www.environmentalconsultflorida.com

Environmental Assessment

Project Name: 6.87-Acre Parcel **Project No.** C19012

Work Date: August 7 and 8, 2019

Site Location: Just east of South 31st Street, north side of Okeechobee Road
Ft. Pierce, Florida

Objective of Work: David Nickerson, Inc., (DNI) conducted an environmental assessment to document occurrences of any significant environmental resources including vegetative communities, jurisdictional wetland areas, and listed plant or wildlife species.

Site Description: The 6.87acre parcel is a vacant commercially zoned lot established in a commercial district located in Section 19, Township 35 South, Range 40 East, in Ft. Pierce, Florida (Figure 1). The property comprises 6.87 acres and is located east of South 31st Street, north of Okeechobee Road, west of developed commercial enterprises and south of undeveloped land. A small wetland ditch exists near the northwestern corner of the property and is connected to the dry drainage ditch located along the western property boundary. The entire site is disturbed and is dominated by cleared land on which a variety of weedy herbaceous plants occur. Remnant forest communities occur along the northeastern, northern and northwestern portions of the site. Several small to large isolated Cabbage palm (*Sabal palmetto*)/Brazilian pepper (*Schinus terebinthifolius*) heads occur along the southern site boundary and interior to the property. The largest of these, near the southwestern portion, supports an active homeless camp. Two well-worn foot paths occur onsite. One servicing the homeless camp from offsite at the intersection of Nebraska Avenue and South 31st Street and the other occurs along the eastern portion from the northern property line south to the business located offsite at the extreme southeastern property corner. No structures or other site improvements occur on the parcel.

Methodology: Prior to the site visit, the U.S. Geological Survey 7.5-minute Quadrangle Topographic Map, Ft. Pierce Quadrangle (Photo-revised 2015) and the Soil Survey of St. Lucie County Florida (U.S. Department of Agriculture 2014) were reviewed to determine topographic features and site soil map



NORTH

David Nickerson, Inc. www.environmentalconsultflorida.com	**Location Map** **6.87-Acre Okeechobee Road Parcel** **Ft. Pierce, Florida**	**Figure 1** August 2019 Not To Scale

units. Copies of Google 2016 aerial photographs of the parcel were obtained and reviewed to determine potential location of environmental features.

Pedestrian surveys of the parcel were conducted on August 7 and 8, 2019 to map approximate locations and boundaries of significant environmental resources, vegetative communities and occurrence of listed plant or animal species. Approximate locations of vegetative community cover type boundaries and other features were mapped on an aerial photograph of the site. Vegetative communities were identified in accordance with Florida Land Use Cover and Forms Classification System Handbook (FLUCFCS) (Florida Department of Transportation 1999).

Listed species of plants and wildlife are found in Florida's Endangered Species, Threatened Species, and Species of Special Concern, Official Lists (Florida Fish and Wildlife Conservation Commission 2013) and Preservation of Native Flora of Florida, Chapter 5B-40 (Florida Department of Agriculture and Consumer Services, Division of Plant Industry, October 2017). Any occurrences of listed species were recorded.

Technical Staff: David Nickerson

Findings: The entire 6.87-acre parcel is disturbed including vegetation and soil surface. Site investigation confirmed mapped soils on the southern half of the property as Tantile and Pomona sands and the northern half is underlain by Nettles and Oldsmar sands. Natural Resource and Conservation Service mapped soils are shown in Attachment A. Relatively intact native upland habitat does not occur on the property. Due to previous clearing, exotic and nuisance plant pioneers have replaced the historic pine flatwood understory vegetation naturally occurring on Tantile and Pomona sands and Nettles and Oldsmar sands soils in this part of St. Lucie County. The narrow forested areas along western and southern portions comprise mostly exotic plant species and the wetland buffer also contains exotic canopy and subcanopy species. Following partial clearing and local/regional historic drainage, six cover types currently occur on site and include Disturbed Herbaceous, Brazilian Pepper, Disturbed Mixed Hardwoods, Brazilian Pepper Cabbage Palm, Disturbed Pine Oak Cabbage Palm and Ditches. The cover types are described below and their locations on the parcel are depicted in Figure 2.



NORTH

LEGEND

- Parcel Boundary
- Human Paths

3101 – Disturbed Herbaceous
4141 – Disturbed Pine Oak Cabbage Palm
4220 – Brazilian Pepper
4221 – Brazilian Pepper Cabbage Palm
4381 – Disturbed Mixed Hardwoods
5101– Ditches
Source – *Florida Land Use, Cover and Forms Classification System* 1999

David Nickerson, Inc. www.environmentalconsultflorida.com	**Vegetation Communities Map 6.87 Acre Okeechobee Road Parcel Ft. Pierce, Florida**	Figure 2 August 2019 Not to Scale

Disturbed Herbaceous – FLUCFCS 3101; Disturbed Herbaceous cover type is the dominant cover on site, occurring on approximately 2.25 acres of the 6.87-acre parcel. Because this cover type has been cleared of all but herbaceous plants, no canopy, subcanopy or shrub plants occur. Bahiagrass (*Paspalum notatum*), in the eastern and southern portions, and St. Augustine grass (*Stenotaphrum secundatum*), in the northern and western portions, dominate the vegetation in the ground cover layer. Additional exotic and native herbaceous plants found in the ground cover include creeping oxeye (*Sphagneticola trilobata*), beggarticks (*Bidens pilosa*), sandspur (*Cenchrus spinifex*), morning glory (*Ipomea imperati*), frostweed (*Verbesina virginica*), creeping beggar weed (*Desmodium incanum*), pepper vine (*Ampleopsis arborea*), creeping indigo (*Indigofera spicata*), large flower pusley (*Richardia grandiflora*), West Indian dropseed (*Sporobolus jacquemontii*), shrubby false button (*Spermacoce verticillata*) and Guinea grass (*Panicum maximum*). Occasionally, ragweed (*Ambrosia artimisifolia*), dayflower (*Commelina* sp.), wild grape (*Vitis rotundifolia*), broomsedge bluestem (*Andropogon virginicus*), catbriar (*Smilax* spp.), wild poinsettia (*Poinsettia cyathophora*), Florida threeawn (*Aristida rhizomophora*), and dog fennel (*Eupatorium capillifolium*) also occur. Select photographs of this cover type are provided in Attachment B.

Disturbed Pine Oak Cabbage Palm – FLUCFCS 4141: Disturbed Pine Oak Cabbage Palm cover type occurs along the northern and eastern property boundaries. It comprises 2.1 acres. Evidence of disturbance observed includes abundant solid waste, soil disturbance and invasion of exotic plants. Only a few slash pine (*Pinus elliottii*) remain in the community and they occur in the northern extreme of the cover type. Other canopy plants include cabbage palm, laurel oak (*Quercus laurifolia*), melaleuca (*Melaleuca quinquenervia*) and Brazilian pepper with occasional horse bush (*Peltophorum dubium*), Mexican fan palm (*Washingtonia robusta*), and Queen Palm (*Syagrus romanzoffiana*). Subcanopy vegetation comprises Brazilian pepper, cabbage palm, melaleuca, Guinea grass and carrotwood (*Cupaniopsis anacardioides*). Ground cover includes Brazilian pepper, cabbage palm, carrotwood, Surinam cherry (*Ugenia uniflora*), blechnum fern (*Blechnum serrulatum*), with occasional marlberry (*Ardisia escallonioides*), beauty berry (*Callicarpa americana*), caesar weed (*Urena lobata*), frostweed, cat briar (*Smilax* sp.), and monk orchid (*Oceoclades maculata*).

Brazilian Pepper – FLUCFCS 4220; Brazilian Pepper cover type occurs south of the Disturbed Pine Oak Cabbage Palm and north of Disturbed Herbaceous and Disturbed Mixed Hardwoods in the northwestern forested portion of the property. It

comprises approximately 0.92 acres. Canopy trees are dominated by the exotic Brazilian pepper (*Schinus terebinthifolius*) with occasional representation by cabbage palm (*Sabal palmetto*), laurel oak and queen palm. Brazilian pepper also dominates the subcanopy with occasional laurel oak and cabbage palm. Ground cover plants are sparse and include seedlings of Brazilian pepper, Caesar weed (*Urena lobata*), pepper vine and frostweed (*Verbesina virginica*). Select photographs of this cover type are provided in Attachment B.

Brazilian Pepper Cabbage Palm – FLUCFCS 4221; Brazilian Pepper Cabbage Palm cover type occurs mostly as isolated tree "heads" within the Disturbed Herbaceous cover and includes an upland fringing community along the west central site boundary. It comprises approximately 0.92 acres. This community is highly disturbed as evidenced by dominance of exotic and invasive plants and scattered solid waste in each area. The largest of the heads contains an active homeless camp with several tents, makeshift tables and clothes lines (Figure 2) and Attachment B. Trees in the canopy layer of this cover type are dominated by the exotic Brazilian pepper and include Cabbage palm and an occasional laurel oak. Subcanopy plants include Brazilian pepper, strangler fig (*Ficus aurea*), occasional laurel oak and the invasive Surinam cherry (*Ugenia uniflora*). Ground cover plants are sparse but include Brazilian pepper, West Indian dropseed, Caesar weed, bahia grass and Florida threeawn. Select photographs of this cover type are provided in Attachment B.

Disturbed Mixed Hardwoods – FLUCFCS 4381; Disturbed Mixed Hardwoods cover type occurs in a small area along the west central portion of the property south of the Brazilian Pepper and north of the Disturbed Herbaceous cover type. It comprises 0.39 acres. Canopy vegetation comprises False Tamarind (*Lysiloma latisiliquum*), cabbage palm, rosewood (*Dalbergia sissoo*), Brazilian pepper and laurel oak. Subcanopy plants include Brazilian pepper, rosewood, cabbage palm, Surinam cherry and laurel oak. Ground cover comprises seedlings of canopy and subcanopy species as well as Guinea grass, pepper vine, frostweed, Bahia grass and Caesar weed. A photograph of this cover type is provided in Attachment B.

Ditches – FLUCFCS 5101; Ditches cover type occurs as a 10-20 foot wide mostly dry drainage ditch along and just within the western property boundary from Okeechobee Road north to the Disturbed Pine Oak Cabbage Palm community. It comprises approximately 0.29 acres. On the day of this assessment, standing water was observed to occur only in the northern half of the ditch. The southern two fifths of the ditch and its banks are open and without any shrubs or trees. The northern three fifths of the ditch length are covered by

overhanging vegetation and the portion west of the Disturbed Mixed Hardwoods community has Primrose willow (*Ludwigia peruviana*) plants growing in the ditch. No canopy trees actually grow in the ditch but overhanging Brazilian pepper predominates over the ditch in that community and an occasional laurel oak and Carolina willow (Salix caroliniana) overhang to the south. Herbaceous plants growing in the open portion of the ditch include Guinea grass, West Indian dropseed, pepper vine, Caesar weed, rattlebox, blechnum fern (*Blechnum serrulatum*), with occasional maidencane (*Panicum hemitomon*) and plants typically found in the Disturbed Herbaceous cover type to the east. Select photographs of this cover type are provided in Attachment B.

A Gopher Tortoise Burrow Survey was conducted on the property. No active or inactive burrows were found. No other animals listed as protected by federal, state, or local environmental regulatory agencies, nor any signs of such animals, were observed on the parcel. Unlisted animal species and/or sign observed on the parcel included southern leopard frog (*Lithobates utricularia*), common oak toad (*Bufo quercicus*), Cuban anole (*Anolis sagrei*), Southern black racer (*Coluber constrictor*), mourning dove (*Zenaida macroura*), northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), mockingbird (*Mimus polyglottos*), loggerhead shrike (*Lanius ludovicianus*), zebra longwing butterfly (*Heliconius charitonia*) and a few other butterflies. Sign of animal occurrence observed include common rabbit (*Sylvilagus floridanus*) scat.

No plant species regulated by the Florida Department of Agriculture and Consumer Services were observed on the property.

Recommendations: Ft. Pierce Land Development Regulations address Tree Protection of native trees. A tree removal permit and a land clearing permit must be obtained prior to conducting any site work. No tree removal permit is required should only Brazilian pepper, Australian pine or Melaleuca trees be removed. Ft. Pierce Landscape Code defines material standards as to species and sizes. A tree survey may be necessary as the few native trees occurring onsite are required to be protected onsite or replaced with same species in future landscaping areas.

A small area of low land adjacent to and east of northern portions of the western drainage ditch is jurisdictional wetland and a wetland delineation was conducted to determine and mark the actual jurisdictional wetland limits on site in accordance with South Florida Water Management District (SFWMD) rules. The wetland delineation has been approved by SFWMD and the wetland has been determined to be an isolated wetland less than 0.5

acre in area. Should the wetland be maintained as part of the site plan, a 25 foot wide upland buffer must be maintained outside and surrounding the jurisdictional wetland line. Should the isolated wetland be impacted by the project, no mitigation would be required in accordance with SFWMD rules.

Because native upland habitat does not occur on site, Ft. Pierce Land Development Regulations (LDR) do not require any portion of onsite upland habitat to be protected in an upland preserve area on site.

Additionally, in accordance with Fort Pierce rules, all prohibited exotic plant species occurring on the property must be eradicated as a condition of building permit approval. Consequently, all prohibited species, including Brazilian pepper, camphor tree, Old World climbing fern and Guinea grass found on the site must be removed during the development process.

DNI can assist in addressing all of the above topics by conducting pre-permit application meetings with environmental regulatory agencies, preparing permit applications in cooperation with planners and engineers, and defining options that will assist in the development goals for the parcel.

Figures:

Figure 1 – Location Map
Figure 2 – Vegetative Communities Map

References:

Florida Association of Environmental Soil Scientists. 1995. Hydric Soils of Florida Handbook, second edition. University of Florida, United States Department of Agriculture, Florida Department of Environmental Protection, and St. Johns River Water Management District. 409p.

Florida Fish and Wildlife Conservation Commission. 2013. Florida's Endangered Species, Threatened Species and Species of Special Concern, Official Lists. Tallahassee, Florida. 12p.

U. S. Department of Agriculture, Soil Conservation Service. 2014. NRCS Web Soil Survey, Custom Soil Resource Report for St Lucie County

Attachment A

Area Soils Map



Map Scale: 1:8,520 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Natural Resources Web Soil Survey **Conservation Service** National Cooperative Soil Survey Soil Map—St. Lucie County, Florida (6.87 Acre Parcel)

MAP LEGEND

Area of Interest (AOI)
Area of Interest (AOI)
Soils
Soil Map Unit Polygons
Soil Map Unit Lines
Soil Map Unit Points
Special Line Features
Blowout
Borrow Pit
Clay Spot
Closed Depression
Gravel Pit
Gravelly Spot
Landfill
Lava Flow
Marsh or swamp
Mine or Quarry
Miscellaneous Water
Perennial Water
Rock Outcrop
Saline Spot
Sandy Spot
Severely Eroded Spot
Sinkhole
Slide or Slip
Sodic Spot
Spoil Area
Stony Spot
Very Stony Spot
Wet Spot
Other
Special Point Features
Water Features
Streams and Canals
Transportation
Rails
Interstate Highways
US Routes
Major Roads
Local Roads
Background
Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were m

Warning: Soil Map may not be valid at this

Enlargement of maps beyond the scale of misunderstanding of the detail of mapping line placement. The maps do not show th contrasting soils that could have been sho scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are re

This product is ge NRCS certified data as of the version date(s) lis

Soil Survey Area: St. Lucie
Survey Area Data: Version 11, Sep 17, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were 2019—Mar 23, 2019

The orthophoto or other base map on which compiled and digitized probably differs from the displayed on these maps. As a result, some mir shifting of map unit boundaries may be evident.

Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ankona and Farmton sands	12.2	3.7%
4	Arents, 0 to 5 percent slopes	5.6	1.7%
21	Lawnwood and Myakka sands	1.9	0.6%
25	Nettles and Oldsmar sands	29.7	9.0%
31	Pepper and EauGallie sands	55.0	16.6%
32	Pineda sand, 0 to 2 percent slopes	1.5	0.4%
40	Samsula muck, frequently ponded, 0 to 1 percent slopes	2.7	0.8%
44	Tantile and Pomona sands	188.8	57.0%
50	Waveland and Immokalee fine sands	1.2	0.4%
52	Waveland-Urban land complex	29.7	9.0%
99	Water	2.6	0.8%
Totals for Area of Interest		**330.9**	**100.0%**

Attachment B
Selected Photographs



Brazilian Pepper Cabbage Palm Head & Disturbed Herbaceous cover at SE property corner view to W



Disturbed Herbaceous cover and Human Path at SE property corner view to N



Disturbed Pine Oak Cabbage Palm, Disturbed Herbaceous & Human Path at NE corner view to S



Disturbed Herbaceous and Pine Oak Cabbage Palm at NE corner view to W



Adjacent land, Ditch, Disturbed Herbaceous & Brazilian Pepper head at SW corner view to N



Ditch, Disturbed Herbaceous & Brazilian Pepper Cabbage Palm head at SW corner view to ENE



Disturbed Herbaceous & Brazilian Pepper Heads from S of Disturbed Mixed Hardwoods view to SE



BP head, Disturbed Herbaceous and Brazilian Pepper head along street near SW corner view to E



Eastern Disturbed Pine Oak Cabbage Palm interior view to SE



Northern Disturbed Pine Oak Cabbage Palm western interior view to SW



False Tamarind tree and Brazilian pepper in Disturbed Mixed Hardwoods View to NW



Disturbed Herbaceous, Wetland portion of Ditch and Mexican fan palms in NW portion view to NNW



Homeless camp in Largest Brazilian Pepper Cabbage Palm head in SW portion of site view to ESE

Kimley»Horn

June 22, 2020

Arrow Investment Group, LLC
c/o Michael Sanchez
4512 North Flagler Drive, Suite 206
West Palm Beach, Florida 33407

Re: Arrow Fort Pierce North Residential – Future Land Use Plan Amendment Analysis
Fort Pierce, Florida
Kimley-Horn #043264001

Dear Mr. Sanchez:

Kimley-Horn and Associates, Inc. has prepared a future land use plan amendment traffic analysis for the site located in the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. The proposed plan of development includes changing the future land use designation from general commercial (GC) to medium density residential (RM). The parcel identification number for the site is 2417-504-0020-001-6.

The attached **Figure 1** shows the location of the site. The site plan and parcel number are attached for reference.

Table 1 summarizes the maximum development intensities for proposed future land use designation on the parcel based upon the proposed medium density residential (RM) designation. Per *City of Fort Pierce Comprehensive Plan* Policy 1.1.5, the City allows a density bonus of 5 dwelling units per acre for developments located within a ¼ mile of a rail station, multimodal transit center, or transit stop.

This analysis was conducted following short-term and long-term analysis procedures typically used to evaluate comprehensive plan amendments in Fort Pierce as outlined in the Comprehensive Plan. This report summarizes the findings of the comprehensive plan land use amendment traffic analysis.

TRIP GENERATION

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the project, and the distribution and assignment of that traffic over the study roadway network.

The trip generation calculations are based on the trip generation rates and equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 10th Edition* for the following:

- Scenario A: Maximum development potential under the existing FLU – General Commercial (GC)
- Scenario B: Maximum development potential under the future FLU – Medium Density Residential (RM)

The trip differential between the maximum development potential of the existing FLU site and maximum development potential of the proposed FLU was used for the short-range (year 2025) analysis and for the long-range (year 2040) analysis. As indicated in **Table 2**, the proposed development is a decrease in 26 net new external AM peak hour trips and a decrease in 32 net new external PM peak hour trips. Therefore, no further analysis is required for the proposed future lane use.

CONCLUSION

The foregoing comprehensive plan traffic analysis has been conducted to evaluate the proposed future land use to medium density residential at the site located in the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. Based on the trip generation calculation between the existing and proposed future land use, the proposed change in land use will be a decrease in project trips and will not impact roadways in the vicinity of the project. Therefore, the change in future land use for the subject parcel meets applicable criteria for an amendment to Fort Pierce's comprehensive plan.

Please contact me at (561) 840-0874 or adam.kerr@kimley-horn.com should you have any questions.

Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.

Adam B. Kerr, P.E.
Transportation Engineer

Florida Registration
Number 64773
Certificate of Authorization
Number 696

Attachments

k:\wpb_tpto\0432\043264001 - arrow fp north\flupa\2020-03-19 arrow flupa.docx

TABLE 1: MAXIMUM DEVELOPMENT INTENSITIES ARROW FORT PIERCE NORTH RESIDENTIAL			
Scenario	Maximum Intensity	Acreage	Max
Existing Future Land Use *General Commercial (GC)*	1.0 FAR	6.796	296,034 SF
Proposed Future Land Use *Medium Density Res (RM)*	17 DU per Acre	6.796	115 DU

TABLE 2
WEEKDAY TRIP GENERATION
ARROW FORT PIERCE NORTH RESIDENTIAL

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Existing Future Land Use								
Commercial	296.034 KSF	12,576	99	26	73	126	77	49
Subtotal		*12,576*	*99*	*26*	*73*	*126*	*77*	*49*
Pass-By								
Commercial	34%	4,276	34	9	25	43	26	17
Net External Trips		*8,300*	*65*	*17*	*48*	*83*	*51*	*32*
Proposed Future Land Use								
Multifamily Residential (Mid-Rise)	115 DU	625	39	10	29	51	31	20
Net External Trips		*625*	*39*	*10*	*29*	*51*	*31*	*20*
Existing Future Land Use - Proposed Future Land Use		*(7,675)*	*(26)*	*(7)*	*(19)*	*(32)*	*(20)*	*(12)*

Trip generation was calculated using the following data:

Daily Trip Generation			
Commercial	[ITE 820]	=	Ln(T) = 0.68Ln(X) + 5.57 trips/1,000 SF
Multifamily Residential (Mid-Rise)	[ITE 221]	=	T = 5.45(X) - 1.75 trips/DU
AM Peak Hour Trip Generation			
Commercial	[ITE 820]	=	T = 0.50(X) + 151.78 trips/1,000 SF (62% in, 38% out)
Multifamily Residential (Mid-Rise)	[ITE 221]	=	Ln(T) = 0.98Ln(X) - 0.98 trips/DU (26% in, 74% out)
PM Peak Hour Trip Generation			
Commercial	[ITE 820]	=	Ln(T) = 0.74 Ln(X) + 2.89 trips/1,000 SF (48% in, 52% out)
Multifamily Residential (Mid-Rise)	[ITE 221]	=	Ln(T) = 0.96Ln(X) - 0.63 trips/DU (61% in, 39% out)

Kimley»Horn


S 25TH STREET
VIRGINIA AVENUE
OKEECHOBEE ROAD
FIGURE 1
SITE LOCATION
ARROW FP NORTH RESIDENTIAL
Kimley»Horn
LEGEND
Project Site
NORTH

SITE INFORMATION

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address: OKEECHOBEE RD	Parcel ID: 2417-504-0020-001-6	Account #: 26668	Sec/Town/Range: 17/35S/40E
Use Type: 1000	Jurisdiction: Fort Pierce	Map ID: 24/17N	Zoning: General Co

Ownership

Arrow Investment Group LLC
4512 N Flagler DR # 2056
West Palm Beach, FL 33407

Legal Description

COLLIER`S S/D BLK D ALL BLK D-LESS S 27 FT AND SELY 7 FT FOR RD R/W AND LESS THAT PART MPDAF: BEG INT OF SE COR OF BLK D AND NLY RD R/W LI OF OKEEC RD RUN N 28 00 23 W 167.87 FT,TH N 89 51 15 E 79 FT TO E LI OF BLK D,TH S 00 04 02 W ALG E LI 148.41 FT TO NLY RD R/W LI OF OKEEC RD AND POB- (6.86 AC)

Current Values

Just/Market:	$732,700	Assessed:	$732,700
Exemptions:	$0	Taxable:	$732,700

Historical Values 3-year

Year	Just/Market	Assessed	Exemptions	Taxable
2019	$732,700	$732,700	$0	$732,700
2018	$732,700	$732,700	$0	$732,700
2017	$732,700	$732,700	$0	$732,700

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
09-26-2019	4327 / 0333	0112	SP	Cypress Trust Company (TR)	$450,000
05-27-2010	3204 / 0743	0112	SP	Cypress Trust Company (TR)	$100
12-17-2008	3049 / 2156	XX01	CT	Mid South Acquisitions LLC	$299,000

Primary Building Information

Finished Area of this building: 0 SF
Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:	Building Type:
Year Built: N/A	Frame:	Grade:	Effective Year: N/A
Primary Wall:	Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	A/C %: 0%	Electric:	Primary Int Wall:
Full Baths: 0	Heated %: N/A%	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Sprinkled %: 0%	Heat Fuel:	Primary Floors:



Image or Sketch unavailable for display

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.87
Land Size (SF):	299,058
Total Building Count:	1

Special Features and Yard Items

Type	Qty	Units	Year Blt

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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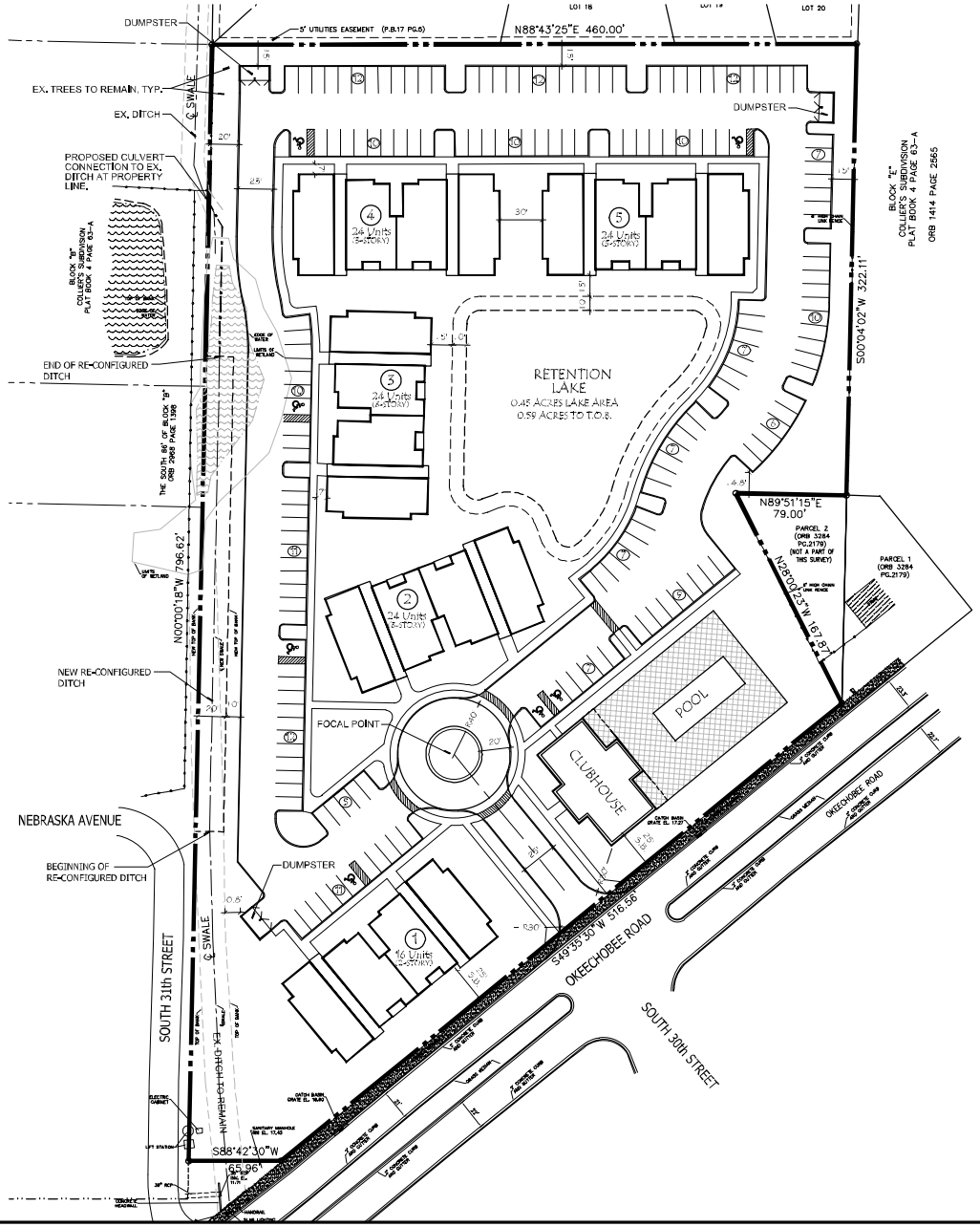

MANAGED LAND ENTITLEMENTS

3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8065

APPLICATION DATA:

NAME OF APPLICATION:	ARROW FP NORTH RESIDENTIAL
PARCEL ID:	2417-504-0020-001-6
SITE ADDRESS:	TBD
EXISTING FUTURE LAND USE:	GENERAL COMMERCIAL (GC)
PROPOSED FUTURE LAND USE:	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING DESIGNATION:	GENERAL COMMERCIAL (CG)
PROPOSED ZONING DESIGNATION:	MEDIUM DENSITY RESIDENTIAL (R-4)
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (112 UNITS)
PROPOSED DENSITY:	*16.48 D.U.'S PER ACRE

*PROJECT UTILIZES DENSITY BONUS FOR PROXIMITY TO TRANSIT STOP (+5 D.U.'S/ACRE) AND FOR INNOVATIVE DESIGN (+2 D.U.'S/ACRE)

SITE DATA:

GROSS SITE AREA:	296,012.97 S.F. (6.796 ACRES)
OPEN SPACE REQUIRED:	118,405.19 S.F. (40%)
PERVIOUS AREA PROVIDED:	109,454.95 S.F. (36.9%)
RETENTION AREA PROVIDED:	25,674.63 S.F. (8.7%)
TOTAL OPEN SPACE AREA:	135,129.58 S.F. (45.6%)

PARKING DATA:

PROPOSED USES (FLEX SPACE)

USE	UNITS	PARKING RATE	REQUIRED PARKING
MULTI-FAMILY RESIDENTIAL	112 UNITS	1.5/UNIT	168 SPACES
	TOTAL PARKING REQUIRED:		168 SPACES
	TOTAL PARKING PROVIDED:		175 SPACES
	HANDICAP SPACES REQ'D.:		6 SPACES
	HANDICAP SPACES PROV.:		7 SPACES

PROJECT TEAM

OWNER
Arrow Investment Group, LLC
4512 North Flagler Drive, Suite 2056
West Palm Beach, Florida 33407

ARCHITECT
Architectural Studios, Inc.
300 Avenue of the Champions, Suite 260
Palm Beach Gardens, Florida 33418
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CIVIL ENGINEER/SURVEYOR
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1650 Forest Hill Blvd., Suite 208
West Palm Beach, Florida 33406
Contact: Michael LaCoursiere (561-368-0080)

DEVELOPMENT MANAGER/AGENT
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3710 Buckeye Street, Suite 100
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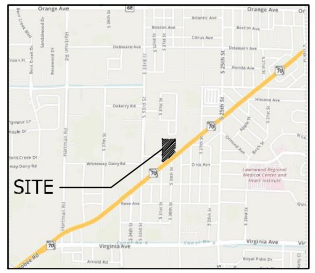
LANDSCAPE ARCHITECT
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Florida 34990
Contact: Jason Litterick (561-719-3878)

SURVEYOR
Brown & Phillips, Inc.
1860 Old Okeechobee Road, Suite 509
West Palm Beach, Florida 33409
Contact: John Phillips (561-478-3888)

LOCATION MAP



Site Plan

0 25' 50' 100' 150' 200'

NORTH

Scale: 1" = 50'

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, FL 34990
561-719-3878
JasonLA1677@yahoo.com

Project Name

Arrow FP North Residential
Ft. Pierce, Florida

Landscape Architect of Record

Jason M. Litterick FLA
LA0001677

Scale: 1" = 50'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	3/13/2020
Job No.	
Revisions:	

Sheet No.
SP-1

TRAFFIC IMPACT ANALYSIS

ARIA APARTMENTS
FT PIERCE, FL

PREPARED FOR:
ARROW INVESTMENT GROUP, LLC.

Kimley»Horn

Project # 043264001
June 22, 2020
CA 00000696
Kimley-Horn and Associates, Inc.
1920 Wekiva Way
West Palm Beach, Florida 33411
561/845-0665 TEL

TRAFFIC IMPACT ANALYSIS

ARIA APARTMENTS

FT PIERCE, FL

Prepared by:
Kimley-Horn and Associates, Inc.
West Palm Beach, Florida

Project # 043264001
June 22, 2020
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Kimley-Horn and Associates, Inc.
1920 Wekiva Way
West Palm Beach, Florida 33411
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Adam B. Kerr, P.E.
Florida Registration Number 64773

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Introduction

Kimley-Horn and Associates, Inc. has performed a traffic impact analysis to evaluate future traffic conditions associated with the proposed development located on the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. The traffic impact analysis has been conducted using a buildout year of 2025. Figure 1 illustrates the location of the project site. The Parcel ID for the site is 2417-504-0020-001-6.

The proposed site plan and parcel information are included in *Appendix A*.

Kimley-Horn and Associates, Inc was retained to prepare a traffic impact analysis for the proposed development. The study quantifies the project's impact on the adjacent transportation network. This report summarizes the project trip generation, distribution, and intersection analyses. This analysis followed the methodology and procedures determined by St Lucie County's *Standardized Traffic Impact Studies Methodology and Procedures.*



NORTH

LEGEND

Project Site

FIGURE 1
SITE LOCATION
ARIA APARTMENTS

Kimley»Horn

Inventory and Planning Data

The data used in this analysis was obtained from St. Lucie County and from the Florida Department of Transportation. The data included:

- Roadway link volume data
- Committed Developments
- Historical growth rate information

Turning movement counts were collected at the following intersections during the AM peak period (7:00 am to 9:00 am) and PM peak period (4:00 pm to 6:00 pm). Counts at the intersection of N 25th Street & Okeechobee Road were performed on Tuesday, October 22, 2019 and the interaction of Okeechobee Road & Virginia Avenue were performed on Wednesday, April 3, 2019:

- N 25th Street & Okeechobee Road
- Okeechobee Road & Virginia Avenue

Roadway link volumes and the committed developments are included in *Appendix B.* The growth rate calculation is included in *Appendix C* and turning movement counts are included in *Appendix D.*

Project Traffic

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the project and the distribution and assignment of that traffic over the study roadway network.

Existing and Proposed Land Uses

The existing site is vacant. The proposed plan of development includes 112 multifamily (mid-rise) dwelling units.

Trip Generation

The trip generation potential for the proposed redevelopment was calculated using the trip generation rates and equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 10th Edition*. Land Use [221] rates and equations were used for multifamily residential (mid-rise) use. As indicated in Table 1, the proposed development is projected to generate 609 net new external daily trips, an increase in 38 net new AM peak hour trips (+10 in, +28 out), and an increase of 49 net new external PM peak hour trips (+30 in, +19 out). Based on the new external daily trips, the area of influence is one-mile.

Table 1: Trip Generation

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Proposed								
Multifamily Residential (Mid-Rise)	112 DU	609	38	10	28	49	30	19
Driveway Volumes		609	38	10	28	49	30	19
Net External Trips		*609*	*38*	*10*	*28*	*49*	*30*	*19*

Trip generation was calculated using the following data:

Daily Trip Generation
- Multifamily Residential (Mid-Rise) [ITE 221] = T = 5.45(X) - 1.75 trips/DU

AM Peak Hour Trip Generation
- Multifamily Residential (Mid-Rise) [ITE 221] = Ln(T) = 0.98Ln(X) - 0.98 trips/DU (26% in, 74% out)

PM Peak Hour Trip Generation
- Multifamily Residential (Mid-Rise) [ITE 221] = Ln(T) = 0.96Ln(X) - 0.63 trips/DU (61% in, 39% out)

Traffic Distribution

Traffic distribution is the pairing of trip ends from the subject site with other land uses in the area. The project assignment on the study roadway links based on the characteristics of the proposed land use and existing travel demands.

The distribution is the following:

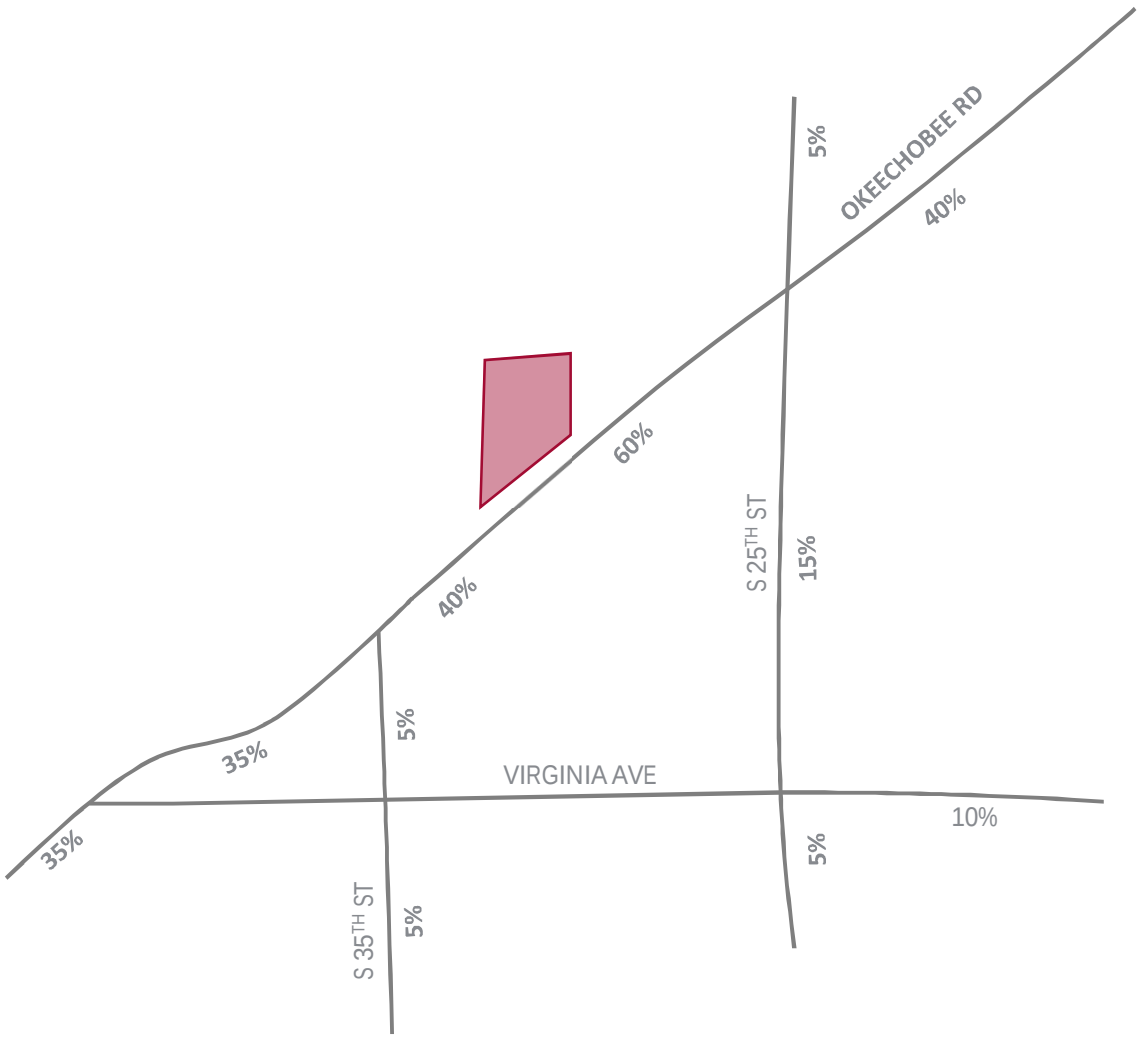
NORTH	5 percent
SOUTH	10 percent
WEST	35 percent
EAST	40 percent

Traffic Assignment

The site traffic was assigned to the surrounding roadway network based upon existing travel patterns and the traffic distribution. The function classification of the surround roadways is the following:

- Okeechobee Road – Minor Arterial
- S 35th Street – Major Collector
- S 25th Street – Other Principal Arterial
- Virginia Avenue – Other Principal Arterial

Figure 2 illustrates the roadway link assignment. The AM and PM peak hour trips for the project were then assigned to the surrounding roadway network projected to be in place by 2025.



NORTH

LEGEND

Project Site

XX% Project Assignment

FIGURE 2
PROJECT ASSIGNMENT
ARIA APARTMENTS

Kimley»Horn

Background Traffic

Background traffic is calculated from historical annual growth rates and/or traffic from the unbuilt portions of committed developments. For this study, the areawide growth rate was calculated as 2.53% and was applied to links and intersections to account for background growth not related to the approved projects. Growth rate calculations are included in *Appendix C*. St Lucie County provided committed development projects in the area. The impacts of the approved projects were added to links and intersections that were subject to analysis.

A nominal 1% growth rate was applied to links and intersections (to which committed project traffic was already added) to account for background growth not related to the approved projects. The total background traffic for each significantly impacted link and intersection was then determined as the greater of the following:

- Existing traffic volumes plus growth due to a historic growth rate of 2.53%
- Existing traffic volumes plus growth due to committed projects and a nominal 1% background growth rate

Roadway Segment Analysis

The roadway segments within the adjacent influence area were analyzed and are summarized in Table 2. Significantly impacted roadways, where the project traffic consumes one percent or more of the existing peak hour peak direction service capacity, are considered significantly impacted and required further analysis. The following roadway segments were significantly impacted due to the project traffic:

AM Peak Hour and PM Peak Hour

- Okeechobee Road: S 25th Street to Georgia Avenue

The future volume on each significantly impacted roadway segment was analyzed in comparison to its peak hour directional service capacity volume. Committed development information for each significantly impacted link was provided by St Lucie County. It should be noted, committed developments which were identified to be insignificant (fewer than 20 peak hour trips) did not have a provided inbound/outbound distribution. Committed developments that generated greater traffic volumes were applied using the corresponding approved traffic study, attached in *Appendix B*. As seen in Table 2, the significantly impacted roadways are projected to operate acceptably during the AM and PM peak hours through buildout 2025.

Table 2: Peak Hour Peak Direction Roadway Segment Analysis

Roadway			Existing		Existing Base Peak Direction Volume/LOS		Peak Hour Peak Direction Project Traffic					Background Traffic			Capacity	
From	To		Lanes	Peak Hour Service Capacity			Last Count Year	% Assignment	Project Trips	% Impact	Significant Impact ?	Growth Rate (1)	2025 Background Growth	2025 Background Traffic	2025 Project	Over Capacity ?
AM PEAK HOUR PEAK DIRECTION																
Okeechobee Rd																
Virginia Ave	S 35th Street		4	1630	687	C	2020	35%	10	0.61%	No	2.53%	91	778	788	-
S 35th Street	Project Driveway		4	1630	922	C	2020	35%	10	0.61%	No	2.53%	123	1,045	1,055	-
Project Driveway	S 25th Street		4	1630	922	C	2020	40%	11	0.67%	No	2.53%	123	1,045	1,056	-
S 25th Street	Georgia Ave		4	1630	777	C	2020	60%	17	1.04%	Yes	2.53%	103	880	897	No
S 35th Street																
Cortez Blvd	Virginia Ave		2	790	497	D	2020	5%	1	0.13%	No	2.53%	66	563	564	-
Virginia Ave	Okeechobee Rd		2	750	279	C	2016	5%	1	0.13%	No	2.53%	70	349	350	-
S 25th Street																
Cortez Blvd	Virginia Ave		5	2000	1182	C	2020	5%	1	0.05%	No	2.53%	157	1,339	1,340	-
Virginia Ave	Okeechobee Rd		5	2000	1193	C	2017	15%	4	0.20%	No	2.53%	264	1,457	1,461	-
Okeechobee Rd	Georgia Ave		5	1630	1196	D	2017	5%	1	0.06%	No	2.53%	265	1,461	1,462	-
Virginia Avenue																
Okeechobee Rd	S 35th Street		6	3020	1169	C	2017	0%	0	0.00%	No	2.53%	259	1,428	1,428	-
S 35th Street	S 25th Street		6	3020	1169	C	2017	0%	0	0.00%	No	2.53%	259	1,428	1,428	-
S 25th Street	13th Street		6	3020	1093	C	2017	10%	3	0.10%	No	2.53%	242	1,335	1,338	-
PM PEAK HOUR PEAK DIRECTION																
Okeechobee Rd																
Virginia Ave	S 35th Street		4	1630	727	C	2020	35%	11	0.67%	No	2.53%	97	824	835	-
S 35th Street	Project Driveway		4	1630	902	C	2020	35%	11	0.67%	No	2.53%	120	1,022	1,033	-
Project Driveway	S 25th Street		4	1630	922	C	2020	40%	12	0.74%	No	2.53%	123	1,045	1,057	-
S 25th Street	Georgia Ave		4	1630	738	C	2020	60%	18	1.10%	Yes	2.53%	98	836	854	No
S 35th Street																
Cortez Blvd	Virginia Ave		2	790	406	D	2020	5%	2	0.25%	No	2.53%	54	460	462	-
Virginia Ave	Okeechobee Rd		2	750	280	C	2016	5%	2	0.27%	No	2.53%	71	351	353	-
S 25th Street																
Cortez Blvd	Virginia Ave		5	2000	1261	C	2020	5%	2	0.10%	No	2.53%	168	1,429	1,431	-
Virginia Ave	Okeechobee Rd		5	2000	1069	C	2017	15%	5	0.25%	No	2.53%	237	1,306	1,311	-
Okeechobee Rd	Georgia Ave		5	1630	1159	D	2017	5%	2	0.12%	No	2.53%	256	1,415	1,417	-
Virginia Avenue																
Okeechobee Rd	S 35th Street		6	3020	1126	C	2017	0%	0	0.00%	No	2.53%	249	1,375	1,375	-
S 35th Street	S 25th Street		6	3020	1126	C	2017	0%	0	0.00%	No	2.53%	249	1,375	1,375	-
S 25th Street	13th Street		6	3020	1164	C	2017	10%	3	0.10%	No	2.53%	258	1,422	1,425	-

Intersection Analysis

The operating conditions for the existing, background, and future total buildout was analyzed using Trafficware's *Synchro 10.0* Software during the AM peak hour and the PM peak hour at the following intersections because the intersection is part of the impacted roadway:

1. S 25th Street & Okeechobee Road (signalized)

In addition to the intersection of S 25th Street & Okeechobee Road, the intersection of Okeechobee Road & Virginia Avenue was analyzed for the existing, background, and future total buildout.

These analyses use the methodologies outlined in the *Highway Capacity Manual*, 6th *Edition* in order to determine the overall intersection level of service and delay. The signal timing sheet was provided by the City of Ft Pierce and is included in *Appendix E.* Table 3 summarizes the level of service and delay at the study intersections under existing, background, and future total conditions. As shown in Table 3, the intersection operates at an acceptable overall level of service during the existing, background, and future total (with project traffic) conditions.

Table 3: Intersection Analysis

Intersection	Type	Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Existing Scenario						
S 25th Street & Okeechobee Road	Signalized	EB	42.7	D	35.4	D
		WB	31.1	C	34.2	C
		NB	32.9	C	45.3	D
		SB	52.1	D	58.8	E
		Overall	41.1	D	45.3	D
Okeechobee Road & Virginia Avenue	Signalized	EB	6.3	A	10.1	B
		WB	53.8	D	45.8	D
		SB	5.6	A	10.6	B
		Overall	16.3	B	20.7	C
Background Scenario						
S 25th Street & Okeechobee Road	Signalized	EB	24.4	C	44.0	D
		WB	20.5	C	40.8	D
		NB	43.9	D	47.0	D
		SB	85.6	F	67.5	E
		Overall	49.3	D	51.5	D
Okeechobee Road & Virginia Avenue	Signalized	EB	8.0	A	14.8	B
		WB	51.5	D	42.3	D
		SB	7.1	A	15.8	B
		Overall	17.1	B	23.0	C
Future Total Scenario						
S 25th Street & Okeechobee Road	Signalized	EB	24.2	C	40.7	D
		WB	20.2	C	34.8	C
		NB	43.9	D	47.8	D
		SB	85.9	F	62.6	E
		Overall	49.3	D	49.0	D
Okeechobee Road & Virginia Avenue	Signalized	EB	8.0	A	27.0	C
		WB	51.5	D	26.4	C
		SB	7.1	A	29.1	C
		Overall	17.0	B	27.2	C

The 95th percentile queue lengths are summarized in Table 4 for the study intersection of S 25th Street & Okeechobee Road. As shown in Table 4, the queues will remain within the provided storage through future total buildout year.

Table 4: 95th Percentile Queue Lengths

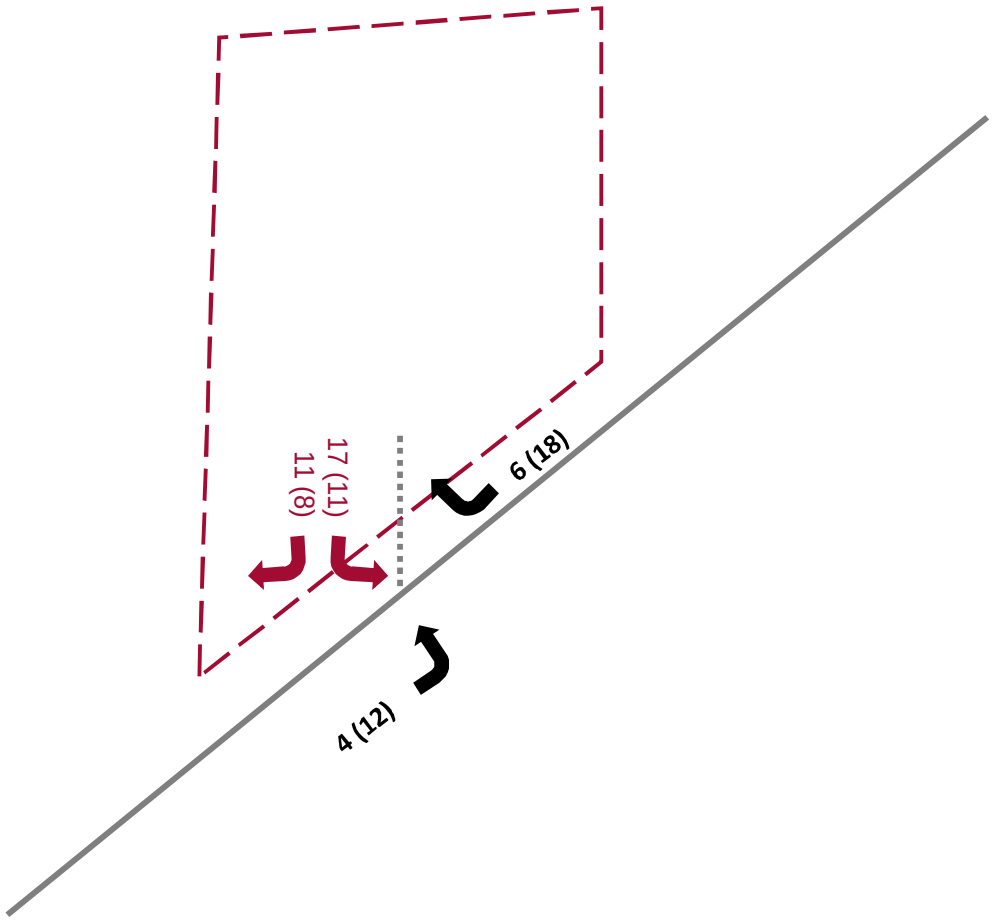
Movement	EBL	WBL	NBL	SBL
Provided Storage	225	200	225	200
Existing Scenario				
AM Peak Hour	108	84	80	33
PM Peak Hour	184	154	145	43
Background Scenario				
AM Peak Hour	125	97	102	37
PM Peak Hour	266	199	182	48
Future Total Scenario				
AM Peak Hour	126	97	109	37
PM Peak Hour	186	141	149	47

The volume development sheet is included in *Appendix F*. The Synchro output sheets are included in *Appendix G*.

Access Review

Access to the proposed site includes one proposed full-access driveway on Okeechobee Road *Figure 3* illustrates the AM peak hour and PM peak hour driveway volumes. According to the FDOT's Driveway Information Guide, exclusive right-turn lanes are recommended at unsignalized intersections for roadways with a posted speed limit of 45 mph or less when the volume of right turns per hour exceed 80 vehicles. As shown in *Figure 3,* the project driveway volume on Okeechobee Road is not expected to generate 80 vehicles; therefore, a right-turn lane is not required. The need for left-turn lanes is evaluated based on the Pennsylvania Department of Transportation's (PennDOT) Publication 46. This warrant considers the left-turn volume, the adjacent volume ("advancing" volume), the conflicting volume ("opposing" volume), and the posted speed limit to determine whether the percentage of left-turns justifies the presence of an exclusive left-turn lane.

Under existing conditions, the advancing volume is the eastbound through volume and the opposing volume is the westbound through volume. The highest eastbound left-turn volume is anticipated to be 12 vehicles per hour, which is projected to occur during the PM peak hour and constitutes approximately 1.8% percent of the total advancing volume. The opposing volume during this hour is 733 vehicles. The volumes were compared to the thresholds defined for a four-lane divided highway with a speed of 35 mph. The left-turn lane warrant worksheet is included in *Appendix H* for Okeechobee Road. The results of the analysis show that an eastbound left turn lane is warranted on Okeechobee Road at the proposed project driveway under current conditions. With the buildout of the proposed development, a left turn lane will be provided on Okeechobee Road.



NORTH

LEGEND

Project Site

XX (XX) AM (PM) Inbound Driveway Volumes

XX (XX) AM (PM) Outbound Driveway Volumes

FIGURE 3
DRIVEWAY VOLUMES
ARIA APARTMENTS

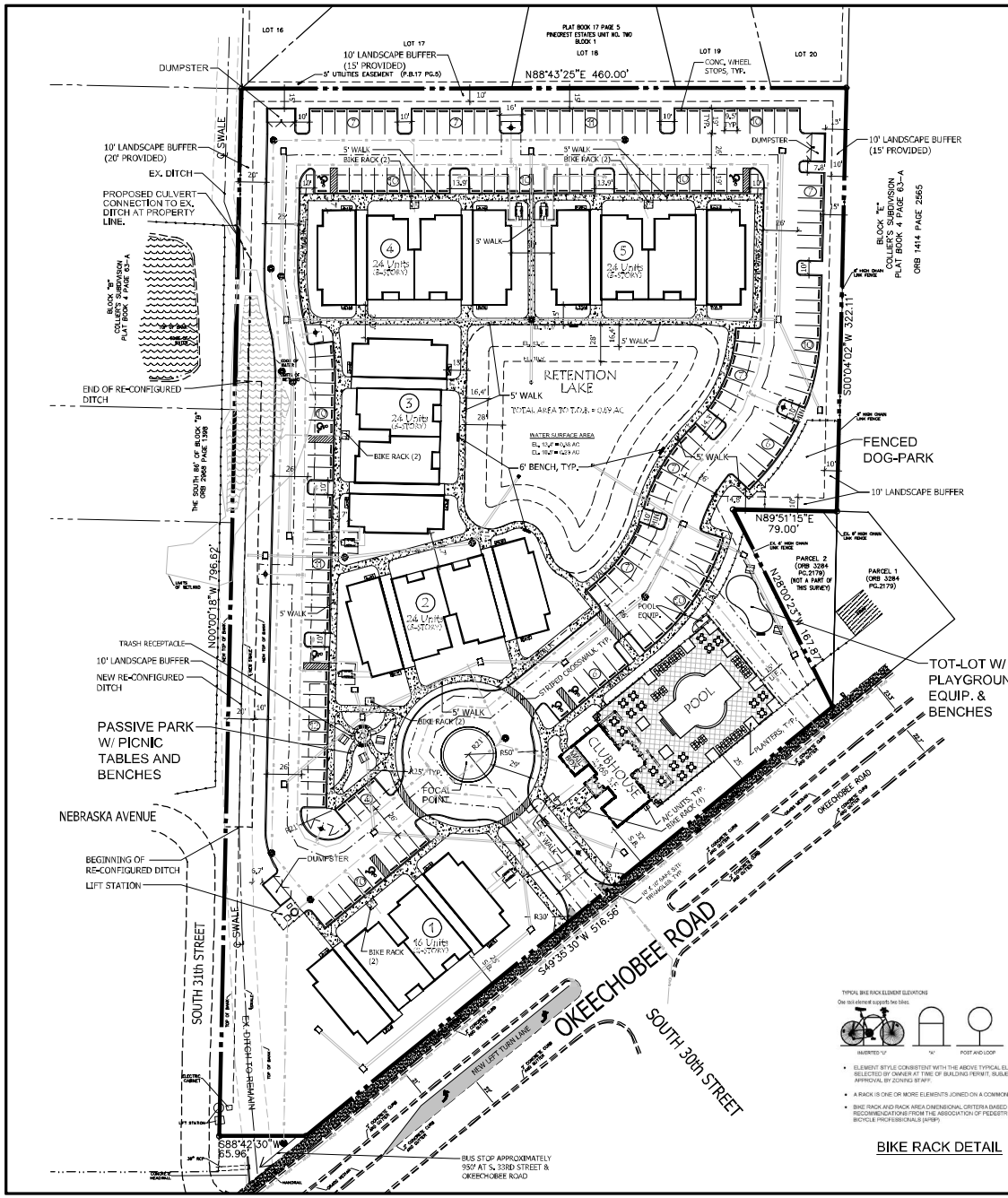
Kimley»Horn

Conclusion

The proposed plan of development includes 112 multifamily (mid-rise) dwelling units located in the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. Based on the analysis undertaken, the roadway links are sufficient to accommodate the project traffic during the AM and PM peak hours.

An intersection analysis was conducted at the signalized intersection of S 25th Street & Okeechobee Road, which is the intersection that was part of a significantly impacted roadway. In addition, an intersection analysis was conducted at Okeechobee Road & Virginia Avenue. Based on the intersection analysis, the existing geometry is expected to operate acceptably under existing, background, and future total conditions. The 95th percentile queue lengths at S 25th Street & Okeechobee Road are within the provided storage through future total conditions. An eastbound left turn lane is required per Pennsylvania Department of Transportation's (PennDOT) Publication 46 warrant criteria. With the buildout of the proposed development, a left turn lane will be provided on Okeechobee Road.

Appendix A: Project Site Data



APPLICATION DATA:

NAME OF APPLICATION:	ARIA AAPARTMENTS
PARCEL ID:	2417-504-3020-001-6
SITE ADDRESS:	TBD
EXISTING FUTURE LAND USE:	GENERAL COMMERCIAL (GC)
PROPOSED FUTURE LAND USE:	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING DESIGNATION:	GENERAL COMMERCIAL (CG)
PROPOSED ZONING DESIGNATION:	MEDIUM DENSITY RESIDENTIAL (R-4)
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (112 UNITS)
PROPOSED DENSITY:	*16.48 D.U.'S PER ACRE

*PROJECT UTILIZES DENSITY BONUS FOR PROXIMITY TO TRANSIT STOP (+5 D.U.'S/ACRE) AND FOR INNOVATIVE DESIGN (+2 D.U.'S/ACRE)

SITE DATA:

GROSS SITE AREA:	296,912.97 S.F. (6.796 ACRES)
OPEN SPACE REQUIRED:	118,405.19 S.F. (40%)
PERVIOUS AREA PROVIDED:	109,454.95 S.F. (36.9%)
RETENTION AREA PROVIDED:	25,674.63 S.F. (8.7%)
TOTAL OPEN SPACE AREA:	135,129.58 S.F. (45.6%)

PARKING DATA:

PROPOSED USES (FLEX SPACE)

USE	UNITS	PARKING RATE	REQUIRED PARKING
MULTI-FAMILY RESIDENTIAL	112 UNITS	1.5/UNIT	168 SPACES
	TOTAL PARKING REQUIRED:		168 SPACES
	TOTAL PARKING PROVIDED:		172 SPACES
	HANDICAP SPACES REQ'D.:		6 SPACES
	HANDICAP SPACES PROV.:		7 SPACES

BICYCLE PARKING REQUIRED: 12 SPACES (1 PER 10 UNITS)
BICYCLE PARKING PROVIDED: 14 SPACES



TRASH RECEPTACLE DETAIL
N.T.S.

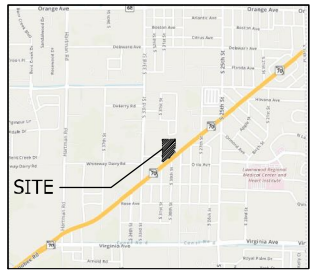
BIKE RACK DETAIL



LANDSCAPE FORMS • CHASE PARK BENCH CAST ALUM./W STEEL FRAMES & ARMREST ARMS

BENCH DETAIL
N.T.S.

LOCATION MAP



Site Plan

0 20' 40' 80' 120' 160'

NORTH

Scale: 1" = 40'

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

PROJECT TEAM

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Contact: Michael LaCoursiere (561-368-0080)

DEVELOPMENT MANAGER/AGENT
Managed Land Entitlements, LLC
3710 Buckeye Street, Suite 100
Palm Beach Gardens, Florida 33410
Contact: Michael Sanchez (561-568-8045)

LANDSCAPE ARCHITECT
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Florida 34990
Contact: Jason Litterick (561-719-3878)

SURVEYOR
Brown & Phillips, Inc.
1860 Old Okeechobee Road, Suite 509
West Palm Beach, Florida 33409
Contact: John Phillips (561-478-3888)

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, FL 34990
561-719-3878
Jasonl.LA1677@yahoo.com

Project Name

Aria Apartments

Ft. Pierce, Florida

Landscape Architect of Record

Jason M. Litterick FLA 0001677

Scale: 1" = 40'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/15/2020
Job No.	
Revisions:	

Sheet No.

SP-1

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address: OKEECHOBEE RD	Parcel ID: 2417-504-0020-001-6	Account #: 26668	Sec/Town/Range: 17/35S/40E
Use Type: 1000	Jurisdiction: Fort Pierce	Map ID: 24/17N	Zoning: General Co

Ownership

Arrow Investment Group LLC
4512 N Flagler DR # 2056
West Palm Beach, FL 33407

Legal Description

COLLIER`S S/D BLK D ALL BLK D-LESS S 27 FT AND SELY 7 FT FOR RD R/W AND LESS THAT PART MPDAF: BEG INT OF SE COR OF BLK D AND NLY RD R/W LI OF OKEEC RD RUN N 28 00 23 W 167.87 FT,TH N 89 51 15 E 79 FT TO E LI OF BLK D,TH S 00 04 02 W ALG E LI 148.41 FT TO NLY RD R/W LI OF OKEEC RD AND POB- (6.86 AC)

Current Values

Just/Market:	$732,700	Assessed:	$732,700
Exemptions:	$0	Taxable:	$732,700

Historical Values 3-year

Year	Just/Market	Assessed	Exemptions	Taxable
2019	$732,700	$732,700	$0	$732,700
2018	$732,700	$732,700	$0	$732,700
2017	$732,700	$732,700	$0	$732,700

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
09-26-2019	4327 / 0333	0112	SP	Cypress Trust Company (TR)	$450,000
05-27-2010	3204 / 0743	0112	SP	Cypress Trust Company (TR)	$100
12-17-2008	3049 / 2156	XX01	CT	Mid South Acquisitions LLC	$299,000

Primary Building Information

Finished Area of this building: 0 SF
Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:	Building Type:
Year Built: N/A	Frame:	Grade:	Effective Year: N/A
Primary Wall:	Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	A/C %: 0%	Electric:	Primary Int Wall:
Full Baths: 0	Heated %: N/A%	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Sprinkled %: 0%	Heat Fuel:	Primary Floors:



Image or Sketch unavailable for display

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.87
Land Size (SF):	299,058
Total Building Count:	1

Special Features and Yard Items

Type	Qty	Units	Year Blt

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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Appendix B: St Lucie County Traffic Data

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
17TH ST	ORANGE AVE to AVENUE D	608	4,033	2016	750	236	C	0.638	225	C	0.608
17TH ST	AVENUE D to AVENUE Q	608	4,033	2016	750	236	C	0.638	225	C	0.608
25TH ST	MIDWAY RD to BELL AVE	940016	18,275	2017	2,100	1,310	C	0.652	1,222	C	0.608
25TH ST	BELL AVE to EDWARDS RD	159	19,040	2019	2,100	1,056	C	0.525	1,053	C	0.524
25TH ST	EDWARDS RD to CORTEZ BLVD	940021	22,049	2017	2,000	1,405	C	0.736	1,401	C	0.734
25TH ST	CORTEZ BLVD to VIRGINIA AVE	529	21,000	2020	2,000	1,182	C	0.619	1,261	C	0.660
25TH ST	VIRIGINIA AVE to NEBRASKA AVE	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	NEBRASKA AVE to OKEECHOBEE RD	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	OKEECHOBEE RD to GEORGIA AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	GEORGIA AVE to DELAWARE AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	DELAWARE AVE to ORANGE AVE	940014	19,612	2017	1,630	1,021	D	0.626	1,015	D	0.623
25TH ST	ORANGE AVE to AVENUE D	610	19,000	2020	1,630	877	D	0.538	904	D	0.555
25TH ST	AVENUE D to AVENUE Q	940050	15,331	2017	1,630	807	D	0.495	784	D	0.481
25TH ST	AVENUE Q to JUANITA AVE	945152	13,301	2017	2,000	752	C	0.394	689	C	0.361
25TH ST	JUANITA AVE to ST LUCIE BLVD	940791	14,647	2013	2,100	794	C	0.395	745	C	0.371
25TH ST	ST LUCIE BLVD to US 1	945165	5,924	2017	2,100	340	C	0.169	380	C	0.189
33RD ST	OKEECHOBEE RD to DELAWARE AVE	611	7,000	2020	750	419	D	0.559	368	C	0.995
33RD ST	DELAWARE AVE to ORANGE AVE	948507	4,991	2017	790	230	C	0.622	230	C	0.622
35TH ST	KIRBY LOOP RD to CORTEZ BLVD	612	6,300	2020	540	497	D	0.920	406	D	0.752
35TH ST	CORTEZ BLVD to VIRGINIA AVE	612	6,300	2020	790	497	D	0.629	406	D	0.514
35TH ST	VIRGINIA AVE to OKEECHOBEE RD	613	4,600	2016	750	279	C	0.754	280	C	0.757
53RD ST	ANGLE RD to JUANITA AVE	614	2,767	2016	540	148	C	0.548	163	C	0.604
AE BACKUS AVE	7TH ST to US 1	632	1,033	2017	750	70	C	0.189	81	C	0.219
AIROSO BLVD	PORT ST LUCIE BLVD to THORNHILL DR	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423
AIROSO BLVD	THORNHILL DR to CROSSTOWN PKWY	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
OHIO AVE	SUNRISE BLVD to COLONIAL RD	686	4,250	2017	540	252	C	0.933	246	C	0.911
OHIO AVE	COLONIAL RD to US 1	686	4,250	2017	750	252	C	0.681	246	C	0.665
OKEECHOBEE RD	OKEECHOBEE C.L. to BLUEFIELD RD	687	10,500	2020	1,010	540	B	0.535	528	B	0.523
OKEECHOBEE RD	BLUEFIELD RD to CARLTON RD	687	10,500	2020	1,270	540	B	0.425	528	B	0.416
OKEECHOBEE RD	CARLTON RD to SNEED RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	IDEAL HOLDING RD to HEADER CANAL RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	SNEED RD to IDEAL HOLDING RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	HEADER CANAL RD to MIDWAY RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	MIDWAY RD to SHINN RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	SHINN RD to MCCARTY RD	940195	6,025	2017	1,810	327	B	0.181	327	B	0.181
OKEECHOBEE RD	MCCARTY RD to FLORIDA'S TURNPIKE	940025	7,551	2017	1,810	378	B	0.209	391	B	0.216
OKEECHOBEE RD	FLORIDA'S TURNPIKE to KINGS HWY	940025	7,551	2017	2,010	378	C	0.188	391	C	0.195
OKEECHOBEE RD	KINGS HWY to CROSSROADS PKWY	940748	21,250	2017	4,170	960	C	0.230	1,013	C	0.243
OKEECHOBEE RD	CROSSROADS PKWY to I-95	940106	24,585	2017	4,170	1,063	C	0.255	1,086	C	0.260
OKEECHOBEE RD	I-95 to JENKINS RD	940029	30,244	2017	4,240	1,976	C	0.474	1,709	C	0.410
OKEECHOBEE RD	JENKINS RD to MCNEIL RD	940029	30,244	2017	4,040	1,976	C	0.498	1,709	C	0.430
OKEECHOBEE RD	MCNEIL RD to VIRGINIA AVE	940742	28,870	2017	3,170	1,580	C	0.511	1,649	C	0.534
OKEECHOBEE RD	VIRGINIA AVE to HARTMAN RD	688	12,500	2020	2,100	687	C	0.342	727	C	0.362
OKEECHOBEE RD	HARTMAN RD to 35TH ST	688	12,500	2020	1,630	687	C	0.941	727	C	0.996
OKEECHOBEE RD	35TH ST to 33RD ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	33RD ST to 25TH ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	25TH ST to GEORGIA AVE	690	13,500	2020	1,630	777	D	0.477	738	D	0.453
OKEECHOBEE RD	GEORGIA AVE to DELAWARE AVE	690	13,500	2020	1,710	777	D	0.454	738	C	0.958
OLD DIXIE HWY	US 1 to SR A1A NORTH	691	5,150	2017	790	400	D	0.506	363	C	0.931
OLD DIXIE HWY	SR A1A NORTH to ST LUCIE BLVD	948521	1,383	2017	750	65	C	0.176	65	C	0.176

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Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
US 1	AVENUE H to OLD DIXIE HWY	715	33,500	2020	2,000	1,766	C	0.925	1,742	C	0.912
US 1	OLD DIXIE HWY to AVENUE O	940123	22,051	2017	2,000	1,530	C	0.801	1,196	C	0.626
US 1	AVENUE O to SR A1A NORTH	940123	22,051	2017	2,100	1,530	C	0.761	1,196	C	0.595
US 1	SR A1A NORTH to JUANITA AVE	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	JUANITA AVE to ST LUCIE BLVD	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	ST LUCIE BLVD to 25TH ST	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	25TH ST to INDRIO RD	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	INDRIO RD to TURNPIKE FEEDER RD	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
US 1	TURNPIKE FEEDER RD to INDIAN RIVER C.L.	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
VETERANS MEMORIAL PKWY	PORT ST LUCIE BLVD to LYNGATE DR	329	14,500	2019	2,100	779	C	0.388	817	C	0.406
VETERANS MEMORIAL PKWY	LYNGATE DR to US 1	327	14,911	2017	2,100	756	C	0.376	804	C	0.400
VILLAGE GREEN DR	US 1 to WALTON RD	716	9,600	2017	2,100	619	C	0.308	575	C	0.286
VILLAGE GREEN DR	WALTON RD to TIFFANY AVE	717	4,633	2017	920	249	C	0.286	235	C	0.270
VIRGINIA AVE	35TH ST to 25TH ST	940032	21,557	2017	3,020	1,111	C	0.378	1,083	C	0.368
VIRGINIA AVE	OKEECHOBEE RD to HARTMAN RD	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	HARTMAN RD to 35TH ST	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	25TH ST to 13TH ST	940033	20,913	2017	3,020	1,093	C	0.372	1,164	C	0.396
VIRGINIA AVE	13TH ST to 11TH ST	940794	22,873	2017	3,020	1,101	C	0.374	1,101	C	0.374
VIRGINIA AVE	11TH ST to SUNRISE BLVD	940794	22,873	2017	3,170	1,101	C	0.356	1,101	C	0.356
VIRGINIA AVE	SUNRISE BLVD to OLEANDER AVE	940792	19,519	2017	3,020	1,063	C	0.362	992	C	0.337
VIRGINIA AVE	OLEANDER AVE to COLONIAL RD	940034	18,483	2017	3,170	1,043	C	0.338	1,020	C	0.330
VIRGINIA AVE	COLONIAL RD to US 1	940034	18,483	2017	3,020	1,043	C	0.355	1,020	C	0.347
VILLAGE PKWY	DISCOVERY WAY to TRADITION PKWY	718	14,000	2019	2,650	732	C	0.595	797	C	0.648
VILLAGE PKWY	BECKER RD to DISCOVERY WAY	718	14,000	2019	1,710	732	C	0.951	797	D	0.466
VILLAGE PKWY	TRADITION PKWY to WESTCLIFFE LN	719	23,000	2019	1,710	1,208	D	0.706	1,265	D	0.740

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
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*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

Appendix C: Growth Rate Calculations

Road Segment	2015 Volume	2018 Volume	Growth Rate	Yearly Growth
Virginia Ave	22,000	22,000	0.00%	0
S 35th Street	7,900	10,900	11.33%	1235
S 25th Street	22,000	22,500	0.75%	169
Sum		55,400		1,404
Area Wide Growth Rate =			2.53%	

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0032 - SR 70/VIRGINIA AVE - W OF SR 615/25 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	22000 C	E 11000	W 11000	9.00	51.30	6.10
2017	20900 C	E 9900	W 11000	9.00	50.90	4.10
2016	20800 C	E 9800	W 11000	9.00	50.90	4.10
2015	22000 C	E 11000	W 11000	9.00	51.00	4.10
2014	21000 C	E 11000	W 10000	9.00	50.80	4.20
2013	21000 C	E 10500	W 10500	9.00	50.80	3.70
2012	23000 F	E 12000	W 11000	9.00	56.80	4.30
2011	23000 C	E 12000	W 11000	9.00	57.20	5.10
2010	22500 C	E 11500	W 11000	10.32	55.40	5.10
2009	22500 C	E 11500	W 11000	10.27	57.35	5.10
2008	23500 C	E 11500	W 12000	10.45	58.06	4.10
2007	25000 C	E 13000	W 12000	10.31	58.74	4.10
2006	21500 C	E 11500	W 10000	10.73	65.89	4.10
2005	23500 C	E 12000	W 11500	10.80	60.70	6.00
2004	22500 C	E 11500	W 11000	10.30	57.70	6.00
2003	20500 C	E 10500	W 10000	10.20	59.60	2.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0083 - S 35 ST- NORTH OFARNOLD RD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	10900 C	N 6500	S 4400	9.00	51.30	5.80
2017	8100 V	0	0	9.00	50.90	10.00
2016	8000 R	0	0	9.00	50.90	6.20
2015	7900 T	0	0	9.00	51.00	41.80
2014	7900 S			9.00	50.80	49.50
2013	7900 F	0	0	9.00	50.80	11.90
2012	7900 C	N 0	S 0	9.00	56.80	7.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0015 - SR 615/25 ST - N OF SR 70/VIRGINIA AVE (COUNTY 15)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	22500 C	N 11500	S 11000	9.00	51.30	5.40
2017	20500 C	N 11000	S 9500	9.00	50.90	4.80
2016	22500 C	N 11000	S 11500	9.00	50.90	4.80
2015	22000 C	N 11000	S 11000	9.00	51.00	4.80
2014	21000 C	N 10000	S 11000	9.00	50.80	4.20
2013	20500 C	N 10500	S 10000	9.00	50.80	4.20
2012	22500 C	N 11500	S 11000	9.00	56.80	4.20
2011	22500 C	N 12000	S 10500	9.00	57.20	3.00
2010	23000 C	N 12000	S 11000	10.32	55.40	3.00
2009	22500 C	N 12000	S 10500	10.27	57.35	3.00
2008	21500 C	N 11000	S 10500	10.45	58.06	3.90
2007	25000 C	N 13000	S 12000	10.31	58.74	3.90
2006	23000 C	N 11500	S 11500	10.73	65.89	3.90
2005	24000 C	N 12000	S 12000	10.80	60.70	3.10
2004	23000 C	N 11500	S 11500	10.30	57.70	3.10
2003	22500 C	N 11500	S 11000	10.20	59.60	3.60

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Appendix D: Turning Movement Counts

Traffic Survey Specialists, Inc.

Delray Beach, Florida

Phone (561) 272-3255 www.trafficsurveyspecialists.com

S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 1

Groups Printed- ALL VEHICLES

	S 25TH STREET From North				OKEECHOBEE ROAD From East				S 25TH STREET From South				OKEECHOBEE ROAD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00	0	5	135	26	0	26	49	2	0	19	162	24	0	37	40	9	534
07:15	0	6	159	33	0	25	50	4	0	24	162	35	0	37	52	14	601
07:30	0	5	177	35	0	26	46	1	0	30	158	37	0	28	74	27	644
07:45	0	11	186	28	2	26	62	4	0	27	171	50	0	38	95	30	730
Total	0	27	657	122	2	103	207	11	0	100	653	146	0	140	261	80	2509
08:00	0	13	197	33	1	27	75	6	0	24	115	45	0	37	124	25	722
08:15	0	11	155	22	0	27	64	3	0	25	131	41	1	39	98	23	640
08:30	0	18	152	18	2	28	48	3	0	23	106	41	1	36	49	12	537
08:45	0	11	164	19	1	27	71	3	0	21	97	26	0	25	63	23	551
Total	0	53	668	92	4	109	258	15	0	93	449	153	2	137	334	83	2450
16:00	0	7	162	24	0	42	76	7	0	29	137	49	1	30	73	16	653
16:15	0	10	155	29	3	41	84	3	0	31	151	32	1	37	82	26	685
16:30	0	10	160	23	0	44	88	2	0	32	141	48	1	44	51	18	662
16:45	0	7	171	25	0	28	112	3	0	36	154	31	1	42	78	31	719
Total	0	34	648	101	3	155	360	15	0	128	583	160	4	153	284	91	2719
17:00	0	13	182	43	0	46	112	3	0	33	166	39	0	39	75	34	785
17:15	0	12	194	37	1	28	96	5	0	24	162	41	0	42	93	25	760
17:30	0	9	194	35	0	36	80	2	0	33	157	33	0	43	111	22	755
17:45	0	6	157	26	0	33	66	5	0	22	148	25	1	28	98	16	631
Total	0	40	727	141	1	143	354	15	0	112	633	138	1	152	377	97	2931
Grand Total	0	154	2700	456	10	510	1179	56	0	433	2318	597	7	582	1256	351	10609
Apprch %	0	4.7	81.6	13.8	0.6	29.1	67.2	3.2	0	12.9	69.2	17.8	0.3	26.5	57.2	16	
Total %	0	1.5	25.5	4.3	0.1	4.8	11.1	0.5	0	4.1	21.8	5.6	0.1	5.5	11.8	3.3	

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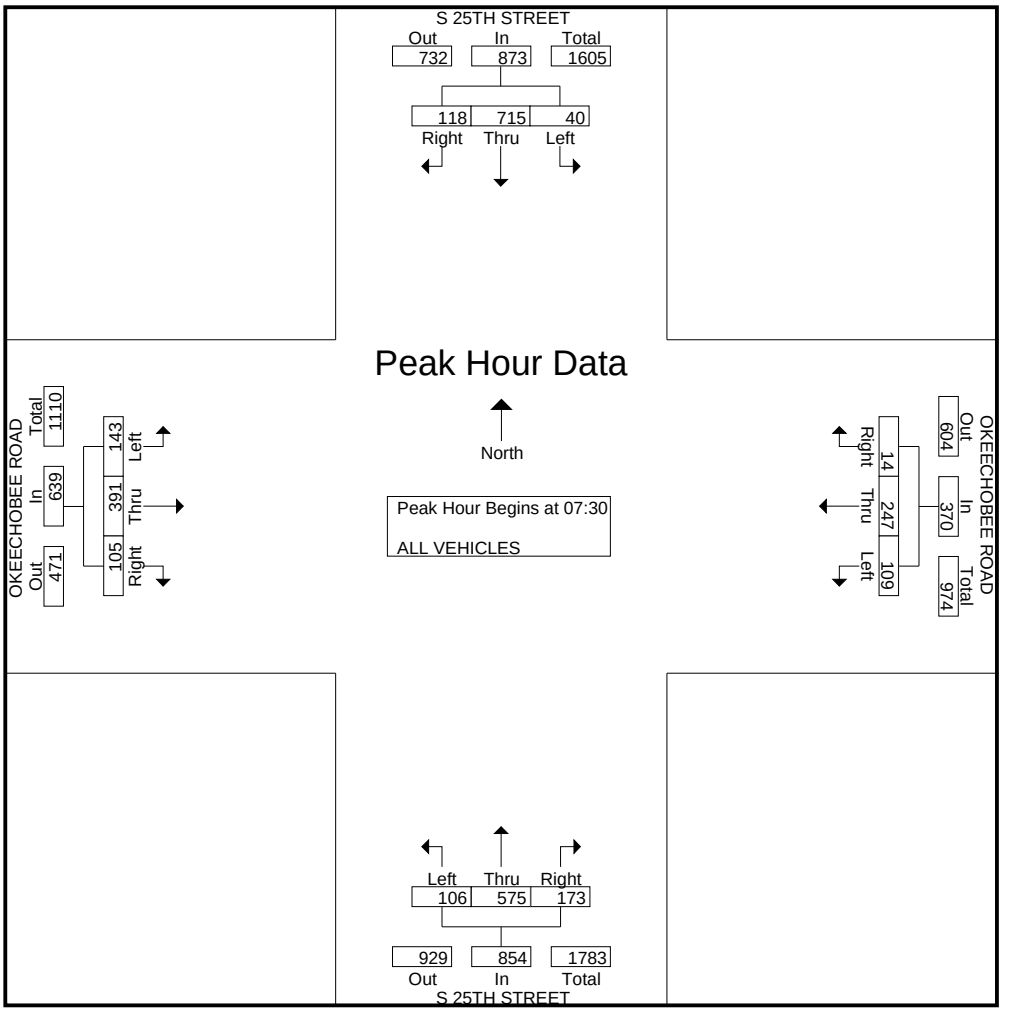
S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 2

	S 25TH STREET From North					OKEECHOBEE ROAD From East					S 25TH STREET From South					OKEECHOBEE ROAD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	0	5	177	**35**	217	0	26	46	1	73	0	**30**	158	37	225	0	28	74	27	129	644
07:45	0	11	186	28	225	**2**	26	62	4	94	0	27	**171**	**50**	**248**	0	38	95	**30**	163	**730**
08:00	0	**13**	**197**	33	**243**	1	**27**	**75**	**6**	**109**	0	24	115	45	184	0	37	**124**	25	**186**	722
08:15	0	11	155	22	188	0	27	64	3	94	0	25	131	41	197	**1**	**39**	98	23	161	640
Total Volume	0	40	715	118	873	3	106	247	14	370	0	106	575	173	854	1	142	391	105	639	2736
% App. Total	0	4.6	81.9	13.5		0.8	28.6	66.8	3.8		0	12.4	67.3	20.3		0.2	22.2	61.2	16.4		
PHF	.000	.769	.907	.843	.898	.375	.981	.823	.583	.849	.000	.883	.841	.865	.861	.250	.910	.788	.875	.859	.937



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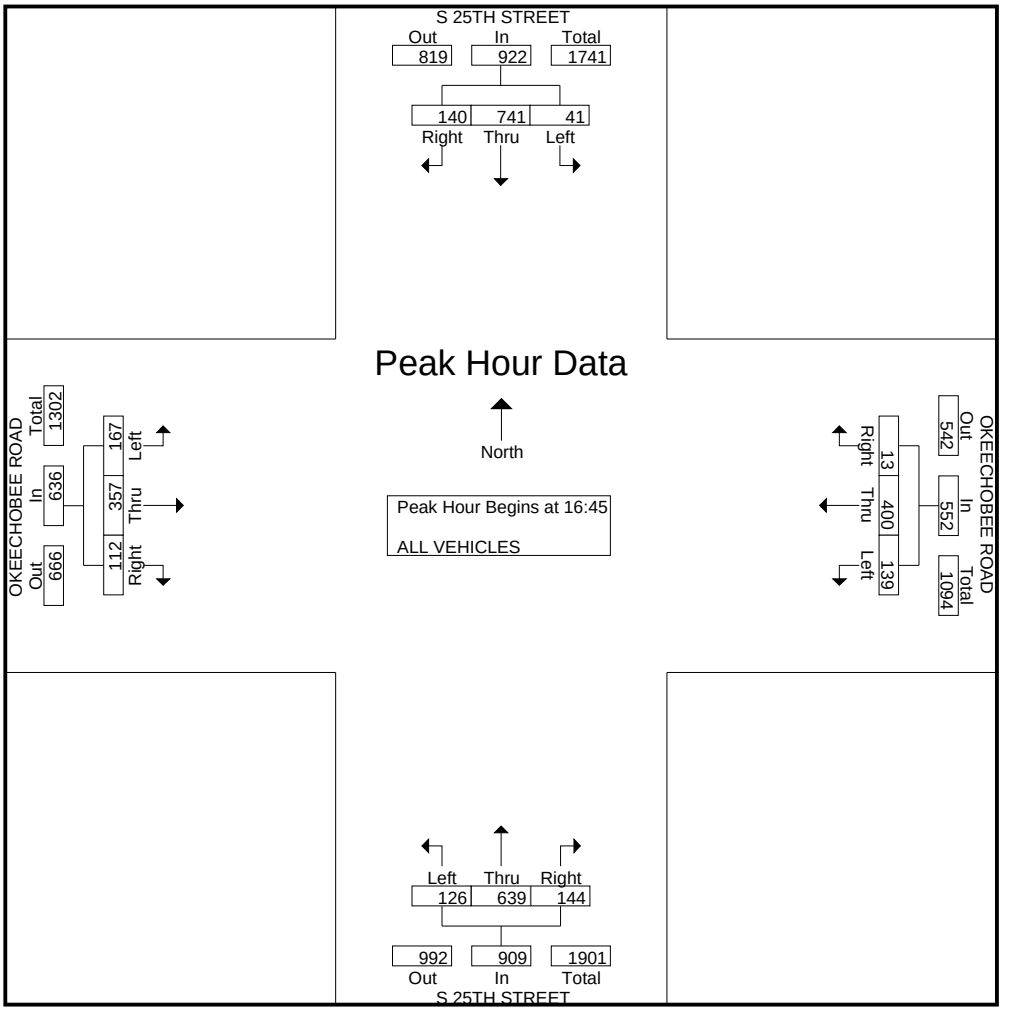
S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 3

	S 25TH STREET From North					OKEECHOBEE ROAD From East					S 25TH STREET From South					OKEECHOBEE ROAD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	7	171	25	203	0	28	**112**	3	143	0	**36**	154	31	221	**1**	42	78	31	152	719
17:00	0	**13**	182	**43**	238	0	**46**	112	3	**161**	0	33	**166**	39	**238**	0	39	75	**34**	148	**785**
17:15	0	12	**194**	37	**243**	**1**	28	96	**5**	130	0	24	162	**41**	227	0	42	93	25	160	760
17:30	0	9	194	35	238	0	36	80	2	118	0	33	157	33	223	0	**43**	**111**	22	**176**	755
Total Volume	0	41	741	140	922	1	138	400	13	552	0	126	639	144	909	1	166	357	112	636	3019
% App. Total	0	4.4	80.4	15.2		0.2	25	72.5	2.4		0	13.9	70.3	15.8		0.2	26.1	56.1	17.6		
PHF	.000	.788	.955	.814	.949	.250	.750	.893	.650	.857	.000	.875	.962	.878	.955	.250	.965	.804	.824	.903	.961



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S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	S 25TH STREET From North				OKEECHOBEE ROAD From East				S 25TH STREET From South				OKEECHOBEE ROAD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
08:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3
16:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
16:45	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	0	4
Total	0	0	2	0	0	0	0	0	0	0	1	0	1	0	2	0	6
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15	0	0	1	0	0	0	0	0	1	0	1	0	1	0	0	0	4
17:45	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
Total	0	0	1	0	0	0	1	0	1	0	2	0	1	0	1	0	7
Grand Total	1	0	4	0	0	0	1	0	2	0	3	0	2	0	3	0	16
Apprch %	20	0	80	0	0	0	100	0	40	0	60	0	40	0	60	0	
Total %	6.2	0	25	0	0	0	6.2	0	12.5	0	18.8	0	12.5	0	18.8	0	

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE
Page : 1

ALL VEHICLES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/03/19																	
07:00	0	0	47	0	0	0	102	0	0	0	0	0	0	0	70	114	333
07:15	0	0	71	0	0	0	114	0	0	0	0	0	0	0	82	165	432
07:30	0	0	104	0	0	0	136	0	0	0	0	0	0	0	126	252	618
07:45	0	0	99	0	0	0	124	0	0	0	0	0	0	0	134	317	674
Hr Total	0	0	321	0	0	0	476	0	0	0	0	0	0	0	412	848	2057
08:00	0	0	97	0	0	0	133	0	0	0	0	0	0	0	113	258	601
08:15	0	0	89	0	0	0	133	0	0	0	0	0	0	0	104	259	585
08:30	0	0	103	0	0	0	144	0	0	0	0	0	0	0	112	244	603
08:45	0	0	103	0	0	0	149	0	0	0	0	0	0	0	90	216	558
Hr Total	0	0	392	0	0	0	559	0	0	0	0	0	0	0	419	977	2347
---------- * BREAK * ----------																	
16:00	0	0	129	0	0	0	229	0	0	0	0	0	0	0	128	207	693
16:15	0	0	105	0	0	0	197	0	0	0	0	0	0	0	128	225	655
16:30	0	0	149	0	0	0	203	0	0	0	0	0	0	0	119	227	698
16:45	0	0	141	0	0	0	231	0	0	0	0	0	0	0	123	215	710
Hr Total	0	0	524	0	0	0	860	0	0	0	0	0	0	0	498	874	2756
17:00	0	0	161	0	0	0	272	0	0	0	0	0	0	0	109	233	775
17:15	0	0	167	0	0	0	200	0	0	0	0	0	0	0	160	223	750
17:30	0	0	130	0	0	0	210	0	0	0	0	0	0	0	145	256	741
17:45	0	0	137	0	0	0	202	0	0	0	0	0	0	0	144	245	728
Hr Total	0	0	595	0	0	0	884	0	0	0	0	0	0	0	558	957	2994
TOTAL	0	0	1832	0	0	0	2779	0	0	0	0	0	0	0	1887	3656	10154

TRAFFIC SURVEY SPECIALISTS, INC.

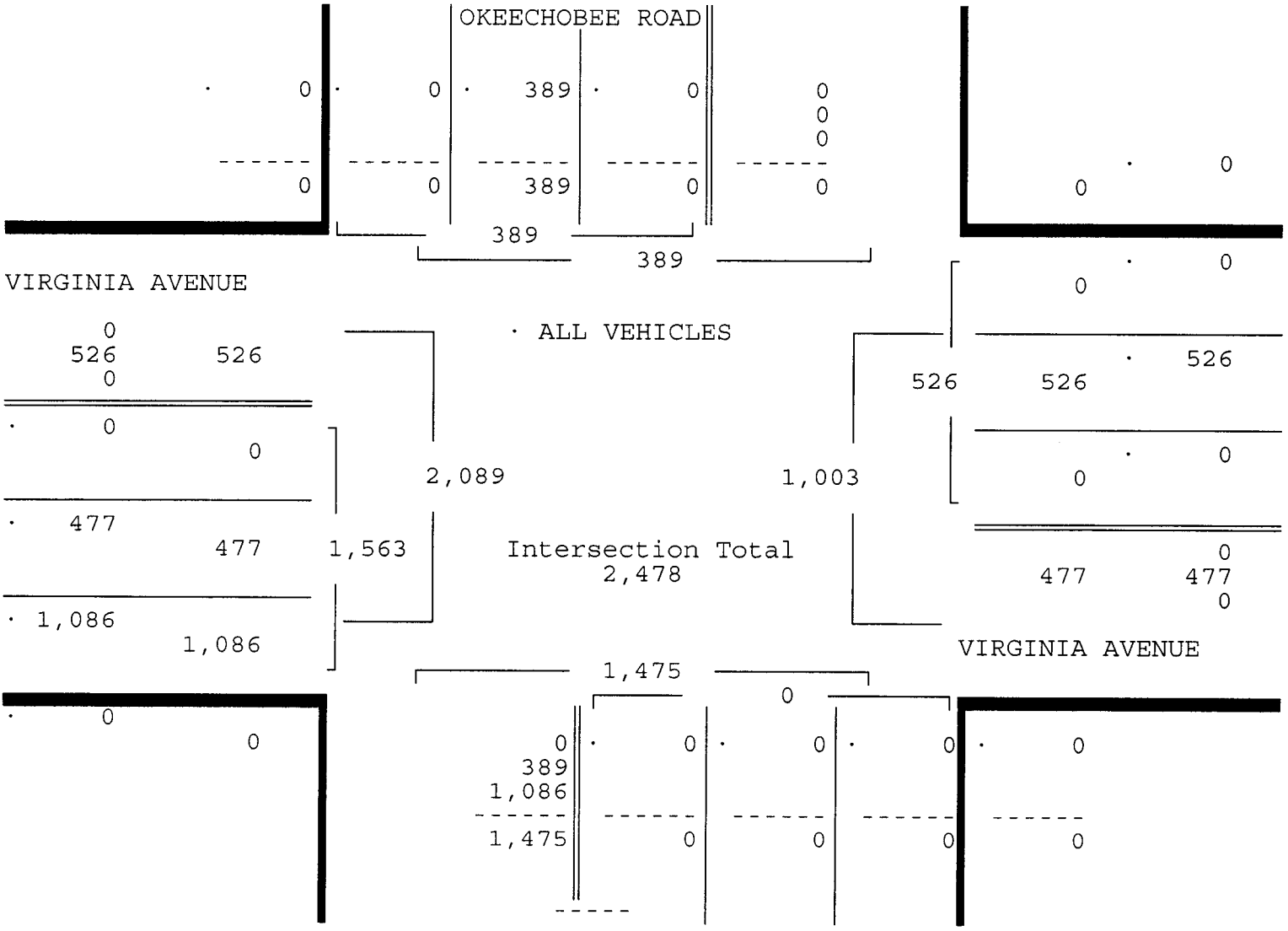
VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE

ALL VEHICLES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/03/19																	
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 04/03/19																	
Peak start	07:30				07:30				07:30				07:30				
Volume	0	0	389	0	0	0	526	0	0	0	0	0	0	0	477	1086	
Percent	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	31%	69%	
Pk total	389				526				0				1563				
Highest	07:30				07:30				07:00				07:45				
Volume	0	0	104	0	0	0	136	0	0	0	0	0	0	0	134	317	
Hi total	104				136				0				451				
PHF	.94				.97				.0				.87				



TRAFFIC SURVEY SPECIALISTS, INC.

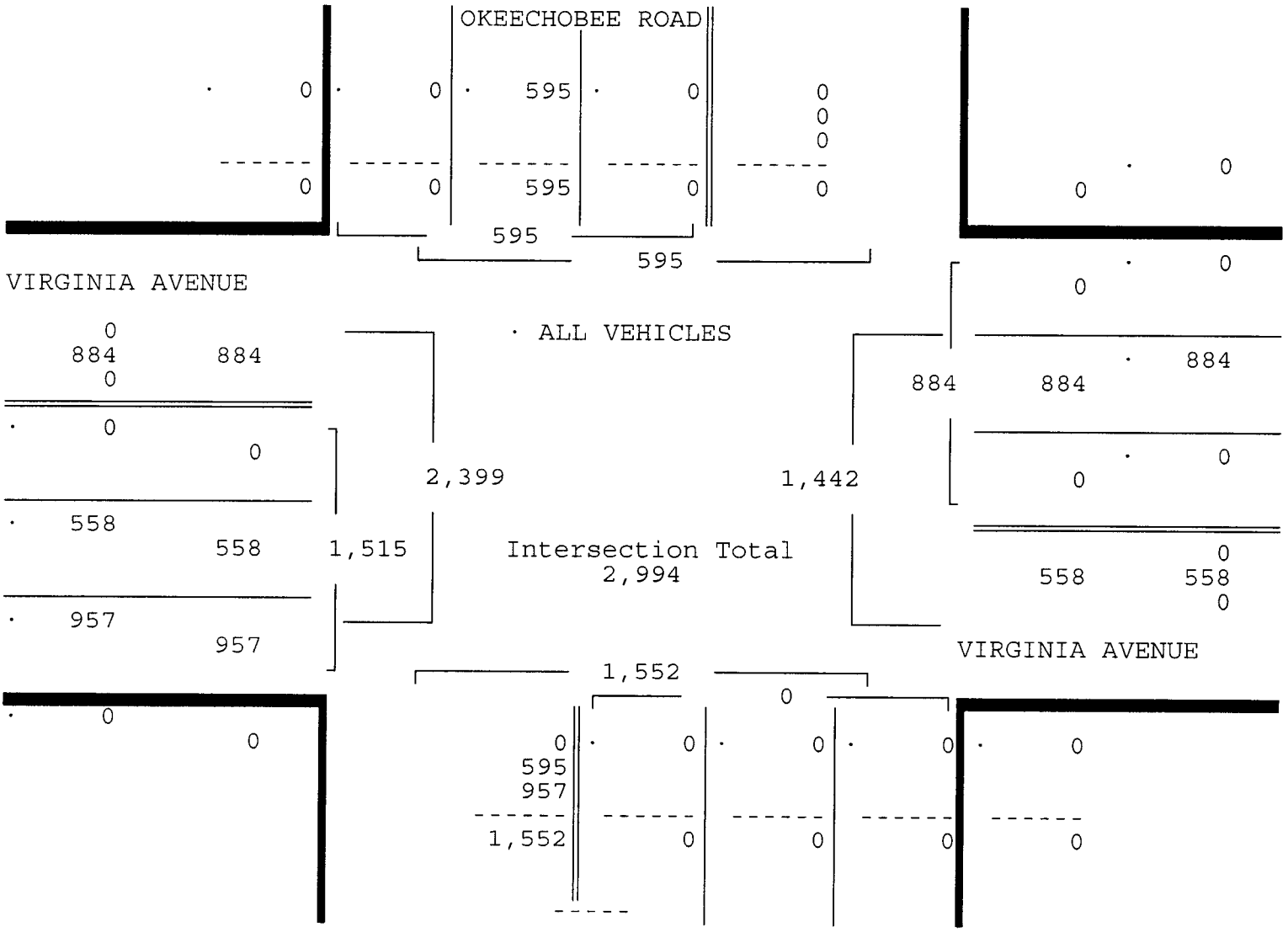
VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE
Page : 3

ALL VEHICLES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/03/19																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 04/03/19																	
Peak start	17:00				17:00				17:00				17:00				
Volume	0	0	595	0	0	0	884	0	0	0	0	0	0	0	558	957	
Percent	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	37%	63%	
Pk total	595				884				0				1515				
Highest	17:15				17:00				07:00				17:30				
Volume	0	0	167	0	0	0	272	0	0	0	0	0	0	0	145	256	
Hi total	167				272				0				401				
PHF	.89				.81				.0				.94				



TRAFFIC SURVEY SPECIALISTS, INC.

VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE
Page : 1

PEDESTRIANS & BIKES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 04/03/19																	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
* BREAK *																	
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2

Appendix E: Signal Timing Sheet

City of Fort Pierce Engineering Department

Intersection Timing Sheet

Name **SR-615 at Okeechobee Road**

Part I — Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8		
Approach	EBLT	WB	SBLT	NB	WBLT	EB	NBLT	SB		
Initial	12	12	9	12	12	12	9	12		
Passage	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Max1	15.0	35.0	20.0	45.0	15.0	35.0	20.0	45.0		
Yellow	4.0	3.7	4.0	4.4	3.7	4.0	4.4	4.0		
Red	2.6	2.7	2.0	2.1	2.6	2.7	2.0	2.1		
Walk		7.0		7.0		7.0		7.0		
Ped Clear		28.0		25.0		30.0		29.0		
Recall		Min				Min				
LT Type	Prot+Perm		Prot+Perm		Prot+Perm		Prot+Perm			

Part II — Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pattern 1	17	25	15	33	17	25	15	33	90	59
Split Pattern 2	18	31	15	36	18	31	15	36	100	50
Split Pattern 3	17	44	15	64	17	44	23	56	140	49
Split Pattern 4	15	22	15	28	15	22	15	28	80	42
Split Pattern 5	15	33	15	37	15	33	15	37	100	30

Schedule Implementation

Schedule Notes

Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
Start	End	Split	Start	End	Split			
0:00	6:30	100	0:00	7:00	100			
6:30	10:00	1	7:00	10:00	4			
10:00	15:00	2	10:00	18:00	5			
15:00	19:00	3	18:00	21:00	4			
19:00	21:00	4	21:00	0:00	100			
21:00	0:00	100						

Part III — Notes and Comments

1. Installed new system and signal timing by AECOM (FDOT Retiming Contract C9O28; FM 230017 7 32 01)

Office DEPOT®

City of Fort Pierce Engineering Department

Intersection Timing Sheet

Name **SR-70 at Okeechobee Road**

Part I — *Actuated Timing Information*

Non-coordinated Operation

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*		
Approach		EB/SBR		WBT						
Initial		12		12						
Passage		5.0		5.0						
Max1		60.0		60.0						
Max2										
Yellow		4.8		4.8						
Red		2.5		2.5						
Walk		5.0								
Ped Clear		9.0								
Recall				Min						
LT Type										

Part II — *Coordinated Timing Information*

Pattern Tables

PHASE	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*Cycle*	*Offset*
Split Pattern 1		60		70					130	34
Split Pattern 2		65		65					130	22
Split Pattern 3		65		65					130	103
Split Pattern 4		50		50					100	70
Split Pattern 5		55		65					120	80

Schedule Implementation

Schedule Notes

Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
Start	End	Pattern	Start	End	Pattern			
0:00	6:30	Free	0:00	7:00	Free			
6:30	10:00	1	7:00	10:00	4			
10:00	15:00	2	10:00	18:00	5			
15:00	19:00	3	18:00	21:00	4			
19:00	21:00	4	21:00	0:00	Free			
21:00	0:00	Free						

Part III — *Notes and Comments*

1. Installed new system and signal timing by AECOM (FDOT Retiming Contract C9O28; FM 230017 7 32 01)
2. Coord offset reference - Phase 4

Appendix F: Volume Development Worksheet

VOLUME DEVELOPMENT SHEET
ARROW FORT PIERCE NORTH RESIDENTIAL
OKEECHOBEE ROAD & VIRIGNIA AVENUE

Peak Season =	1.01	1.01
Buildout Year =	2025	2025
Years =	6	6

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 04/03/2019	0	0	0	0	389	0	0	477	1,086	0	526	0
Peak Season Volume	0	0	0	0	393	0	0	482	1,097	0	531	0
Growth Rate				2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	0	0	0	0	64	0	0	78	177	0	86	0
Committed Celebration Pointe												
Inbound Traffic Assignment					5.0%						15.0%	
Inbound Traffic Volumes					5						15	
Outbound Traffic Assignment								5.0%	15.0%			
Outbound Traffic Volumes								19	56			
Project Traffic	0	0	0	0	5	0	0	19	56	0	15	0
Committed Bent Creek												
Inbound Traffic Assignment					10.0%						10.0%	
Inbound Traffic Volumes					38						38	
Outbound Traffic Assignment								10.0%	10.0%			
Outbound Traffic Volumes								51	51			
Project Traffic	0	0	0	0	38	0	0	51	51	0	38	0
Committed Carriage Pointe												
Inbound Traffic Assignment					20.0%							
Inbound Traffic Volumes					7							
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Project Traffic	0	0	0	0	7	0	0	0	0	0	0	0
Committed Camping World												
Inbound Traffic Assignment					5.0%						25.0%	
Inbound Traffic Volumes					2						11	
Outbound Traffic Assignment								5.0%	25.0%			
Outbound Traffic Volumes								1	3			
Project Traffic	0	0	0	0	2	0	0	1	3	0	11	0
Total Committed Projects	0	0	0	0	52	0	0	71	110	0	64	0
1.0% Traffic Volume Growth	0	0	0	0	24	0	0	30	67	0	33	0
Committed + 1.0% Growth	0	0	0	0	76	0	0	101	177	0	97	0
Max (Committed + 1.0% or Historic Growth)	0	0	0	0	76	0	0	101	177	0	97	0
Background Traffic Volumes	0	0	0	0	469	0	0	583	1,274	0	628	0
Project Traffic												
Inbound Traffic Assignment								35.0%				
Inbound Traffic Volumes								4				
Outbound Traffic Assignment					35.0%							
Outbound Traffic Volumes					10							
Project Traffic	0	0	0	0	10	0	0	4	0	0	0	0
Total Traffic w/o RTOR	0	0	0	0	479	0	0	587	1,274	0	628	0
RTOR Reduction												
TOTAL TRAFFIC	0	0	0	0	479	0	0	587	1,274	0	628	0

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 04/03/2019	0	0	0	0	595	0	0	558	957	0	884	0
Peak Season Volume	0	0	0	0	601	0	0	564	967	0	893	0
Growth Rate				2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	0	0	0	0	97	0	0	91	156	0	144	0
Committed Celebration Pointe												
Inbound Traffic Assignment					5.0%						15.0%	
Inbound Traffic Volumes					20						60	
Outbound Traffic Assignment								5.0%	15.0%			
Outbound Traffic Volumes								11	32			
Project Traffic	0	0	0	0	20	0	0	11	32	0	60	0
Committed Bent Creek												
Inbound Traffic Assignment					10.0%						10.0%	
Inbound Traffic Volumes					23						23	
Outbound Traffic Assignment								10.0%	10.0%			
Outbound Traffic Volumes								63	63			
Project Traffic	0	0	0	0	23	0	0	63	63	0	23	0
Committed Carriage Pointe												
Inbound Traffic Assignment					20.0%							
Inbound Traffic Volumes					25							
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Project Traffic	0	0	0	0	25	0	0	0	0	0	0	0
Committed Camping World												
Inbound Traffic Assignment					5.0%						25.0%	
Inbound Traffic Volumes					3						17	
Outbound Traffic Assignment								5.0%	25.0%			
Outbound Traffic Volumes								4	20			
Project Traffic	0	0	0	0	3	0	0	4	20	0	17	0
Total Committed Projects	0	0	0	0	71	0	0	78	115	0	100	0
1.0% Traffic Volume Growth	0	0	0	0	37	0	0	35	59	0	55	0
Committed + 1.0% Growth	0	0	0	0	108	0	0	113	174	0	155	0
Max (Committed + 1.0% or Historic Growth)	0	0	0	0	108	0	0	113	174	0	155	0
Background Traffic Volumes	0	0	0	0	709	0	0	677	1,141	0	1,048	0
Project Traffic												
Inbound Traffic Assignment								35.0%				
Inbound Traffic Volumes								11				
Outbound Traffic Assignment					35.0%							
Outbound Traffic Volumes					7							
Project Traffic	0	0	0	0	7	0	0	11	0	0	0	0
Total Traffic w/o RTOR	0	0	0	0	716	0	0	688	1,141	0	1,048	0
RTOR Reduction												
TOTAL TRAFFIC	0	0	0	0	716	0	0	688	1,141	0	1,048	0

VOLUME DEVELOPMENT SHEET
ARROW FORT PIERCE NORTH RESIDENTIAL
S 25TH STREET & OKEECHOBEE ROAD

Peak Season =	1.11	1.11
Buildout Year =	2025	2025
Years =	6	6

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/22/2019	106	575	173	40	715	118	143	391	105	109	247	14
Peak Season Volume	118	638	192	44	794	131	159	434	117	121	274	16
Growth Rate	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	19	103	31	7	128	21	26	70	19	20	44	3
1.0% Traffic Volume Growth	7	39	12	3	49	8	10	27	7	7	17	1
Committed + 1.0% Growth	7	39	12	3	49	8	10	27	7	7	17	1
Max (Committed + 1.0% or Historic Growth)	19	103	31	7	128	21	26	70	19	20	44	3
Background Traffic Volumes	137	741	223	51	922	152	185	504	136	141	318	19
Project Traffic												
Inbound Traffic Assignment	15.0%				5.0%						40.0%	
Inbound Traffic Volumes	2				1						4	
Outbound Traffic Assignment							5.0%	40.0%	15.0%			
Outbound Traffic Volumes							1	11	4			
Project Traffic	2	0	0	0	1	0	1	11	4	0	4	0
Total Traffic w/o RTOR	139	741	223	51	923	152	186	515	140	141	322	19
RTOR Reduction												
TOTAL TRAFFIC	139	741	223	51	923	152	186	515	140	141	322	19

PM Peak Hour

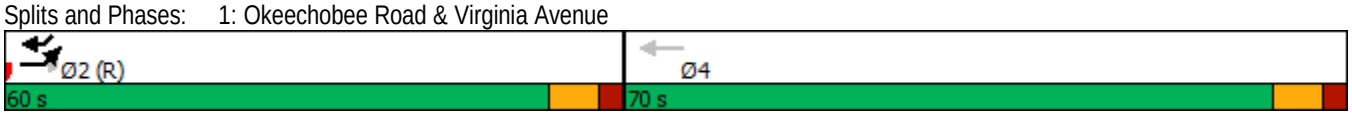
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/22/2019	126	639	144	41	741	140	167	357	112	139	400	13
Peak Season Volume	140	709	160	46	823	155	185	396	124	154	444	14
Growth Rate	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	23	115	26	7	133	25	30	64	20	25	72	2
1.0% Traffic Volume Growth	9	44	10	3	51	10	11	24	8	9	27	1
Committed + 1.0% Growth	9	44	10	3	51	10	11	24	8	9	27	1
Max (Committed + 1.0% or Historic Growth)	23	115	26	7	133	25	30	64	20	25	72	2
Background Traffic Volumes	163	824	186	53	956	180	215	460	144	179	516	16
Project Traffic												
Inbound Traffic Assignment	15.0%				5.0%						40.0%	
Inbound Traffic Volumes	5				2						12	
Outbound Traffic Assignment							5.0%	40.0%	15.0%			
Outbound Traffic Volumes							1	8	3			
Project Traffic	5	0	0	0	2	0	1	8	3	0	12	0
Total Traffic w/o RTOR	168	824	186	53	958	180	216	468	147	179	528	16
RTOR Reduction												
TOTAL TRAFFIC	168	824	186	53	958	180	216	468	147	179	528	16

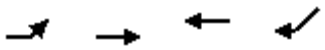
Appendix G: Synchro Analyses

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	482	1097	531	393
Future Volume (vph)	482	1097	531	393
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	60.0	60.0	70.0	60.0
Total Split (%)	46.2%	46.2%	53.8%	46.2%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	94.5	94.5	20.9	94.5
Actuated g/C Ratio	0.73	0.73	0.16	0.73
v/c Ratio	0.20	0.31	0.68	0.19
Control Delay	6.3	6.8	55.6	0.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.3	6.8	55.6	0.7
LOS	A	A	E	A
Approach Delay		6.6	55.6	
Approach LOS		A	E	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 34 (26%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 36.2%	ICU Level of Service A
Analysis Period (min) 15	

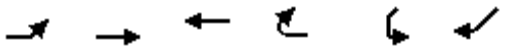
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	507	1155	559	414
v/c Ratio	0.20	0.31	0.68	0.19
Control Delay	6.3	6.8	55.6	0.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.3	6.8	55.6	0.7
Queue Length 50th (ft)	62	112	164	0
Queue Length 95th (ft)	96	155	198	15
Internal Link Dist (ft)		358	1207	
Turn Bay Length (ft)				
Base Capacity (vph)	2494	3694	2452	2141
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.31	0.23	0.19

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	482	1097	531	0	0	393
Future Volume (vph)	482	1097	531	0	0	393
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	507	1155	559	0	0	414
RTOR Reduction (vph)	0	0	0	0	0	113
Lane Group Flow (vph)	507	1155	559	0	0	301
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	94.5	94.5	20.9			94.5
Effective Green, g (s)	94.5	94.5	20.9			94.5
Actuated g/C Ratio	0.73	0.73	0.16			0.73
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2495	3696	817			2025
v/s Ratio Prot	0.15					0.11
v/s Ratio Perm		c0.23	c0.11			
v/c Ratio	0.20	0.31	0.68			0.15
Uniform Delay, d1	5.7	6.3	51.4			5.4
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.2	0.2	2.4			0.2
Delay (s)	5.9	6.5	53.8			5.6
Level of Service	A	A	D			A
Approach Delay (s)		6.3	53.8		5.6	
Approach LOS		A	D		A	

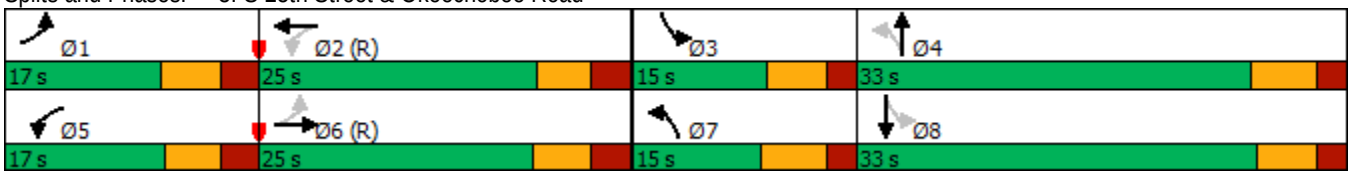
Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		

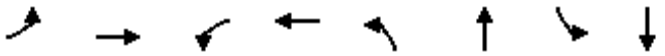
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	159	434	121	274	118	638	44	794
Future Volume (vph)	159	434	121	274	118	638	44	794
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	10.4	12.0	10.7	12.0	8.6	12.0	9.0	12.0
Minimum Split (s)	17.0	24.7	17.0	24.7	15.0	24.5	15.0	24.1
Total Split (s)	17.0	25.0	17.0	25.0	15.0	33.0	15.0	33.0
Total Split (%)	18.9%	27.8%	18.9%	27.8%	16.7%	36.7%	16.7%	36.7%
Yellow Time (s)	4.0	4.0	3.7	3.7	4.4	4.4	4.0	4.0
All-Red Time (s)	2.6	2.7	2.6	2.7	2.0	2.1	2.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.7	6.3	6.4	6.4	6.5	6.0	6.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	28.9	18.4	29.5	18.7	37.7	32.4	35.9	26.8
Actuated g/C Ratio	0.32	0.20	0.33	0.21	0.42	0.36	0.40	0.30
v/c Ratio	0.41	0.80	0.42	0.42	0.51	0.69	0.15	0.93
Control Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
LOS	C	D	C	C	C	C	B	D
Approach Delay		37.3		29.5		28.0		44.9
Approach LOS		D		C		C		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 59 (66%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 35.7	Intersection LOS: D
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: S 25th Street & Okeechobee Road

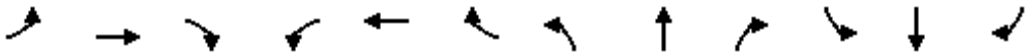




Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	167	580	127	305	124	874	46	974
v/c Ratio	0.41	0.80	0.42	0.42	0.51	0.69	0.15	0.93
Control Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
Queue Length 50th (ft)	62	156	46	77	39	233	14	276
Queue Length 95th (ft)	108	#234	84	117	80	#333	33	#402
Internal Link Dist (ft)		1962		574		2034		690
Turn Bay Length (ft)	225		200		225		200	
Base Capacity (vph)	409	725	305	732	243	1259	298	1050
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.80	0.42	0.42	0.51	0.69	0.15	0.93

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	159	434	117	121	274	16	118	638	192	44	794	131
Future Volume (vph)	159	434	117	121	274	16	118	638	192	44	794	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3427		1770	3510		1770	3417		1770	3464	
Flt Permitted	0.54	1.00		0.25	1.00		0.12	1.00		0.22	1.00	
Satd. Flow (perm)	1001	3427		457	3510		230	3417		405	3464	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	167	457	123	127	288	17	124	672	202	46	836	138
RTOR Reduction (vph)	0	28	0	0	5	0	0	28	0	0	14	0
Lane Group Flow (vph)	167	552	0	127	300	0	124	846	0	46	960	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	26.4	16.0		27.0	16.3		41.0	32.4		34.6	29.2	
Effective Green, g (s)	26.4	16.0		27.0	16.3		41.0	32.4		34.6	29.2	
Actuated g/C Ratio	0.29	0.18		0.30	0.18		0.46	0.36		0.38	0.32	
Clearance Time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	382	609		293	635		251	1230		237	1123	
v/s Ratio Prot	0.05	c0.16		c0.05	0.09		c0.05	c0.25		0.01	c0.28	
v/s Ratio Perm	0.08			0.08			0.18			0.06		
v/c Ratio	0.44	0.91		0.43	0.47		0.49	0.69		0.19	0.85	
Uniform Delay, d1	24.8	36.3		24.2	33.0		17.5	24.5		18.1	28.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.8	19.6		1.0	2.5		1.5	1.6		0.4	6.5	
Delay (s)	25.6	55.8		25.2	35.5		19.1	26.1		18.5	34.9	
Level of Service	C	E		C	D		B	C		B	C	
Approach Delay (s)		49.1			32.5			25.2			34.2	
Approach LOS		D			C			C			C	

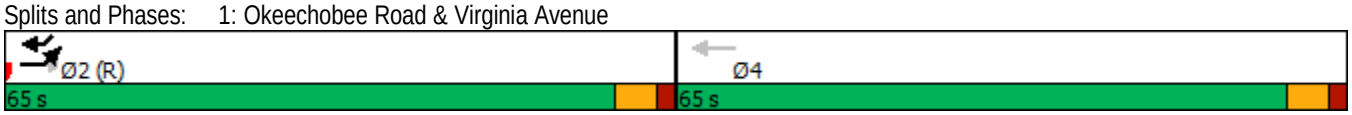
Intersection Summary			
HCM 2000 Control Delay	34.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

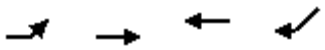
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	564	967	893	601
Future Volume (vph)	564	967	893	601
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0
Total Split (s)	65.0	65.0	65.0	65.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	84.5	84.5	33.5	84.5
Actuated g/C Ratio	0.65	0.65	0.26	0.65
v/c Ratio	0.27	0.31	0.72	0.34
Control Delay	10.6	10.8	46.9	9.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.6	10.8	46.9	9.2
LOS	B	B	D	A
Approach Delay		10.7	46.9	
Approach LOS		B	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 103 (79%), Referenced to phase 2:EBTL and 6:, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 48.3%	ICU Level of Service A
Analysis Period (min) 15	

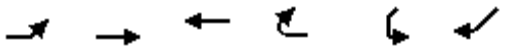
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	594	1018	940	633
v/c Ratio	0.27	0.31	0.72	0.34
Control Delay	10.6	10.8	46.9	9.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.6	10.8	46.9	9.2
Queue Length 50th (ft)	102	128	265	100
Queue Length 95th (ft)	153	178	293	159
Internal Link Dist (ft)		326	1056	
Turn Bay Length (ft)				
Base Capacity (vph)	2230	3304	2307	1853
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.41	0.34

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	564	967	893	0	0	601
Future Volume (vph)	564	967	893	0	0	601
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0			6.0
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	594	1018	940	0	0	633
RTOR Reduction (vph)	0	0	0	0	0	42
Lane Group Flow (vph)	594	1018	940	0	0	591
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	84.5	84.5	33.5			84.5
Effective Green, g (s)	84.5	84.5	33.5			84.5
Actuated g/C Ratio	0.65	0.65	0.26			0.65
Clearance Time (s)	6.0	6.0	6.0			6.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2231	3305	1310			1811
v/s Ratio Prot	0.17					c0.21
v/s Ratio Perm		0.20	c0.18			
v/c Ratio	0.27	0.31	0.72			0.33
Uniform Delay, d1	9.6	10.0	43.9			10.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.2	1.9			0.5
Delay (s)	9.9	10.2	45.8			10.6
Level of Service	A	B	D			B
Approach Delay (s)		10.1	45.8		10.6	
Approach LOS		B	D		B	

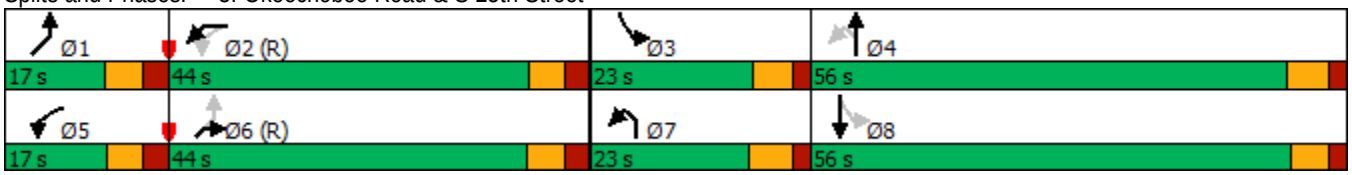
Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	154	444	140	709	46	823	185	396
Future Volume (vph)	154	444	140	709	46	823	185	396
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	44.0	23.0	56.0	23.0	56.0	17.0	44.0
Total Split (%)	12.1%	31.4%	16.4%	40.0%	16.4%	40.0%	12.1%	31.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	53.6	42.1	65.6	54.6	56.6	47.5	54.2	42.4
Actuated g/C Ratio	0.38	0.30	0.47	0.39	0.40	0.34	0.39	0.30
v/c Ratio	0.53	0.43	0.67	0.68	0.20	0.87	0.55	0.59
Control Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
LOS	C	C	D	D	C	D	D	D
Approach Delay		31.5		38.1		50.1	35.2	
Approach LOS		C		D		D	D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 39.9	Intersection LOS: D
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street





Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	162	482	147	914	48	1029	195	548
v/c Ratio	0.53	0.43	0.67	0.68	0.20	0.87	0.55	0.59
Control Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
Queue Length 50th (ft)	93	138	77	357	22	445	115	192
Queue Length 95th (ft)	154	193	145	414	43	533	184	267
Internal Link Dist (ft)		574		2034		690	3530	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	306	1122	260	1360	337	1249	354	934
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.43	0.57	0.67	0.14	0.82	0.55	0.59

Intersection Summary

Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	154	444	14	140	709	160	46	823	155	185	396	124
Future Volume (vph)	154	444	14	140	709	160	46	823	155	185	396	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	1.00		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3431		1770	3442		1770	3455		1770	2787	
Flt Permitted	0.29	0.95		0.08	1.00		0.19	1.00		0.36	1.00	
Satd. Flow (perm)	539	3431		142	3442		363	3455		679	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	162	467	15	147	746	168	48	866	163	195	417	131
RTOR Reduction (vph)	0	91	0	0	13	0	0	11	0	0	91	0
Lane Group Flow (vph)	162	391	0	147	901	0	48	1018	0	195	457	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	52.4	41.0		67.8	54.6		55.8	48.6		53.0	41.3	
Effective Green, g (s)	52.4	41.0		67.8	54.6		55.8	48.6		53.0	41.3	
Actuated g/C Ratio	0.37	0.29		0.48	0.39		0.40	0.35		0.38	0.29	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	301	1004		222	1342		217	1199		348	822	
v/s Ratio Prot	0.04	0.11		c0.06	c0.26		0.01	c0.29		c0.05	0.16	
v/s Ratio Perm	0.16			0.26			0.08			c0.17		
v/c Ratio	0.54	0.39		0.66	0.67		0.22	0.85		0.56	0.56	
Uniform Delay, d1	31.0	39.5		29.1	35.3		27.3	42.3		30.8	41.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	1.1		7.2	1.3		0.5	5.8		2.1	2.7	
Delay (s)	32.8	40.6		36.4	36.6		27.8	48.1		32.9	44.3	
Level of Service	C	D		D	D		C	D		C	D	
Approach Delay (s)		38.7			36.6			47.2		41.3		
Approach LOS		D			D			D		D		

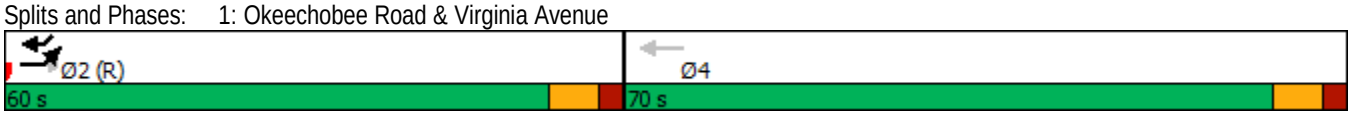
Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

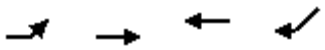
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	583	1274	628	469
Future Volume (vph)	583	1274	628	469
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	60.0	60.0	70.0	60.0
Total Split (%)	46.2%	46.2%	53.8%	46.2%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	91.0	91.0	24.4	91.0
Actuated g/C Ratio	0.70	0.70	0.19	0.70
v/c Ratio	0.26	0.38	0.69	0.24
Control Delay	7.8	8.6	53.0	2.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	2.9
LOS	A	A	D	A
Approach Delay		8.4	53.0	
Approach LOS		A	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 34 (26%), Referenced to phase 2:EBTL and 6:, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

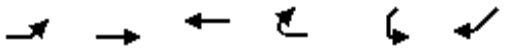
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	614	1341	661	494
v/c Ratio	0.26	0.38	0.69	0.24
Control Delay	7.8	8.6	53.0	2.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	2.9
Queue Length 50th (ft)	88	153	191	24
Queue Length 95th (ft)	132	207	225	51
Internal Link Dist (ft)		282	721	
Turn Bay Length (ft)				
Base Capacity (vph)	2402	3559	2452	2046
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.38	0.27	0.24

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	583	1274	628	0	0	469
Future Volume (vph)	583	1274	628	0	0	469
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	614	1341	661	0	0	494
RTOR Reduction (vph)	0	0	0	0	0	95
Lane Group Flow (vph)	614	1341	661	0	0	399
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	91.0	91.0	24.4			91.0
Effective Green, g (s)	91.0	91.0	24.4			91.0
Actuated g/C Ratio	0.70	0.70	0.19			0.70
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2403	3559	954			1950
v/s Ratio Prot	0.18					0.14
v/s Ratio Perm		c0.26	c0.13			
v/c Ratio	0.26	0.38	0.69			0.20
Uniform Delay, d1	7.1	7.9	49.3			6.8
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.3	2.2			0.2
Delay (s)	7.4	8.3	51.5			7.1
Level of Service	A	A	D			A
Approach Delay (s)		8.0	51.5		7.1	
Approach LOS		A	D		A	

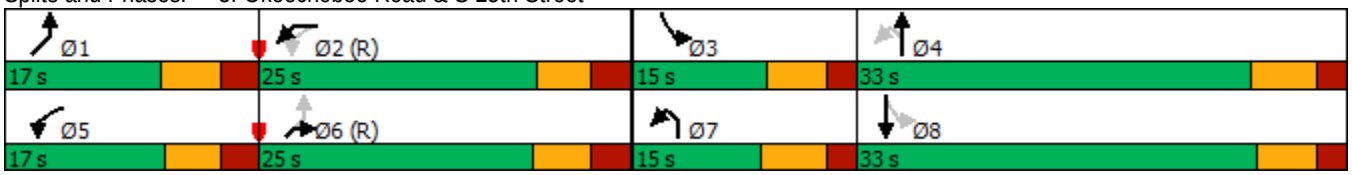
Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	141	318	137	741	51	922	185	504
Future Volume (vph)	141	318	137	741	51	922	185	504
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	25.0	15.0	33.0	15.0	33.0	17.0	25.0
Total Split (%)	18.9%	27.8%	16.7%	36.7%	16.7%	36.7%	18.9%	27.8%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	29.4	18.6	37.8	32.5	36.0	26.9	28.8	18.3
Actuated g/C Ratio	0.33	0.21	0.42	0.36	0.40	0.30	0.32	0.20
v/c Ratio	0.48	0.41	0.59	0.80	0.21	1.08	0.51	0.93
Control Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
LOS	C	B	C	C	B	F	C	D
Approach Delay		17.5		32.4		79.2	40.9	
Approach LOS		B		C		E	D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 59 (66%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 47.3	Intersection LOS: D
Intersection Capacity Utilization 79.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street





Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	148	355	144	1015	54	1131	195	674
v/c Ratio	0.48	0.41	0.59	0.80	0.21	1.08	0.51	0.93
Control Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
Queue Length 50th (ft)	54	38	46	288	16	~377	74	155
Queue Length 95th (ft)	97	76	#102	#427	37	#507	125	#276
Internal Link Dist (ft)		574		2034		690	2264	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	306	866	243	1261	258	1050	386	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.59	0.80	0.21	1.08	0.51	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	141	318	19	137	741	223	51	922	152	185	504	136
Future Volume (vph)	141	318	19	137	741	223	51	922	152	185	504	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	0.99		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3422		1770	3416		1770	3464		1770	2787	
Flt Permitted	0.25	0.95		0.12	1.00		0.15	1.00		0.48	1.00	
Satd. Flow (perm)	460	3422		229	3416		272	3464		888	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	148	335	20	144	780	235	54	971	160	195	531	143
RTOR Reduction (vph)	0	164	0	0	29	0	0	14	0	0	165	0
Lane Group Flow (vph)	148	191	0	144	986	0	54	1117	0	195	509	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Effective Green, g (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Actuated g/C Ratio	0.30	0.18		0.46	0.36		0.39	0.33		0.29	0.18	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	293	615		251	1233		194	1127		361	492	
v/s Ratio Prot	0.06	0.06		c0.05	c0.29		0.02	c0.32		c0.06	c0.18	
v/s Ratio Perm	0.09			0.21			0.09			0.10		
v/c Ratio	0.51	0.31		0.57	0.80		0.28	0.99		0.54	1.04	
Uniform Delay, d1	25.0	32.0		19.1	25.8		18.8	30.2		25.4	37.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	1.3		3.2	3.7		0.8	24.5		1.7	50.0	
Delay (s)	26.4	33.4		22.3	29.6		19.6	54.7		27.0	87.0	
Level of Service	C	C		C	C		B	D		C	F	
Approach Delay (s)		31.3			28.7			53.1		73.6		
Approach LOS		C			C			D		E		

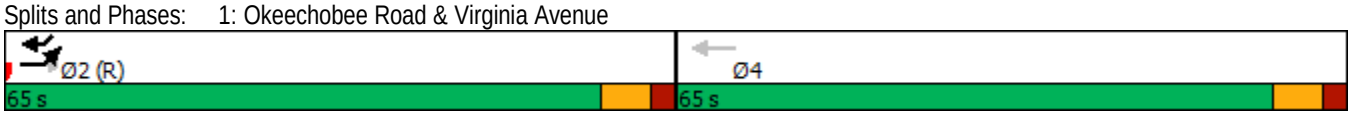
Intersection Summary			
HCM 2000 Control Delay	47.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		

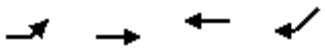
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	677	1141	1048	709
Future Volume (vph)	677	1141	1048	709
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	65.0	65.0	65.0	65.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	76.3	76.3	39.1	76.3
Actuated g/C Ratio	0.59	0.59	0.30	0.59
v/c Ratio	0.35	0.40	0.72	0.45
Control Delay	15.4	15.7	43.1	15.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.4	15.7	43.1	15.3
LOS	B	B	D	B
Approach Delay		15.6	43.1	
Approach LOS		B	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 57.2%	ICU Level of Service B
Analysis Period (min) 15	

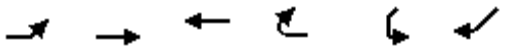
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	713	1201	1103	746
v/c Ratio	0.35	0.40	0.72	0.45
Control Delay	15.4	15.7	43.1	15.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.4	15.7	43.1	15.3
Queue Length 50th (ft)	154	191	304	172
Queue Length 95th (ft)	224	259	326	259
Internal Link Dist (ft)		557	1265	
Turn Bay Length (ft)				
Base Capacity (vph)	2015	2984	2256	1663
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.35	0.40	0.49	0.45

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	677	1141	1048	0	0	709
Future Volume (vph)	677	1141	1048	0	0	709
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	713	1201	1103	0	0	746
RTOR Reduction (vph)	0	0	0	0	0	28
Lane Group Flow (vph)	713	1201	1103	0	0	718
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	76.3	76.3	39.1			76.3
Effective Green, g (s)	76.3	76.3	39.1			76.3
Actuated g/C Ratio	0.59	0.59	0.30			0.59
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2014	2984	1529			1635
v/s Ratio Prot	0.21					c0.26
v/s Ratio Perm		0.24	c0.22			
v/c Ratio	0.35	0.40	0.72			0.44
Uniform Delay, d1	14.0	14.5	40.6			14.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.5	0.4	1.7			0.9
Delay (s)	14.5	14.9	42.3			15.8
Level of Service	B	B	D			B
Approach Delay (s)		14.8	42.3		15.8	
Approach LOS		B	D		B	

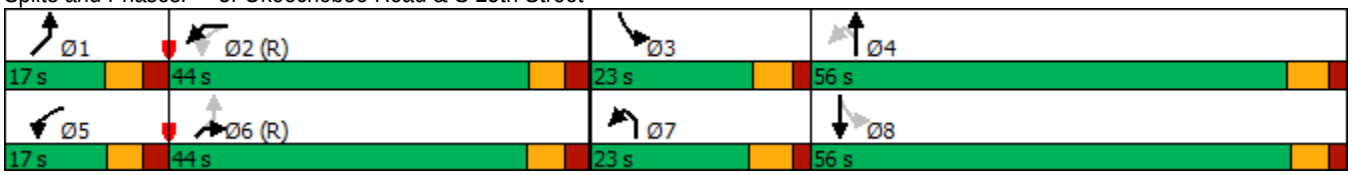
Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	179	516	163	824	53	956	215	460
Future Volume (vph)	179	516	163	824	53	956	215	460
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	44.0	23.0	56.0	23.0	56.0	17.0	44.0
Total Split (%)	12.1%	31.4%	16.4%	40.0%	16.4%	40.0%	12.1%	31.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	49.2	38.3	70.9	59.2	60.3	51.1	49.3	38.3
Actuated g/C Ratio	0.35	0.27	0.51	0.42	0.43	0.36	0.35	0.27
v/c Ratio	0.80	0.54	0.74	0.72	0.26	0.94	0.80	0.74
Control Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
LOS	E	D	D	D	C	E	D	D
Approach Delay		40.5		38.9		55.3	46.1	
Approach LOS		D		D		E	D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 45.7	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street





Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	188	560	172	1063	56	1195	226	636
v/c Ratio	0.80	0.54	0.74	0.72	0.26	0.94	0.80	0.74
Control Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
Queue Length 50th (ft)	116	174	101	421	25	540	143	246
Queue Length 95th (ft)	#200	234	182	511	48	#705	#261	327
Internal Link Dist (ft)		574		2034		690	4088	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	235	1031	260	1467	319	1271	282	856
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.54	0.66	0.72	0.18	0.94	0.80	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	179	516	16	163	824	186	53	956	180	215	460	144
Future Volume (vph)	179	516	16	163	824	186	53	956	180	215	460	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	1.00		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3431		1770	3441		1770	3455		1770	2787	
Flt Permitted	0.19	0.95		0.07	1.00		0.15	1.00		0.28	1.00	
Satd. Flow (perm)	360	3431		128	3441		285	3455		527	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	188	543	17	172	867	196	56	1006	189	226	484	152
RTOR Reduction (vph)	0	95	0	0	12	0	0	11	0	0	95	0
Lane Group Flow (vph)	188	465	0	172	1051	0	56	1184	0	226	541	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	47.9	37.1		72.5	59.2		59.5	52.2		48.1	37.2	
Effective Green, g (s)	47.9	37.1		72.5	59.2		59.5	52.2		48.1	37.2	
Actuated g/C Ratio	0.34	0.27		0.52	0.42		0.42	0.37		0.34	0.27	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	231	909		234	1455		198	1288		277	740	
v/s Ratio Prot	0.06	0.14		c0.08	c0.31		0.01	c0.34		c0.06	0.19	
v/s Ratio Perm	0.21			0.31			0.11			c0.22		
v/c Ratio	0.81	0.51		0.74	0.72		0.28	0.92		0.82	0.73	
Uniform Delay, d1	35.8	43.7		36.5	33.6		25.9	41.9		38.1	46.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	19.3	2.1		11.3	1.8		0.8	10.6		16.7	6.3	
Delay (s)	55.1	45.8		47.8	35.4		26.7	52.5		54.8	53.1	
Level of Service	E	D		D	D		C	D		D	D	
Approach Delay (s)		48.1			37.1			51.3		53.6		
Approach LOS		D			D			D		D		

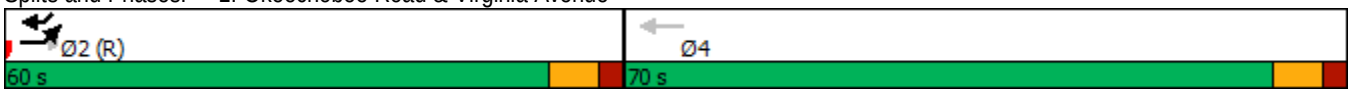
Intersection Summary			
HCM 2000 Control Delay	46.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		

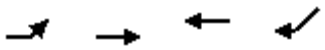
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	587	1274	628	479
Future Volume (vph)	587	1274	628	479
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	60.0	60.0	70.0	60.0
Total Split (%)	46.2%	46.2%	53.8%	46.2%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	91.0	91.0	24.4	91.0
Actuated g/C Ratio	0.70	0.70	0.19	0.70
v/c Ratio	0.26	0.38	0.69	0.25
Control Delay	7.8	8.6	53.0	3.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	3.0
LOS	A	A	D	A
Approach Delay		8.4	53.0	
Approach LOS		A	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 34 (26%), Referenced to phase 2:EBTL and 6:, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 41.1%	ICU Level of Service A
Analysis Period (min) 15	

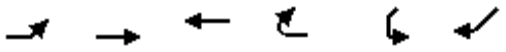
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	618	1341	661	504
v/c Ratio	0.26	0.38	0.69	0.25
Control Delay	7.8	8.6	53.0	3.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	3.0
Queue Length 50th (ft)	89	153	191	26
Queue Length 95th (ft)	132	207	225	53
Internal Link Dist (ft)		281	1314	
Turn Bay Length (ft)				
Base Capacity (vph)	2402	3559	2452	2046
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.38	0.27	0.25

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	587	1274	628	0	0	479
Future Volume (vph)	587	1274	628	0	0	479
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	618	1341	661	0	0	504
RTOR Reduction (vph)	0	0	0	0	0	95
Lane Group Flow (vph)	618	1341	661	0	0	409
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	91.0	91.0	24.4			91.0
Effective Green, g (s)	91.0	91.0	24.4			91.0
Actuated g/C Ratio	0.70	0.70	0.19			0.70
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2403	3559	954			1950
v/s Ratio Prot	0.18					0.15
v/s Ratio Perm		c0.26	c0.13			
v/c Ratio	0.26	0.38	0.69			0.21
Uniform Delay, d1	7.1	7.9	49.3			6.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.3	2.2			0.2
Delay (s)	7.4	8.3	51.5			7.1
Level of Service	A	A	D			A
Approach Delay (s)		8.0	51.5		7.1	
Approach LOS		A	D		A	

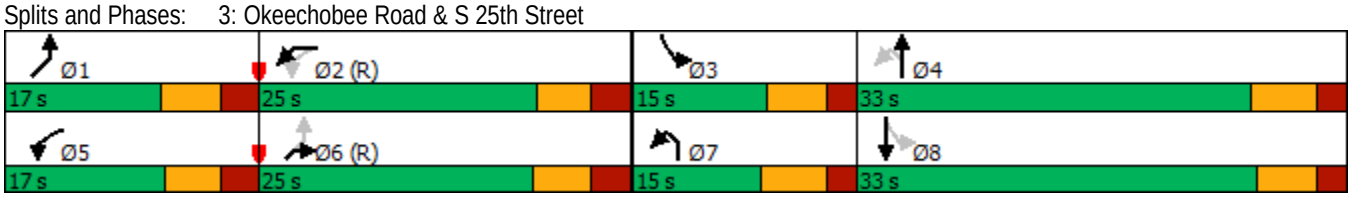
Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	141	322	139	741	51	923	186	515
Future Volume (vph)	141	322	139	741	51	923	186	515
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	25.0	15.0	33.0	15.0	33.0	17.0	25.0
Total Split (%)	18.9%	27.8%	16.7%	36.7%	16.7%	36.7%	18.9%	27.8%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	29.4	18.6	37.8	32.5	36.0	26.9	28.8	18.3
Actuated g/C Ratio	0.33	0.21	0.42	0.36	0.40	0.30	0.32	0.20
v/c Ratio	0.48	0.41	0.60	0.80	0.21	1.08	0.51	0.95
Control Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
LOS	C	B	C	C	B	F	C	D
Approach Delay		17.6		32.4		79.5	43.9	
Approach LOS		B		C		E	D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 59 (66%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 48.1	Intersection LOS: D
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street



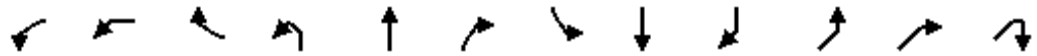


Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	148	359	146	1015	54	1132	196	689
v/c Ratio	0.48	0.41	0.60	0.80	0.21	1.08	0.51	0.95
Control Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
Queue Length 50th (ft)	54	39	47	288	16	~377	74	161
Queue Length 95th (ft)	97	77	#109	#427	37	#507	126	#286
Internal Link Dist (ft)		574		2034		690	4876	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	306	866	243	1261	258	1050	383	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.60	0.80	0.21	1.08	0.51	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	141	322	19	139	741	223	51	923	152	186	515	140
Future Volume (vph)	141	322	19	139	741	223	51	923	152	186	515	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	0.99		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3422		1770	3416		1770	3464		1770	2787	
Flt Permitted	0.25	0.95		0.12	1.00		0.15	1.00		0.47	1.00	
Satd. Flow (perm)	460	3422		229	3416		272	3464		878	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	148	339	20	146	780	235	54	972	160	196	542	147
RTOR Reduction (vph)	0	164	0	0	29	0	0	14	0	0	165	0
Lane Group Flow (vph)	148	195	0	146	986	0	54	1118	0	196	524	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Effective Green, g (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Actuated g/C Ratio	0.30	0.18		0.46	0.36		0.39	0.33		0.29	0.18	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	293	615		251	1233		194	1127		359	492	
v/s Ratio Prot	0.06	0.06		c0.06	c0.29		0.02	c0.32		c0.06	c0.19	
v/s Ratio Perm	0.09			0.21			0.09			0.10		
v/c Ratio	0.51	0.32		0.58	0.80		0.28	0.99		0.55	1.07	
Uniform Delay, d1	25.0	32.1		19.1	25.8		18.8	30.2		25.4	37.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	1.4		3.4	3.7		0.8	24.7		1.7	59.2	
Delay (s)	26.4	33.4		22.6	29.6		19.6	55.0		27.1	96.3	
Level of Service	C	C		C	C		B	D		C	F	
Approach Delay (s)		31.4			28.7			53.3		80.9		
Approach LOS		C			C			D		F		

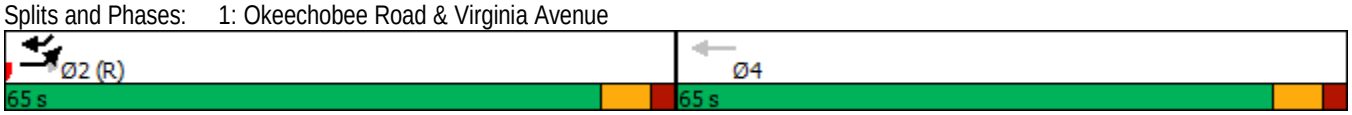
Intersection Summary			
HCM 2000 Control Delay	49.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

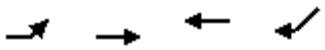
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	688	1141	1048	716
Future Volume (vph)	688	1141	1048	716
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	65.0	65.0	65.0	65.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	57.7	57.7	57.7	57.7
Actuated g/C Ratio	0.44	0.44	0.44	0.44
v/c Ratio	0.48	0.53	0.49	0.59
Control Delay	26.8	27.4	26.6	26.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.8	27.4	26.6	26.9
LOS	C	C	C	C
Approach Delay		27.2	26.6	
Approach LOS		C	C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 103 (79%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 57.5%	ICU Level of Service B
Analysis Period (min) 15	

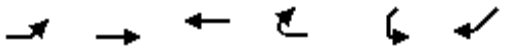
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	724	1201	1103	754
v/c Ratio	0.48	0.53	0.49	0.59
Control Delay	26.8	27.4	26.6	26.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.8	27.4	26.6	26.9
Queue Length 50th (ft)	218	265	237	244
Queue Length 95th (ft)	272	310	279	315
Internal Link Dist (ft)		228	779	
Turn Bay Length (ft)				
Base Capacity (vph)	1523	2256	2256	1274
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.53	0.49	0.59

Intersection Summary



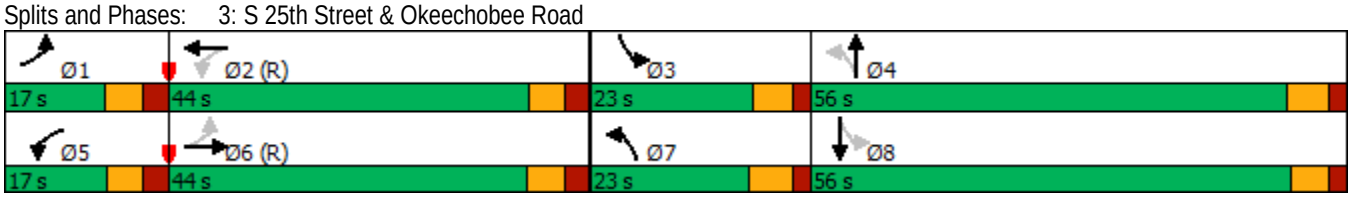
Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	688	1141	1048	0	0	716
Future Volume (vph)	688	1141	1048	0	0	716
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	724	1201	1103	0	0	754
RTOR Reduction (vph)	0	0	0	0	0	37
Lane Group Flow (vph)	724	1201	1103	0	0	717
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	57.7	57.7	57.7			57.7
Effective Green, g (s)	57.7	57.7	57.7			57.7
Actuated g/C Ratio	0.44	0.44	0.44			0.44
Clearance Time (s)	7.3	7.3	7.3			7.3
Lane Grp Cap (vph)	1523	2256	2256			1236
v/s Ratio Prot	0.21					c0.26
v/s Ratio Perm		0.24	c0.22			
v/c Ratio	0.48	0.53	0.49			0.58
Uniform Delay, d1	25.5	26.3	25.7			27.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.1	0.9	0.8			2.0
Delay (s)	26.5	27.2	26.4			29.1
Level of Service	C	C	C			C
Approach Delay (s)		27.0	26.4		29.1	
Approach LOS		C	C		C	

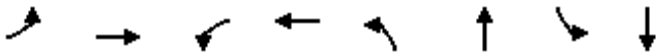
Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	186	515	141	322	139	741	51	923
Future Volume (vph)	186	515	141	322	139	741	51	923
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	10.4	12.0	10.7	12.0	8.6	12.0	9.0	12.0
Minimum Split (s)	17.0	24.7	17.0	24.7	15.0	24.5	15.0	24.1
Total Split (s)	17.0	44.0	17.0	44.0	23.0	56.0	23.0	56.0
Total Split (%)	12.1%	31.4%	12.1%	31.4%	16.4%	40.0%	16.4%	40.0%
Yellow Time (s)	4.0	4.0	3.7	3.7	4.4	4.4	4.0	4.0
All-Red Time (s)	2.6	2.7	2.6	2.7	2.0	2.1	2.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.7	6.3	6.4	6.4	6.5	6.0	6.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	51.5	40.4	51.0	40.1	68.3	57.3	59.5	50.3
Actuated g/C Ratio	0.37	0.29	0.36	0.29	0.49	0.41	0.42	0.36
v/c Ratio	0.51	0.69	0.60	0.36	0.68	0.72	0.24	0.90
Control Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
LOS	C	D	D	D	D	D	C	D
Approach Delay		44.7		40.5		38.0		51.2
Approach LOS		D		D		D		D

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 44.1	Intersection LOS: D
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: S 25th Street & Okeechobee Road

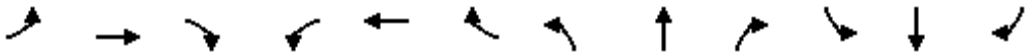




Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	196	689	148	359	146	1015	54	1132
v/c Ratio	0.51	0.69	0.60	0.36	0.68	0.72	0.24	0.90
Control Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
Queue Length 50th (ft)	122	293	89	139	77	390	24	486
Queue Length 95th (ft)	186	367	141	186	149	475	47	#641
Internal Link Dist (ft)		2355		574		2034		690
Turn Bay Length (ft)	225		200		225		200	
Base Capacity (vph)	384	1004	247	1009	258	1414	321	1275
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.69	0.60	0.36	0.57	0.72	0.17	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	515	140	141	322	19	139	741	223	51	923	152
Future Volume (vph)	186	515	140	141	322	19	139	741	223	51	923	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3426		1770	3510		1770	3416		1770	3464	
Flt Permitted	0.46	1.00		0.21	1.00		0.07	1.00		0.16	1.00	
Satd. Flow (perm)	848	3426		385	3510		130	3416		299	3464	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	196	542	147	148	339	20	146	780	235	54	972	160
RTOR Reduction (vph)	0	17	0	0	3	0	0	18	0	0	9	0
Lane Group Flow (vph)	196	672	0	148	356	0	146	997	0	54	1123	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	50.1	39.1		49.7	38.9		70.3	57.3		58.9	51.6	
Effective Green, g (s)	50.1	39.1		49.7	38.9		70.3	57.3		58.9	51.6	
Actuated g/C Ratio	0.36	0.28		0.36	0.28		0.50	0.41		0.42	0.37	
Clearance Time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	375	956		243	975		217	1398		202	1276	
v/s Ratio Prot	0.04	c0.20		c0.05	0.10		c0.06	c0.29		0.01	c0.32	
v/s Ratio Perm	0.15			0.17			0.27			0.10		
v/c Ratio	0.52	0.70		0.61	0.37		0.67	0.71		0.27	0.88	
Uniform Delay, d1	32.7	45.2		33.3	40.6		31.6	34.5		26.2	41.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	4.3		4.3	1.1		8.0	1.7		0.7	7.2	
Delay (s)	34.0	49.5		37.6	41.7		39.5	36.2		26.9	48.5	
Level of Service	C	D		D	D		D	D		C	D	
Approach Delay (s)		46.1			40.5			36.7			47.5	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Appendix H: Turn Lane Warrant Worksheet

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

AR Number:	N/A	Analysis Date:	3/19/2020
County:	Saint Lucie	Conducted By:	MAG
FDOT District:	5	Checked By:	ABK
		Agency/Company Name:	Kimley Horn

Intersection & Approach Description: Okeechobee Road and Project Driveway

Analysis Scenario:	Existing 2020	Number of Approach Lanes:	2
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Divided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	35		
Type of Terrain:	Level		

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	12	2.0%	13
	Through	-	705	2.0%	713
	Right	No		0.0%	N/A
Opposing	Left	No		0.0%	N/A
	Through	-	739	2.0%	747
	Right	Yes	18	2.0%	19

Advancing Volume:	726
Opposing Volume:	766
Left Turn Volume:	13
% Left Turns in Advancing Volume:	1.79%

TURN LANE WARRANT FINDINGS

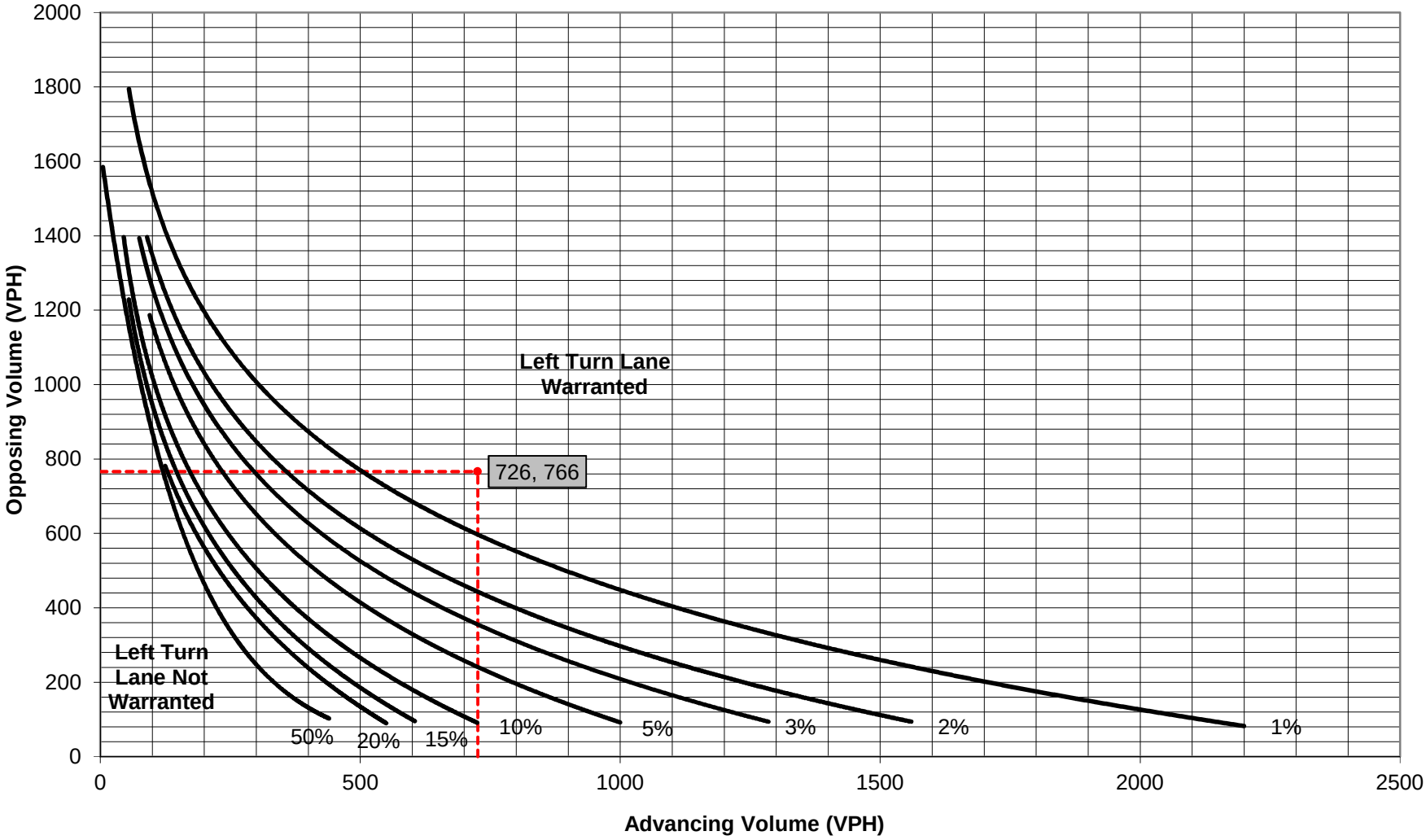
Left Turn Lane Warrant Findings

Applicable Warrant Figure: Figure 8

Warrant Met?: Yes

Additional Comments / Justifications:

Figure 8. Warrant for left turn lanes on four-lane, divided highways (unsignalized and signalized intersections)
(L = % Left Turns in Advancing Volume)





REAR ELEVATION
SCALE: 3/16" = 1'-0"



FRONT ELEVATION
SCALE: 3/16" = 1'-0"

revisions

no.	date
REVIEW	6/17/20

designed	SBD
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job no.	190725_A16

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COLORED ELEVATIONS

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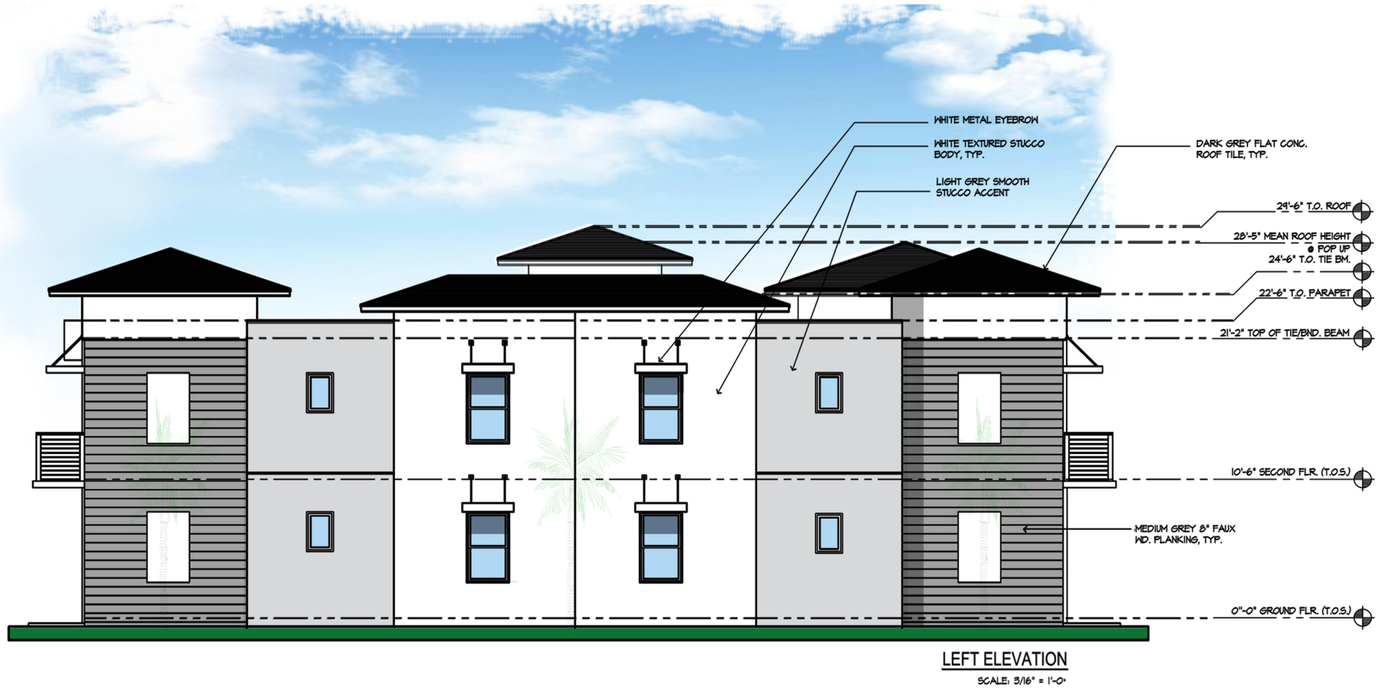
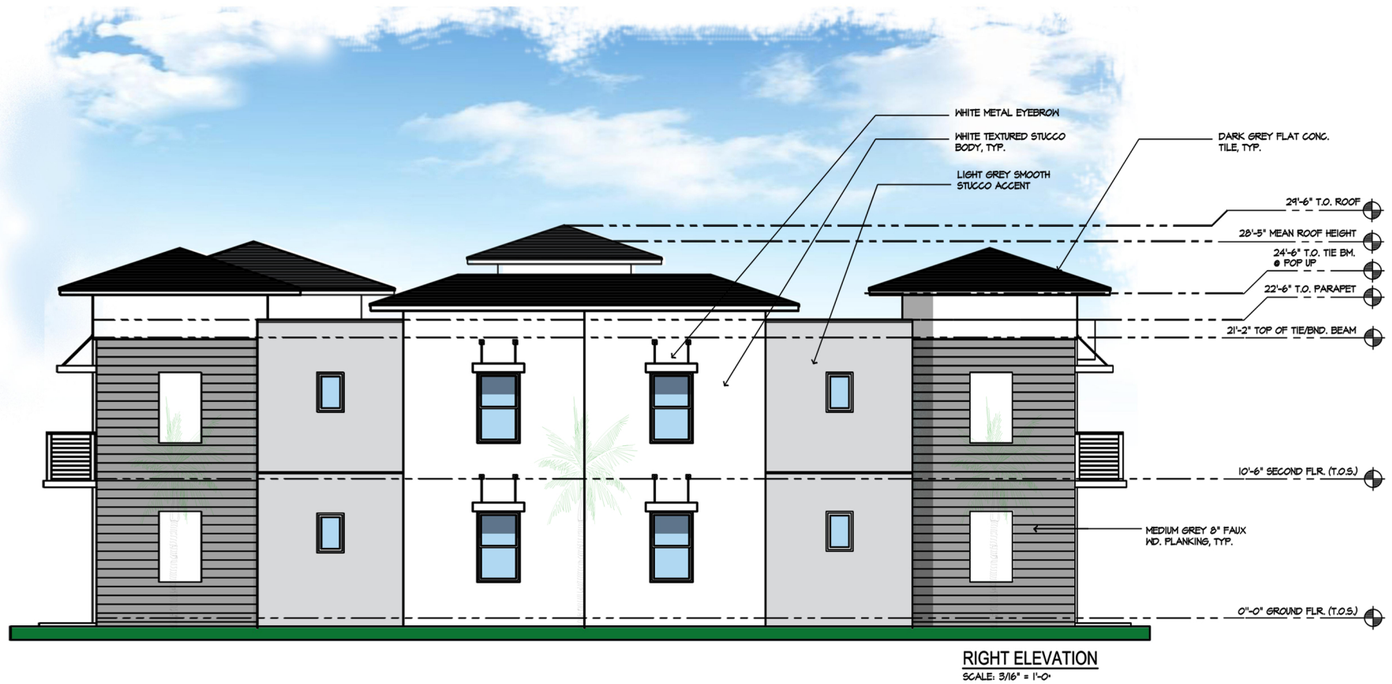


LEFT ELEVATION

SCALE: 3/16" = 1'-0"



RIGHT ELEVATION

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CALCULATIONS
(PER LEVEL)

AIR CONDITIONED AREAS

AC	UNIT A	735 SF
AC (2)	UNIT B	1227 SF
AC (3)	UNIT C	957 SF
AC (4)	UNIT D	957 SF
AC (4)	UNIT D	957 SF
AC (3)	UNIT C	957 SF
AC (2)	UNIT B	1227 SF
AC	UNIT A	735 SF
	TTL.	7752 SF

NON CONDITIONED AREAS

NC	BREEZEWAY	522 SF
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NC (8)	BALCONY(B)	96 SF
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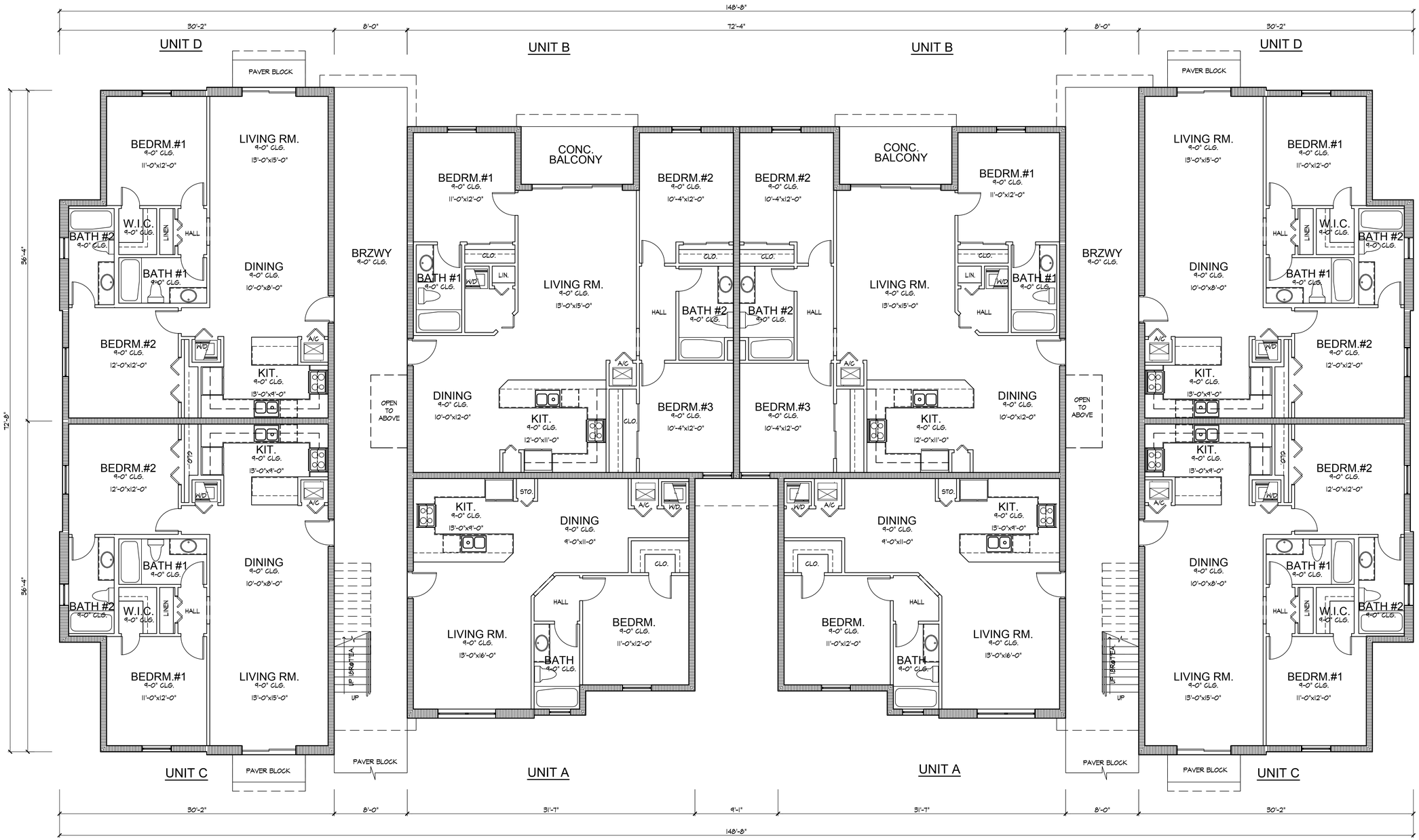
NC (5)	BALCONY(C)	32 SF
NC (7)	BALCONY(D)	32 SF
NC (6)	BALCONY(D)	32 SF
	TTL.	1364 SF

GROSS AREA

GROSS AREA	8159 SF

TOTAL ALL LEVELS:	
TOTAL AC AREA:	23256 SF
TOTAL NON-AC AREA:	4092 SF
TOTAL GROSS AREA:	24477 SF



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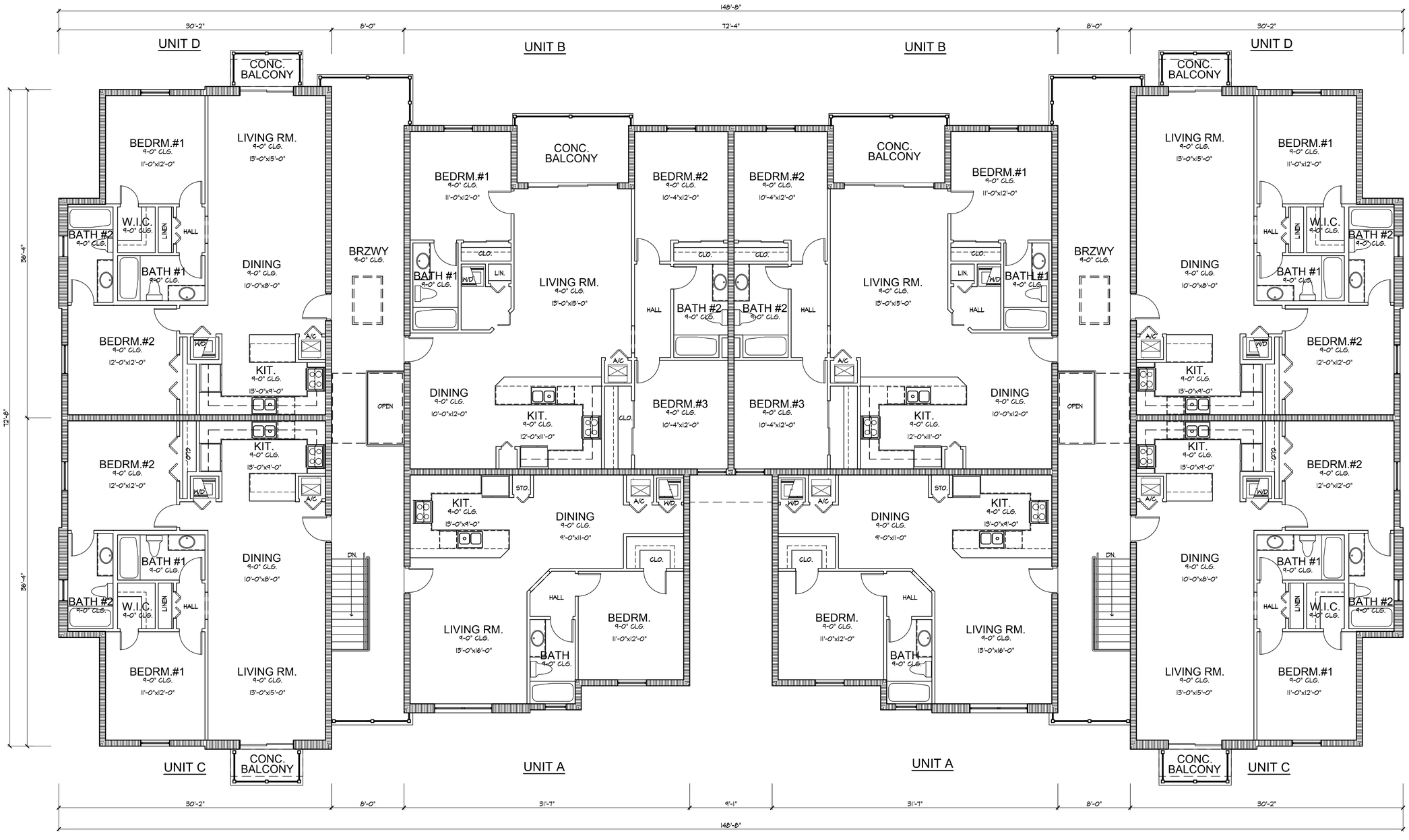

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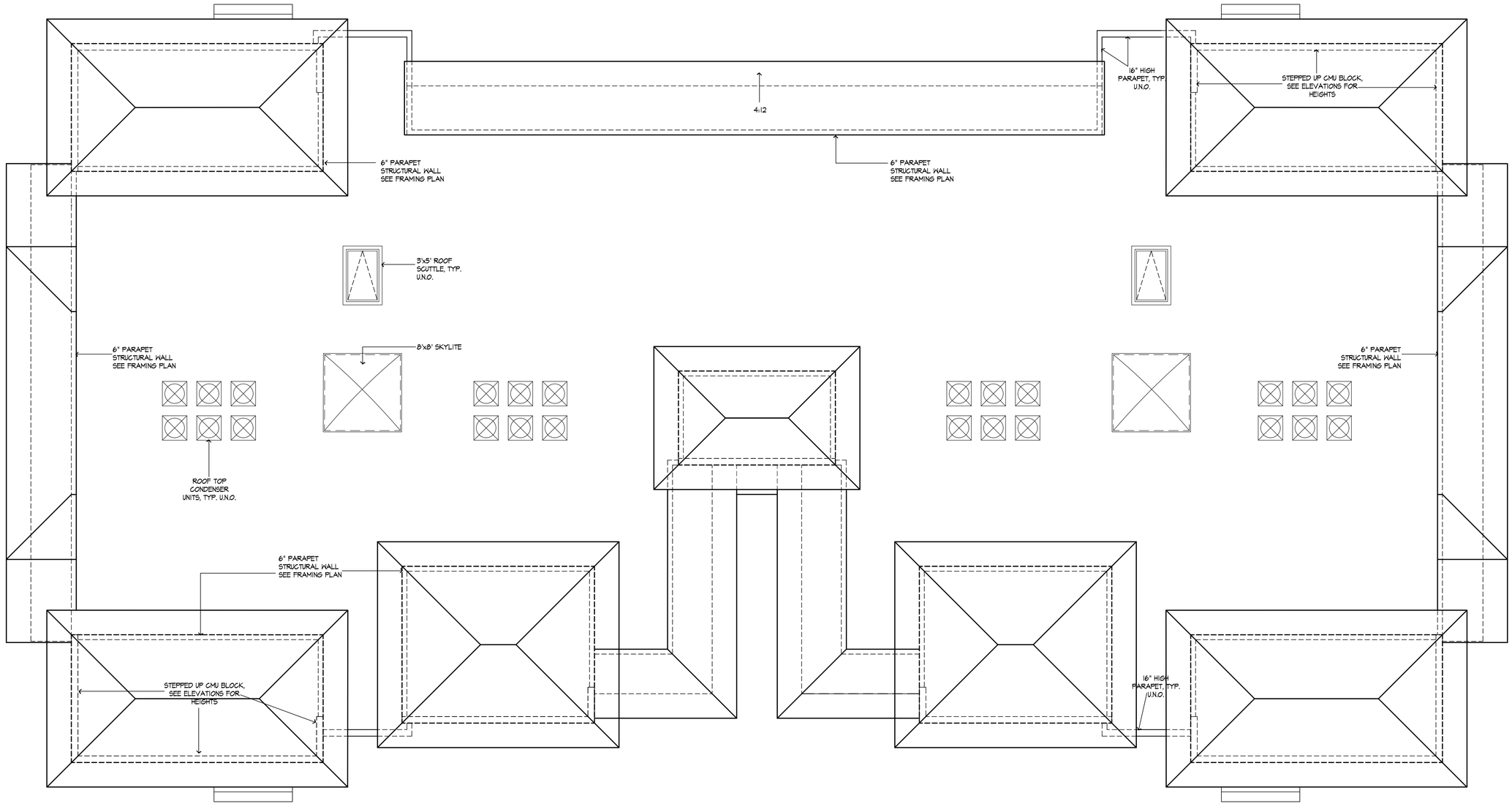

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REAR ELEVATION

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FRONT ELEVATION

SCALE: 3/16" = 1'-0"

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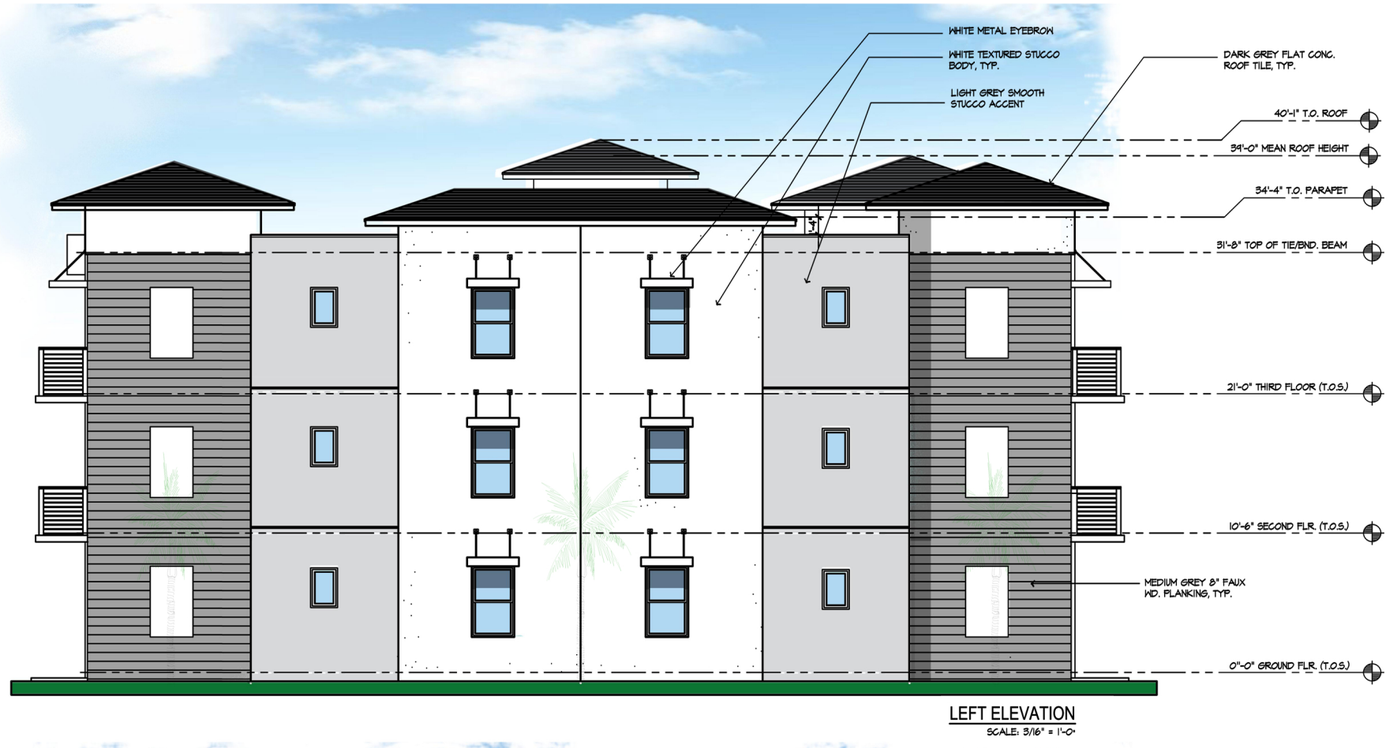

LEFT ELEVATION
SCALE: 3/16" = 1'-0"



RIGHT ELEVATION
SCALE: 3/16" = 1'-0"

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A-5

CALCULATIONS
(PER LEVEL)

AIR CONDITIONED AREAS

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GROSS AREA

GROSS AREA	8159 SF

TOTAL ALL LEVELS:	
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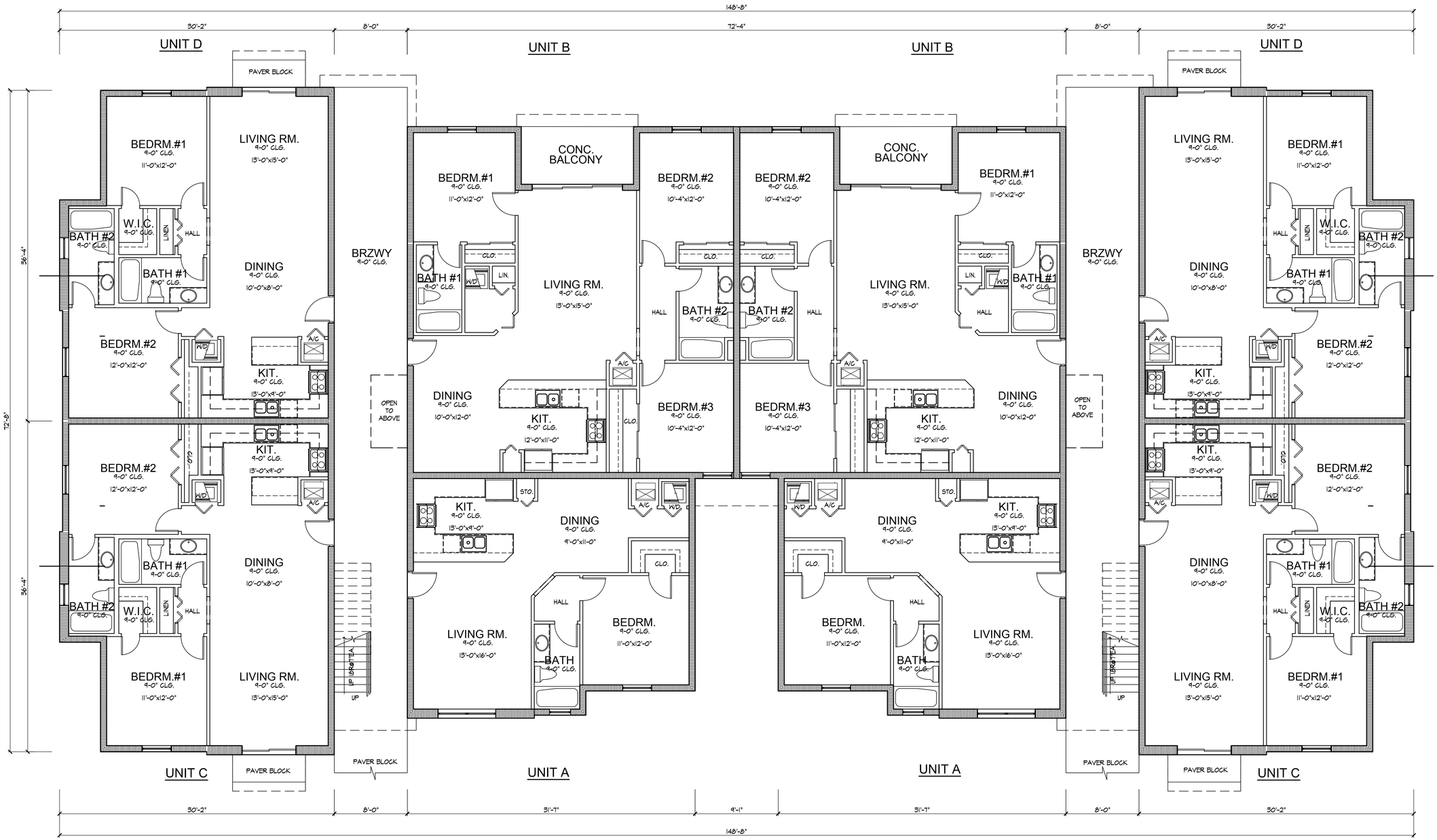
TOTAL GROSS AREA:	24477 SF



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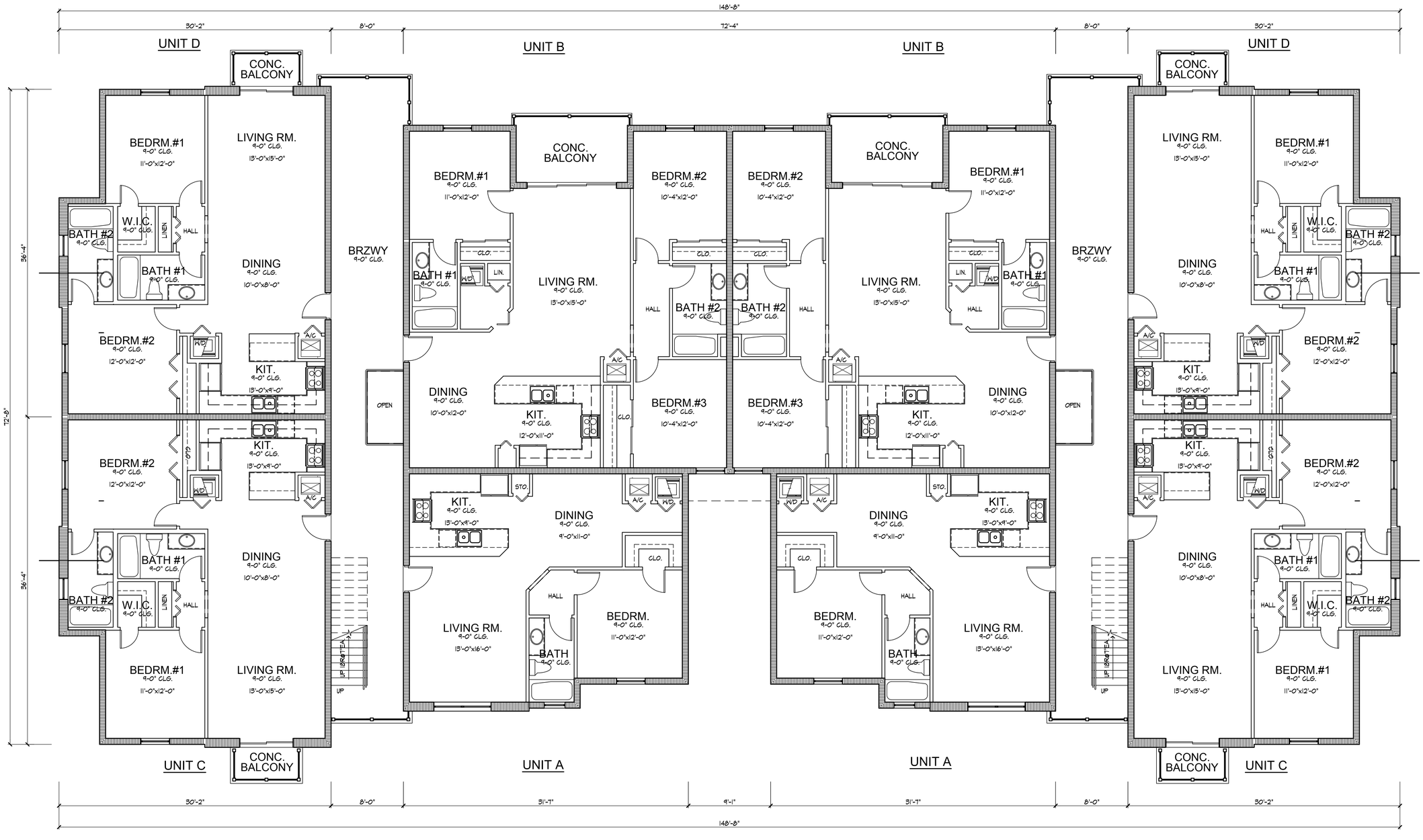

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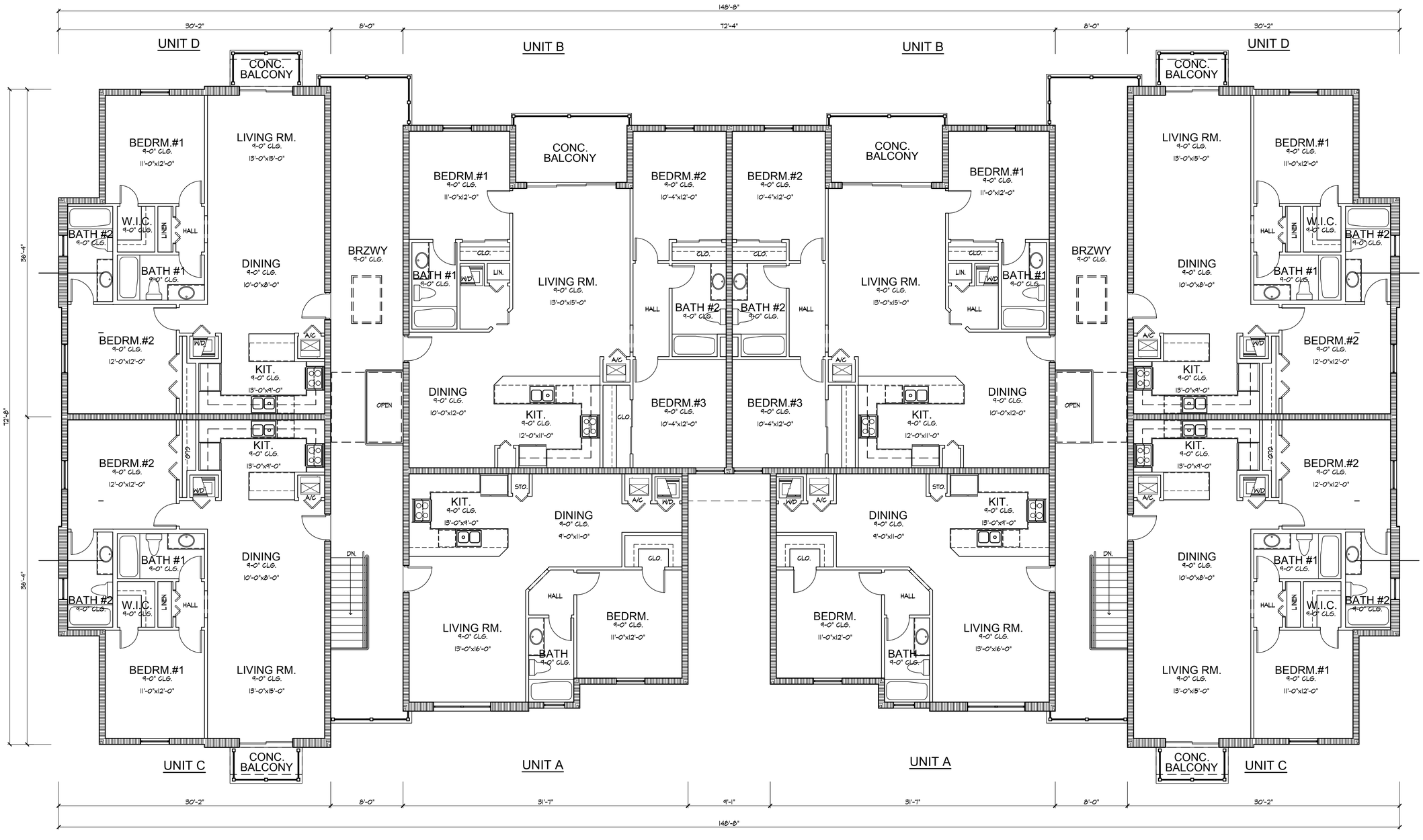

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THIRD FLOOR PLAN

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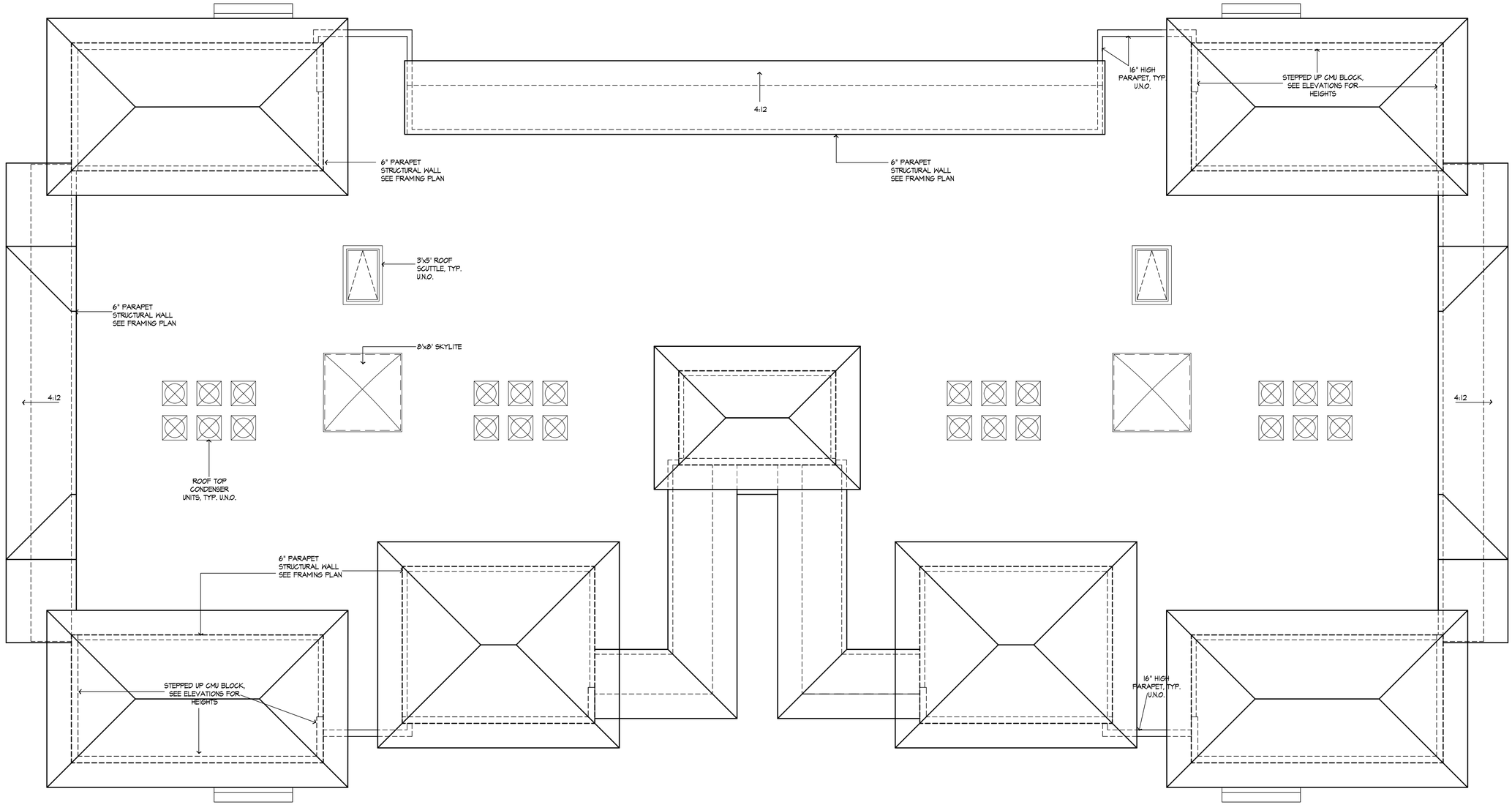
A-3



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ROOF PLAN

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A-6



LEFT ELEVATION



REAR ELEVATION



FRONT ELEVATION

revisions

no.	date
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designed	SBD
drawn	VHV
checked	SBD
date	6/19/20
scale	1/4"= 1'-0" (U.O.N.)
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CLUBHOUSE

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ELEVATIONS

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A-2



LEFT ELEVATION



RIGHT ELEVATION

revisions

no.	date
0	//

designed	SBD
drawn	VHV
checked	SBD
date	6/19/20
scale	1/4"= 1'-0" (U.O.N.)
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ELEVATIONS

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A-3

CALCULATIONS

AIR CONDITIONED AREAS

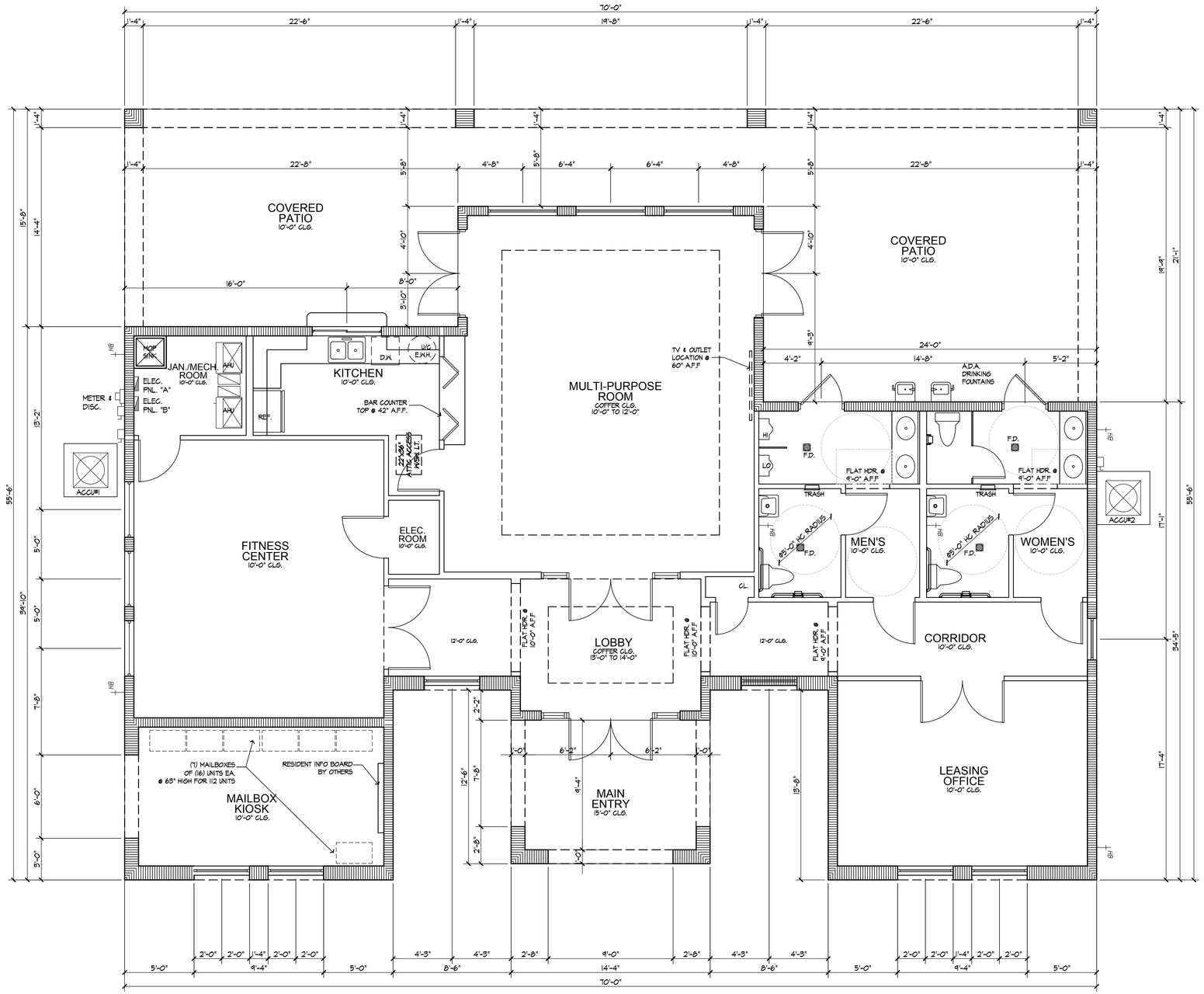
CLUBHOUSE A/C	2239 SF
	2239 SF

NON CONDITIONED AREAS

MAIN ENTRY	148 SF
MAILBOX KIOSK	213 SF
COVERED PATIO	1036 SF
	1397 SF

GROSS AREA

GROSS AREA	3636 SF



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CLUBHOUSE

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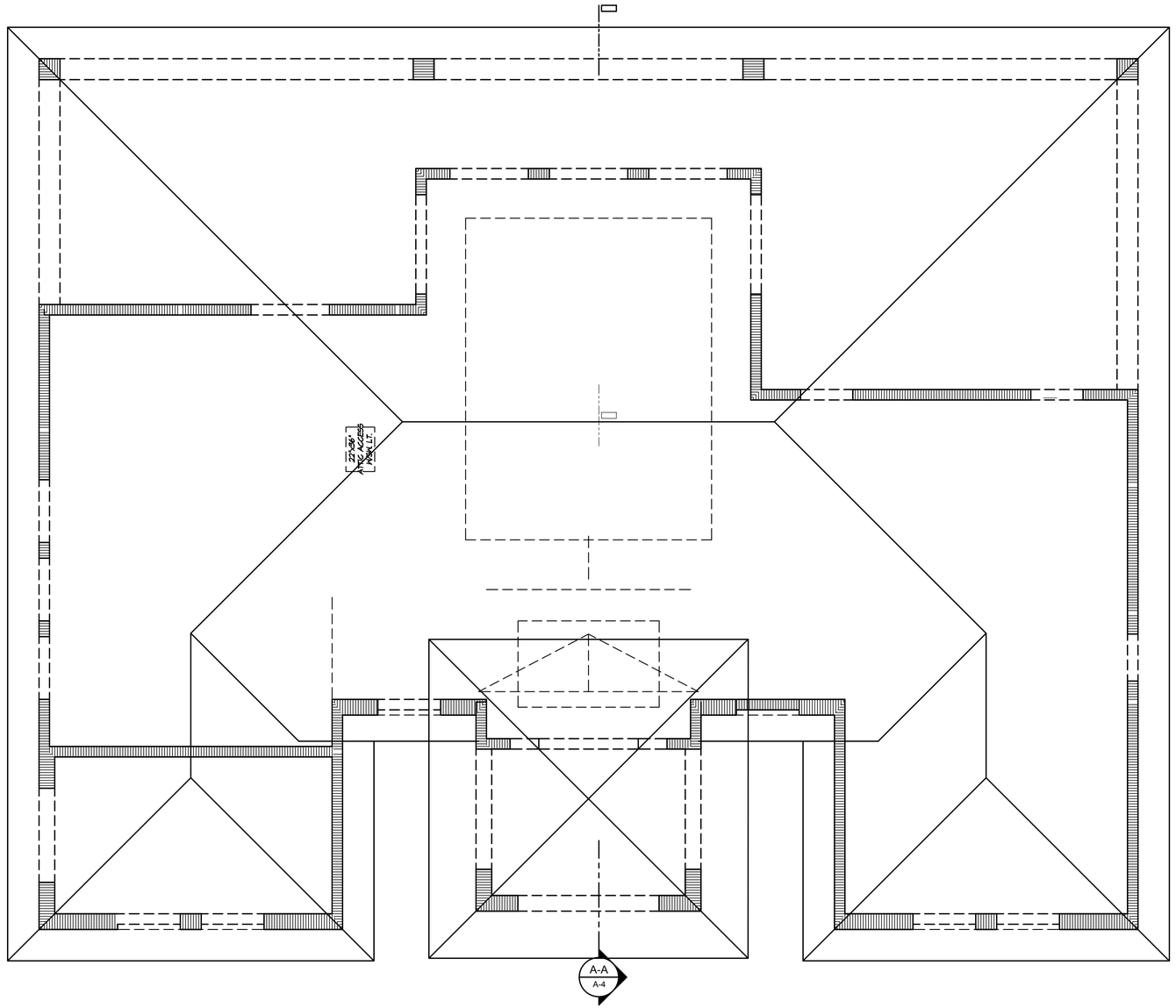

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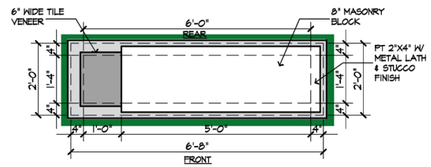
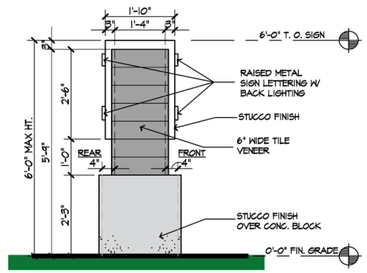
drawing
ROOF
FRAMING
PLAN

sheet
S-2



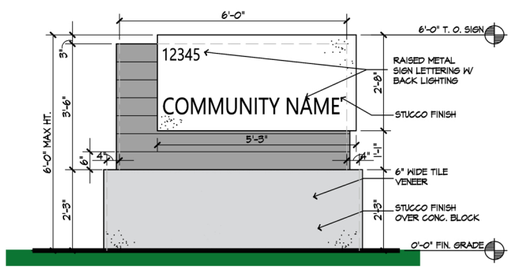
ENTRY MONUMENT PLAN

SCALE: 1/2" = 1'-0"



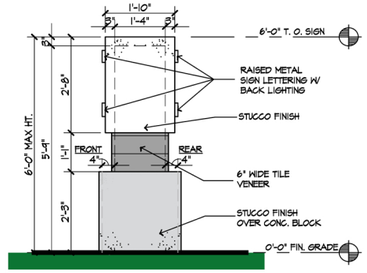
ENTRY MONUMENT LEFT SIDE ELEVATION

SCALE: 1/2" = 1'-0"



ENTRY MONUMENT FRONT ELEVATION

SCALE: 1/2" = 1'-0" (REAR ELEVATION TO MATCH FRONT ELEVATION)



ENTRY MONUMENT RIGHT SIDE ELEVATION

SCALE: 1/2" = 1'-0"

revisions

no.	date
0	//

designed	SBD
drawn	VHV
checked	SBD
date	06/12/20
scale	1/4"= 1'-0" (U.O.N.)
job no.	190724_EM.dig

Scott Blakeslee Disher
AR-0011586 AA-0003285

PROGRESS SET
06/15/20

project

ENTRY MONUMENT

FORT PIERCE NORTH APTS. & COMMERCIAL CENTER
FT. PIERCE, FLORIDA

by: ARROW INVESMENT GROUP

ARCHITECTURAL Studio, Inc.

Architecture
+
Planning

300 Avenue of Champions
Suite 260
Palm Beach Gardens, Florida 33418

Phone 561.202.6990
Fax 561.296.2494
archstudiofl.com

drawing

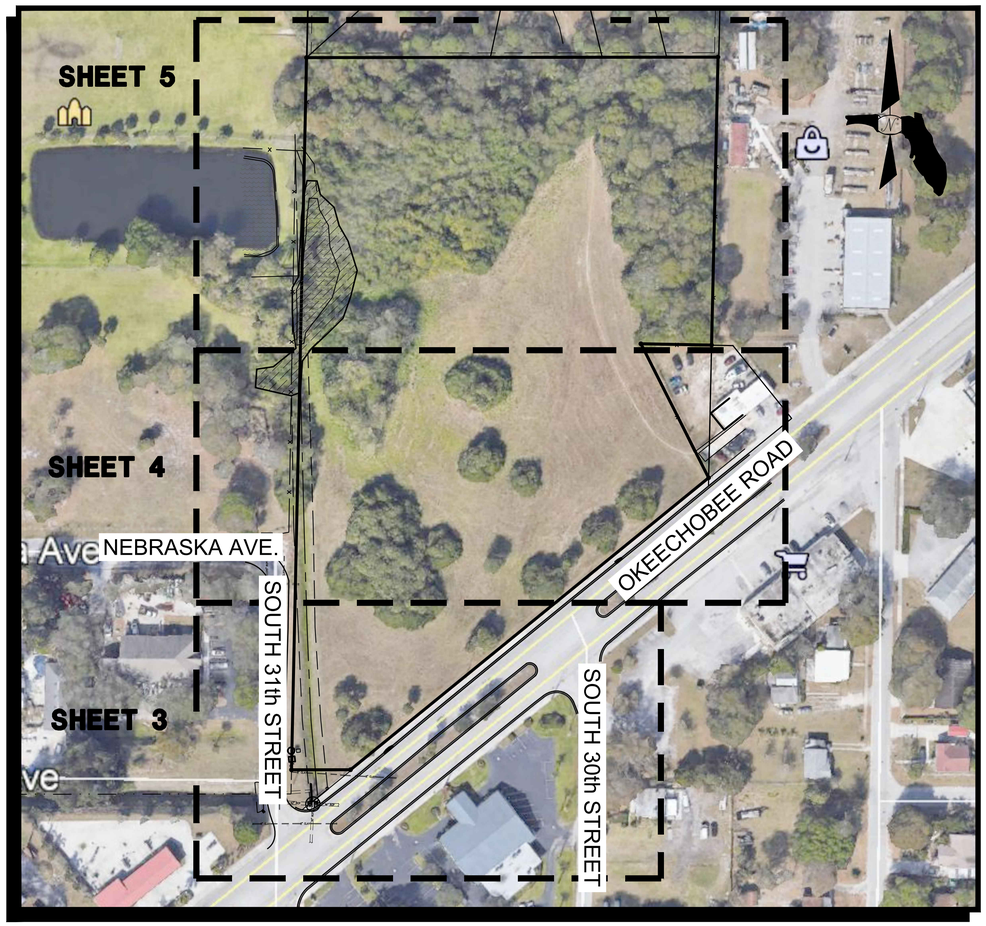
ENTRY MONUMENT

sheet

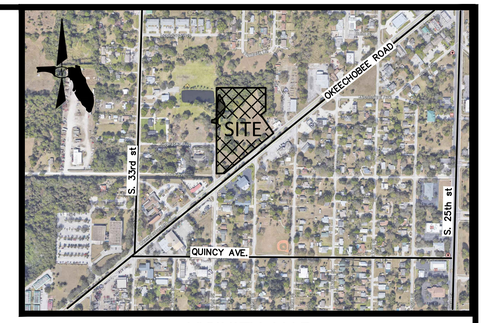
A-1

ST. LUCIE COUNTY
STATE OF FLORIDA

SKETCH OF BOUNDARY SURVEY
FOR
FORT PIERCE NORTH PROPERTY
OKEECHOBEE ROAD



KEY MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

ABBREVIATIONS:
P.O.C.– POINT OF COMMENCEMENT
P.O.B. – POINT OF BEGINNING
P.B. – PLAT BOOK
ORB – OFFICIAL RECORD BOOK
D.B. – DEED BOOK
PG. – PAGE
R/W – RIGHT–OF–WAY
R – RADIUS
Δ – CENTRAL ANGLE
A – ARC LENGTH
U.E. – UTILITY EASEMENT
D.E. – DRAINAGE EASEMENT
(P) – PLAT DIMENSION
(D) – DEED DIMENSION
(M) – MEASURED DIMENSION
℄ – CENTERLINE
IR – IRON ROD
IR/C – IRON ROD WITH CAP AS NOTED
C.M. – 4"x4" CONCRETE MONUMENT
PRM – PERMANENT REFERENCE MONUMENT
PCP – PERMANENT CONTROL POINT
N/D – NAIL & DISK
PK – PARKER KALON
NAD – NORTH AMERICAN DATUM
NAVD – NORTH AMERICAN VERTICAL DATUM
LB – LICENSED BUSINESS
WM – WATER MAIN
TOW – TOP OF WALL
INV – INVERT
DIP – DUCTILE IRON PIPE
PVC – POLYVINYL CHLORIDE PIPE
CMP – CORRUGATED METAL PIPE
CONC – CONCRETE
MON – MONUMENT
RCP – REINFORCED CONCRETE PIPE
HDPE – HIGH DENSITY POLYETHYLENE PIPE
EL. – ELEVATION

LEGAL DESCRIPTION (ORB 3204, PAGE 743):

BLOCK "D", LESS RIGHTS–OF–WAY, COLLIER SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A RAILROAD SPIKE AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST, LUCIE COUNTY, FLORIDA;
THENCE RUN N 88°42'30"E, ALONG THE SOUTH LINE OF THE SAID NORTHEAST 1/4, A DISTANCE OF 661.40 FEET TO THE WEST LINE OF BLOCK "D" OF COLLIER'S SUBDIVISION, AS RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA;
THENCE RUN N 00°00'18" W, ALONG THE WEST LINE OF SAID BLOCK D, A DISTANCE OF 27.01 FEET, TO THE POINT OF BEGINNING;
THENCE CONTINUE N 00°00'18" W, A DISTANCE OF 796.62 FEET, TO THE NORTHWEST CORNER OF SAID BLOCK D;
THENCE RUN N 88°43'25" E, ALONG THE NORTH LINE OF SAID BLOCK D, A DISTANCE OF 460.00 FEET;
THENCE RUN S 00°04'02" W, A DISTANCE OF 470.52 FEET, TO THE NORTHERLY RIGHT–OF–WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE RUN S 49°35'30" W, ALONG THE SAID NORTHERLY RIGHT–OF–WAY LINE, A DISTANCE OF 516.56 FEET;
THENCE RUN S 88°42'30" W, A DISTANCE OF 65.96 FEET, TO THE POINT OF BEGINNING,
ALL LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THE FOLLOWING:

A PORTION OF BLOCK "D", COLLIER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 4, PAGE 63, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SAID BLOCK "D", SAID CORNER BEING SITUATED ON THE NORTHERLY RIGHT–OF–WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE, NORTH 28°00'23" W, A DISTANCE OF 167.87 FEET;
THENCE, NORTH 89°51'15" E, A DISTANCE OF 79.00 FEET TO THE EAST LINE OF SAID BLOCK D;
THENCE, SOUTH 00°04'02" W, ALONG SAID EAST LINE, A DISTANCE OF 148.41 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.
SAID LANDS SITUATE, LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA.

SURVEY REPORT:

1. THIS IS A BOUNDARY SURVEY, PREPARED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF THE STANDARDS OF PRACTICE SET FORTH IN RULE 5J–17.051 THROUGH 5J–17.053, FLORIDA ADMINISTRATIVE CODE. THE FIELD WORK WAS COMPLETED ON SEPTEMBER 30, 2019.
2. THE SURVEY WAS BASED ON INSTRUCTIONS FROM CLIENT, AND ST. LUCIE COUNTY SURVEY DEPARTMENT INFORMATION.
3. BEARINGS ARE BASED ON S49°35'30"W (DEED) ALONG THE NORTH RIGHT–OF–WAY OF OKEECHOBEE ROAD.
4. THE LEGAL DESCRIPTION IS RECORDED IN OFFICIAL RECORD BOOK 3204 PAGE 743.
5. AREA = 6.796 ACRES, MORE OR LESS.
6. EASEMENTS, RESTRICTIONS, AND OTHER ITEMS OF RECORD SHOWN ARE PER OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO.756647, DATED JULY 8, 2019.

   NO SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED BY BROWN & PHILLIPS, INC.

   THERE MAY BE ADDITIONAL EASEMENTS AND/OR RESTRICTIONS NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF ST. LUCIE COUNTY.
7. ALL DISTANCES ARE MEASURED UNLESS NOTED OTHERWISE.
8. THE PROPERTY WAS VACANT AS OF THE DATE OF SURVEY. THE PROPOSED USE IS FOR SITE PLANNING.
9. ALL FIELD–MEASURED CONTROL MEASUREMENTS EXCEEDED AN ACCURACY OF 1:7,500.
10. THE CONTRACTED PURPOSE OF THIS SURVEY IS FOR SITE PLANNING THIS SURVEY IS NOT VALID FOR ANY OTHER USE.
11. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
12. THIS SURVEY WAS PREPARED FOR THE PARTIES LISTED BELOW AND IS NOT ASSIGNABLE:
    –ARROW INVESTMENT GROUP, LLC
    –LIGHTHOUSE GLOBAL INVESTMENTS, INC.
    –OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
13. THIS MAP IS INTENDED TO BE DISPLAYED AT A SCALE OF 1"=20' (SHEET 2) AND 1"=50' (SHEETS 3–5), ON 24"x 36" SHEETS.
14. SOME TOPOGRAPHIC FEATURES MAY BE EXAGGERATED IN SCALE FOR CLARITY. THE CENTER OF THE SYMBOL OF SUCH FEATURES IS THE CORRECT LOCATION.
15. NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED AS PART OF THIS SURVEY.
16. ELEVATIONS SHOWN HEREON ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988, AND ARE REFERENCED TO ST. LUCIE COUNTY BENCHMARK "VIR 3–10", ELEVATION=17.47.
17. +10.0 DENOTES SPOT ELEVATION, REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988.
18. © COPYRIGHT 2019 BY BROWN & PHILLIPS, INC. REPRODUCTIONS OF THIS SURVEY ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND STAMP, OR A DIGITALLY VERIFIED ELECTRONIC SIGNATURE AND SEAL, OF A FLORIDA LICENSED SURVEYOR AND MAPPER EMPLOYED BY BROWN & PHILLIPS, INC.

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561–615–3988, 615–3991 FAX

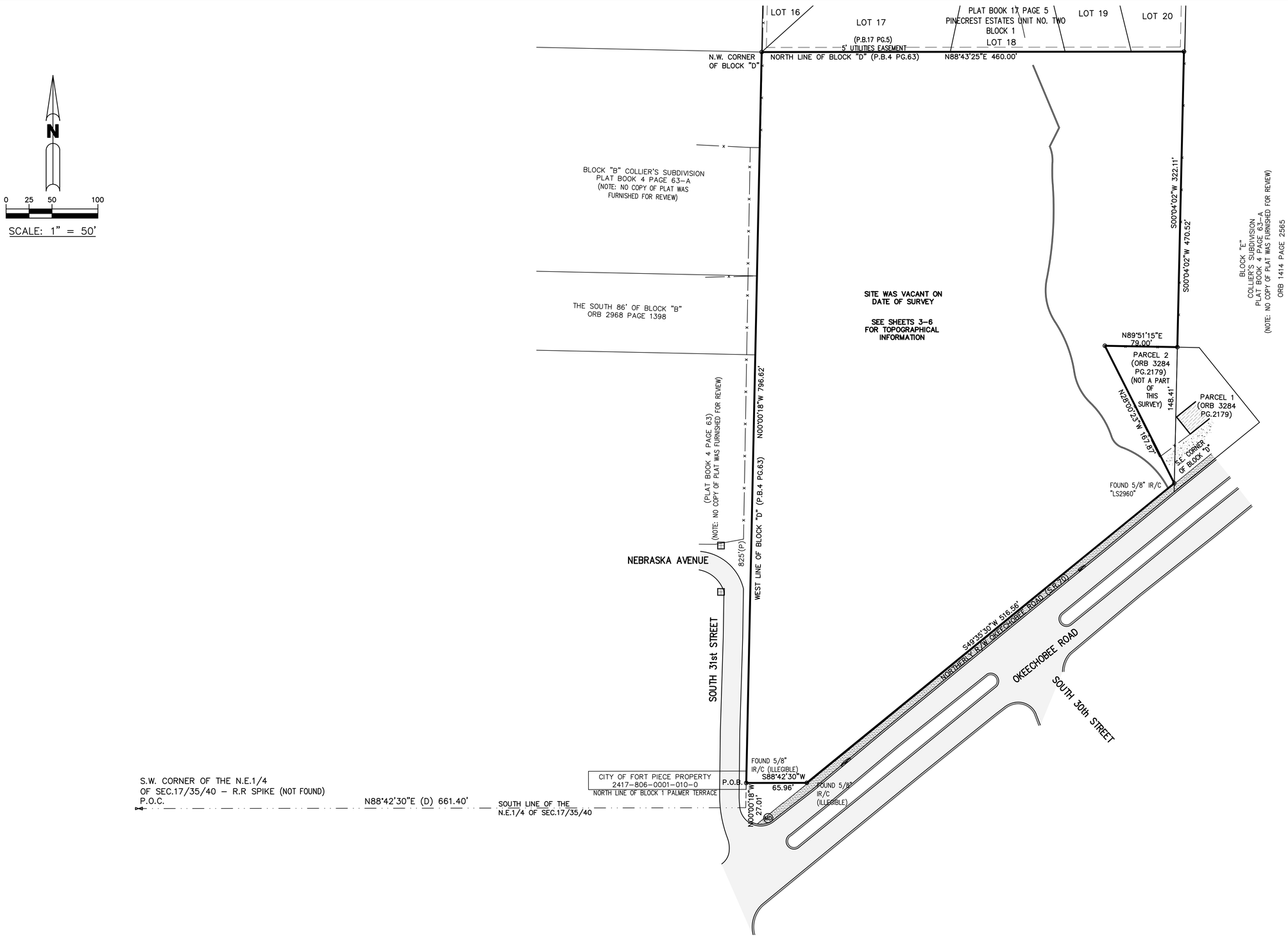
DATE	REVISIONS	#
12/19/19	ADD WETLANDS & TREE CHART	1
3/12/20	ADD'L WETLANDS DATA	2

DRAWN: JAO
CHECKED: JEP
F.B.ST. LUCIE CO.
PAGES: 32 – 33

PROJ. No. 19–098
SCALE: N.T.S.
DATE: SEPT 2019
SHT. 1 OF 6

JOHN E. PHILLIPS III
PROFESSIONAL LAND SURVEYOR
STATE OF FLORIDA No. 4826
DATE: _____

C:\Projects\Brown & Phillips\2019\19-098\19-098 Fort Pierce North Property Boundary Survey.dwg, 3/12/2020 10:39:41 PM, AutoCAD PDF (Smallest File).pc3



BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

SKETCH OF BOUNDARY SURVEY

FORT PIERCE NORTH PROPERTY
OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 - 33

PROJ. No. 19-098
SCALE: 1"=50'
DATE: SEPT. 2019
SHEET 2 OF 6

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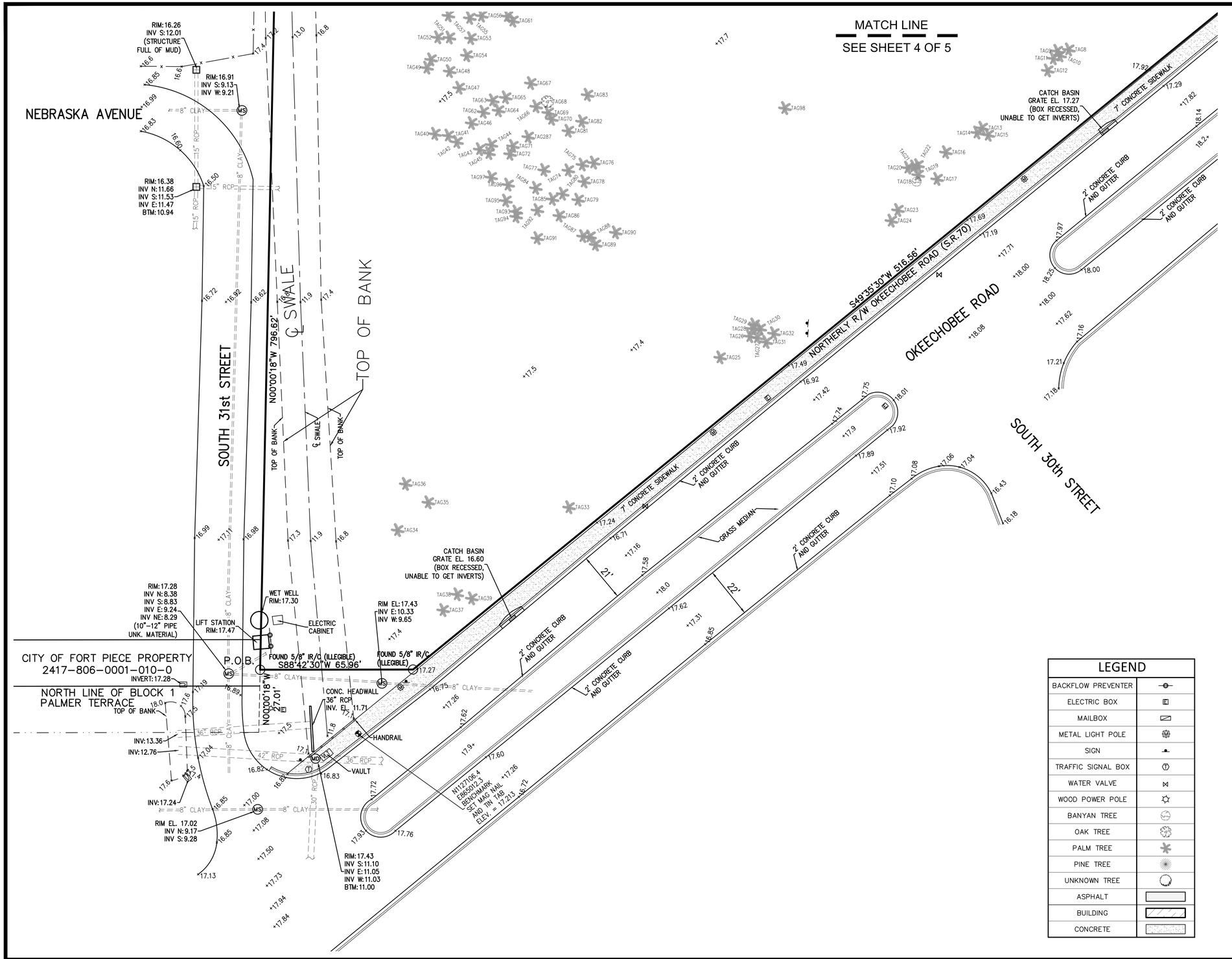

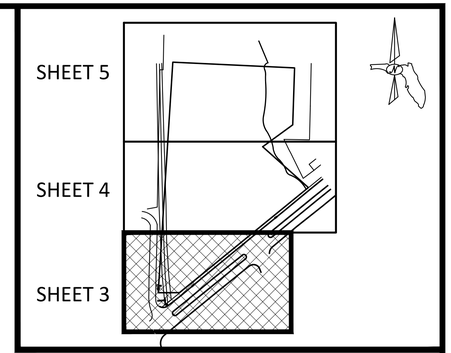

KEY MAP
NOT TO SCALE

N

0 10 20 40

SCALE: 1" = 20'

LEGEND	
BACKFLOW PREVENTER	
ELECTRIC BOX	
MAILBOX	
METAL LIGHT POLE	
SIGN	
TRAFFIC SIGNAL BOX	
WATER VALVE	
WOOD POWER POLE	
BANYAN TREE	
OAK TREE	
PALM TREE	
PINE TREE	
UNKNOWN TREE	
ASPHALT	
BUILDING	
CONCRETE	

ABBREVIATIONS:
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IR - IRON ROD
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C.M. - 4"x4" CONCRETE MONUMENT
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WM - WATER MAIN
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INV - INVERT
DIP - DUCTILE IRON PIPE
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BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

SKETCH OF BOUNDARY SURVEY

FORT PIERCE NORTH PROPERTY OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 - 33

PROJ. No. 19-098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 3 OF 6

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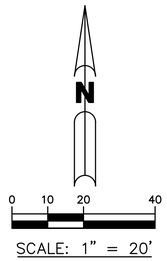

LEGEND			
BACKFLOW PREVENTER		BANYAN TREE	
ELECTRIC BOX		OAK TREE	
MAILBOX		PALM TREE	
METAL LIGHT POLE		PINE TREE	
SIGN		UNKNOWN TREE	
TRAFFIC SIGNAL BOX		ASPHALT	
WATER VALVE		BUILDING	
WOOD POWER POLE		CONCRETE	

ABBREVIATIONS:
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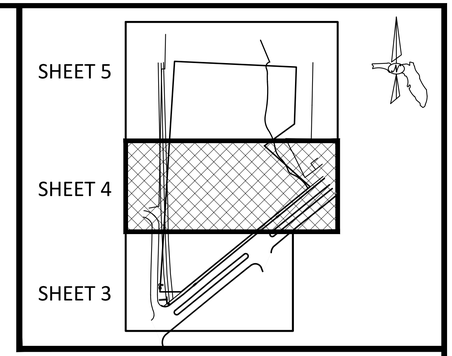
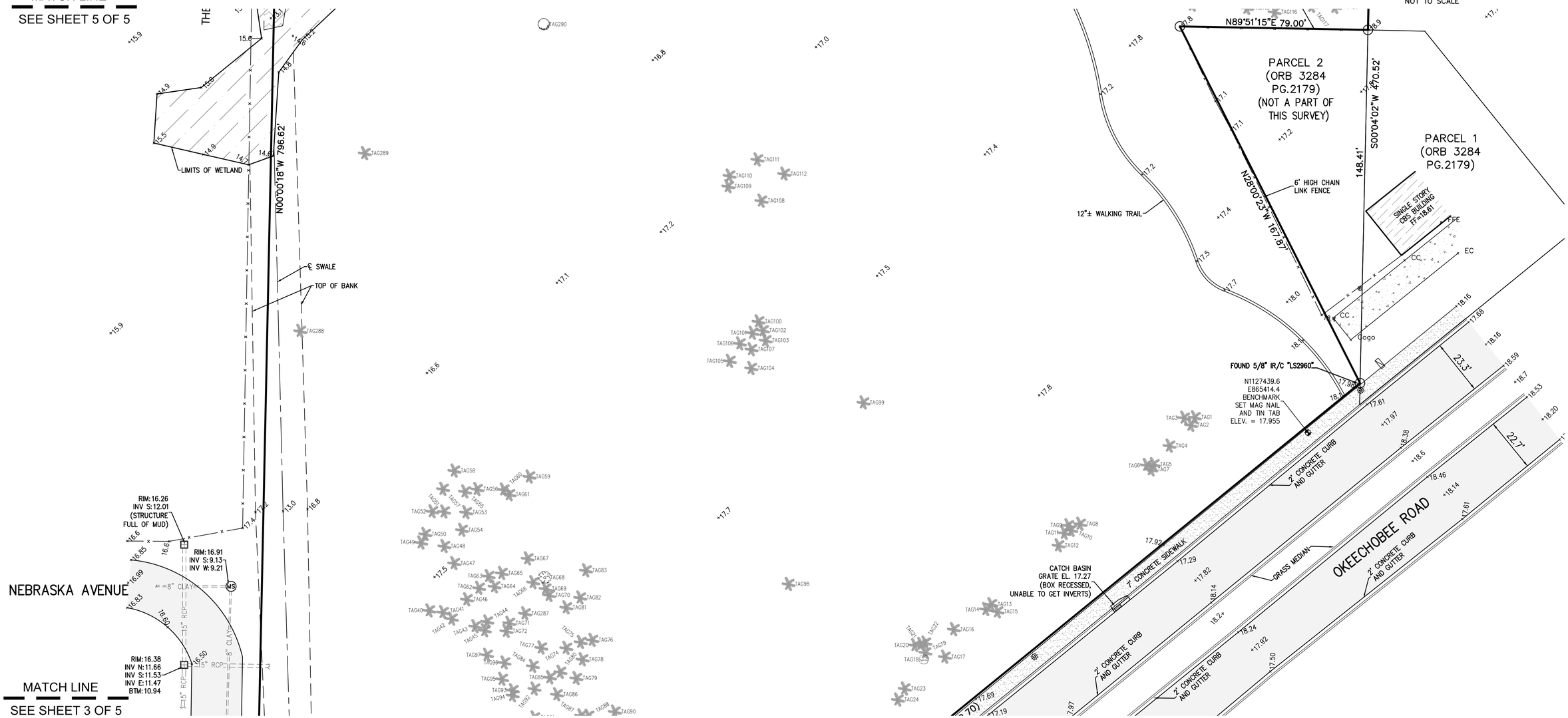


KEY MAP
NOT TO SCALE

MATCH LINE
SEE SHEET 5 OF 5



MATCH LINE
SEE SHEET 3 OF 5

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561–615–3988

DATE	REVISIONS	#

SKETCH OF
BOUNDARY SURVEY

FORT PIERCE NORTH
PROPERTY
OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 – 33

PROJ. No. 19–098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 4 OF 6

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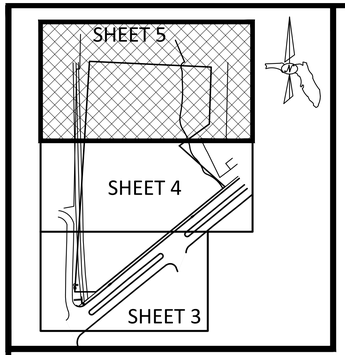

KEY MAP
NOT TO SCALE

LOTS VACANT ON DATE OF SURVEY

LOTS VACANT ON DATE OF SURVEY

℄ WALKING TRAIL

N88°43'25"E 460.00'

N00°00'18"W 796.62'

CHAINLINK FENCE

TOP OF BANK

TOP OF WATER
EL=14.6 ON 11/27/19

TOP OF BANK

EDGE OF WATER

EDGE OF WATER

LIMITS OF WETLAND

CHAINLINK FENCE

WETLAND
AREA=0.186ACRES
(WITHIN PROPOERTY)

TOP OF WATER
EL=13.7 ON 11/27/19

12"± WALKING TRAIL

6' HIGH CHAIN LINK FENCE

S00°04'02"W 322.11'

S00°04'02"W 470.52'

6' HIGH CHAIN LINK FENCE

N89°51'15"E 79.00'

PARCEL 2

MATCH LINE
SEE SHEET 4 OF 5

N

0 10 20 40

SCALE: 1" = 20'

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

SKETCH OF
BOUNDARY SURVEY

FORT PIERCE NORTH
PROPERTY
OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 – 33

PROJ. No. 19-098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 5 OF 6

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TAG NUMBER	TREE TYPE	DBH (INCHES)	CLEAR TRUNK HEIGHT
1	PALM	20	17'
2	PALM	16	17'
3	PALM	18	15'
4	PALM	14	22'
5	PALM	18	18'
6	PALM	16	14'
7	PALM	18	14'
8	PALM	20	18'
9	PALM	16	15'
10	PALM	24	15'
11	PALM	16	18'
12	PALM	16	19'
13	PALM	22	10'
14	PALM	24	15'
15	PALM	24	13'
16	PALM	16	14'
17	PALM	20	17'
18	BANYAN	48	
19	PALM	16	18'
20	PALM	14	18'
21	PALM	16	15'
22	PALM	16	10'
23	PALM	20	14'
24	PALM	18	15'
25	PALM	18	18'
26	PALM	16	15'
27	PALM	20	15'
28	PALM	16	17'
29	PALM	16	11'
30	PALM	18	14'
31	PALM	24	16'
32	PALM	16	7'
33	PALM	18	19'
34	PALM	16	17'
35	PALM	18	17'
36	PALM	18	18'
37	PALM	18	20'
38	PALM	16	21'
39	PALM	14	17'
40	PALM	20	18'
41	PALM	18	20'
42	PALM	16	19'
43	PALM	16	19'
44	PALM	16	21'
45	PALM	18	19'
46	PALM	20	22'
47	PALM	16	19'
48	PALM	16	18'
49	PALM	18	17'
50	PALM	16	20'
51	PALM	18	19'
52	PALM	10	18'
53	PALM	14	18'
54	PALM	18	18'
55	PALM	20	22'
56	PALM	14	19'
57	PALM	10	18'
58	PALM	14	19'
59	PALM	18	16'
60	PALM	16	16'
61	PALM	18	15'
62	PALM	16	23'
63	PALM	16	21'
64	PALM	20	18'
65	PALM	12	19'
66	PALM	18	21'
67	PALM	18	17'
68	OAKK	5	
69	PALM	20	18'
70	PALM	22	20'
71	PALM	20	20'
72	PALM	16	18'
74	PALM	14	18'
75	PALM	14	9'
76	PALM	24	19'
77	PALM	18	18'
78	PALM	18	17'
79	PALM	14	13'
80	PALM	18	18'
81	PALM	24	19'
82	PALM	18	16'
83	PALM	16	15'
84	PALM	16	19'
85	PALM	16	20'
86	PALM	18	17'
87	PALM	16	20'
88	PALM	16	18'
89	PALM	16	16'
90	PALM	18	22'
91	PALM	18	22'
92	PALM	16	19'
93	PALM	18	21'
94	PALM	14	20'
95	PALM	16	20'
96	PALM	18	20'

TAG NUMBER	TREE TYPE	DBH (INCHES)	CLEAR TRUNK HEIGHT
97	PALM	18	20'
98	PALM	18	19'
99	PALM	16	16'
100	PALM	18	17'
101	PALM	16	17'
102	PALM	18	19'
103	PALM	16	18'
104	PALM	16	18'
105	PALM	16	18'
106	PALM	14	15'
107	PALM	10	8'
108	PALM	18	19'
109	PALM	16	35'
110	PALM	14	20'
111	PALM	16	20'
112	PALM	18	18'
113	OAK	6	
114	PALM	14	13'
115	PALM	22	18'
116	PALM	20	20'
117	PALM	10	7'
118	UNKNOWN	12	
119	OAK	38	
120	PALM	14	18'
121	OAK	18	
122	OAK	12	
123	PALM	18	21'
124	PALM	18	16'
125	PALM	16	26'
126	PALM	18	29'
127	OAK	24	
128	PALM	16	32'
129	UNKNOWN	10	
130	PINE	28	
131	PALM	16	24'
132	UNKNOWN	24	
133	OAK	10	
134	OAK	28	
135	PALM	18	30'
136	OAK	40	
137	PALM	18	18'
138	PINE	10	
139	UNKNOWN	8	
140	OAK	36	
141	PALM	16	20'
142	PALM	14	25'
143	PALM	16	25'
144	OAK	20	
145	PALM	14	26'
146	PALM	16	21'
147	PALM	18	23'
148	OAK	16	
149	UNKNOWN	18	
150	PALM	22	18'
151	PALM	14	7'
152	PALM	22	22'
153	PALM	16	20'
154	PALM	22	18'
155	PALM	18	17'
156	PALM	18	16'
157	PALM	16	13'
158	PALM	12	10'
159	OAK	10	
160	OAK	16	
161	PALM	12	7'
162	PALM	18	24'
163	PALM	16	21'
164	OAK	36	
165	UNKNOWN	14	
166	UNKNOWN	10	
167	UNKNOWN	8	
168	OAKK	12	
169	OAKK	22	
170	OAKK	18	
171	PALM	16	17'
172	PALM	18	13'
173	PALM	12	6'
174	UNKNOWN	16	
175	OAKK	16	
176	UNKNOWN	20	
177	PALM	18	28'
178	PALM	8	8'
179	PALM	20	22'
180	PALM	12	6'
181	PALM	18	18'
182	PALM	18	16'
183	PALM	18	17'
184	OAKK	26	
185	PALM	16	28'
186	PALM	14	23'
187	PALM	16	14'
188	PALM	16	18'
189	PALM	16	20'
190	UNKNOWN	24	
191	PALM	16	14'
192	OAKK	36	
193	UNKNOWN	10	

TAG NUMBER	TREE TYPE	DBH (INCHES)	CLEAR TRUNK HEIGHT
194	OAK	36	
195	PALM	18	26'
196	OAK	18	
197	UNKNOWN	8	
198	UNKNOWN	8	
199	UNKNOWN	8	
200	OAK	10	
201	OAK	6	
202	OAK	6	
203	OAK	4	
204	OAK	6	
205	OAK	8	
206	OAK	8	
207	OAK	8	
208	OAK	6	
209	OAK	6	
210	UNKNOWN	10	
211	PALM	16	18'
212	PALM	18	18'
213	PALM	14	
214	OAK	20	
215	OAK	26	
216	OAK	30	
217	UNKNOWN	10	
218	OAK	14	
219	PALM	20	19'
220	OAK	30	
221	UNKNOWN	8	
222	UNKNOWN	12	
223	UNKNOWN	8	
224	PALM	18	20'
225	UNKNOWN	6	
226	UNKNOWN	6	
227	UNKNOWN	4	
228	UNKNOWN	6	
229	OAK	6	
230	UNKNOWN	12	
231	PALM	22	18'
232	UNKNOWN	30	
233	PALM	22	17'
234	OAK	12	
235	OAK	10	
236	UNKNOWN	8	
237	UNKNOWN	6	
238	UNKNOWN	6	
239	OAK	16	
240	OAK	10	
241	UNKNOWN	14	
242	UNKNOWN	8	
243	UNKNOWN	8	
244	UNKNOWN	10	
245	PINE	10	
246	PINE	10	
247	OAK	10	
248	OAK	10	
249	PALM	18	23'
250	PALM	18	20'
251	PINE	10	
252	PALM	16	22'
253	OAK	26	
254	OAK	16	
255	OAK	14	
256	OAK	12	
257	OAK	14	
258	PALM	22	28'
259	UNKNOWN	8	
260	PALM	12	6'
261	PALM	14	10'
262	UNKNOWN	10	
263	PINE	14	
264	OAK	18	
265	PALM	16	21'
266	PALM	18	20'
267	PALM	20	18'
268	PALM	20	20'
269	OAK	20	
270	OAK	10	
271	PALM	16	13'
272	OAK	36	
273	PALM	16	14'
274	UNKNOWN	6	
275	UNKNOWN	6	
276	PALM	16	25'
277	PALM	12	11'
278	PALM	18	18'
279	OAK	18	
280	OAK	18	
281	PALM	18	22'
282	PALM	18	18'
283	PALM	16	10'
284	PINE	16	
285	PINE	12	
286	PINE	10	
287	PALM	18	19'
288	PALM	16	18'
289	PALM	18	19'
290	UNKNOWN	30	

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUNKNOWNHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAKD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

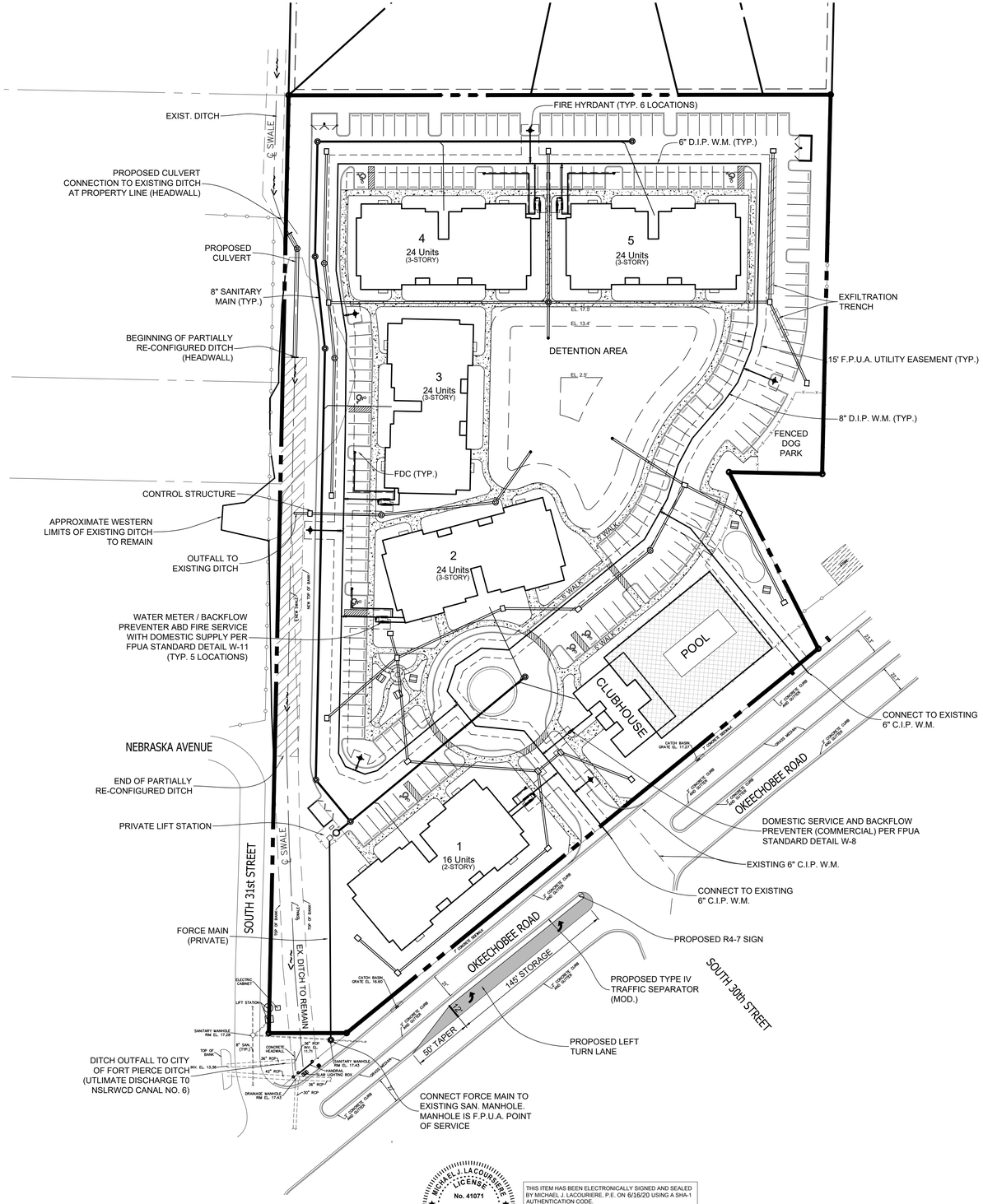
SKETCH OF
BOUNDARY SURVEY

FORT PINEERCE NORTH
PROPERTY
OKEECHOBEE ROAKD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 - 33

PROJ. No. 19-098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 6 OF 6

C:\Projects\Brown & Phillips\2019\19-098\19-098 Fort Pierce North Property Boundary Survey.dwg, 3/12/2020 10:35:47 PM, AutoCAD PDF (Smallest File).pc3



GRAPHIC SCALE

0 25 50 100 150

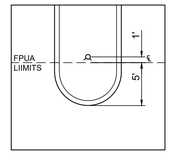
(IN FEET)
1 INCH = 50 FT.

LEGEND

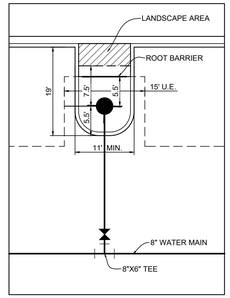
- DRAINAGE PIPE AND INLET (FINAL PIPE SIZES TO BE DETERMINED)
- SANITARY MAIN (8" PVC) AND MANHOLE (SANITARY SYSTEM TO BE PRIVATE)
- WATER MAIN (8" C-900 / D.I.P.)
- FIRE DEPARTMENT CONNECTION (FDC)
- FIRE HYDRANT
- RE-CONFIGURED DITCH

NOTES:

1. MINIMUM FINISHED FLOOR ELEVATION TO BE SET AT OR ABOVE 100 - YEAR, 3 - DAY STAGE (ZERO DISCHARGE)
2. MINIMUM PERIMETER ELEVATION TO BE SET AT OR ABOVE 25 - YEAR, 3- DAY STAGE.
3. RESIDENTIAL BUILDINGS TO BE FIRE SPRINKLED. FIRE DEPARTMENT CONNECTIONS TO BE LOCATED 100' MAXIMUM FROM A FIRE HYDRANT.
4. SANITARY SYSTEM TO BE PRIVATE.
5. WATER DISTRIBUTION SYSTEM TO BE PUBLIC, FORT PIERCE UTILITY AUTHORITY.
6. THIS DRAWING UTILIZES BASE SITE PLAN AND SURVEY INFORMATION PREPARED BY LITTERICK LANDSCAPE ARCHITECTURE AND BROWN AND PHILIPS. INC. USED WITH PERMISSION.

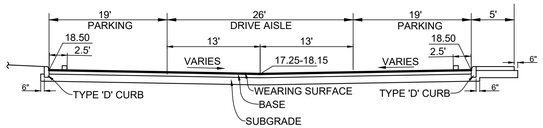


FDC NEAR UTILITY EASEMENT
NOT TO SCALE

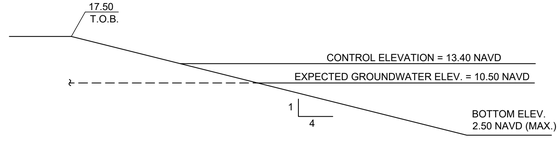


FIRE HYDRANT SHALL HAVE 5' CLEAR ON ALL SIDES
LANDSCAPE MATERIAL SHALL BE LIMITED TO SOD WITHIN 7.5' OF FIRE HYDRANT

HYDRANT LOCATION DETAIL
NOT TO SCALE



TYPICAL PARKING / DRIVE SECTION



DETENTION AREA BANK SECTION

100 YR - 3 D RAINFALL	12.23 INCHES
100 YR - 3 D FLOOD ELEV.	18.58' NAVD
MINIMUM FINISHED FLOOR	19.50' NAVD
25 YR - 3 D RAINFALL	9.5 INCHES
25 YR - 3 D FLOOD ELEV	17.76' NAVD
MINIMUM PERIMETER ELEVATION	17.90' NAVD
10 YR - 1 D RAINFALL	6.0 INCHES
10 YR - 1 D FLOOD ELEV	16.16 NAVD
MINIMUM ROADWAY ELEVATION	17.25' NAVD

CONCEPTUAL SURFACE WATER MANAGEMENT DATA

MICHAEL J. LACOURIERE
LICENSE
No. 41071
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY MICHAEL J. LACOURIERE, P.E. ON 6/16/20 USING A SHA-1 AUTHENTICATION CODE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

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MICHAEL B. SCHORAH & ASSOCIATES, INC.
ENGINEERS ◆ SURVEYORS ◆ DEVELOPMENT CONSULTANTS
TEL. (561) 968.0080 LB# 2438
FAX. (561) 642-9726
www.schorah.com
EB# 2438
1850 FOREST HILL BLVD., SUITE 206
WEST PALM BEACH, FLORIDA 33406

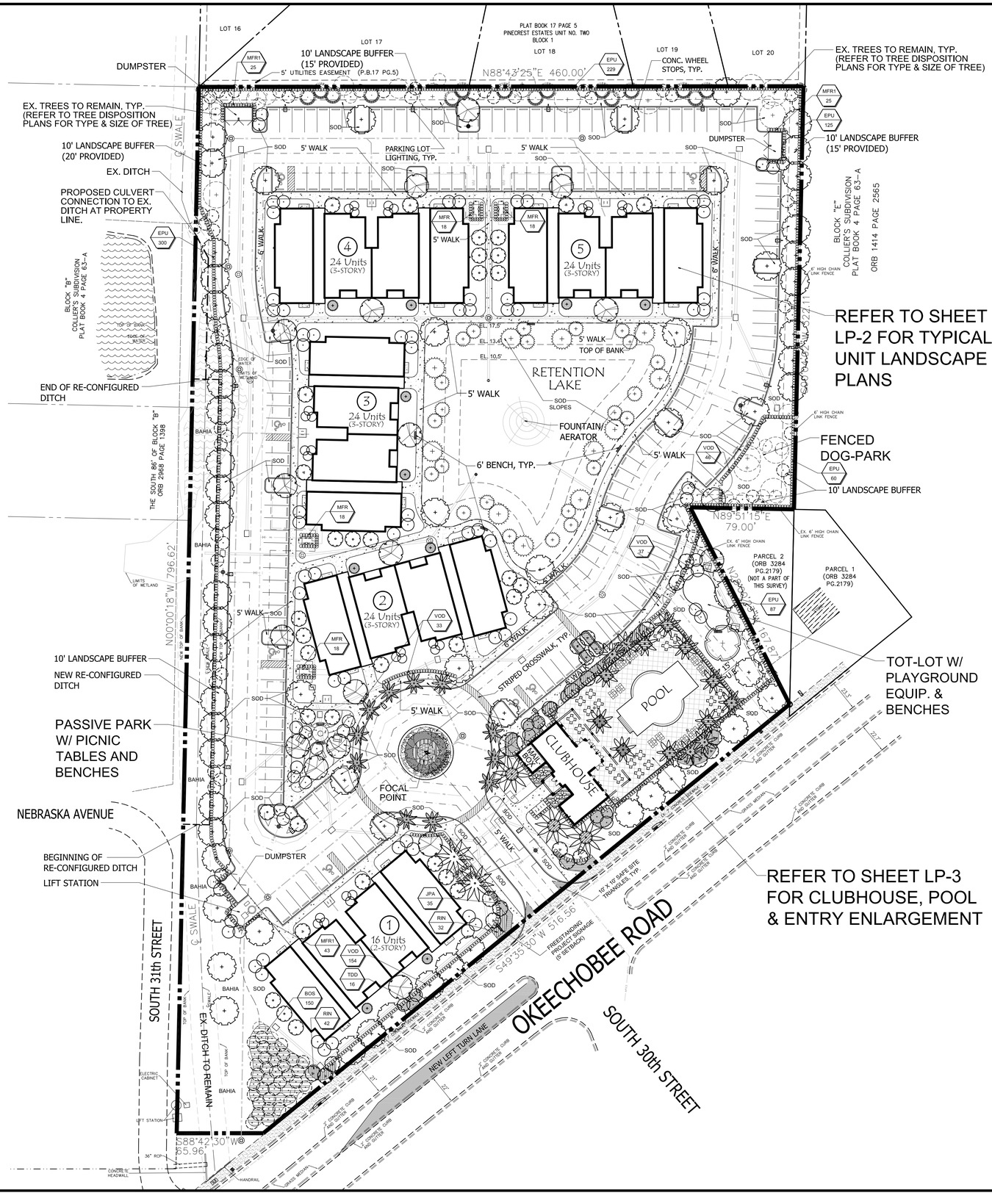
REVISIONS

DRAWN/CHECKED: AMG/MJL
SCALE: 1" = 50'
DATE: MARCH 2020
MICHAEL J. LACOURIERE, P.E. FLORIDA LICENSE NO. 41071 FOR MICHAEL B. SCHORAH AND ASSOCIATES, INC.
DATE:

PROJECT: ARIA APARTMENTS
DESCRIPTION: CONCEPTUAL ENGINEERING PLAN

JOB NO. 1769
SHEET NO. 1
OF 1C

Path\Name : P:\1769 FORT PIERCE NORTH\CIVIL\CAD\1769 SITE.dwg
Date\Time : Tue, 16 Jun 2020 - 8:51am



EXISTING TREE LEGEND

	SYMBOL	QUANTITY
EXISTING PALM TO REMAIN	ESP	20
RELOCATED PALM	RSP	155
EXISTING PINE TO REMAIN	EPE	5
EXISTING OAK TO REMAIN	EQL	11

PROPOSED TREE LEGEND

	SYMBOL	QUANTITY
SPECIMEN LIVE OAK, RANCH STYLE *(QUERCUS VIRGINIANA)*	QV1	1
ROYAL POINCIANA *(DELONIX REGIA)*	DR	1
LIVE OAK *(QUERCUS VIRGINIANA)*	QV	67
SYLVESTER PALM *(PHOENIX SYLVESTRIS)*	PS	5
YELLOW TABEBUIA *(TABEBUIA CARAIBA)*	TC	19
CRAPE MYRTLE (MULTI-TRUNK) *(LAGERSTROEMIA INDICA 'MUSKOGEE')*	LM	25
CRAPE MYRTLE (SINGLE TRUNK) *(LAGERSTROEMIA INDICA 'NATCHEZ')*	LI	33
CABBAGE PALM *(SABAL PALMETTO)*	SP	91
WASHINGTON PALM *(WASHINGTONIA ROBUSTA)*	WR	11
COCONUT PALM *(COCOS NUCIFERA)*	CN	14
JAPANESE BLUEBERRY *(ELAEOCARPUS DECIPIENS)*	ED	10
BALD CYPRESS (SMALL) *(TAXODIUM DISTICHUM)*	TD	23
BALD CYPRESS (LARGE) *(TAXODIUM DISTICHUM)*	TD1	11
CHRISTMAS PALM (TRIPLE) *(ADONIDIA MERRILLII)*	AM3	10
S. FLORIDA SLASH PINE *(PINUS ELLIOTTII 'DENSA')*	PE	15

LANDSCAPE DATA

SITE AREA:	296,012.97 S.F. (6.796 ACRES)
VEHICULAR USE AREA:	82,965.43 S.F. (28.0%)
INTERIOR LANDSCAPE AREA REQUIRED:	5,531 S.F. (1 S.F. PER 15 S.F. OF VEH, USE AREA)
INTERIOR LANDSCAPE AREA PROVIDED:	8,284.25 S.F.
INTERIOR TREES REQUIRED:	56 TREES (1 TREE PER 100 S.F. OF REQ'D. INT. LANDSCAPE AREA)
INTERIOR TREES PROVIDED:	166 TREES (110 ADDITIONAL TREES)

PERIMETER LANDSCAPING REQUIREMENTS

BUFFER (SIDE)	LENGTH (L.F.)	REQ'D. WIDTH	PROVIDED WIDTH	REQ'D. AREA (S.F.)	TREES REQ'D.	TREES PROVIDED
NORTH	460'	10'	15'	4,600	*23	33 TREES
SOUTH	582.52'	10'	25'	5,825.2	**20	25 TREES
EAST	568.98'	10'	10-15'	5,689.8	*29	33 TREES
WEST	796.62'	10'	10-20'	7,966.2	*40	46 TREES
				TOTALS:	112	***137 TREES

* REQUIRES 1 TREE PER 200 S.F. OF BUFFER
** REQUIRES 1 TREE PER 300 S.F. OF BUFFER
*** 25 ADDITIONAL TREES

REFER TO SHEET LP-4 FOR PLANT LIST

Landscape Plan

0 20' 40' 80' 120' 160'

Scale: 1" = 40'

NORTH

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

LANDSCAPE NOTES

1. ALL PLANT MATERIAL SHALL BE FLORIDA NUMBER 1 OR BETTER AS DEFINED BY THE DIVISION OF PLANT INDUSTRY "GRADES AND STANDARDS" LATEST EDITION.
2. ALL LANDSCAPE SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FT. PIERCE CODE.
3. THE LANDSCAPE CONTRACTOR SHALL NOT MAKE ANY SUBSTITUTIONS CHANGES WITHOUT THE AUTHORIZATION OF THE CITY OF FT. PIERCE, THE OWNER AND THE LANDSCAPE ARCHITECT.
4. THE LANDSCAPE CONTRACTOR SHALL REVIEW THE PROJECT DRAINAGE AND UTILITY PLANS PRIOR TO CONSTRUCTION AND AVOID ALL CONFLICTS. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK.
5. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS.
6. ALL TREES SHALL BE LOCATED WITHIN A MULCH PLANTING BED WITH A MINIMUM OF TWO (2) FEET OF CLEARANCE TO THE EDGE OF THE BED.
7. ALL SOD SHALL BE STENOTAPHRUM SECONDATUM 'FLORITAM' (ST. AUGUSTINE SOD), UNLESS OTHERWISE NOTED.
8. ALL VEGETATION SHALL BE SELECTED AND POSITIONED SO THAT IT DOES NOT PRESENT OBSTRUCTIONS TO THE LINE OF SIGHT AT INTERSECTIONS PURSUANT TO FLORIDA DEPARTMENT OF TRANSPORTATION SIGHT LINE GUIDELINES.
9. CLEAR VISIBILITY SHALL BE MAINTAINED BETWEEN 30" AND 8' WITHIN SIGHT VISIBILITY TRIANGLES. 10' X 10' SIGHT VISIBILITY TRIANGLES SHALL BE PROVIDED AT THE INTERSECTIONS WITH THE PUBLIC RIGHT OF WAY. IN ADDITION, ALL LANDSCAPING SHALL CONFORM TO THE REQUIREMENTS OF FDOT INDEX 546.
10. ALL LANDSCAPE ISLANDS AND BEDS WILL BE FREE OF SHELL ROCK AND CONSTRUCTION DEBRIS, EXCAVATED TO A DEPTH OF 30 INCHES OR TO CLEAN NATIVE SOILS AND FILLED WITH THE SPECIFIED BACKFILL MIXTURE.
11. ALL PROPOSED LANDSCAPE AREAS SHALL RECEIVE 100% OVERLAP COVERAGE FROM A FULLY AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH A RAIN SENSING DEVICE ACCORDING TO LOCAL AND STATE CODES. IRRIGATION WATER SHALL BE PULLED FROM A WELL SOURCE AND CITY WATER WILL BE USED AROUND BUILDING.
12. ALL ABOVE GROUND UTILITIES SHALL BE SCREENED FROM VIEW ON THREE SIDES WITH AN APPROPRIATE HEDGE MATERIAL. HEIGHT OF PLANT MATERIAL AT TIME OF INSTALLATION SHALL BE AT LEAST AS TALL AS THE UTILITY BEING SCREENED AND SHALL BE SPACED APPROPRIATELY IN ORDER TO PROVIDE COMPLETE SCREENING OF UTILITY WITHIN ONE YEAR OF INSTALLATION.
13. ALL TREES NOT LOCATED WITHIN A LANDSCAPE BED SHALL RECEIVE A 4-5' DIA. MULCH RING.
14. ALL EXOTIC AND NUISANCE VEGETATION SHALL BE REMOVED FROM SUBJECT PROPERTY PRIOR TO ANY CERTIFICATE OF OCCUPANCY.
15. TREES ARE TO BE INSTALLED WITH A 10' SEPARATION FROM FROM ANY WATER OR SEWER MAIN AND/OR SERVICE, HYDRANTS, AND LIFT STATIONS. IF A 10' SEPARATION CANNOT BE ACHIEVED, THE TREE CAN BE INSTALLED WITH A ROOT BARRIER SYSTEM. HOWEVER IN NO CASE SHALL A TREE ENCROACH CLOSER THAT 5' WITH A ROOT BARRIER PRESENT. ONLY SOD CAN BE INSTALLED WITHIN 7.5' OF A FIRE HYDRANT UNLESS OTHERWISE APPROVED BY THE FIRE MARSHALL.
16. ALL PLANT MATERIAL SHALL BE INSTALLED AT THE HEIGHT, SPREAD AND DBH SHOWN ON THE PLANT LIST, CONTAINER SIZES ARE GIVEN AS A SUGGESTION ONLY.

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

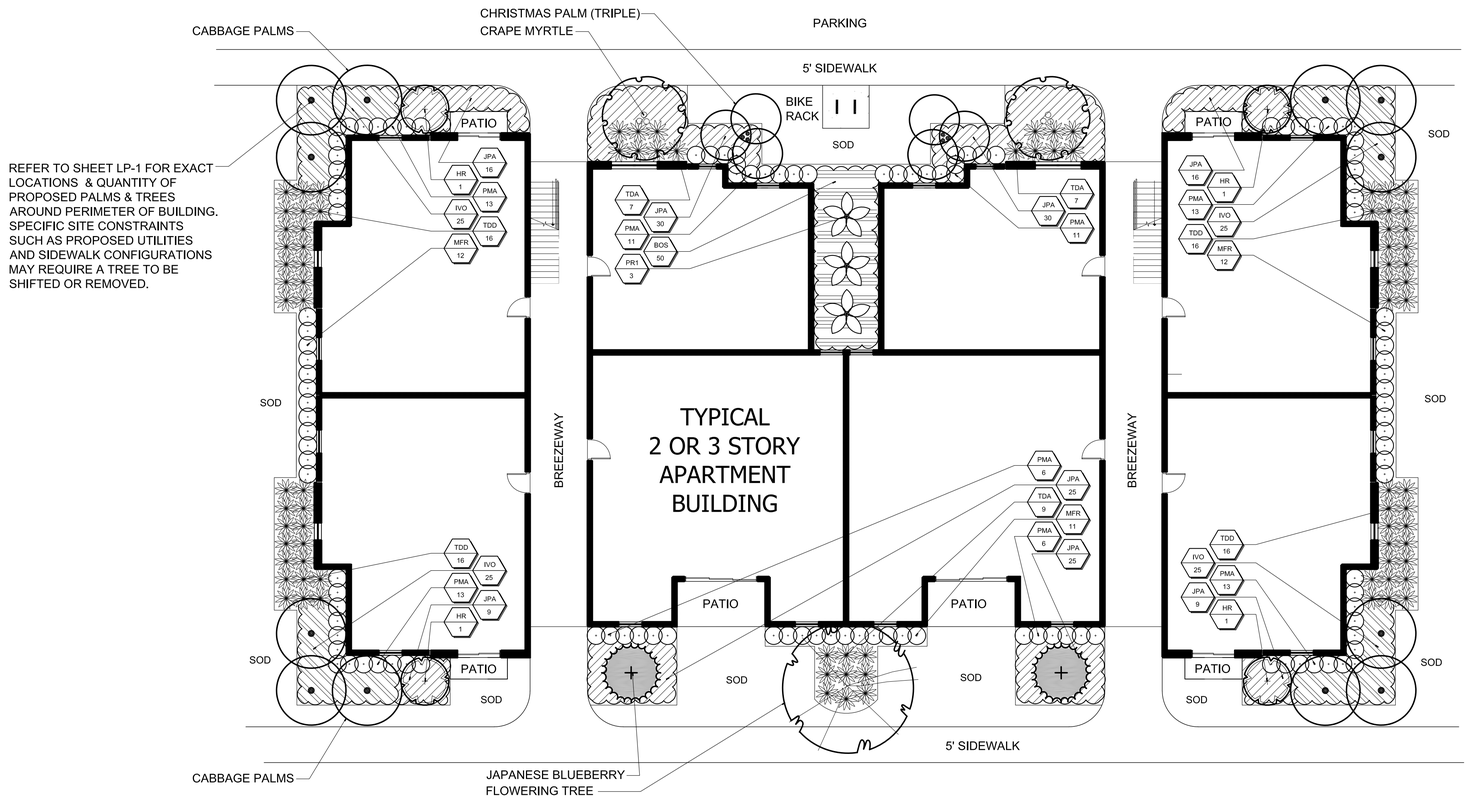
Scale: 1" = 40'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

LP-1

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045



TYPICAL UNIT PLANT LIST (5 BUILDINGS)

QUANTITIES ARE FOR EACH BUILDING

TREES

	SYM	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	SPR.	NOTES:
M	PR1	3	PHOENIX ROEBELENII	PYGMY DATE PALM (SINGLE)	7' O.A.	7'	FULL & THICK, SINGLE TRUNK SPECIMEN, MATCHED
M	HR	4	HIBISCUS ROSA-SINENSIS	PINK HIBISCUS STD.	6-7' O.A. STD.	3-4'	FULL & THICK, SINGLE TRUNK STD.

SHRUBS & GROUNDCOVERS

	SYM	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES:
* V	TDD	64	TRIPSACUM FLORIDANA	FLORIDA GAMA GRASS	#3, 16" O.A.	36" O.C.	FULL & THICK
* V	TDA	23	TRIPSACUM DACTYLOIDES	FAKAHATCHEE GRASS	#3, 24" O.A.	48" O.C.	FULL & THICK
* V	BOS	50	NEPHROLEPIS EXALTATA	BOSTON FERN	#3, 16" O.A.	24" O.C.	FULL & THICK
M	PMA	86	PODOCARPUS MACROPHYLLUS	PODOCARPUS	#3, 24" O.A.	24" O.C.	FULL & THICK
* V	MFR	35	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	#3, 24" O.A.	24" O.C.	FULL & THICK
* V	IVO	100	ILEX VOMITORIA	DWF. YAUPON HOLLY	#3, 14" O.A.	24" O.C.	FULL & THICK
M	JPA	160	JUNIPERUS CHINENSIS 'PARSONII'	PARSON'S JUNIPER	#3, 16" SPD.	24" O.C.	FULL & THICK

* ASTERISK DENOTES NATIVE PLANT MATERIAL
V INDICATES VERY DROUGHT TOLERANT PLANT MATERIAL
M INDICATES MODERATELY DROUGHT TOLERANT PLANT MATERIAL

SOD: ST. AUGUSTINE 'FLORITAM'
MULCH: 3" SHREDDED MELALEUCA MULCH (OR APPROVED RECYCLED MULCH) TO BE APPLIED TO ALL PLANTING BEDS.

IRRIGATION NOTE:
ALL NEW LANDSCAPE AREAS SHALL BE RECEIVE 100% OVERLAP COVERAGE FROM A FULLY AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH A RAIN SENSOR.

Typical Unit Landscape Plan

0 5' 10' 20' 30' 40'
NORTH
Scale: 1" = 10'

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

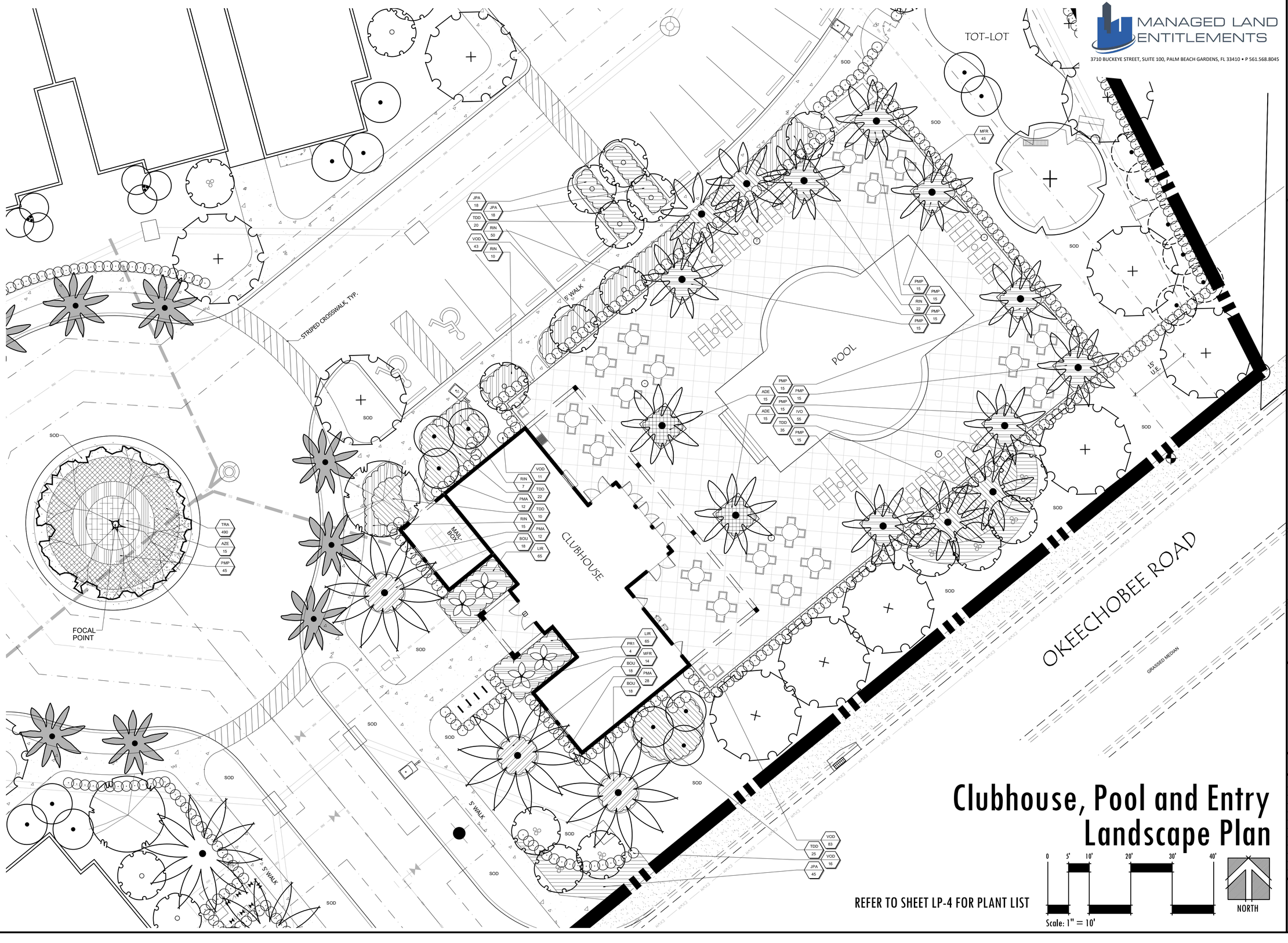
Ft. Pierce, Florida

Landscape Architect of Record
REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA
Jason M. Litterick, RLA
(LA0001677)

Scale: 1" = 10'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.
LP-2


TOT-LOT
SOD
MFR 45
JPA 18
JPA 18
TDD 20
RIN 50
VOD 43
RIN 10
5' WALK
STRIPED CROSSWALK, TYP.
PMP 15
PMP 15
RIN 22
PMP 15
PMP 15
POOL
15' SET
PMP 15
ADE 15
PMP 15
PMP 15
ADE 15
IVO 55
TDD 35
PMP 15
SOD
SOD
SOD

PLANT LIST (LP-1 & LP-3)

NOTE: DOES NOT INCLUDE PLANTS SPECIFIED ON SHEET LP-2, TYPICAL UNIT LANDSCAPE PLAN

	SYM	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	SPR.	NOTES:
* V	RSP	155	SABAL PALMETTO	CABBAGE PALM	SEE DISPOSITION CHART		RELOCATED CABBAGE PALM
* V	ESP	20	SABAL PALMETTO	CABBAGE PALM	SEE DISPOSITION CHART		EXISTING CABBAGE PALM TO REMAIN
* V	EPE	5	PINUS ELLIOTTII 'DENSA'	S. FLA. SLASH PINE	SEE DISPOSITION CHART		EXISTING SLASH PINE TO REMAIN
* V	EQL	11	QUERCUS LAURIFOLIA	LAUREL OAK	SEE DISPOSITION CHART		EXISTING LAUREL OAK TO REMAIN
* V	PE	15	PINUS ELLIOTTII 'DENSA'	S. FLA. SLASH PINE	14' O.A., 3" DBH	6'	FULL & THICK, SINGLE TRUNK
* V	SP	91	SABAL PALMETTO	CABBAGE PALM	12-22' C.T.	N/A	SLICK TRUNK, HURRICANE CUT, STAGGER HEIGHTS
M	DR	1	DELONIX REGIA	ROYAL POINCIANA	14-16' O.A., 3.5" DBH	7'	FULL & THICK, SINGLE TRUNK, 3" CAL.
* V	TD	23	TAXODIUM DISTICHUM	BALD CYPRESS	8' O.A., 1.5" DBH	4'	FULL & THICK, SINGLE TRUNK
* V	TD1	11	TAXODIUM DISTICHUM	BALD CYPRESS	14' O.A., 3" DBH	6'	FULL & THICK, SINGLE TRUNK
M	WR	11	WASHINGTONIA ROBUSTA	WASHINGTON PALM	20' O.A.	N/A	FULL & THICK, MATCHED
* V	QV	67	QUESRCUS VIRGINIANA	LIVE OAK	14' O.A., 3" DBH	6'	FULL & THICK
* V	QV1	1	QUESRCUS VIRGINIANA	RANCH LIVE OAK	20' O.A., 8" DBH	20'	FULL & THICK, RANCH STYLE, MULTI-TRUNK SPECIMEN
V	PS	5	PHOENIX SYLVESTRIS	SYLVESTER PALM	12' WD	-	FULL & THICK, MATCHED SPECIMENS
M	ED	10	ELAEOCARPUS DECIPIENS	JAPANESE BLUEBERRY	14' O.A., 3" DBH	5'	FULL & THICK TO GROUND
M	LM	25	LAGERSTROEMIA INDICA 'MUSKOGEE'	CRAPE MYRTLE (LAVENDER)	14' O.A.	6'	FULL & THICK, MULTI-TRUNK, 5' C.T.
M	LI	33	LAGERSTROEMIA INDICA 'NATCHEZ'	CRAPE MYRTLE (WHITE)	12-14' O.A.	5'	FULL & THICK, SINGLE TRUNK STD., 2.5" DBH
M	TC	19	TABEBUIA CARAIBA	YELLOW TABEBUIA	14' O.A., 3" DBH	5'	FULL & THICK
M	AM3	10	ADONIDIA MERRILLII	CHRISTMAS PALM (TRIPLE)	14' O.A., TRIPLE	-	FULL & THICK, TRIPLE TRUNK
M	CN	14	COCOS NUCIFERA	COCONUT PALM	12' WD.	-	FULL & THICK, MATCHED HEIGHTS
M	PR1	4	PHOENIX ROEBELENII	PYGMY DATE PALM	7' O.A., SINGLE	7'	FULL & THICK, MATCHED HEIGHTS, SINGLE TRUNK

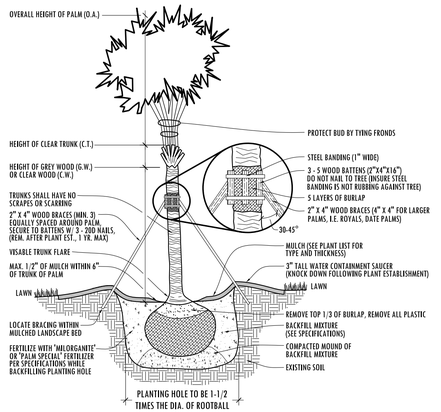
	SYM	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES:
* V	TDD	128	TRIPSACUM FLORIDANA	FLORIDA GAMA GRASS	#3, 16" O.A.	36" O.C.	FULL & THICK
V	PMA	52	PODOCARPUS MACROPHYLLUS	JAPANESE YEW	#7, 30" O.A.	24" O.C.	FULL & THICK
M	PMP	165	PODOCARPUS MACROPHYLLUS 'PRINGLES'	DWF. PODOCARPUS	#3, 14" X 14"	24" O.C.	FULL & THICK
* V	IVO	55	ILEX VOMITORIA	DWF. YAUPON HOLLY	#3, 14" X 14"	24" O.C.	FULL & THICK
* V	MFR	131	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	#3, 24" O.A.	24" O.C.	FULL & THICK
* V	MFR1	93	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	#7, 36" O.A.	24" O.C.	FULL & THICK
M	VOD	423	VIBURNUM ODORITISSIMUM	SWEET VIBURNUM	#3, 24" O.A.	24" O.C.	FULL & THICK
M	LIR	130	LIRIOPE MUSCARI	GREEN LIRIOPE	#3, 14" X 14"	18" O.C.	FULL & THICK
M	EPU	801	ELEAGNUS PUNGENS	SILVERTHORN	#3, 24" O.A.	24" O.C.	FULL & THICK
M	RIN	178	RAPHIOLEPIS INDICA	INDIAN HAWTHORN	#3, 16" X 16"	24" O.C.	FULL & THICK
M	ADE	30	ASPARAGUS DENSIFLORUS 'MYERII'	FOXTAIL FERN	#3, 16" X 16"	24" O.C.	FULL & THICK
M	JPA	116	JUNIPERUS CHINENSIS 'PARSONII'	PARSON'S JUNIPER	#3, 16" SPD.	24" O.C.	FULL & THICK
* V	BOS	150	NEPHROLEPIS BISSERATA	BOSTON FERN	#3, 16" O.A.	36-48" O.C.	FULL & THICK
V	BOU	54	BOUGAINVILLEA 'HELEN JOHNSON'	DWF. BUGAINVILLEA	#3, 16" X 16"	24" O.C.	FULL & THICK
M	AZE	15	ALPINIA ZERUMBET	VAR. SHELL GINGER	#3, 20" O.A.	36" O.C.	FULL & THICK
M	TRA	490	TRACHELOSPERMUM ASIATICUM 'MINIMA'	DWF. JASMINE	#1, 12" SPD.	12" O.C.	FULL & THICK

* ASTERISK DENOTES NATIVE PLANT MATERIAL
V INDICATES VERY DROUGHT TOLERANT PLANT MATERIAL
M INDICATES MODERATELY DROUGHT TOLERANT PLANT MATERIAL

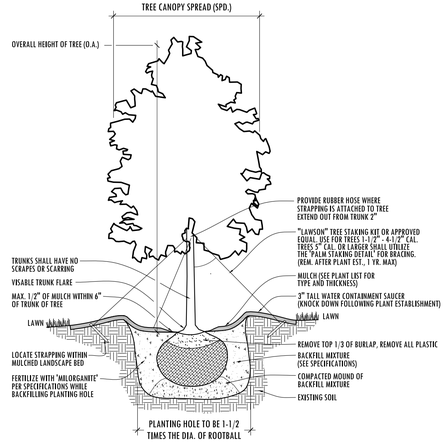
SOD: ST. AUGUSTINE 'FLORITAM' (BAHIA WHERE NOTED)
MULCH: 3" SHREDDED MELALEUCA MULCH (OR APPROVED RECYCLED MULCH) TO BE APPLIED TO ALL PLANTING BEDS.

IRRIGATION NOTE:
ALL NEW LANDSCAPE AREAS SHALL BE RECEIVE 100% OVERLAP COVERAGE FROM A FULLY AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH A RAIN SENSOR.
IRRIGATION WATER SOURCE: WELL & PUMP

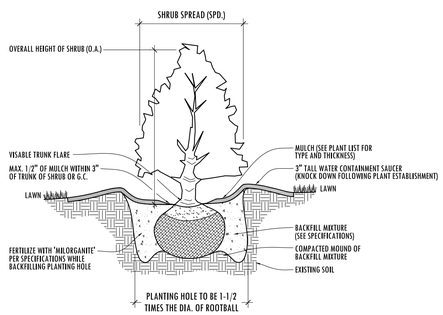
PLANTING DETAILS



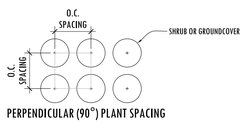
PALM PLANTING DETAIL



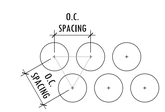
TREE PLANTING DETAIL



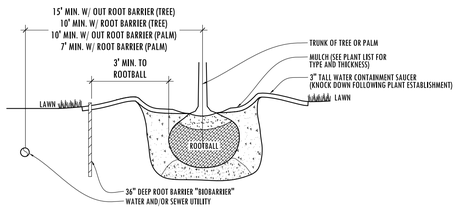
SHRUB & GROUNDCOVER PLANTING DETAIL



PERPENDICULAR (90°) PLANT SPACING



TRIANGULAR PLANT SPACING (RECOMMENDED)



ROOT BARRIER DETAIL

PLANTING SPECIFICATIONS

1. SCOPE OF WORK

LANDSCAPE CONTRACT WORK INCLUDES, BUT IS NOT LIMITED TO, SOIL PREPARATION, FINE OR FINISH GRADING, FURNISHING AND INSTALLING PLANT MATERIAL, WATERING, STAKING, GUYING AND MULCHING.

ALL LABOR AND MATERIAL FOR SOIL AMENDMENTS AND FERTILIZER THAT IS REQUIRED TO INSURE THE SUCCESSFUL ESTABLISHMENT AND SURVIVAL OF THE PROPOSED VEGETATION, AS WELL AS ALL THE COST FOR THE REMOVAL OF UNSUITABLE OR EXCESS BACKFILL MATERIAL, SHALL BE INCLUDED IN THE CONTRACTOR'S BID TO PERFORM THE WORK REPRESENTED IN THIS PLAN SET.

2. QUALITY ASSURANCE

LANDSCAPE CONTRACTOR MUST BE REGULARLY ENGAGED IN THE INSTALLATION OF LIVING PLANT MATERIAL. LABOR CREWS SHALL BE CONTROLLED AND DIRECTED BY A LANDSCAPE FOREMAN WELL VERSED IN LANDSCAPE INSTALLATION, PLANT MATERIALS, READING PLANS AND COORDINATION BETWEEN THE JOB AND NURSERY.

THE LANDSCAPE CONTRACTOR AND IRRIGATION CONTRACTOR SHALL REVIEW LAYOUT AND SCHEDULING PRIOR TO INSTALLATION OF MATERIAL. MINOR ADJUSTMENT TO IRRIGATION DESIGN MAY BE MADE IN RESPONSE TO THE NEEDS OF SPECIFIC PLANT MATERIAL. THE LANDSCAPE ARCHITECT MUST BE NOTIFIED OF SUCH CHANGES.

3. MATERIALS

PLANT SIZE AND QUALITY
PLANT SPECIES AND SIZES SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS, NOMENCLATURE SHALL CONFORM TO STANDARD PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS PARTS I & II, LATEST EDITION PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE FLORIDA GRADE NUMBER 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. TIGHTLY KNIT PLANT, SO TRAINED OR FAVORED IN ITS DEVELOPMENT THAT FIRST APPEARANCE IS UNQUESTIONABLE AND IT IS OUTSTANDINGLY SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND FREE OF DISEASE AND INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES AND PALMS FOR PLANTING ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT. THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY AND FLORIDA NUMBER 1. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. ALL PLANTS SHALL BE FREE OF WEEDS OR ANY OTHER OBJECTIONABLE VEGETATION.

ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS OF GOOD QUALITY AND BE IN A HEALTHY GROWING CONDITION.

CONTAINER GROWN PLANTS SHALL HAVE A DEVELOPED ROOT STRUCTURE SO THAT THE ROOT MASS STAYS IN TACT WHEN REMOVED FROM CONTAINER. IN NO CASE SHALL THE PLANT CONTAIN CIRCLING ROOTS NOR BE ROOT-BOUND.

QUANTITIES
ALL QUANTITIES INDICATED ON THE PLANT LIST ARE INTENDED AS A GUIDE FOR THE BIDDERS AND DOES NOT RELIEVE THE BIDDER OF HIS RESPONSIBILITY TO DO A COMPREHENSIVE PLANT TAKE OFF. SHALL A DISCREPANCY OCCUR BETWEEN THE BIDDER'S TAKE OFF AN THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT IS TO BE NOTIFIED FOR CLARIFICATION PRIOR TO THE SUBMISSION OF THE BID.

MULCH
MULCH SHALL BE A SHREDDED VARIETY AS SPECIFIED IN THE PLANT LIST. ALL MULCH IS TO BE APPLIED TO A DEPTH OF 3" EXCEPT FOR THOSE SPECIFIC SITUATIONS SHOWN BELOW IN SECTION 4 AND IN PLANTING DETAILS.

FERTILIZER
FERTILIZER IN BACKFILL MIXTURE FOR ALL PLANTS SHALL CONSIST OF 'MILORGANITE' ACTIVATED SLUDGE MIXED WITH THE BACKFILL AT A RATE OF NOT LESS THAN 50 LBS. PER CUBIC YARD.

FERTILIZER FOR TREES AND SHRUBS MAY BE TABLET FORM OR GRANULAR. GRANULAR FERTILIZER SHALL BE UNIFORM IN COMPOSITION, DRY AND FREE-FLOWING. THIS FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED BAGS, EACH BEARING THE MANUFACTURER'S STATEMENT OF ANALYSIS. FERTILIZE ALL NEW PLANTINGS PER RATES SHOWN BELOW:

TREES:
FERTILIZE NEW TREES WITH 'MILORGANITE' AT THE FOLLOWING RATES:
- 8' AND SMALLER: 2-4 LBS.
- 8'-12' TALL: 4-6 LBS.
- 12' AND TALER: 6-8 LBS.

(3 CUPS = 1 LB.)

SHRUBS:
FERTILIZE NEW SHRUBS AND ACCENTS WITH 'MILORGANITE' AT THE FOLLOWING RATES:
- 4-6" POTS: ⅛ CUP
- 1 GAL.: ¼ CUP
- 3 GAL.: 1 CUP
- 7-10 GAL.: 2 CUPS
- 15 GAL. AND GREATER: 3 CUPS

PALM TREES:
FERTILIZE NEW PALM TREES WITH A "PALM SPECIAL" FERTILIZER IN SLOW RELEASE FORM. FERTILIZER SHALL CONTAIN AN ADDITIONAL MAGNESIUM AND MICRO-NUTRIENT AMENDMENT

SOIL
PLANTING SOIL SHALL BE SANDY LOAM AND SHALL CONTAIN A 25% MINIMUM AMOUNT OF DECOMPOSED ORGANIC MATTER. PLANTING SOIL SHALL BE FREE OF CLAY, STONES, PLANTS, ROOTS AND OTHER FOREIGN MATERIALS WHICH MIGHT BE A HINDRANCE TO PLANTING OPERATIONS OR BE DETRIMENTAL TO GOOD PLANT GROWTH. SOIL SHALL BE DELIVERED IN A LOOSE FRIABLE CONDITION AND APPLIED IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS.

ALL SHRUBS, TREES AND GROUND COVER WILL HAVE IMPROVED SOIL AS PER PLANTING SOIL NOTES. THE SOILS SHALL BE PLACED IN THE HOLE DURING PLANTING. TOP DRESSING ONLY IS NOT ACCEPTABLE.

DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. ALL TREES SHALL BE SPIKED IN UTILIZING WATER AND A TREE BAR.

WATER
WATER FOR PLANTING WILL BE AVAILABLE AT THE SITE AND WILL BE PROVIDED BY THE OWNER. LANDSCAPE CONTRACTOR SHALL NOT ASSUME THAT THE IRRIGATION SYSTEM WILL BE OPERATIONAL AT THE TIME OF PLANTING. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO PROVIDE ALL THE REQUIRED WATER NECESSARY TO MAINTAIN THE PLANT MATERIAL IN A HEALTHY GROWING CONDITION. THE WATERING MAY INCLUDE DEEP WATERING OF TREES ANT THE WATERING OF SHRUB AND GROUND COVER AREAS. ANY PLANT MATERIALS THAT DIE OR THAT ARE NOT IN A HEALTHY GROWING CONDITION DUE TO LACK OF WATER SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

4. EXECUTION

FIELD GROWN TREES AND PALMS PREVIOUSLY ROOT PRUNED SHALL OBTAIN A ROOT BALL WITH SUFFICIENT ROOTS FOR CONTINUED GROWTH WITHOUT RESULTING SHOCK.

CONTRACTOR SHALL NOT MARK OR SCAR TRUNK IN ANY FASHION.

PLANTS SHALL BE WATERED AS NECESSARY OR WITHIN 24 HOURS AFTER NOTIFICATION BY THE LANDSCAPE ARCHITECT.

THE LOCATIONS OF PLANTS, AS SHOWN IN THESE PLANS, ARE APPROXIMATE. THE FINAL LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN FIELD CONDITIONS. MAJOR ADJUSTMENTS TO THE LAYOUT ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT.

ALL PLASTIC FABRIC SHALL BE REMOVED FROM PLANT MATERIAL AT TIME OF INSTALLATION.

ALL TREES MUST BE STAKED AS SHOWN ON THE PLANTING DETAILS WITHIN 24 HOURS OF PLANTING. STAKES TO REMAIN FOR A MINIMUM OF 9 MONTHS, BUT NO LONGER THAN 18 MONTHS. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF THE STAKES.

ALL TREES MUST BE PRUNED AS PER LANDSCAPE ARCHITECT'S DIRECTION. SABAL PALMS MAY BE HURRICANE CUT.

ALL SHRUBS, TREES AND GROUND COVER WILL HAVE IMPROVED SOIL AS PER PLANTING SOIL NOTES. THE SOILS SHALL BE PLACED IN THE HOLE DURING PLANTING. TOP DRESSING ONLY IS NOT ACCEPTABLE.

DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. ALL TREES SHALL BE SPIKED IN UTILIZING WATER AND A TREE BAR.

AFTER FINAL SETTLING OF BALLED AND BURLAPED PLANTS, LOOSEN BURLAP WRAPPING EXPOSING THE TOP OF THE ROOTBALL, LEAVING THE BALL UNBROKEN. REMOVE EXCESS AMOUNTS OF BURLAP TO ELIMINATE VOIDS WHICH MAY BE CAUSED UPON DECOMPOSITION.

CONTAINER GROWN PLANTS SHALL, WHEN DELIVERED, SHALL HAVE SUFFICEINCY GROWTH TO HOLD EARTH INTACT WHEN REMOVED FROM CONTAINER AND SHALL NOT BE ROOT BOUND. PLANT PITS FOR CONTAINER MATERIALS SHALL BE FORMED FLAT ON THE BOTTOM TO AVOID AIR POCKETS AT THE BOTTOM OF ROOT BALLS AND CONTAINERS SHALL BE REMOVED CAREFULLY TO PREVENT DAMAGE TO THE PLANT OR ROOT SYSTEMS.

TEST TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE.PERCOLATION IS AVAILABLE. PITS WHICH ARE FOUND NOT TO BE ADEQUATELY DRAINING SHALL BE EXCAVATED TO A A DEPTH SUFFICIENT FOR DRAINAGE AND BACKFILLING WITH GRAVEL OR CRUSHED ROCK. NO ALLOWANCES WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE.

PLANTING BED PREPARATION
ALL PLANTING BEDS SHALL BE PROPERLY PREPARED PRIOR TO THE COMMENCEMENT OF ANY PLANTING. PLANTING AREAS, INCLUDING LAWNS SHALL BE FREE OF ALL WEEDS AND NUISANCE VEGETATION. IF TORPEDO GRASS (PANICUM REPENS) IS PRESENT OR ENCOUNTERED DURING PLANTING, THE LANDSCAPE CONTRACTOR SHALL STOP ALL PLANTING UNTIL IT CAN BE DEMONSTRATED THAT IT HAS BEEN COMPLETELY REMOVED OR ERADICATED. THERE SHALL BE NO EXCEPTIONS TO THIS PROVISION.

ALL LANDSCAPE ISLANDS AND BEDS WILL BE FREE OF SHELL ROCK AND CONSTRUCTION DEBRIS AND WILL BE EXCAVATED TO A DEPTH OF 30 INCHES OR TO CLEAN, NATIVE SOIL AND FILLED WITH THE SPECIFIED BACKFILL MIXTURE.

PLANTING TREES

EXCAVATE PIT AS PER PLANTING DETAILS. COMPACT LAYER OF TOPSOIL IN PIT WITH A SLIGHTLY DISHED GRADE TO CENTER.

BACKFILL AROUND BALL WITH TOPSOIL AND SLIGHTLY COMPACT, WATER THOROUGHLY AS LAYERS ARE PLACED TO ELIMINATE VOIDS AND AIR POCKETS. BUILD A 6" HIGH BERM OF TOPSOIL BEYOND EDGE OF EXCAVATION. APPLY 3" (AFTER SETTLEMENT) OF MULCH.

PRUNE TREE TO REMOVE DAMAGED BRANCHES, IMPROVE NATURAL SHAPE AND THIN OUT STRUCTURE. DO NOT REMOVE MORE THAN 15% OF BRANCHES. DO NOT PRUNE BACK TERMINAL LEADER.

GUY AND STAKE TREE IN ACCORDANCE WIT THE STAKING DETAILS IMMEDIATELY AFTER PLANTING.

PLANTING SHRUBS

LAYOUT SHRUBS TO CREATE A CONTINUOUS SMOOTH FRONT LINE AND FILL IN BEHIND.

EXCAVATE PIT OR TRENCH TO 1-1/2 TIMES THE DIAMETER OF THE BALLS OR CONTAINERS OR 1'-0" WIDER THAN THE SPREAD OF ROOTS AND 3" DEEPER THAN REQUIRED FOR POSITIONING AT PROPER HEIGHT. COMPACT A LAYER OF TOPSOIL IN BOTTOM BEFORE PLACING PLANTS. BACKFILL AROUND PLANTS WITH PLANTING MIXTURE, COMPACTED TO ELIMINATE VOIDS AND AIR POCKETS. FORM GRADE SLIGHTLY DISHED AND BERMED AT EDGES OF EXCAVATION. APPLY 3" OF MULCH.

PRUNE SHRUBS TO REMOVE DAMAGED BRANCHES, IMPROVE NATURAL SHAPE AND THIN OUT STRUCTURE. DO NOT REMOVE MORE THAN 15% OF BRANCHES.

PLANTING GROUND COVER

LOOSEN SUBGRADE TO DEPTH OF 4" IN AREAS WHERE TOPSOIL HAS BEEN STRIPPED AND SPREAD SMOOTH.

SPACE PLANTS AS OTHERWISE INDICATED. DIG HOLES LARGE ENOUGH TO ALLOW SPREADING OF ROOTS. COMPACT BACKFILL TO ELIMINATE VOIDS AND LEAVE GRADE SLIGHTLY DISHED AT EACH PLANT. WATER THOROUGHLY. APPLY 3" OF MULCH OVER ENTIRE PLANTING BED, LIFTING PLANT FOLIAGE ABOVE MULCH. PURPLE QUEEN GROUNDCOVER, IF SPECIFIED, SHALL ONLY RECEIVE 1" OF MULCH.

DURING PERIODS OF HOT SUN AND/OR WIND AT TIME OF PLANTING, PROVIDE PROTECTIVE COVER FOR SEVERAL DAYS OR AS NEEDED.

PLANTING SOD

SODDING: SOD TYPE SPECIFIED ON PLANT LIST SHALL BE MACHINE STRIPPED NOT MORE THAN 24 HOURS PRIOR TO LAYING. SOD SHALL BE FIRM, TOUGH TEXTURE, HAVING A COMPACT GROWTH OF GRASS WITH GOOD ROOT DEVELOPMENT, AND SHALL CONTAIN NO BERMUDA GRASS, WEEDS OR ANY OTHER OBJECTIONABLE VEGETATION.

LOOSEN SUBGRADE TO DEPTH OF 4" AND GRADE WITH TOPSOIL EITHER PROVIDED ON SITE OR IMPORTED TO FINISH DESIGN ELEVATIONS. IF SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO FINISH GRADE ALL LANDSCAPE AREAS, ELIMINATING ALL BUMPS, DEPRESSIONS, STICKS, STONES AND OTHER DEBRIS. ROLL PREPARED LAWN SURFACE. WATER THOROUGHLY, BUT DO NOT CREATE MUDDY SOIL CONDITION.

FERTILIZE SOIL AT THE RATE OF APPROXIMATELY 10 LBS. PER 1,000 S.F. SPREAD FERTILIZER OVER THE AREA TO RECEIVE GRASS BY USING AN APPROVED DISTRIBUTION DEVICE CALIBRATED TO DISTRIBUTE THE APPROPRIATE QUANTITY. DO NOT FERTILIZE WHEN WIND VELOCITY EXCEEDS 15 M.P.H. THOROUGHLY MIX FERTILIZER INTO THE TOP 2" OF TOPSOIL.

LAY SOD STRIPS WITH TIGHT JOINTS, DO NOT OVERLAP, STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. WORK SIFTED SOIL MIX INTO MINOR CRACKS BETWEEN PIECES OF SOD AND REMOVE EXCESS SOIL DEPOSITS FROM SODDED AREAS. SOD ON SLOPES GREATER THAN 3:1 SHALL BE STAKED IN PLACE. ROLL OR STAMP LIGHTLY AND WATER THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.

5. MISCELLANEOUS LANDSCAPE WORK

LANDSCAPE MAINTENANCE
MAINTAIN LANDSCAPE WORK IMMEDIATELY AFTER PLANTING AND UNTIL FINAL ACCEPTANCE IS ISSUED BY THE OWNER'S REPRESENTATIVE. INCLUDE WATERING, WEEDING, CULTIVATING, RESTORATION OF GRADE, MOWING AND TRIMMING GRASS, PRUNING TREES AND SHRUBS, PROTECTION FROM INSECTS AND DISEASES, FERTILIZING AND SIMILAR OPERATIONS AS NEEDED TO INSURE NORMAL GROWTH AND GOOD HEALTH FOR LIVE PLANT MATERIAL. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE, PLANTING SAUCERS RESTORED, AND DEFECTIVE WORK CORRECTED.

IN THE EVENT OF SERIOUS DAMAGE FROM INSECTS OR DISEASE PRIOR TO FINAL ACCEPTANCE, THE PLANTS SHALL BE TREATED BY PREVENTATIVE OR REMEDIAL MEASURES APPROVED FOR GOOD HORTICULTURAL PRACTICE AT NO ADDITIONAL COST TO THE OWNER.

CLEAN UP
THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR DEBRIS CAUSED BY HIS CREWS DURING THE PERFORMANCE OF THE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROMPTLY REMOVE ALL WASTE MATERIALS, DEBRIS, UNUSED PLANT MATERIAL, EMPTY PLANT CONTAINERS AND ALL EQUIPMENT FROM THE PROJECT SITE.

ANY SOIL, PEAT OR SIMILAR MATERIAL WHICH HAS BEEN BROUGHT ONTO ANY PAVED AREAS SHALL BE REMOVED PROMPTLY KEEPING THESE AREAS CLEAN AS THE WORK PROGRESSES. UPON COMPLETION OF THE PLANTING, ALL EXCESS SOIL, STONES AND DEBRIS WHICH HAS NOT BEEN PREVIOUSLY CLEANED UP SHALL BE REMOVED FROM THE SITE.

INSPECTION & ACCEPTANCE
THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT UPON COMPLETION OF THE WORK TO REQUEST A FINAL INSPECTION OF THE INSTALLATION AND PLANT MATERIALS. THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE WILL NOTIFY THE LANDSCAPE CONTRACTOR OF ANY DEFICIENCIES VIA A "PUNCH LIST" WHICH SHALL BE PROMPTLY CORRECTED BY THE LANDSCAPE CONTRACTOR. CONDITIONAL LANDSCAPE ACCEPTANCE OF ALL PLANT MATERIAL AND WORKMANSHIP WILL BE GIVEN IN WRITING BY THE LANDSCAPE ARCHITECT AFTER ALL "PUNCH LIST" ITEMS HAVE BEEN CORRECTED AND ANY PLANT REPLACEMENTS MADE. THIS ACCEPTANCE WILL BEGIN THE WARRANTEE PERIOD. DEFICIENCIES NOTED AFTER THE CONDITIONAL LANDSCAPE ACCEPTANCE SHALL BE RECTIFIED DURING THE WARRANTEE PERIOD AND PRIOR TO FINAL LANDSCAPE ACCEPTANCE.

GUARANTEE AND REPLACEMENT
ALL PLANT MATERIAL AND WORKMANSHIP SHALL BE GUARANTEED BY THE LANDSCAPE CONTRACTOR FOR A PERIOD OF SIX (6) MONTHS FROM THE DATE OF CONDITIONAL LANDSCAPE ACCEPTANCE BY THE LANDSCAPE ARCHITECT. ANY PLANT MATERIAL OR WORKMANSHIP THAT IS DEFICIENT OR HAS DIED SHALL BE REPLACED AT THE SAME SPECIFICATION NOTED IN THE APPROVED LANDSCAPE PLANS. REPLACEMENTS SHALL BE MADE BY THE LANDSCAPE CONTRACTOR WITHIN TWO (2) WEEKS OF NOTIFECTION BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER. WARRANTEES OF REPLACEMENT MATERIAL SHALL BE SIX (6) MONTHS FROM THE DATE OF REPLACEMENT INSTALLATION. DEATH OR DAMAGE RESULTING FROM LIGHTNING, VANDALISM OR AUTOMOBILES OR BY NEGLIGENCE BY THE OWNER SHALL NOT BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. UNLESS OTHERWISE ARRANGED WITH THE OWNER, THE CONTRACTOR IS RESPONSIBLE FOR GENERAL PLANT MAINTENANCE INCLUDING WATERING AND MOWING UP UNTIL THE DATE OF CONDITIONAL ACCEPTANCE.

PLANT MATERIAL SUBSTITUTION

THERE WILL BE NO SUBSTITUTION OF PLANT MATERIAL UNLESS AUTHORIZED BY THE LANDSCAPE ARCHITECT AND/OR OWNER. THIS INCLUDES SPECIES AND SIZE OF PLANT MATERIAL.

Landscape Specifications & Planting Details

ARROW FORT PIERCE NORTH

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	VOLT	LAMP TYPE	DIM TYPE	WATTS	MOUNTING	NOTES
SA	LED SITE HEAD	LUMARK	PRV-PA2A-740-U-T3-FINISH / MA1017-FINISH	UNV	LED	N/A	112W	20' POLE	NOTE 1, 2
SB	LED SITE HEAD	LUMARK	PRV-PA2A-740-U-T4W	UNV	LED	N/A	112W	20' POLE	NOTE 1, 2
SC	LED SITE HEAD	LUMARK	PRV-PA2A-740-U-T4W-HSS-FINISH / MA1017-FINISH	UNV	LED	N/A	112W	20' POLE	NOTE 1, 2
SD	LED DECORATIVE LUMINAIRE	INVUE	LXS-B3-LED-D1-T4-FINISH-S / ARPA2	UNV	LED	N/A	99W	13' POLE	NOTE 1, 3
SE	LED DECORATIVE LUMINAIRE	INVUE	LXS-B3-LED-D1-T5-FINISH-S / ARPA2	UNV	LED	N/A	86W	13' POLE	NOTE 1, 3
SF	LED BOLLARD	ILP	BLDT-15WLED-UNIV-4000K	UNV	LED	N/A	16.5W	IN-GROUND	
SW	LED WALL PACK	McGRAW-EDISON	GWC-AF-01-LED-E1-T4FT-FINISH-600	UNV	LED	N/A	34W	WALL	NOTE 1

FIXTURE SCHEDULE NOTES

NOTE 1: ADVISE FINISH

NOTE 2: FIXTURE MOUNTED ON 20' CONCRETE POLE #: USI28TI+4-9666

NOTE 3: FIXTURE MOUNTED ON 13' DIRECT BURIAL ALUMINUM POLE #: 1208-30504TE TO ACHIEVE 15FT AFG

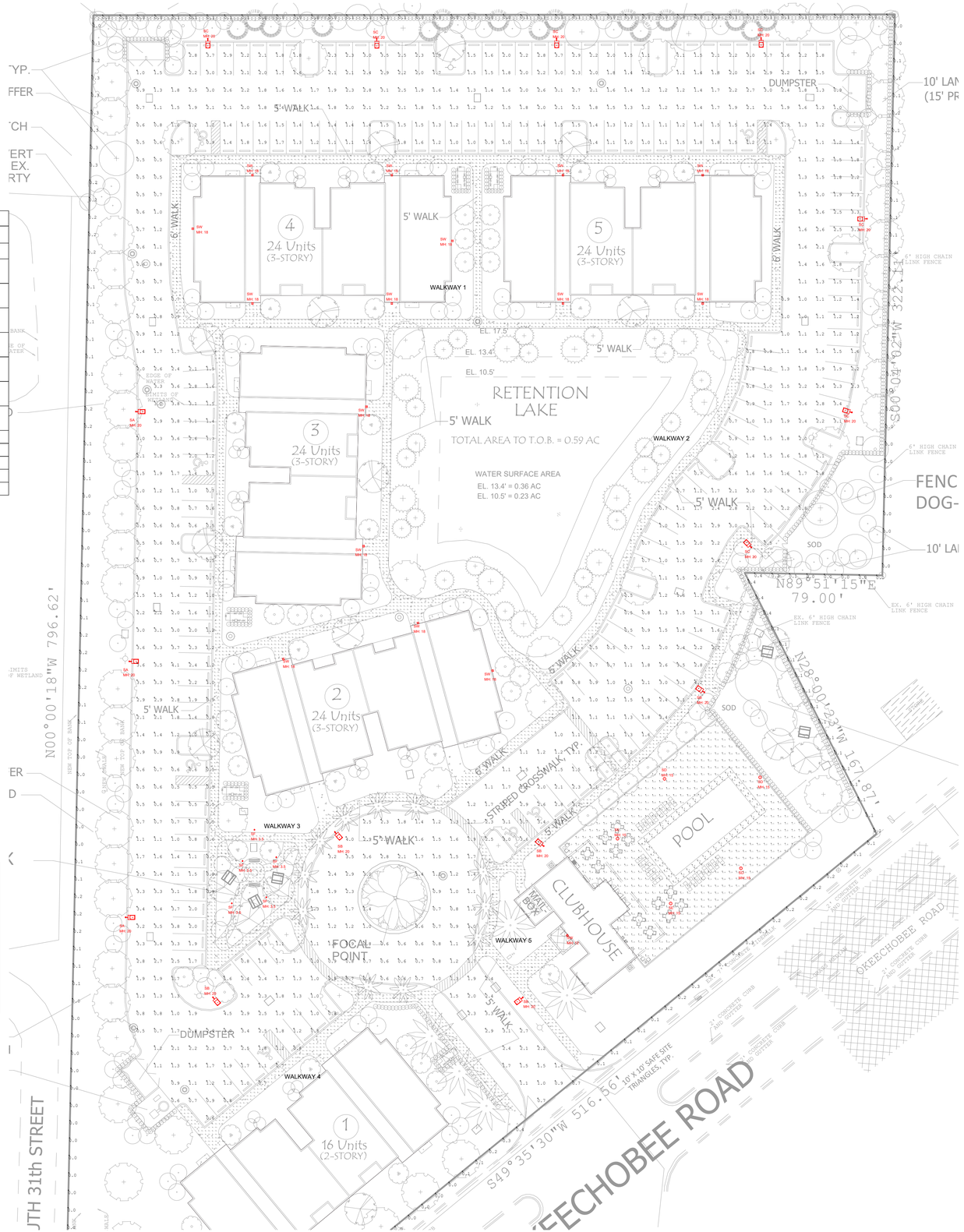
FOR QUESTIONS PERTAINING TO THIS FIXTURE SCHEDULE PLEASE CONTACT RYAN HUFF @ LIGHTING DYNAMICS- 772-285-7169

Photometrics Calculation Software Generated Luminaire Schedule

Symbol	Qty	Label	Arrangement	Lum. Lumens	Arr. Lum. Lumens	LLF	Lum. Watts	Arr. Watts
	3	SA	SINGLE	15749	15749	0.900	112	112
	5	SB	SINGLE	15560	15560	0.900	112	112
	7	SC	SINGLE	11268	11268	0.900	112	112
	3	SD	SINGLE	8200	8200	0.900	99	99
	2	SE	SINGLE	9131	9131	0.900	86	86
	5	SF	SINGLE	1209	1209	0.900	16.5	16.5
	16	SW	SINGLE	4311	4311	0.900	34	34

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING & ROADWAY	Illuminance	Fc	1.65	4.5	0.5	3.30	9.00
POOL AREA	Illuminance	Fc	2.79	5.2	0.7	3.99	7.43
PROPERTY LINE	Illuminance	Fc	0.08	0.4	0.0	N.A.	N.A.
WALKWAY 1	Illuminance	Fc	1.10	2.0	0.4	2.75	5.00
WALKWAY 2	Illuminance	Fc	0.95	2.0	0.3	3.17	6.67
WALKWAY 3	Illuminance	Fc	1.29	15.1	0.4	3.23	37.75
WALKWAY 4	Illuminance	Fc	0.67	1.3	0.3	2.23	4.33
WALKWAY 5	Illuminance	Fc	2.11	4.4	0.3	7.03	14.67
WET DECK	Illuminance	Fc	3.65	5.3	3.0	1.22	1.77



LIGHTING DYNAMICS INCORPORATED

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions. This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions.

NOTES:

No.	Revision/Issue	Date
3	UPDATE LFS	06/22/20
2	PHOTOMETRIC STUDY	06/19/20
1	PHOTOMETRIC STUDY	06/17/20

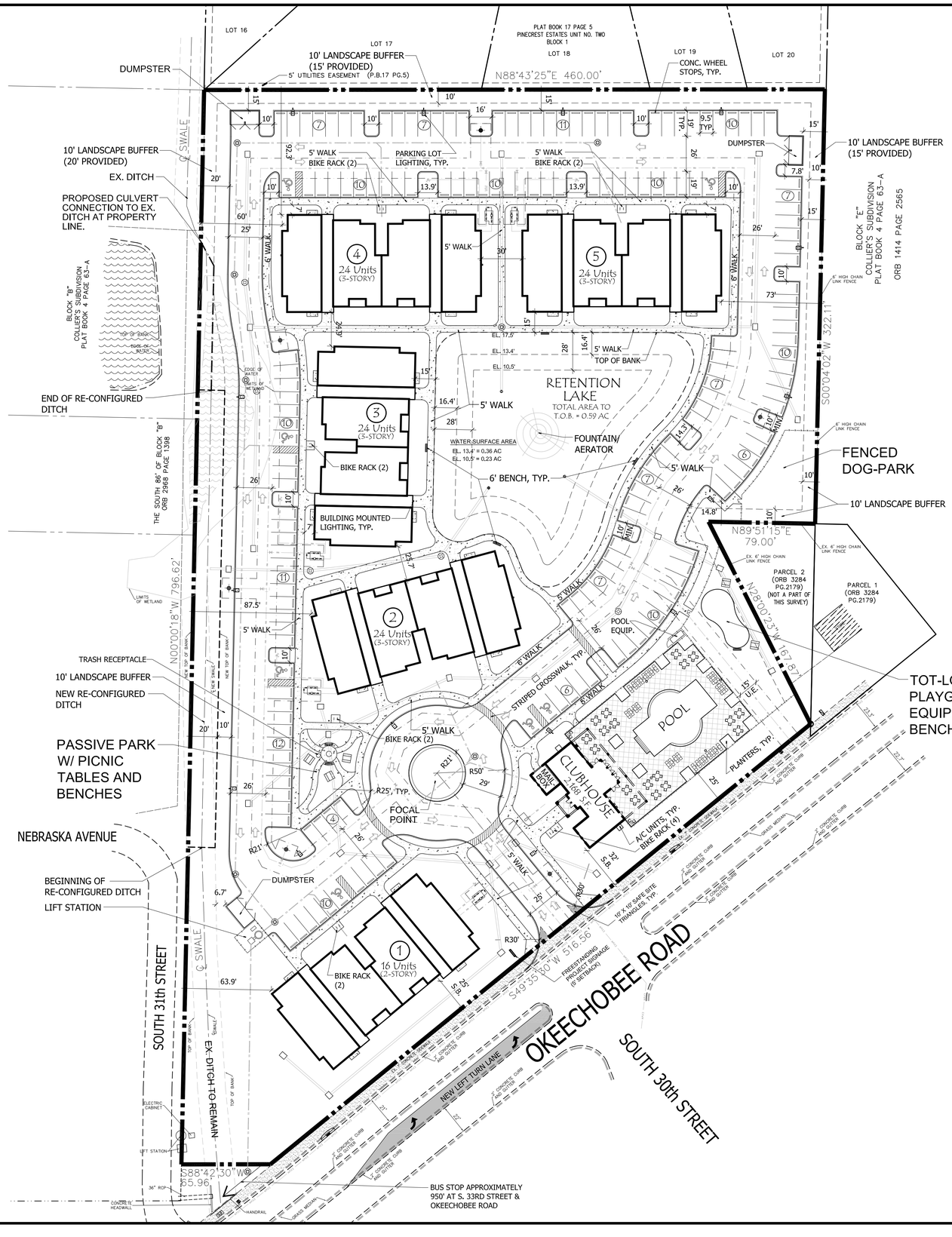
LIGHTING DYNAMICS, INC.
7835 West Commercial Blvd.
Tamarac, FL 33351
(954) 944-0286
www.lightingdynamics.com

Project Name and Address

ARROW FORT PIERCE
Site lighting layout
Fort Pierce, FL

FILE P:\PROJECTS\2020\MARCH
CLIENT Managed Land Entitlements

Project	Arrow Fort Pierce North
Date	06/22/2020
Scale	1/32" = 1'-0"
Sheet	L0
DRAWN BY	E.MONTERO



APPLICATION DATA:

NAME OF APPLICATION:	ARIA AAPARTMENTS
PARCEL ID:	2417-504-0020-001-6
SITE ADDRESS:	TBD
EXISTING FUTURE LAND USE:	GENERAL COMMERCIAL (GC)
PROPOSED FUTURE LAND USE:	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING DESIGNATION:	GENERAL COMMERCIAL (C3)
PROPOSED ZONING DESIGNATION:	MEDIUM DENSITY RESIDENTIAL (R-4)
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (112 UNITS)
PROPOSED DENSITY:	*16.48 D.U.'S PER ACRE

*PROJECT UTILIZES DENSITY BONUS FOR PROXIMITY TO TRANSIT STOP (+5 D.U.'S/ACRE) AND FOR INNOVATIVE DESIGN (+2 D.U.'S/ACRE)

SITE DATA:

GROSS SITE AREA:	296,012.97 S.F. (6.796 ACRES)
OPEN SPACE REQUIRED:	118,405.19 S.F. (40%)
PERVIOUS AREA PROVIDED:	102,259.94 S.F. (34.5%)
RETENTION AREA PROVIDED:	25,674.63 S.F. (8.7%)
TOTAL OPEN SPACE AREA:	127,934.57 S.F. (43.2%)
MAX. BUILDING COVERAGE:	50% (148,006.5 S.F.)
BUILDING COVERAGE PROVIDED:	18.0% (53,184 S.F.)

SETBACKS

SETBACK	REQUIRED:	PROVIDED:
FRONT	25'	25'
SIDE:	10'	60'
REAR:	20'	92.3'

BUILDING HEIGHT

REQUIRED:	45' (MAX)
PROVIDED:	39'-0"

PARKING DATA:

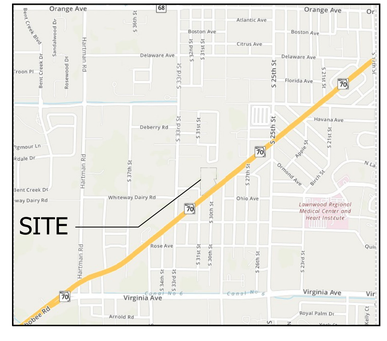
PROPOSED USES (FLEX SPACE)

USE	UNITS	PARKING RATE	REQUIRED PARKING
MULTI-FAMILY RESIDENTIAL	112 UNITS	1.5/UNIT	168 SPACES
	TOTAL PARKING REQUIRED:		168 SPACES
	TOTAL PARKING PROVIDED:		172 SPACES
	HANDICAP SPACES REQ'D.:		6 SPACES
	HANDICAP SPACES PROV.:		7 SPACES

BICYCLE PARKING REQUIRED: 12 SPACES (1 PER 10 UNITS)
BICYCLE PARKING PROVIDED: 14 SPACES

REFER TO SHEET SP-2 FOR SITE PLAN DETAILS

LOCATION MAP



Site Plan

0 20' 40' 80' 120' 160'

NORTH

Scale: 1" = 40'

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

PROJECT TEAM

OWNER
Arrow Investment Group, LLC
4512 North Flagler Drive, Suite 2056
West Palm Beach, Florida 33407

ARCHITECT
Architectural Studios, Inc.
300 Avenue of the Champios, Suite 260
Palm Beach Gardens, Florida 33418
Contact: Scott Disher (561-202-6990)

CIVIL ENGINEER/SURVEYOR
Michael B. Schorah & Associates, Inc.
1850 Forest Hill Blvd., Suite 206
West Palm Beach, Florida 33406
Contact: Michael LaCoursiere (561-968-0080)

DEVELOPMENT MANAGER/AGENT
Managed Land Entitlements, LLC
3710 Buckeye Street, Suite 100
Palm Beach Gardens, Florida 33410
Contact: Michael Sanchez (561-568-8045)

LANDSCAPE ARCHITECT
Litterick Landscape Architecture
2740 SW Martin Downs Blvd., #199
Palm City, Florida 34990
Contact: Jason LItterick (561-719-3876)

SURVEYOR
Brown & Phillips, Inc.
1860 Old Okeechobee Road, Suite 509
West Palm Beach, Florida 33409
Contact: John Phillips (561-615-3988)

Litterick Landscape Architecture
LC26000482
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Aria Apartments

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: 1" = 40'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

SP-1

STANDARD LIGHTING POLE DETAIL

(1) LIGHTING POLE. THE MANUFACTURER IS TO PROVIDE CERTIFICATION BY FLORIDA PE, SHOWING WIND LOAD RATING OF 170 MPH WITH SPECIFIED FIXTURES INSTALLED. THE FINAL POLE SET IS TO BE DETERMINED BY THE PROFESSIONAL ENGINEER.

(2) INTERNAL WIRING. INTERNAL WIRING TO BE IN UL LISTED CONDUITS, INSIDE POLE. SEE NOTE 3.

(3) LIGHT FIXTURE CONNECTIONS. REFER TO LIGHT MANUFACTURER FOR REQUIREMENTS, INCLUDING TEMPERATURE REQUIREMENTS (COMMONLY 150C). CONDUCTORS TO BE UL LISTED "FIXTURE" CONDUCTORS. (UL "RECOGNIZED" APPLIANCE WIRES NOT PERMITTED.) OBTAIN BUILDING DEPARTMENT APPROVAL FOR CONDUCTORS, CONNECTORS, AND ACCESSIBILITY.

(4) CONDUITS. CONDUITS BELOW HAND HOLE IN POLE TO BE UL LISTED WITH "BRANCH CIRCUIT" THWN CONDUCTORS.

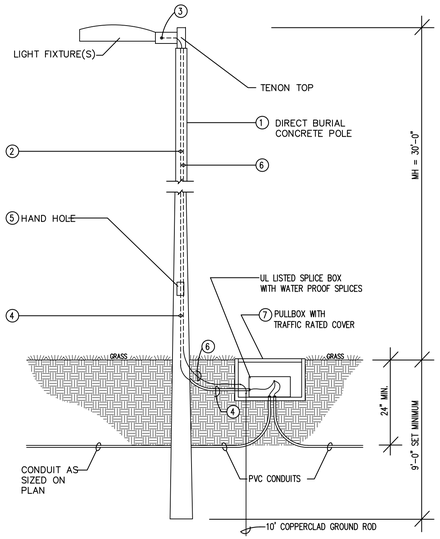
(5) HAND HOLE. HAND HOLE WITH UL LISTED BOX CAST IN POLE WITH WATERPROOF SPLICES.

(6) GROUND WIRE IN POLE. CONNECT BOTTOM TO #4 BARE GROUND CONDUCTOR. CONNECT TOP TO GROUND LUG IN FIXTURES.

(7) TRAFFIC RATED PULL BOX. HIGH STRENGTH COMPOSITE CONSTRUCTION RATED FOR DESIGN LOAD OF 5,000 LBS OVER A 10" SQUARE. COVER LETTERING = "LIGHTING". DO NOT PLACE IN PAVED AREA, KEEP IN GRASSED AREAS. QUAZITE COMPOSOLITE PX STYLE. 1-800-346-3067

(8) MUCK. IF SOFT SOILS ARE FOUND ON THE PROPERTY, THIS POLE DESIGN WILL BE MODIFIED TO ACCOMMODATE. NOTIFY ENGINEER IMMEDIATELY.

(9) SITE CONDITIONS. IF SITE CONDITIONS ARE DISCOVERED WHICH REQUIRE ANY POLE (S) TO BE MOVED OVER 4 FEET, NOTIFY THE ENGINEER IMMEDIATELY.



CONCRETE LIGHT POLE DETAIL

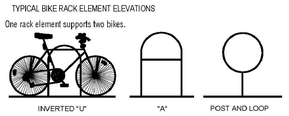
TO BE USED ON ALL PARKING LOT LIGHTING (20' MOUNTING HEIGHT) N.T.S.



"LANDSCAPEFORMS - CHASE PARK LITTER"

TRASH RECEPTACLE DETAIL

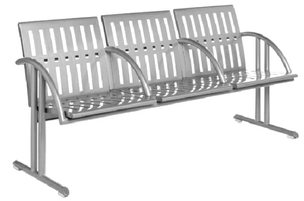
N.T.S.



- ELEMENT STYLE CONSISTENT WITH THE ABOVE TYPICAL ELEVATION TO BE SELECTED BY OWNER AT TIME OF BUILDING PERMIT, SUBJECT TO APPROVAL BY ZONING STAFF.
- A RACK IS ONE OR MORE ELEMENTS JOINED ON A COMMON BASE
- BIKE RACK AND RACK AREA DIMENSIONAL CRITERIA BASED ON RECOMMENDATIONS FROM THE ASSOCIATION OF PEDESTRIAN AND BICYCLE PROFESSIONALS (APBP)

BIKE RACK DETAIL

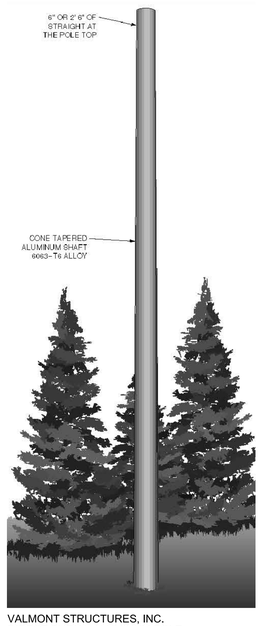
N.T.S.

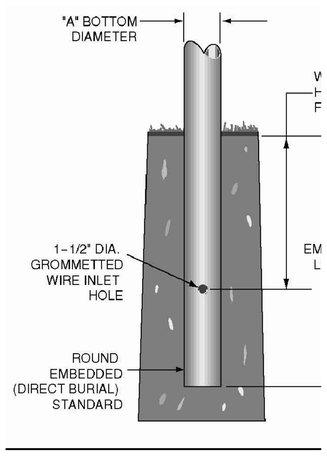


LANDSCAPE FORMS - CHASE PARK BENCH
CAST ALUM. W/ STEEL FRAMES & DIVIDER ARMS

BENCH DETAIL

N.T.S.

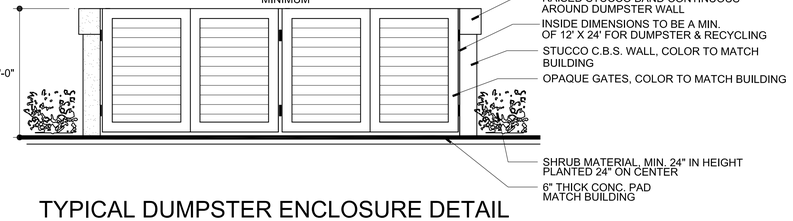




VALMONT STRUCTURES, INC.
DIRECT BURIAL ALUMINUM POLE

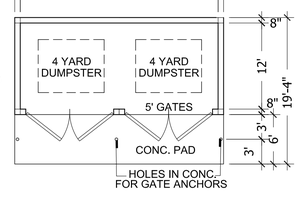
ALUMINUM LIGHT POLE DETAIL

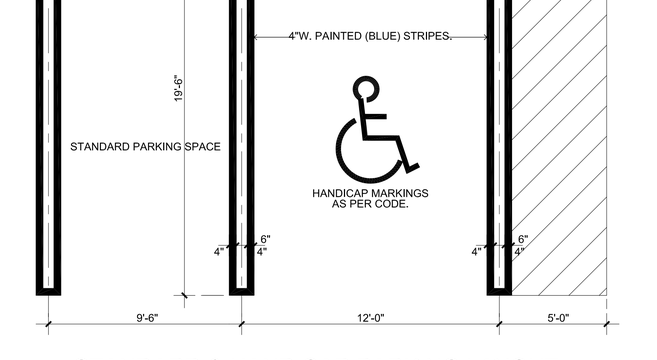
TO BE USED ON ALL POOL LIGHTING (13' MOUNTING HEIGHT) N.T.S.



TYPICAL DUMPSTER ENCLOSURE DETAIL

N.T.S.

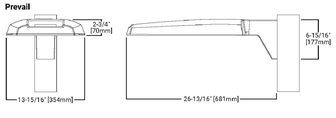




STANDARD & HANDICAP PARKING LAYOUT

N.T.S.





VALMONT STRUCTURES, INC.
DIRECT BURIAL CONCRETE POLE

PARKING LOT LIGHTING FIXTURE

TO BE USED ON ALL PARKING LOT LIGHTING (20' MOUNTING HEIGHT) N.T.S.



LXS LUXESCAPE COLLECTION

DECORATIVE LUMINAIRE

INVUE LED LIGHT FIXTURE
ON DIRECT BURIAL ALUMINUM POLE

POOL AREA LIGHTING FIXTURE

TO BE USED ON ALL POOL AREA POLE LIGHTING (13' MOUNTING HEIGHT) N.T.S.



ILP 15W LED BOLLARD

BOLLARD LIGHTS

N.T.S.



GWC GALLEON WALL

1-2 Light Squares
Solid State LED

WALL MOUNT LUMINAIRE

WaveLinx

MCGRAW - EDISON WALL MOUNT LED LUMIERE

BUILDING MOUNTED LIGHTING

N.T.S.

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

Site Plan Details

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Aria Apartments

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

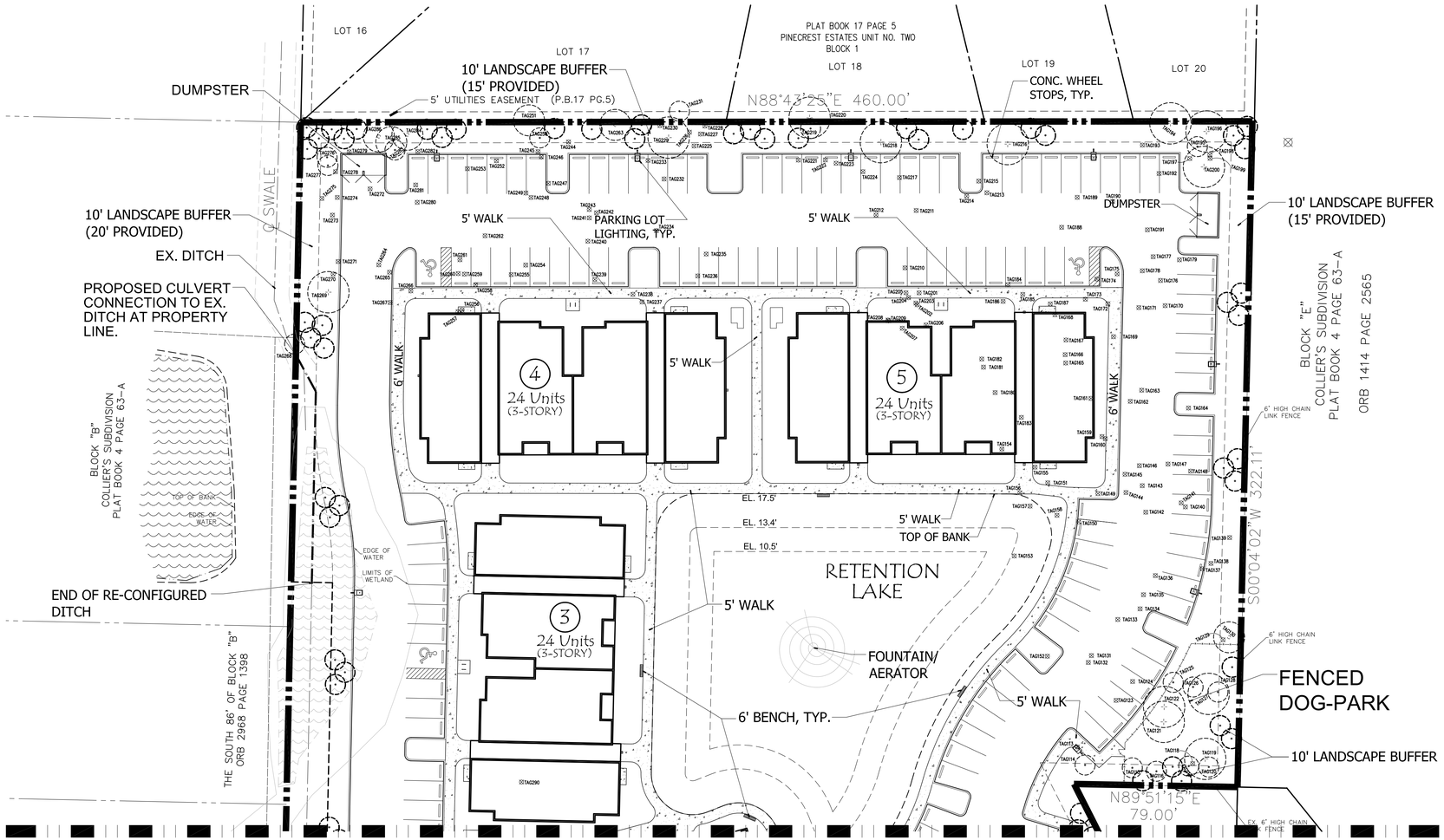
Jason M. Litterick, RLA
(LA0001677)

Scale: As Noted

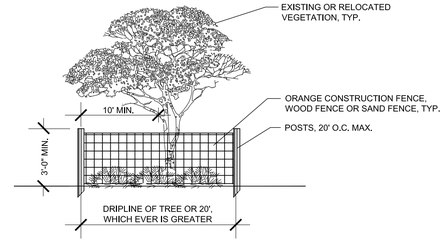
Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

SP-2



MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045



FENCING OF UNDISTURBED AREAS AND/OR EXISTING TREES:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL ENCLOSE THE ENTIRE UNDISTURBED AREA, OR TREE, WITHIN A FENCE OR SIMILAR BARRIER AS SHOWN. THE PLACEMENT OF SUCH BARRIER OR FENCE SHALL BE LOCATED NO CLOSER THAN THE DRIP LINE OF THE PRESERVED OR RELOCATED TREE OR A MIN. OF 10' FROM TRUNK, WHICHEVER IS GREATER. WOODEN (OR EQUIVALENT) POSTS AT LEAST 2 x 2 INCHES SHALL BE IMPLANTED IN THE GROUND DEEP ENOUGH TO BE STABLE AND WITH AT LEAST 3 FEET VISIBLE ABOVE THE GROUND. THE PROTECTIVE POSTS SHALL BE PLACED NOT MORE THAN 20 FEET APART, AND SHALL BE LINKED TOGETHER BY ORANGE NET FENCE FABRIC, OR OTHER. NO HEAVY EQUIPMENT, VEHICLES, STORAGE OF MATERIALS, ETC., SHALL OCCUR WITHIN THE VEG. PROTECTION ZONE. EXTREME CARE SHALL BE TAKEN WHEN WORKING NEAR THE BASE OF TREES. NO FINISH GRADE FILL SHALL BE PLACED WITHIN A ZONE OF 2/3 THE DIAMETER OF THE TREE CANOPY.

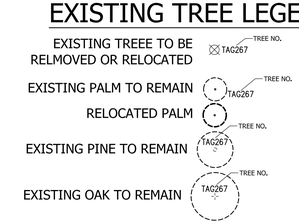
CONSTRUCTION WITHIN CANOPY & TREE BARRICADE SHALL BE BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL.

UTILITY WORK (TRENCHING) WITHIN THE CANOPY & TREE BARRICADE SHALL BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL. THE TREE BARRICADE WILL BE MODIFIED TEMPORARILY TO ALLOW ONLY THE MINIMUM WORK ZONE TRESPASS INTO THE CANOPY AREA, CONTINUING TO PROTECT THE REST OF THE CANOPY AREA WITH BARRICADE. NO FILL, EVEN TEMPORARY, SHALL BE PLACED IN ANY PROTECTED ZONE. AT THE CONCLUSION OF SAID ACTIVITY, THE WORKZONE SHALL BE CLEANED UP & TREE BARRICADES REPLACED TO THEIR ORIGINAL CONFIGURATION.

TREE PROTECTION DETAIL

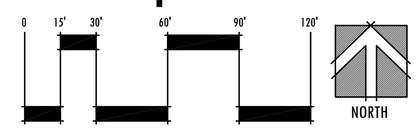
N.T.S.

EXISTING TREE LEGEND



REFER TO SHEET TR-3 FOR TREE DISPOSITION CHART

Tree Dispostion Plan



Scale: 1" = 30'

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: 1" =30'-0"

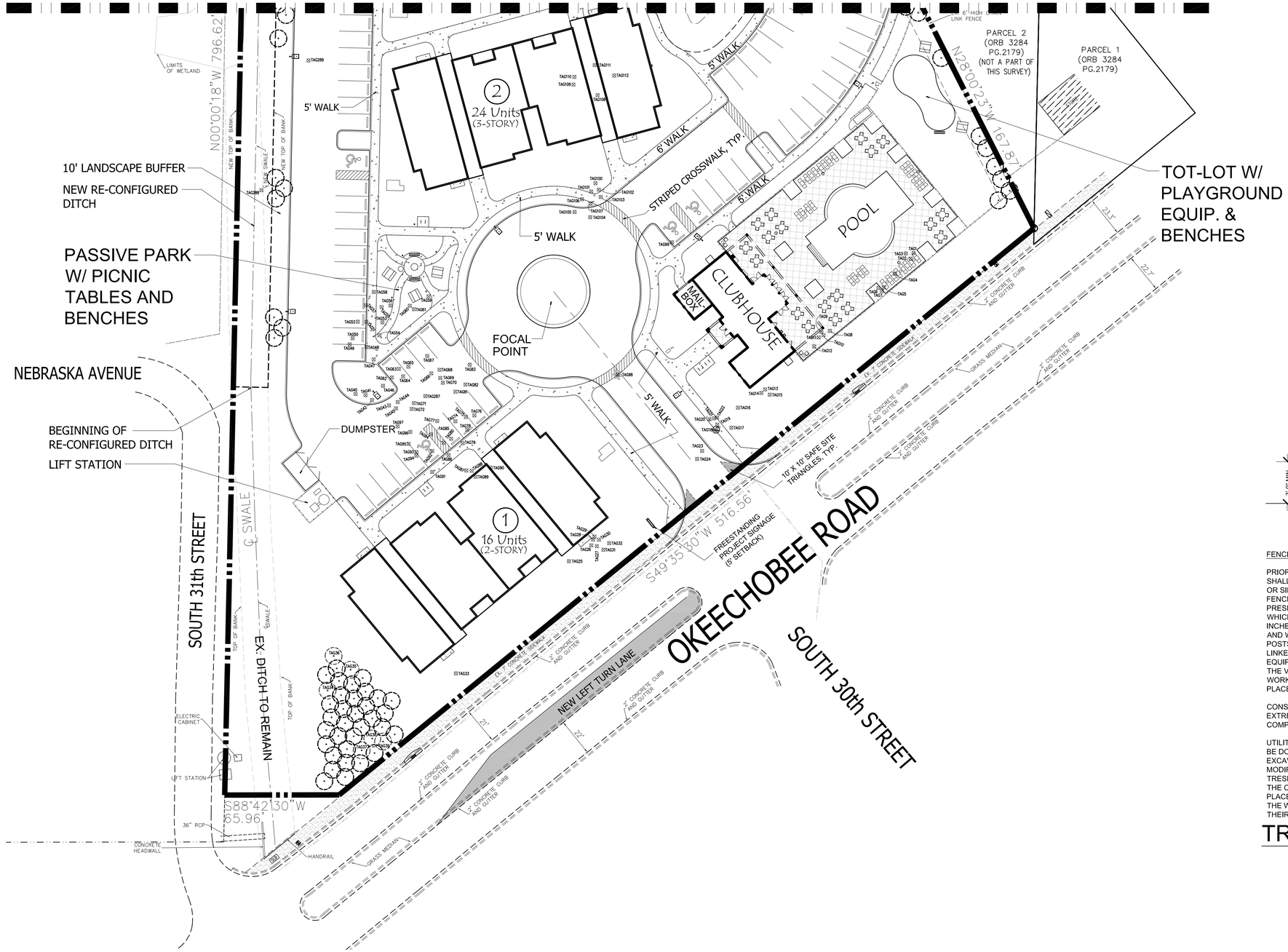
Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

TR-1

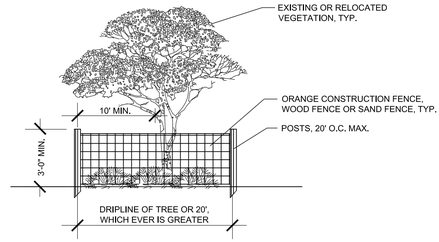
MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

MATCHLINE (SEE SHEET TR-1)



EXISTING TREE LEGEND

EXISTING TREEE TO BE RELMOVED OR RELOCATED — TREE NO. TAG267
EXISTING PALM TO REMAIN — TREE NO. TAG267
RELOCATED PALM — TREE NO. TAG267
EXISTING PINE TO REMAIN — TREE NO. TAG267
EXISTING OAK TO REMAIN — TREE NO. TAG267



FENCING OF UNDISTURBED AREAS AND/OR EXISTING TREES:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL ENCLOSE THE ENTIRE UNDISTURBED AREA, OR TREE, WITHIN A FENCE OR SIMILAR BARRIER AS SHOWN. THE PLACEMENT OF SUCH BARRIER OR FENCE SHALL BE LOCATED NO CLOSER THAN THE DRIP LINE OF THE PRESERVED OR RELOCATED TREE OR A MIN. OF 10' FROM TRUNK, WHICHEVER IS GREATER. WOODEN (OR EQUIVALENT) POSTS AT LEAST 2 x 2 INCHES SHALL BE IMPLANTED IN THE GROUND DEEP ENOUGH TO BE STABLE AND WITH AT LEAST 3 FEET VISIBLE ABOVE THE GROUND. THE PROTECTIVE POSTS SHALL BE PLACED NOT MORE THAN 20 FEET APART, AND SHALL BE LINKED TOGETHER BY ORANGE NET FENCE FABRIC, OR OTHER. NO HEAVY EQUIPMENT, VEHICLES, STORAGE OF MATERIALS, ETC., SHALL OCCUR WITHIN THE VEG. PROTECTION ZONE. EXTREME CARE SHALL BE TAKEN WHEN WORKING NEAR THE BASE OF TREES. NO FINISH GRADE FILL SHALL BE PLACED WITHIN A ZONE OF 2/3 THE DIAMETER OF THE TREE CANOPY.

CONSTRUCTION WITHIN CANOPY & TREE BARRICADE SHALL BE BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL.

UTILITY WORK (TRENCHING) WITHIN THE CANOPY & TREE BARRICADE SHALL BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL. THE TREE BARRICADE WILL BE MODIFIED TEMPORARILY TO ALLOW ONLY THE MINIMUM WORK ZONE TRESPASS INTO THE CANOPY AREA, CONTINUING TO PROTECT THE REST OF THE CANOPY AREA WITH BARRICADE. NO FILL, EVEN TEMPORARY, SHALL BE PLACED IN ANY PROTECTED ZONE. AT THE CONCLUSION OF SAID ACTIVITY, THE WORKZONE SHALL BE CLEANED UP & TREE BARRICADES REPLACED TO THEIR ORIGINAL CONFIGURATION.

TREE PROTECTION DETAIL

N.T.S.

Tree Dispostion Plan

REFER TO SHEET TR-3 FOR TREE DISPOSITION CHART

0 15' 30' 60' 90' 120'
Scale: 1" = 30'

NORTH

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: 1" =30'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.
TR-2

TREE DISPOSITION CHART

TAG NUMBER	TREE TYPE	NATIVE	DBH (INCHES)	CLEAR TRUNK HEIGHT	DISPOSITION	MITIGATION REQ'D.
1	PALM	YES	20	17'	RELOCATE	
2	PALM	YES	16	17'	RELOCATE	
3	PALM	YES	18	15'	RELOCATE	
4	PALM	YES	14	22'	RELOCATE	
5	PALM	YES	18	18'	RELOCATE	
6	PALM	YES	16	14'	RELOCATE	
7	PALM	YES	18	14'	RELOCATE	
8	PALM	YES	20	18'	RELOCATE	
9	PALM	YES	16	15'	RELOCATE	
10	PALM	YES	24	15'	RELOCATE	
11	PALM	YES	16	18'	RELOCATE	
12	PALM	YES	16	19'	RELOCATE	
13	PALM	YES	22	10'	RELOCATE	
14	PALM	YES	24	15'	RELOCATE	
15	PALM	YES	24	13'	RELOCATE	
16	PALM	YES	16	14'	RELOCATE	
17	PALM	YES	20	17'	RELOCATE	
18	BANYAN	NO	48		REMOVE	
19	PALM	YES	16	18'	RELOCATE	
20	PALM	YES	14	18'	RELOCATE	
21	PALM	YES	16	15'	RELOCATE	
22	PALM	YES	16	10'	RELOCATE	
23	PALM	YES	20	14'	RELOCATE	
24	PALM	YES	18	15'	RELOCATE	
25	PALM	YES	18	18'	RELOCATE	
26	PALM	YES	16	15'	RELOCATE	
27	PALM	YES	20	15'	RELOCATE	
28	PALM	YES	16	17'	RELOCATE	
29	PALM	YES	16	11'	RELOCATE	
30	PALM	YES	18	14'	RELOCATE	
31	PALM	YES	24	16'	RELOCATE	
32	PALM	YES	16	7'	REMOVE	NONE
33	PALM	YES	18	19'	RELOCATE	
34	PALM	YES	16	17'	REMAIN	
35	PALM	YES	18	17'	REMAIN	
36	PALM	YES	18	18'	REMAIN	
37	PALM	YES	18	20'	REMAIN	
38	PALM	YES	16	21'	REMAIN	
39	PALM	YES	14	17'	REMAIN	
40	PALM	YES	20	18'	RELOCATE	
41	PALM	YES	18	20'	RELOCATE	
42	PALM	YES	16	19'	RELOCATE	
43	PALM	YES	16	19'	RELOCATE	
44	PALM	YES	16	21'	RELOCATE	
45	PALM	YES	18	19'	RELOCATE	
46	PALM	YES	20	22'	RELOCATE	
47	PALM	YES	16	19'	RELOCATE	
48	PALM	YES	16	18'	RELOCATE	
49	PALM	YES	18	17'	RELOCATE	
50	PALM	YES	16	20'	RELOCATE	
51	PALM	YES	18	19'	RELOCATE	
52	PALM	YES	10	18'	RELOCATE	
53	PALM	YES	14	18'	RELOCATE	
54	PALM	YES	18	18'	RELOCATE	
55	PALM	YES	20	22'	RELOCATE	
56	PALM	YES	14	19'	RELOCATE	
57	PALM	YES	10	18'	RELOCATE	
58	PALM	YES	14	19'	RELOCATE	
59	PALM	YES	18	16'	RELOCATE	
60	PALM	YES	16	16'	RELOCATE	
61	PALM	YES	18	15'	RELOCATE	
62	PALM	YES	16	23'	RELOCATE	
63	PALM	YES	16	21'	RELOCATE	
64	PALM	YES	20	18'	RELOCATE	
65	PALM	YES	12	19'	RELOCATE	
66	PALM	YES	18	21'	RELOCATE	
67	PALM	YES	18	17'	RELOCATE	
68	OAK	YES	5		REMOVE	NONE
69	PALM	YES	20	18'	RELOCATE	
70	PALM	YES	22	20'	RELOCATE	
71	PALM	YES	20	20'	RELOCATE	
72	PALM	YES	16	18'	RELOCATE	
74	PALM	YES	14	18'	RELOCATE	
75	PALM	YES	14	9'	REMOVE	NONE
76	PALM	YES	24	19'	RELOCATE	
77	PALM	YES	18	18'	RELOCATE	
78	PALM	YES	18	17'	RELOCATE	
79	PALM	YES	14	13'	RELOCATE	
80	PALM	YES	18	18'	RELOCATE	
81	PALM	YES	24	19'	RELOCATE	
82	PALM	YES	18	16'	RELOCATE	
83	PALM	YES	16	15'	RELOCATE	
84	PALM	YES	16	19'	RELOCATE	
85	PALM	YES	16	20'	RELOCATE	
86	PALM	YES	18	17'	RELOCATE	
87	PALM	YES	16	20'	RELOCATE	
88	PALM	YES	16	18'	RELOCATE	
89	PALM	YES	16	16'	RELOCATE	
90	PALM	YES	18	22'	RELOCATE	
91	PALM	YES	18	22'	RELOCATE	
92	PALM	YES	16	19'	RELOCATE	
93	PALM	YES	18	21'	RELOCATE	
94	PALM	YES	14	20'	RELOCATE	
95	PALM	YES	16	20'	RELOCATE	
96	PALM	YES	18	20'	RELOCATE	

OAK – LAUREL OAK (QUERCUS LAURIFOLIA)
PINE – SLASH PINE (PINUS ELLIOTTII)
PALM – CABBAGE PALM (SABAL PALMETTO)
UNKNOWN – NON-NATIVE EXOTIC

TOTAL MITIGATION (COLUMN)	0"
TOTAL PRESERVED TREES (IN)	0"
TOTAL RELOCATED PALMS	86 PALMS

TAG NUMBER	TREE TYPE	NATIVE	DBH (INCHES)	CLEAR TRUNK HEIGHT	DISPOSITION	MITIGATION REQ'D.
97	PALM	YES	18	20'	RELOCATE	
98	PALM	YES	18	19'	RELOCATE	
99	PALM	YES	16	16'	RELOCATE	
100	PALM	YES	18	17'	RELOCATE	
101	PALM	YES	16	17'	RELOCATE	
102	PALM	YES	18	19'	RELOCATE	
103	PALM	YES	16	18'	RELOCATE	
104	PALM	YES	16	18'	RELOCATE	
105	PALM	YES	16	18'	RELOCATE	
106	PALM	YES	14	15'	RELOCATE	
107	PALM	YES	10	8'	REMOVE	NONE
108	PALM	YES	18	19'	RELOCATE	
109	PALM	YES	16	35'	RELOCATE	
110	PALM	YES	14	20'	RELOCATE	
111	PALM	YES	16	20'	RELOCATE	
112	PALM	YES	18	18'	RELOCATE	
113	OAK	YES	6		REMOVE	NONE
114	PALM	YES	14	13'	REMAIN	
115	PALM	YES	22	18'	REMAIN	
116	PALM	YES	20	20'	REMAIN	
117	PALM	YES	10	7'	REMAIN	
118	UNKNOWN	NO	12		REMOVE	NONE
119	OAK	YES	38		REMAIN	
120	PALM	YES	14	18'	REMAIN	
121	OAK	YES	18		REMAIN	
122	OAK	YES	12		REMAIN	
123	PALM	YES	18	21'	RELOCATE	
124	PALM	YES	18	16'	RELOCATE	
125	PALM	YES	16	26'	REMAIN	
126	PALM	YES	18	29'	REMAIN	
127	OAK	YES	24		REMAIN	
128	PALM	YES	16	32'	REMAIN	
129	UNKNOWN	NO	10		REMOVE	NONE
130	PINE	YES	28		REMAIN	
131	PALM	YES	16	24'	RELOCATE	
132	UNKNOWN	NO	24		REMOVE	NONE
133	OAK	YES	10		REMOVE	NONE
134	OAK	YES	28		REMOVE	28"
135	PALM	YES	18	30'	RELOCATE	
136	OAK	YES	40		REMOVE	40"
137	PALM	YES	18	18'	RELOCATE	
138	PINE	YES	10		REMOVE	NONE
139	UNKNOWN	NO	8		REMOVE	NONE
140	OAK	YES	36		REMOVE	36"
141	PALM	YES	16	20'	RELOCATE	
142	PALM	YES	14	25'	RELOCATE	
143	PALM	YES	16	25'	RELOCATE	
144	OAK	YES	20		REMOVE	20"
145	PALM	YES	14	26'	RELOCATE	
146	PALM	YES	16	21'	RELOCATE	
147	PALM	YES	18	23'	RELOCATE	
148	OAK	YES	16		REMOVE	16"
149	UNKNOWN	NO	18		REMOVE	NONE
150	PALM	YES	22	18'	RELOCATE	
151	PALM	YES	14	7'	REMOVE	NONE
152	PALM	YES	22	22'	RELOCATE	
153	PALM	YES	16	20'	RELOCATE	
154	PALM	YES	22	18'	RELOCATE	
155	PALM	YES	18	17'	RELOCATE	
156	PALM	YES	18	16'	RELOCATE	
157	PALM	YES	16	13'	RELOCATE	
158	PALM	YES	12	10'	RELOCATE	
159	OAK	YES	10		REMOVE	NONE
160	OAK	YES	16		REMOVE	16"
161	PALM	YES	12	7'	REMOVE	
162	PALM	YES	18	24'	RELOCATE	
163	PALM	YES	16	21'	RELOCATE	
164	OAK	YES	36		REMOVE	36"
165	OAK	YES	14		REMOVE	14"
166	OAK	YES	10		REMOVE	NONE
167	POINCIANA	NO	8		REMOVE	NONE
168	OAK	YES	12		REMOVE	NONE
169	OAK	YES	22		REMOVE	22"
170	OAK	YES	18		REMOVE	18"
171	PALM	YES	16	17'	RELOCATE	
172	PALM	YES	18	13'	RELOCATE	
173	PALM	YES	12	6'	REMOVE	
174	UNKNOWN	NO	16		REMOVE	NONE
175	OAK	YES	16		REMOVE	16"
176	UNKNOWN	NO	20		REMOVE	NONE
177	PALM	YES	18	28'	RELOCATE	
178	PALM	YES	8	8'	REMOVE	NONE
179	PALM	YES	20	22'	RELOCATE	
180	PALM	YES	12	6'	REMOVE	
181	PALM	YES	18	18'	RELOCATE	
182	PALM	YES	18	16'	RELOCATE	
183	PALM	YES	18	17'	RELOCATE	
184	OAK	YES	26		REMOVE	26"
185	PALM	YES	16	28'	RELOCATE	
186	PALM	YES	14	23'	RELOCATE	
187	PALM	YES	16	14'	RELOCATE	
188	PALM	YES	16	18'	RELOCATE	
189	PALM	YES	16	20'	RELOCATE	
190	UNKNOWN	NO	24		REMOVE	NONE
191	PALM	YES	16	14'	RELOCATE	
192	OAK	YES	36		REMOVE	36"
193	UNKNOWN	NO	10		REMOVE	NONE

OAK – LAUREL OAK (QUERCUS LAURIFOLIA)
PINE – SLASH PINE (PINUS ELLIOTTII)
PALM – CABBAGE PALM (SABAL PALMETTO)
UNKNOWN – NON-NATIVE EXOTIC

TOTAL MITIGATION (COLUMN)	324"
TOTAL PRESERVED TREES (IN)	120"
TOTAL RELOCATED PALMS	49

TAG NUMBER	TREE TYPE	NATIVE	DBH (INCHES)	CLEAR TRUNK HEIGHT	DISPOSITION	MITIGATION REQ'D.
194	OAK	YES	36		REMAIN	
195	PALM	YES	18	26'	REMAIN	
196	OAK	YES	18		REMAIN	
197	UNKNOWN	NO	8		REMOVE	
198	UNKNOWN	NO	8		REMOVE	
199	UNKNOWN	NO	8		REMOVE	
200	OAK	YES	10		REMAIN	
201	OAK	YES	6		REMOVE	NONE
202	OAK	YES	6		REMOVE	NONE
203	OAK	YES	4		REMOVE	NONE
204	OAK	YES	6		REMOVE	NONE
205	OAK	YES	8		REMOVE	NONE
206	OAK	YES	8		REMOVE	NONE
207	OAK	YES	8		REMOVE	NONE
208	OAK	YES	6		REMOVE	NONE
209	OAK	YES	6		REMOVE	NONE
210	UNKNOWN	NO	10		REMOVE	NONE
211	PALM	YES	16	18'	RELOCATE	
212	PALM	YES	18	18'	RELOCATE	
213	PALM	YES	14		RELOCATE	
214	OAK	YES	20		REMOVE	26"
215	OAK	YES	26		REMOVE	26"
216	OAK	YES	30		REMAIN	
217	SILK OAK	NO	10		REMOVE	NONE
218	OAK	YES	14		REMAIN	
219	PALM	YES	20	19'	REMAIN	
220	OAK	YES	30		REMAIN	OFF-SITE
221	UNKNOWN	NO	8		REMOVE	NONE
222	UNKNOWN	NO	12		REMOVE	NONE
223	UNKNOWN	NO	8		REMOVE	NONE
224	PALM	YES	18	20'	RELOCATE	
225	UNKNOWN	NO	6		REMOVE	NONE
226	UNKNOWN	NO	6		REMOVE	NONE
227	UNKNOWN	NO	4		REMOVE	NONE
228	UNKNOWN	NO	6		REMOVE	NONE
229	OAK	YES	6		REMAIN	
230	UNKNOWN	NO	12		REMOVE	NONE
231	PALM	YES	22	18'	REMAIN	OFF-SITE
232	UNKNOWN	NO	30		REMOVE	NONE
233	PALM	YES	22	17'	RELOCATE	
234	OAK	YES	12		REMOVE	NONE
235	OAK	YES	10		REMOVE	NONE
236	UNKNOWN	NO	8		REMOVE	NONE
237	UNKNOWN	NO	6		REMOVE	NONE
238	UNKNOWN	NO	6		REMOVE	NONE
239	OAK	YES	16		REMOVE	16"
240	OAK	YES	10		REMOVE	NONE
241	UNKNOWN	NO	14		REMOVE	NONE
242	UNKNOWN	NO	8		REMOVE	NONE
243	UNKNOWN	NO	8		REMOVE	NONE
244	UNKNOWN	NO	10		REMOVE	NONE
245	PINE	YES	10		REMOVE	NONE
246	PINE	YES	10		REMOVE	NONE
247	OAK	YES	10		REMOVE	NONE
248	OAK	YES	10		REMOVE	NONE
249	PALM	YES	18	23'	RELOCATE	
250	PALM	YES	18	20'	REMAIN	
251	PINE	YES	10		REMAIN	OFF-SITE
252	PALM	YES	16	22'	RELOCATE	
253	OAK	YES	26		REMOVE	26"
254	OAK	YES	16		REMOVE	16"
255	OAK	YES	14		REMOVE	14"
256	OAK	YES	12		REMOVE	NONE
257	OAK	YES	14		REMOVE	14"
258	PALM	YES	22	28'	RELOCATE	
259	UNKNOWN	NO	8		REMOVE	NONE
260	PALM	YES	12	6'	REMOVE	NONE
261	PALM	YES	14	10'	RELOCATE	
262	UNKNOWN	NO	10		REMOVE	NONE
263	PINE	YES	14		REMAIN	
264	OAK	YES	18		REMOVE	18"
265	PALM	YES	16	21'	RELOCATE	
266	PALM	YES	18	20'	RELOCATE	
267	PALM	YES	20	18'	RELOCATE	
268	PALM	YES	20	20'	REMAIN	OFF-SITE
269	OAK	YES	20		REMAIN	
270	OAK	YES	10		REMOVE	NONE
271	PALM	YES	16	13'	RELOCATE	
272	OAK	YES	36		REMOVE	36"
273	PALM	YES	16	14'	RELOCATE	
274	UNKNOWN	NO	6		REMOVE	NONE
275	UNKNOWN	NO	6		REMOVE	NONE
276	PALM	YES	16	25'	REMAIN	
277	PALM	YES	12	11'	REMAIN	
278	PALM	YES	18	18'	RELOCATE	
279	OAK	YES	18		REMOVE	18"
280	OAK	YES	18		REMOVE	18"
281	PALM	YES	18	22'	RELOCATE	
282	PALM	YES	18	18'	RELOCATE	
283	PALM	YES	16	10'	REMAIN	
284	PINE	YES	16		REMAIN	
285	PINE	YES	12		REMAIN	
286	PINE	YES	10		REMAIN	
287	PALM	YES	18	19'	RELOCATE	
288	PALM	YES	16	18'	RELOCATE	
289	PALM	YES	18	19'	RELOCATE	
290	UNKNOWN	NO	30		REMOVE	NONE

OAK – LAUREL OAK (QUERCUS LAURIFOLIA)
PINE – SLASH PINE (PINUS ELLIOTTII)
PALM – CABBAGE PALM (SABAL PALMETTO)
UNKNOWN – NON-NATIVE EXOTIC

TOTAL MITIGATION (COLUMN)	228"
TOTAL PRESERVED TREES (IN)	196"
TOTAL RELOCATED PALMS	20

TOTAL RELOCATED PALMS: 155 PALMS
TOTAL MITIGATION REQUIRED (IN.): 552"
TOTAL PRESERVED TREES (IN.): 316"
TOTAL MITIGATION: 236"

ADDITIONAL TREES PROVIDED ON LANDSCAPE PLANS: 135 TREES OR 337.5" @ 2.5" PER TREE

SINCE THE ADDITIONAL TREES PROVIDED AMOUNT TO MORE DBH INCHES THAN IS REQUIRED TO BE MITIGATED, NO ADDITIONAL MITIGATION IS NEEDED.

Tree Dispostion Plan

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential
Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: Not to Scale

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.
TR-3

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

PUBLIC NOTIFICATION CERTIFICATION

PROJECT NAME: Zoning Atlas Map Amendment - Aria Apartments - 3000 Okeechobee Road

NOTICES PROVIDED PURSUANT TO: City Code Section 125-37

NOTICE BY NEWSPAPER: September 6th, 2020

NOTICE BY MAIL: September 9th, 2020

NOTICE BY SIGNS: September 10th, 2020

VERIFIED BY: Vennis Gilmore **TITLE:** Planner

SIGNATURE: **DATE:** September 10th, 2020

1
ST LUCIE COUNTY
2300 Virginia AVE
Fort Pierce; FL 34982-5632

2
Church of the Nazarene of the New Jerusalem Inc
407 Florida AVE
Fort Pierce; FL 34950-8360

3
Ana Laura Ramos
1208 S 33rd ST
Fort Pierce; FL 34947-6311

4
Jose P Garcia
117 Hartman RD
Fort Pierce; FL 34947-3401

5
ARJB LLC
6 Forest Hills Ln
Boca Raton; FL 33431-3901

6
Maxiplex LLC
5475 NW Saint James DR; Unit # 407
Port St Lucie; FL 34983-3444

7
Christina M Perez
1210 S 33rd St
Fort Pierce; FL 34947-6311

8
Iglesia de Dios Pentecostal Movimiento Intl
PO Box 1575
Fort Pierce; FL 34954-1575

9
Gerardo Alcebo
6479 Lakemont Cir
Greenacres; FL 33463-2419

10
Arrow Investment Group LLC
4512 N Flagler DR; Unit # 2056
West Palm Beach; FL 33407-3839

11
St Lucie Habitat For Humanity
702 S 6th ST
Fort Pierce; FL 34950-8342

12
Open Door House of Prayer Inc
1312 S 33rd ST
Fort Pierce; FL 34947-6314

13
Open Door House of Prayer Inc
5900 Citrus AVE
Fort Pierce; FL 34982-3309

14
Green Keel Holdings LLC
1503 Boston AVE
Fort Pierce; FL 34950-3927

15
Annie M Widlan
243 23rd ST
Okeechobee; FL 34974-0540

16
Juan G Soto and Azucena Z Soto
7800 W Oakland Park BLVD; Unit Ste 109
Sunrise; FL 33351-1121

17
Andy C Andrei
247 NE Airoso BLVD
Port St Lucie; FL 34983-1675

18
Sanco LLC
901 Bermuda Gardens Rd
Delray Beach; FL 33483-6420

19
Thirrel A Altman Sr and Roberta M Altman
PO Box 360911
Melbourne; FL 32936-0911

20
Zachary P Pfeiffer and Michelle R Pfeiffer
3560 Cypress ST
Palm Beach Gardens; FL 33410-5646

21
Michael B Wilson
1609 S 29th St
Fort Pierce; FL 34947-6948

22
Jillian Alexa Rae Peralta and Chadrick M Britton
1605 S 29th ST
Fort Pierce; FL 34947-6948

23
Adrian Morales and Jorge L Morales
1033 Trinidad AVE
Fort Pierce; FL 34982-4333

24
Pedro Rodriguez and Lucia Rodriguez
1505 S 29th ST; Unit A
Fort Pierce; FL 34947-6946

25
Robert I Hayes and Carol O Hayes
201 Rosewood Dr
Fort Pierce; FL 34949-8327

26
ID 2911 LLC
18651 SW 39th ST
Miramar; FL 33029-2703

27
Richard F Haisley and Jimmie A Haisley
3015 Okeechobee Rd
Fort Pierce; FL 34947

28
Roland P Ruppert (EST)
1610 S 30th St
Fort Pierce; FL 34947

29
Kenneth G Cheatham
1612 S 30th St
Fort Pierce; FL 34947-6911

30
Maricela Z Loredo
1703 S 30th ST
Fort Pierce; FL 34947-6912

31
Oziel Andrade
7002 Deer Park AVE
Fort Pierce; FL 34951-1819

32
Herman Castro and Yolanda M Castro
1706 S 31st ST
Fort Pierce; FL 34947-6922

33
Mary Louise Stephens
8766 E Lost College RD
Pekin; IN 47165-7176

34
Noe Bautista
1501 S 28th St
Fort Pierce; FL 34947

35
Victor M Hernandez
1505 S 28th St
Fort Pierce; FL 34947

36
Dorothy N Guettler
1511 S 28th St
Fort Pierce; FL 34947

37
Rogelio Fernandez and Maria Fernandez
1506 S 29th St
Fort Pierce; FL 34947-6945

38
Virginia Leitner
1546 Pulitzer Rd
Fort Pierce; FL 34945-4425

39
A Pink Jelly Bean Inc
1082 SW Bayshore BLVD
Port St Lucie; FL 34983-2400

40
Caraf Land 2829 LLC
7844 NW 178th ST
Hialeah; FL 33015-3649

41
Crull Services Inc
81 Queens RD
Fort Pierce; FL 34949-8312

42
Juvencio L Rojas and Isabel G Izquierdo
3102 Louisiana AVE; Unit Apt B
Fort Pierce; FL 34947-7281

43
Justin T Dixon
2410 Avenue D
Fort Pierce; FL 34950-2756

44
Juvencio L Rojas and Isabel G Izquierdo
3102 Louisiana AVE; Unit Apt A
Fort Pierce; FL 34947-7281

45
Mildred A Smith
1103 Hemlock Cir
Fort Pierce; FL 34947-7237

46
Ray C Wiley and Francis C Wiley
1105 Hemlock Cir
Fort Pierce; FL 34947-7237

47
Jeremy Green
1107 Hemlock CIR
Fort Pierce; FL 34947-7237

48
Wingfield Dev Co
4716 Joanna Garden Ct
Windermere; FL 34786-8837

49
Mary A West
1118 Hemlock Cir
Fort Pierce; FL 34947-7236

50
Samuel T Andrews and Stephanie L Andrews
1120 Hemlock Cir
Fort Pierce; FL 34947-7236

51
Celia Lexine
1122 Hemlock CIR
Fort Pierce; FL 34947-7236

52
Courtney J Davis
702 N 23rd St
Fort Pierce; FL 34950

53
Arlene Hall
136 SW Saratoga AVE
Port St Lucie; FL 34953-5977

54
Vickey L Walker and Richard Walker Jr
1104 Hemlock CIR
Fort Pierce; FL 34947-7236

55
EDF Inc
8390 Currency Dr
Riviera Beach; FL 33404

56
Ornie L Patterson
1119 Hemlock Cir
Fort Pierce; FL 34947-7237

57
Ruby Dennard
1121 Hemlock Cir
Fort Pierce; FL 34947-7237

58
613 Homes LLC
4577 N Meridian AVE
Miami Beach; FL 33140-2944

59
Anastacio Reyes
1602 S 29th St
Fort Pierce; FL 34947-6947

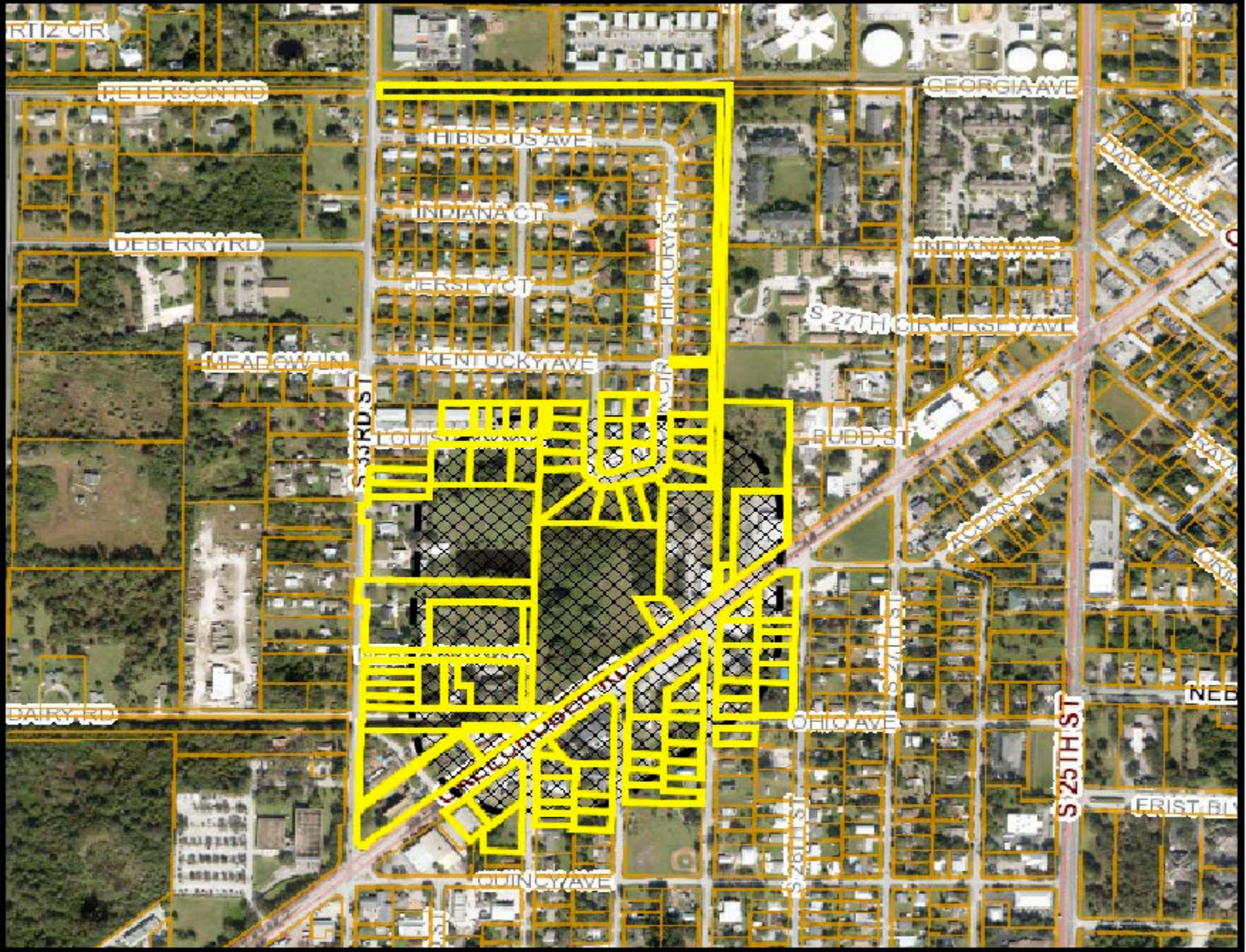
60
Candyland Properties Of St Lucie LLC
442 SE Starflower AVE
Port St Lucie; FL 34983-4516

61
Community United Methodist Church
3114 Okeechobee Rd
Fort Pierce; FL 34947-4619

62
Leobardo Mata and Rosa Barajas
1005 S 8th St
Fort Pierce; FL 34950

63
TRIPLE D VENTURES LLC
3803 Eleven Mile RD
Fort Pierce; FL 34945-2541

64
Malinda R Jordan and Rex M Jordan
1711 S 31st St
Fort Pierce; FL 34950



Location Buffer Map
3000 Okeechobee Road
Aria Apartments

THE SUNRISE CITY
FORT PIERCE
Florida

City Commission Regular Meeting - 6:00 pm **12. d.**

Meeting Date: 10/05/2020

Re: Site Plan & Conditional Use - Aria Apartments - 3000 Okeechobee Road

Submitted For: Jennifer Hofmeister, Planning Director, Planning & Zoning

SUBJECT:

POSTPONED FROM SEPT. 21, 2020 - Quasi-Judicial Hearing - Application for Site Plan, Design Review, and conditional Use submitted by Property Owner, Arrow Investment Group, LLC and Representative, Michael Sanchez of Managed Land Entitlements, to construct a 112 unit Innovative Residential Multi-Family Development on a property located at 3000 Okeechobee Road in Fort Pierce, FL. The property is currently zoned General Commercial (C-3). There is an active rezoning application by the applicant to rezone the property to Medium Density Residential (R-4). Parcel ID: 2417-504-0020-001-6

SUMMARY:

- The applicant has stated that as proposed the project will consist of five (5) apartment buildings with 24-units in four (4) of the apartment buildings and 16-units in one (1) of the apartment buildings for a total of 112-units. The maximum building height will be 39 feet from existing grade. The proposed Aria Apartments will offer a 2,168 square foot clubhouse with a swimming pool. Pursuant to City Code 125-315 (d)(1)(b), the parking ratio for a multi-family development is 1.5 spaces per unit. The development is required to have 168 parking spaces and 172 parking spaces are provided with four (4) surplus parking spaces. Seven (7) of those parking spaces are designated as handicap accessible. The development is also providing a total of 14 bicycle parking spaces, which includes two (2) surplus bicycle spaces above the minimum code requirement of City Code 125-315 (f)(1)(a).

- Onsite amenities include a clubhouse, pool, tot lot with playground equipment and benches, a lake with a fountain feature, a walking trail around the lake at the center of the development, a passive park with picnic tables and benches, and a fenced dog-park. There is one (1) vehicle access point into the site from Okeechobee Road with two (2) pedestrian-only access points from the south of the property connecting to the Okeechobee Road northern sidewalk. The proposed site also includes an abundance of pedestrian pathways, such as internal sidewalks and striped crosswalks, throughout the development.

RECOMMENDATION:

The requested applications for Development Review and Design Review meets the criteria specified in Sections 125-313 and 125-314 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience and general welfare; Therefore staff recommends **APPROVAL** with the following four (4) conditions:

1. A Landscape Bond will need to be provided at the time of Certificate of Occupancy for

each building pursuant to City Code 123-6. The Landscape Bond for the common areas, clubhouse, lakes, and parking areas shall be submitted before the Certificate of Occupancy is issued for the first building in each phase.

2. At the time of Building Permit submit a signed and sealed boundary and topographic survey to the City Engineering Department in accordance with City Code 119-2 (a)(7).

3. Remove the light grey from the color scheme and use colors from the blue-violet or blue-green color palette.

4. Include a landscaped area around base of the monument sign which extends a minimum distance of three (3) feet in all directions. Such landscaped area shall be completely covered by ground cover and shrubs, hedges or similar vegetative materials. Vegetation in the area surrounding said sign shall be maintained at a height of less than twelve (12) inches.

Advisory Comment: Consider a gated entry for the health, safety, and welfare of the future tenants of the proposed development. Details need to be worked out between the design team and the Planning Department.

ALTERNATIVES:

- Approval with changes
- Denial

RESPONSIBLE STAFF:

Vennis Gilmore, Planner

COORDINATED WITH:

Technical Review Committee

Fiscal Impact

OTHER INFORMATION:

Potential Increase in Ad Valorem Tax Revenue.

Attachments

Staff Presentation
Staff Report & Supporting Documents
Application Packet & Supporting Documents
Affidavit of Mailing & Public Notice Certification
Proof of Publication

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	09/11/2020 12:10 PM

Form Started By: Vennis Gilmore
Started On: 09/09/2020 04:58 PM
Final Approval Date: 09/22/2020

Aria Apartments
Rezoning, Development Review, Design Review, & Conditional use

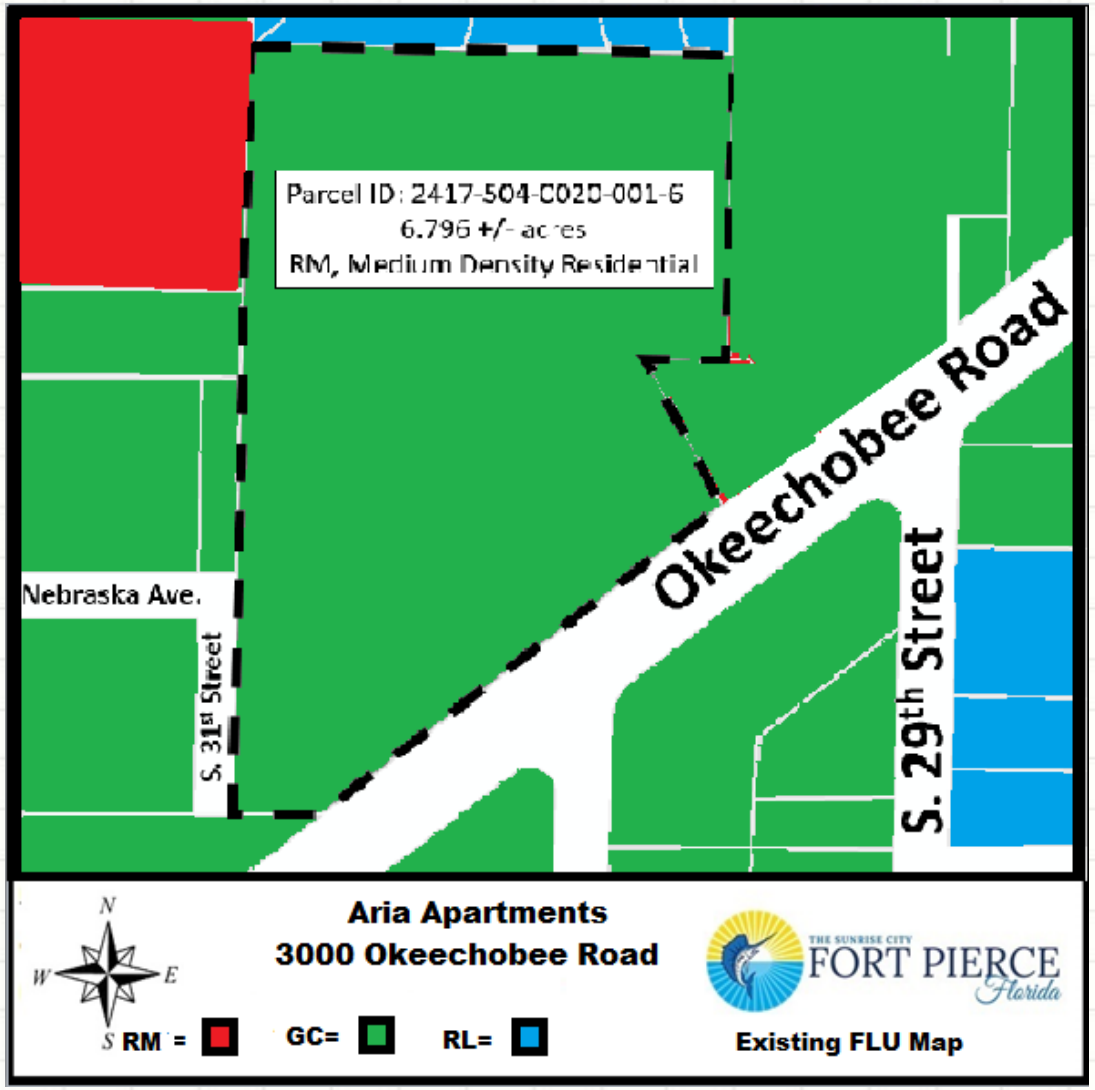


3000 Okeechobee Road

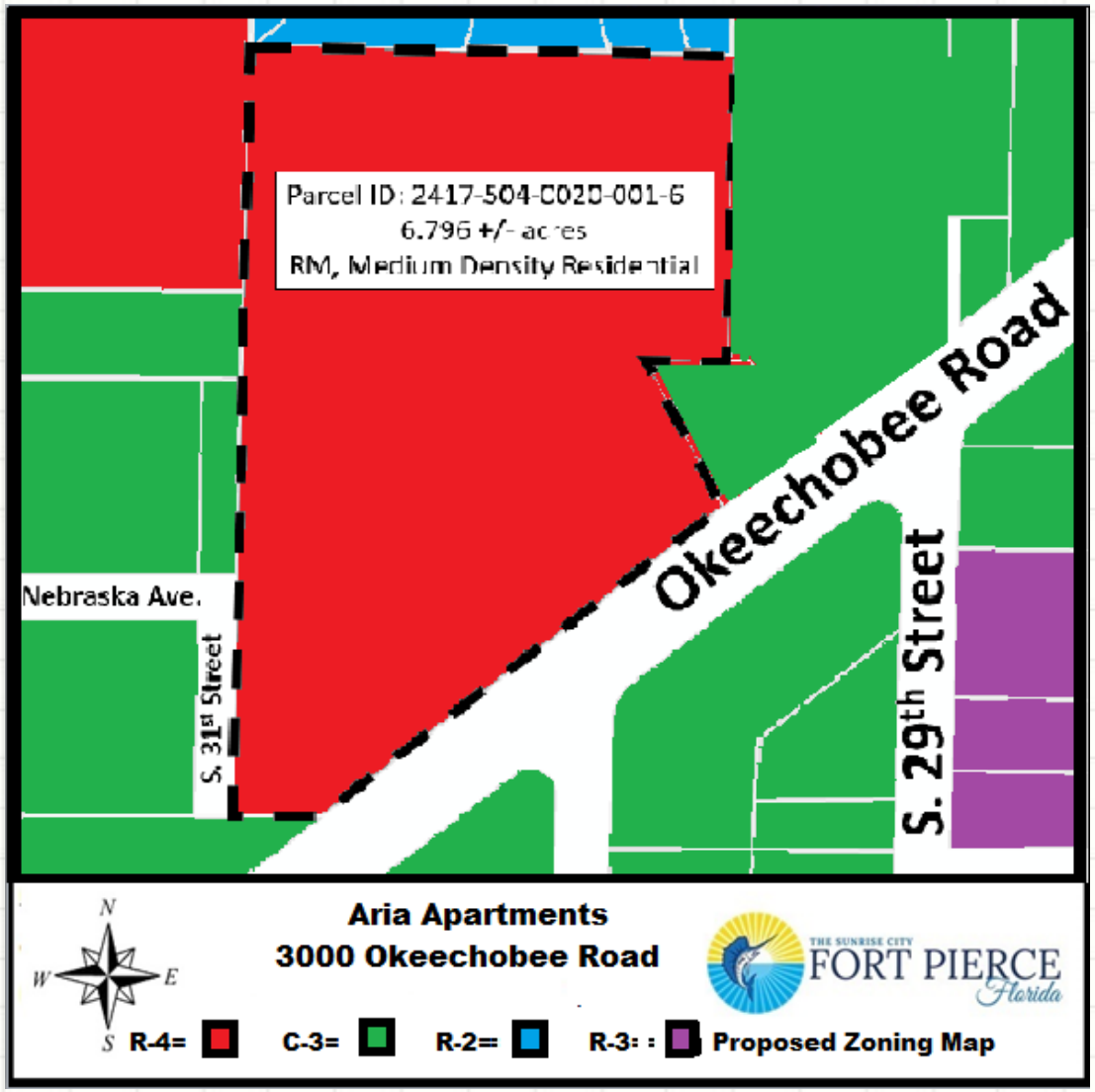
Site Map


OKEECHOBEE RD
N
W
E
S
Aria Apartments
3000 Okeechobee Road
THE SUNRISE CITY
FORT PIERCE
Florida
Aerial Map

Existing Future Land Use Map



Proposed Zoning Map

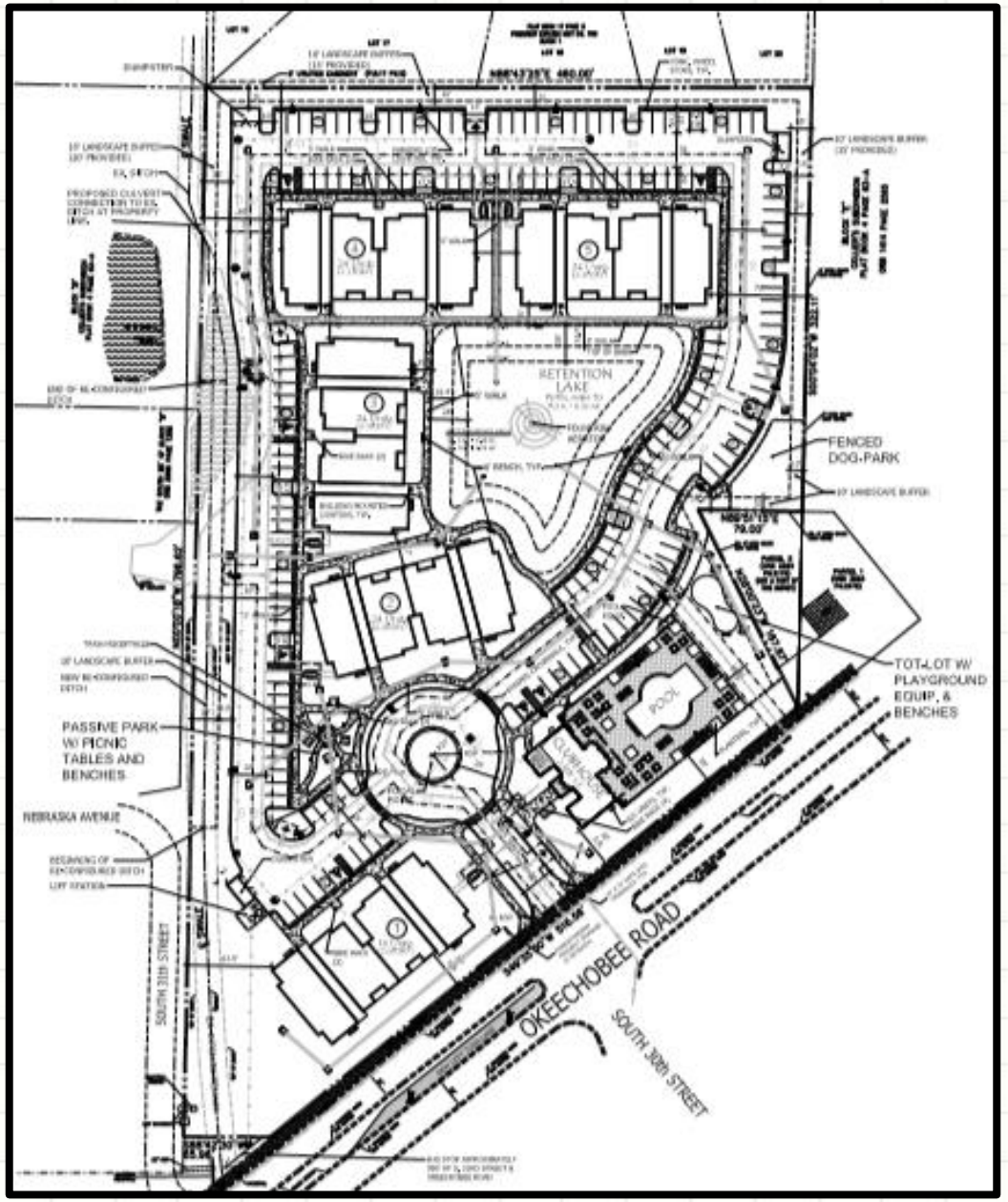


Request

Zoning Atlas Map Amendment -AND-
Development Review, Design Review & Conditional Use for the construction and operation of a multi-family development with 112 units.

- Staff recommends **Approval** of the request:
  - ❑ Consistent with the City Code & the Comprehensive Plan. (including Section 125-136 that has standards for review of zoning change requests).
  - ❑ Does not adversely affect the public health, safety, convenience and general welfare.
  - ❑ Is within proximity to key commercial and institutional amenities.

Site Plan


RETENTION LAKE
FENCED DOG PARK
TOT LOT W/ PLAYGROUND EQUIP. & BENCHES
POOL
PASSIVE PARK W/ PICNIC TABLES AND BENCHES
NEBRASKA AVENUE
SOUTH 31th STREET
OKEECHOBEE ROAD
SOUTH 30th STREET

Design Review



Conditional Use

Conditional Use for the construction and operation of a “Innovative Residential Multi-family Development” with 112 units.

- Staff recommends **Approval** of the request:
  - ❑ Consistent with the City Code & the Comprehensive Plan.
  - ❑ Does not adversely affect the public health, safety, convenience and general welfare.
  - ❑ The site is within ¼ mile of a transit stop and is eligible for a density bonus of up to 5 units per acre pursuant to Comp Plan Policies 1.1.6(a) and 1.1.7.

Staff Recommendation

Staff recommends **APPROVAL** of the request, subject to four (4) conditions:

1. A Landscape Bond will need to be provided at the time of Certificate of Occupancy for each building pursuant to City Code 123-6. The Landscape Bond for the common areas, clubhouse, lakes, & parking areas shall be submitted before the Certificate of Occupancy is issued for the first building in each phase.

2. At the time of Building Permit submit a signed and sealed boundary and topographic survey to the City Engineering Department in accordance with City Code 119-2 (a)(7).

3. Remove the light grey from the color scheme and use colors from the blue-violet or blue-green color palette.

Staff Recommendation (cont.)

4. Include a landscaped area around base of the monument sign which extends a minimum distance of three (3) feet in all directions. Such landscaped area shall be completely covered by ground cover and shrubs, hedges or similar vegetative materials. Vegetation in the area surrounding said sign shall be maintained at a height of less than twelve (12) inches.

***Advisory Comment:**

Consider a gated entry for the health, safety, and welfare of the future tenants of the proposed development. Details need to be worked out between the design team and the Planning Department.

Planning Board Recommendation

At the Planning Board August 11, 2020 meeting,
recommended 7-0 **Approval** of the Zoning Atlas Map Amendment,
Development Review & Design Review, and the Conditional Use.

This presentation requires three (3) separate motions

CC Actions

Possible actions of the City Commission:

- **APPROVAL** of the proposed Rezoning, Development Review, Design Review, & Conditional Use with no changes
    - Staff recommends approval of the request with four (4) conditions.
- **APPROVAL** of the proposed Rezoning, Development Review, Design Review, & Conditional Use with changes.
- **DISAPPROVAL** of the proposed Rezoning, Development Review, Design Review, & Conditional Use

Aria Apartments
Rezoning, Development Review, Design Review, & Conditional Use

3000 Okeechobee Road

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO:	Nick C. Mimms, P.E., ICMA-CM, City Manager
THROUGH:	Jennifer Hofmeister, AICP, LCAM, Planning Director
FROM:	Vennis Gilmore, Planner
RE:	**Application for Development Review, Design Review, & Conditional Use** **Aria Apartments – 3000 Okeechobee Road** **File # 20-07000007**
BOARD DATE:	September 21, 2020

STAFF REPORT

Property Owner	Arrow Investment Group, LLC 4512 N. Flagler Drive, Suite 2056 West Palm Beach, Florida 33407
Representative:	Michael Sanchez/Managed Land Entitlements 3710 Buckeye Street, Suite 100 Palm Beach Gardens, Florida 33410
Requested Action:	Approval of an Innovative Residential Multi-Family 112-unit Development
Site Location:	3000 Okeechobee Road
Parcel IDs:	2417-504-0020-001-6
Existing Use:	Vacant
Parcel Size:	6.796 +/- acres
Current Future Land Use:	General Commercial (GC)
Current Zoning:	General Commercial (C-3)
Proposed Future Land Use:	Medium Density Residential (RM)
Proposed Zoning:	Medium Density Residential (R-4)

	North	East	South	West
Surrounding FLU:	RL	GC	GC	GC/RM
Surrounding Zoning:	R-2	C-3	C-3	C-3/R-4

Staff Analysis

Request

In accordance with Sections 125-313, 125-314, and 125-236 of the City Code, the applicant is requesting approval for Development Review (Major Site Plan), Design Review and Conditional Use (Innovative Residential Development) for a multi-family 112-unit development. The subject site is currently vacant land. The applicant is requesting approval of a Future Land Use Amendment from General Commercial (GC) to Medium Density Residential (RM) and a Zoning Atlas Amendment from General Commercial (C-3) to Medium Density Residential (R-4); concurrent with the above reference applications.

Site Plan

The applicant has stated that as proposed the project will consist of five (5) apartment buildings with 24-units in four (4) of the apartment buildings and 16-units in one (1) of the apartment buildings for a total of 112-units. The maximum building height will be 39 feet from existing grade. The proposed Aria Apartments will offer a 2,168 square foot clubhouse with a swimming pool. Pursuant to City Code 125-315 (d)(1)(b), the parking ratio for a multi-family development is 1.5 spaces per unit. The development is required to have 168 parking spaces and 172 parking spaces are provided with four (4) surplus parking spaces. Seven (7) of those parking spaces are designated as handicap accessible. The development is also providing a total of 14 bicycle parking spaces, which includes two (2) surplus bicycle spaces above the minimum code requirement of City Code 125-315 (f)(1)(a).

Onsite amenities include a clubhouse, pool, tot lot with playground equipment and benches, a lake with a fountain feature, a walking trail around the lake at the center of the development, a passive park with picnic tables and benches, and a fenced dog-park. There is one (1) vehicle access point into the site from Okeechobee Road with two (2) pedestrian-only access points from the south of the property connecting to the Okeechobee Road northern sidewalk. The proposed site also includes an abundance of pedestrian pathways, such as internal sidewalks and striped crosswalks, throughout the development.

The Landscape Plan as presented is consistent with City Code 123-37, General Landscaping requirements. The applicant is providing a landscape plan that goes above and beyond code minimums, as demonstrated below:

- The interior landscaping area requires 56 trees and the applicant is providing 166 total trees.
- The interior landscaping area requires 5,531 square feet and the applicant is providing 8,284 square feet.

- The code minimum for the perimeter landscape buffer is 10 feet and the proposed landscape plan is providing up to 25 feet in locations along its perimeter.

The applicants will be required to mitigate trees because the mitigation plan provided shows that a total of 552 inches would be required for mitigation of trees and 316 inches are being preserved. A total of 155 Palms will be relocated on site. The Tree Mitigation Plan has been reviewed and approved by the City Urban Forester. The lighting plan is consistent with City Code 125-315 (j)(1)(b).

To make the project viable, the applicant is taking advantage of the Density Bonus that is outlined in City Code 125-326 (b)(2) and the City's Comprehensive Plan Policy 1.1.7 that both state that a "maximum of five (5) dwelling units per acre density bonus is permitted for development located within one-fourth (¼) mile radius of a rail station, multimodal transit center or transit stop." The Density Bonus section of the Code further restricts the Density Bonus to a maximum of five (5) additional units per acre pursuant to City Code 125-326 (c)(2) as the project is inside of the boundary of the Community Redevelopment Agency (CRA). The applicant has provided a map that demonstrates that the project is ¼ mile from a transit stop (corner of S. 33rd Street and Okeechobee Road) and is therefore eligible for the density bonus of up to five (5) units an acre under the above criteria.

Conditional Use

In accordance with City Code Section 125-243, the applicant is requesting approval for a Conditional Use with New Construction for an Innovative Residential Development that consists of 112 multi-family units. The applicant is taking advantage of an additional Density Bonus outlined in Section 125-243.

Innovative residential developments are developments which achieve a more creative and imaginative housing environment than normally occurs by use of the clustering technique, by employing various other methods to achieve distinctiveness and excellence in siting, design and/or landscaping. Density bonuses and reductions in various building restrictions are used to encourage these developments. Densities will not exceed the level which the city commission determines is appropriate due to natural features of the area, public facility and service needs and capacities, transportation needs and capacities and compatibility with nearby development.

Density bonuses awarded for the following criteria are cumulative:

(1) ***Landscaping****. The gross density may be increased up to one unit per acre for landscaping plans which provide for effective use of existing vegetation and/or for approved landscape plans for streetscapes, pedestrian ways, bicycle paths, areas near buildings, open spaces and/or recreation areas. This increased density may only be awarded if the landscaping of the innovative residential development will exceed the requirements in section 125-314 for landscaped area by ten percent, for amount of trees by ten percent and/or in terms of qualitative characteristics of the landscaping.*

*(2) **Siting**. The gross density may be increased (up to one-half unit per acre in R-3 and R-4 zones and one unit per acre in an R-5 zone) for creative placement of buildings and/or other facilities in terms of visual focal points, use of existing physical features such as topography, views, sun and wind orientation, the circulation pattern, variation in building setbacks and/or building and facility groupings.*

*(3) **Design**. The gross density may be increased (up to one-half unit per acre in R-3 and R-4 zones and one unit per acre in an R-5 zone) for imaginative design features including architectural styles, harmonious use of building materials, varied use of housing types and/or other design elements of the innovative residential development.*

The application requires approval of the Conditional Use for the additional maximum Density Bonus of two (2) units and qualifies for the following reasons:

1) The landscaping plan provides for effective use of existing vegetation and for streetscapes, pedestrian ways, bicycle paths, areas near buildings, open spaces and recreation areas. Landscaping of this proposed Innovative Residential Development exceeds the requirements in section 125-314 for landscaped area by ten percent, for the amount trees by ten percent and in terms of qualitative characteristics of the landscaping. The code minimum for total of trees is 168, the applicant has provided 303 trees. This exceeds the minimum requirement by 80.4%.
2) The site plan provides for creative placement of buildings and other facilities in terms of visual focal points, use of existing physical features such as topography, views, sun and wind orientation, the circulation pattern, variation in building setbacks and/or building and facility groupings.
3) The design elevations provide for imaginative design features including architectural styles, harmonious use of building materials, varied use of housing types and other design elements of the innovative residential development. The architecture includes a neo-modern design with balconies, pitched roofs, window canopies, and open-air stairway spaces.

Design Review

The City's Design Review guidelines provide approaches to design situations that will contribute to the existing and developing character of the City. The intent of the City's design review process is not to stifle innovative architecture, but rather to assure respect for and reduce incompatible and adverse impacts on the visual experience throughout the City. This may be accomplished through respectful interpretation of vernacular building typologies and styles in proposed development. Proposed designs should take cues from traditional proportioning systems and be synonymous with a chosen style.

In staff's professional opinion the design will not detract from the build environment and will blend in with its surroundings. The building is articulated with varying roof heights and accents. The apartment buildings will vary between two (2) and three (3) stories and will offer a consistent color. The architectural features are modern in nature and will compliment the other residential

communities in the area. Staff recommends that the applicant remove the light grey from the color scheme and use colors from the blue-violet or blue-green color palette.

Technical Review Committee
All affected City and County Departments have reviewed the proposed Development Review and Design Review applications and have provided conditional approval based on compliance with requirements of the City Code and the Comprehensive Plan. The comments generated from the technical review and any responses by the applicant have been provided.

Property Owner Response Summary
A total of 64 notifications of the proposal were mailed to the owners of property located within 500 feet of the subject property. An update will be provided to the City Commission at the public hearing.

Planning Board Recommendation
The Planning Board, at their August 11th, 2020 meeting, voted unanimously to recommend **Approval** of the request.

Staff Recommendation
The requested applications for Development Review and Design Review meets the criteria specified in Sections 125-313 and 125-314 of the City Code, the Comprehensive Plan, and does not adversely affect the public health, safety, convenience and general welfare; Therefore staff recommends **APPROVAL** with the following four (4) conditions:

1. A Landscape Bond will need to be provided at the time of Certificate of Occupancy for each building pursuant to City Code 123-6. The Landscape Bond for the common areas, clubhouse, lakes, and parking areas shall be submitted before the Certificate of Occupancy is issued for the first building in each phase.
2. At the time of Building Permit submit a signed and sealed boundary and topographic survey to the City Engineering Department in accordance with City Code 119-2 (a)(7).
3. Remove the light grey from the color scheme and use colors from the blue-violet or blue-green color palette.
4. Include a landscaped area around base of the monument sign which extends a minimum distance of three (3) feet in all directions. Such landscaped area shall be completely covered by ground cover and shrubs, hedges or similar vegetative materials. Vegetation in the area surrounding said sign shall be maintained at a height of less than twelve (12) inches.

   Advisory Comment: Please consider a gated entry for the health, safety, and welfare of the future tenants of this proposed development. (This is not a condition, but rather a suggestion)



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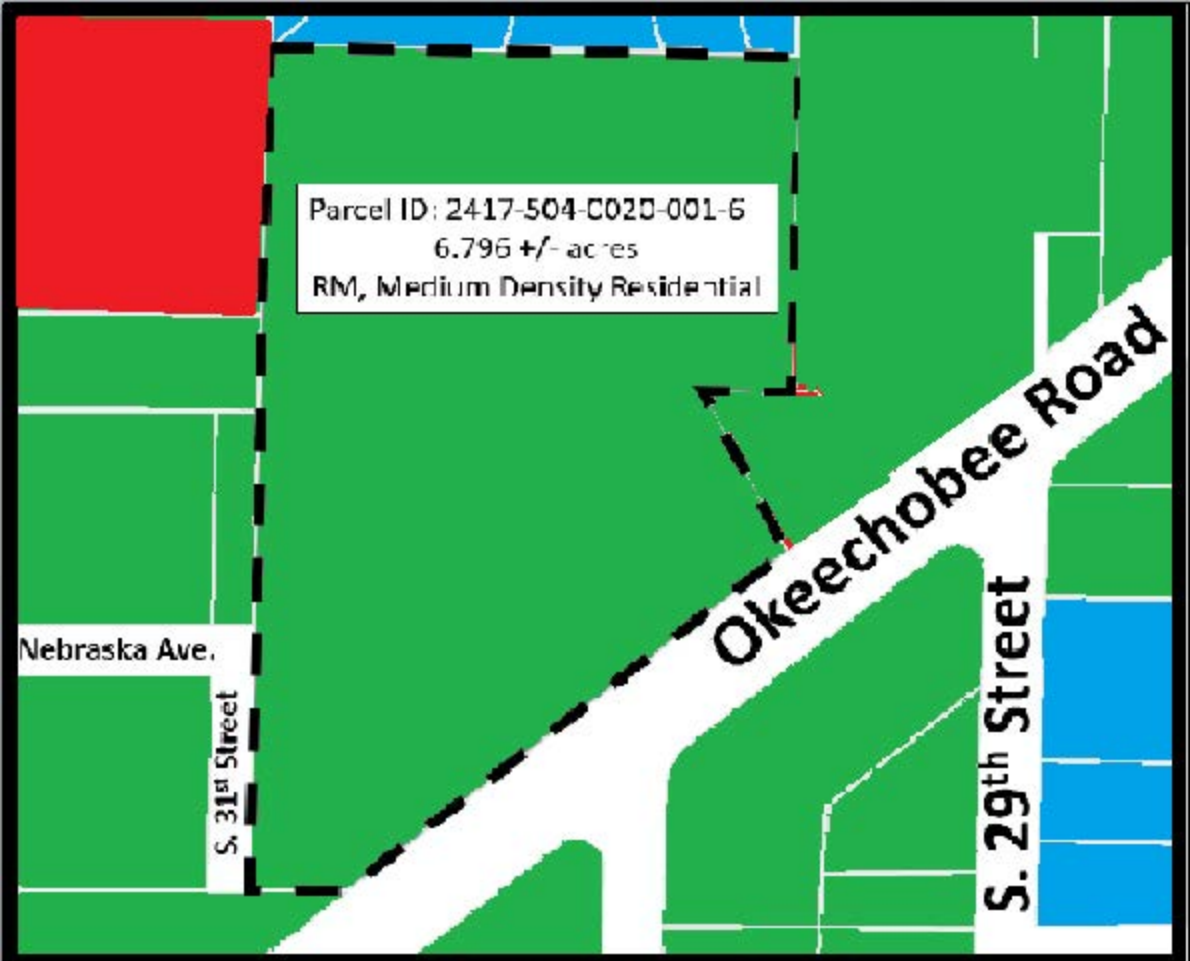
Aria Apartments
3000 Okeechobee Road

THE SUNRISE CITY
FORT PIERCE
Florida

Aerial Map



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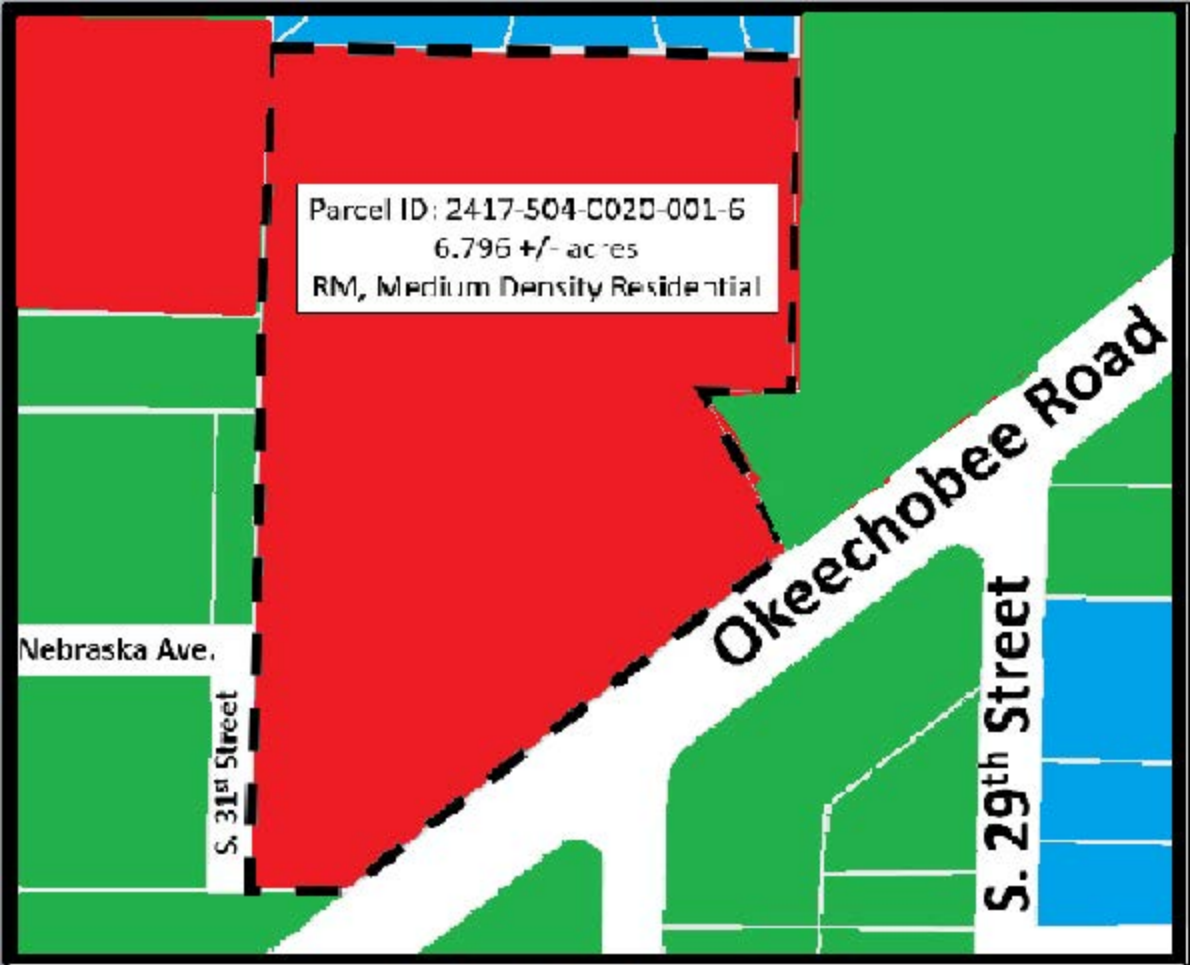
Aria Apartments
3000 Okeechobee Road

RM = GC= RL=

THE SUNRISE CITY FORT PIERCE Florida

Existing FLU Map



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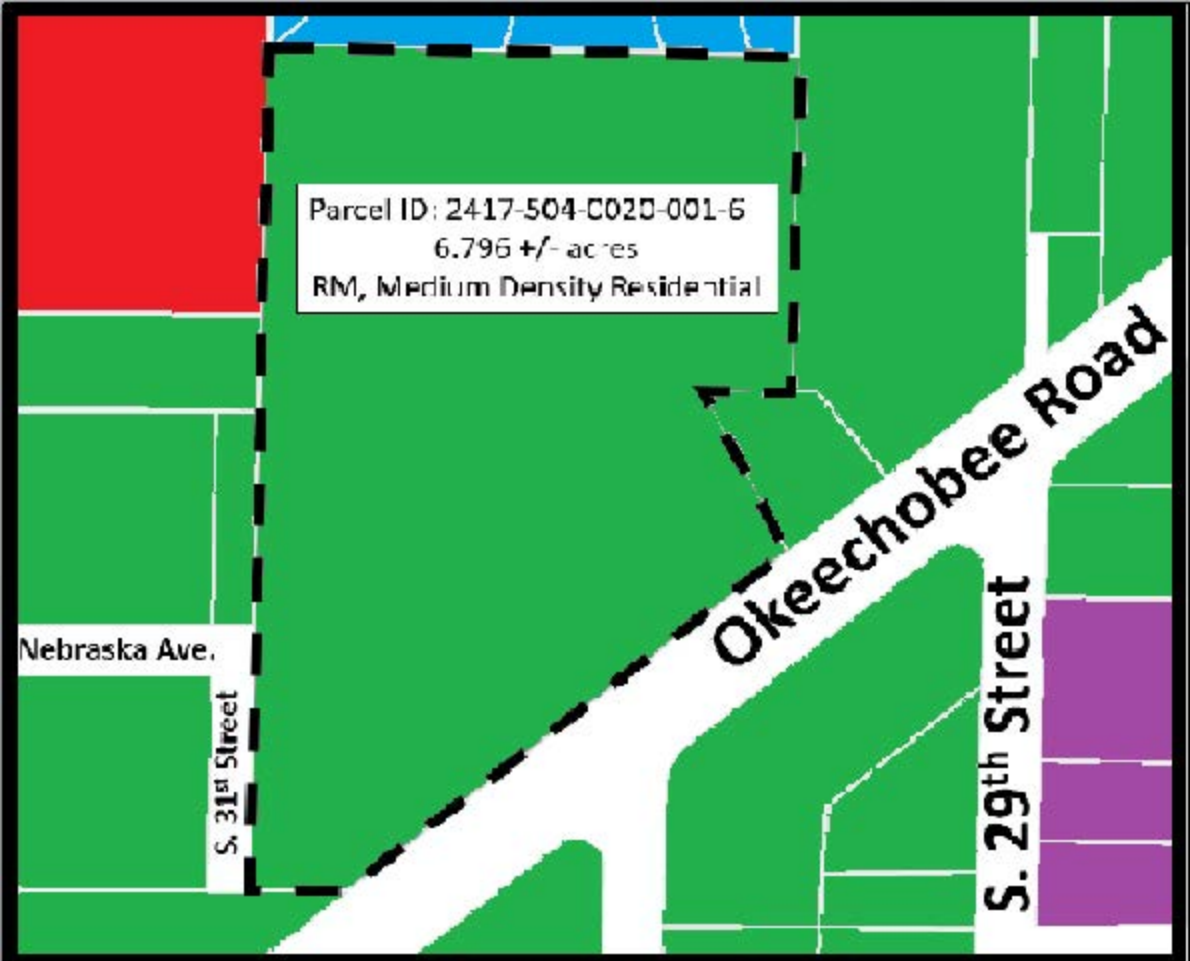
Aria Apartments
3000 Okeechobee Road

RM = GC= RL=

THE SUNRISE CITY FORT PIERCE Florida

Proposed FLU Map



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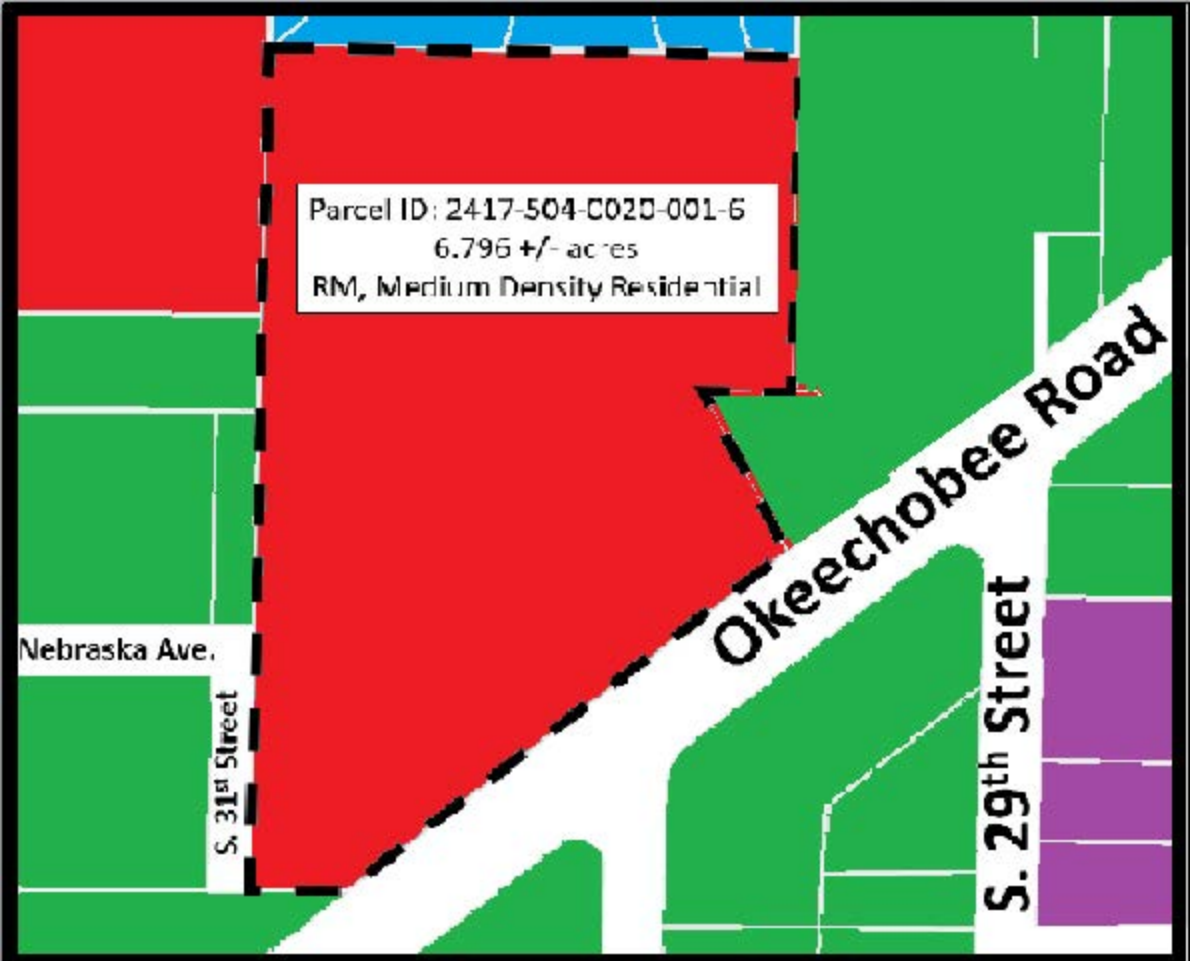
Aria Apartments
3000 Okeechobee Road

THE SUNRISE CITY FORT PIERCE Florida

R-4= C-3= R-2= R-3: :

Existing Zoning Map



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Aria Apartments
3000 Okeechobee Road

THE SUNRISE CITY FORT PIERCE Florida

R-4= C-3= R-2= R-3: : Proposed Zoning Map

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

July 16, 2020

Michael Sanchez/Managed Land Entitlements
3710 Buckeye Street, Suite 100
Palm Beach Gardens, FL 33410

Subject: 3000 Okeechobee Road – TRC Comments for July 16th, 2020 conference call

City of Fort Pierce Planning Department

1. Install a landscaped area around the proposed monument sign base which extends a minimum distance of three (3) feet in all directions. Such landscaped area shall be completely covered by ground cover and shrubs, hedges or similar vegetative materials. Vegetation in the area surrounding said sign shall be maintained at a height of less than twelve (12) inches.

2. Provide a separate gated entrance to the refuse collection areas for resident and employee access.

3. Pursuant to City Code Section 22-62(b)(4) Sidewalks. In order to provide continual access for pedestrians, sidewalks and sidewalk linkages shall be required to be provided by the property owner or permit applicant, when plans are submitted for condition use applications or pay a payment into the city sidewalk fund pursuant to City Code Section 22-62(g).

   Please submit payment in-lieu for sidewalks that would be otherwise required along S. 31st Street and the Southwest corner of the subject property to the City of Fort Pierce within ninety (90) days of Conditional Use Approval.

4. Please note that the City of Fort Pierce will have a new Code of Ordinances effective July 20, 2020. This new code represents a renumbering and reshuffling of code sections from what the current code reflects. The new Planning sections will start with Chapter 111, which is Historic Preservation through Chapter 125, which is Zoning. Should you have any questions; the new proposed code can be found on the City Website, under Agenda & Minutes, City Commission 7/6/2020, Item 12(i).

Fort Pierce Engineering Department

Recommends approval.

Advisory Comment: 1. The drainage plan was reviewed as a conceptual plan and will be further reviewed at time of Building Permit submittal.

Fort Pierce Utility Authority

FPUA W/WW Engineering: Water and sewer services are available to serve this location. Please Submit 3 complete sets of utility construction plan along with a completed commercial service application to Water and Wastewater Engineering for review at 1701 S 37th Street Fort Pierce Florida. For more information, please contact John Biggs at 772 466 1600 ext. 3474 or click on the following link below: https://www.fpua.com/Business/StartStopNewServices/DevelopmentServicesResponsibilitiesWWW.asp

FPUA Electric & Gas Engineering: Approved - Electric service is available to the site (from S. 33rd Street and Nebraska Avenue). Please provide electric load information for the AutoCAD drawing. Customer will be responsible for all transformer pads, conduits and secondary conductors. For more information and project coordination, please contact Sal Scimeca. Engineering Technician II Electric and Gas Engineering 1701 S. 37th Street, Fort Pierce, FL 34947 sscimeca@fpua.com Office: (772)466-1600 Ext. 6957

Gas service is available to the site (from S. 33rd Street and Nebraska Avenue). Please provide a copy of the gas riser diagram with the anticipated load (if developer is interested in natural gas service to the propose complex). For more information and incentive available, please contact Billy Dupre. Business Development Representative Gas Operations 1701 S. 37th Street, Fort Pierce, FL 34947 Bdupre@fpua.com Office: (772)-466-1600 Ext.4705

Utility easement will be required for all propose FPUA electric and gas facilities within the site. If the developer should have any questions, please have them contact individuals listed above. Attached are copies of the FPUA GIS Maps (Electric and Gas).

Please see attached utility maps of the area.

Fort Pierce Building Department

The Building Official or his representative has no comment at the time of this meeting, but reserves submission of comments upon completion of the official plan review.

Fort Pierce Police Department

Overall, a very nice project and site plan that would, once finished, bring "substantial enhancement to the area" as stated in the project narrative.
I do, however, have one concern. It is to do with the "indented, mini-courtyard like" area in the center of each of the apartment structures. That indented area is part of the building's design and is shown on the "front elevation" and floor plans. Specifically, it is the open courtyard like space that is between the two "one bedroom" apartment units. Even though there are a total of four (or six in the 3 story building) windows (located in "bedroom 3" of the

3 bedroom apartment units) which allow residents to see into that courtyard like area, it is still an area that may have potential use for nefarious activity as it offers a fair amount of concealment. The "indent" creates an area that may offer cover for abnormal users and unwanted activities.
One suggestion to mitigate this concern is to place an additional window in each of the one bedroom apartment's bedroom on the wall that currently does not feature a window. This will allow for greater levels of natural surveillance by residents into that courtyard area which would aide in the deterrence of unwanted activities. Additionally, consider some form of pedestrian scale illumination to ensure that courtyard area receives adequate illumination to deter (or identify) unwanted activities (but with consideration to light trespass into the bedrooms)

Officer Damian Spotts
Crime Prevention Practitioner
Fort Pierce Police Department.

City of Fort Pierce Arborist

Please contact Paul Bertram for further review. He will need to send the Planning Department his comments as well.

Paul Bertram
Office: 772-467-3821
Email: PBertram@cityoffortpierce.com

St. Lucie County Planning Department

No Comments

St. Lucie County PW/Engineering

1. A County Roadway Improvement Agreement, Right-of-Way permit, and bond will be required for turn lane construction to Okeechobee Road. Plans and cost estimates should be provided to Grant Chambers, P.E. at chambersg@stlucieco.org .
2. The County asks to be copied on the correspondence regarding the City's review of the traffic impact analysis.

City Clerk Office

No Comments

St Lucie County Fire District

This entity had issues opening your file packet, please contact Lieutenant Wayne Boyer:

Lieutenant Wayne Boyer, M.S., FO, C.F.E.I.
Water Supply Officer
Community Risk Reduction Bureau
St. Lucie County Fire District
Office: 772-621-3322 Mobile: 772-631-8877
Email: WBoyer@slcfd.org

Lieutenant Boyd will need to send the Planning Department his comments as well.

Code Enforcement

No Comments

Florida Department of Transportation

No Comments



Legend

- Electric Primary Wire
- Transmission Wire
- Gas Main
- Fiber Optic Cable
- Potable Water Main
- Raw Water Main
- Wastewater Force Main
- WW Gravity Main
- Pole
- Fuse
- Transformers
  - Overhead
  - Pad Mount
- Valves
  - Gas
  - Water
  - Raw Water
  - Waste Water
- Fire Hydrant
- Well
- Lift Station

Disclaimer:

The data contained herein is offered "as is", with no claim or warranty as to its accuracy or completeness. The data is for reference only and should not be considered to be of survey precision. Due to formatting restrictions, the information provided in the map may not be represented in the legend.

811 Know what's below. Call before you dig.

Date: 7/6/2020

FPUA COMMUNITY PROUD

N

1 inch = 181 feet

FPUA Utility Map

Created By:
Name

(772) 466-1600
FAX (772) 461-1938



Legend

- Electric Primary Wire
- Transmission Wire
- Gas Main
- Fiber Optic Cable
- Potable Water Main
- Raw Water Main
- Wastewater Force Main
- WW Gravity Main
- Pole
- Fuse
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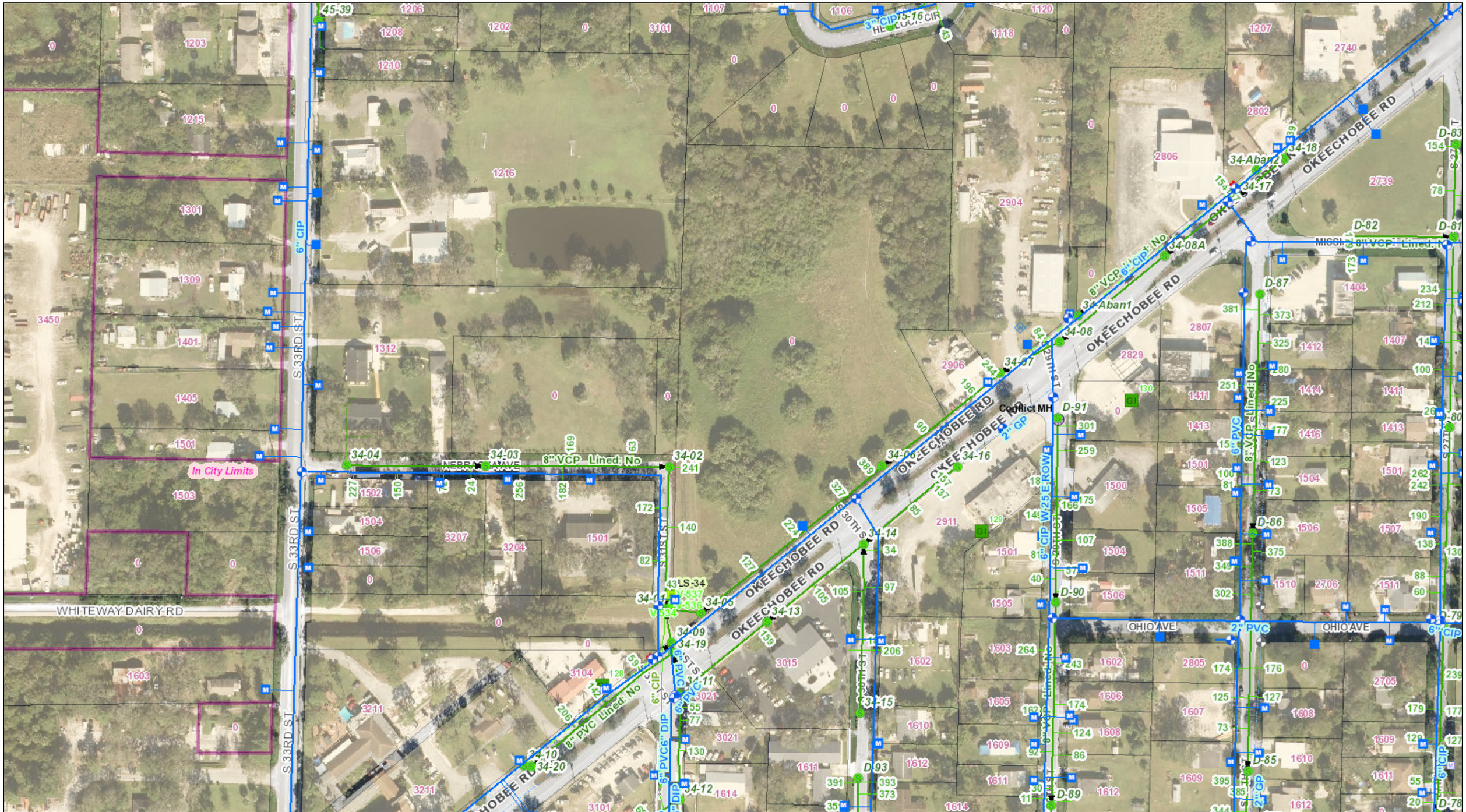

Legend

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- Fuse

Transformers

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Valves

- Gas
- Water
- Raw Water
- Waste Water

- Fire Hydrant
- Well
- PS Lift Station

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811 Know what's below. Call before you dig.

Date: 7/7/2020

FPUA COMMUNITY PROUD

N

1 inch = 170 feet

FPUA Utility Map

Created By:
Name

(772) 466-1600
FAX (772) 461-1938

D R A F T

CITY OF FORT PIERCE

PLANNING BOARD

Planning Board Minutes

OF THE REGULAR MEETING OF THE FORT PIERCE CITY PLANNING BOARD HELD ON TUESDAY, SEPTEMBER 8, 2020, IN FORT PIERCE CITY HALL, COMMISSION CHAMBERS, 100 NORTH US HIGHWAY 1, FORT PIERCE, FLORIDA.

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Chairman Creyaufmiller welcomed new Planning Board member, Marsha Baker.

Present: **Marcia Baker**; **Bob Burdge**; **Gloria Johnson-Scott**; **Michael Broderick**; **Solomon Lee**; **Patricia Diaz**; **Frank Creyaufmiller**, **Chairman**

Staff Present: **Jennifer Hofmeister**, **Planning Director**
Tanya Earley, **Assistant City Attorney**
Vennis Gilmore, **Planner**
Brandon Creagan, **Planner**
Alicia Rosenthal, **Executive Assistant**

4. CONSIDERATION OF ABSENCES

All Planning Board members were in attendance.

5. APPROVAL OF MINUTES

a. Minutes from the August 11, 2020 meeting

Motion was made by Michael Broderick, and seconded by Bob Burdge to approve the minutes from the August 11, 2020 meeting.

AYE: **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Chairman Frank Creyaufmiller**

Passed

6. NEW BUSINESS

a. Conditional Use - Barsotti Dwelling Rental - 1040 Windward Drive, Unit 3402

Mr. Gilmore gave an overview of the application.

Mr. Broderick asked if the updated recommendations to the dwelling rental conditions, that will heard at the September 14, 2020 Conference Agenda, should be included.

Ms. Hofmeister stated it may be premature and best to hold off until the City Commission approves the modifications to the conditions.

Ms. Baker suggested adding a condition that business liability insurance is required.

Board discussion ensued on the benefits of adding liability insurance as a condition to dwelling rentals.

Ms. Hofmeister suggested adding the condition to the updated recommendations being presented at the Conference Agenda.

Ms. Johnson Scott noted that adding an additional fee may limit some people from renting out their property which in turn could hurt the city.

No one spoke for or against the application.

Motion was made by Bob Burdge, **and seconded by Marcia Baker to recommend approval with the following six (6) conditions:**

1. **The property manager for the dwelling rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.**
2. **Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.**
3. **The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.**
4. **There shall be a limitation of no more than no two (2) vehicles per unit.**
5. **The City of Fort Pierce Business Tax License number shall be included on all advertising.**
6. **Third-party liability insurance is required.**

AYE: **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Chairman Frank Creyaufmiller**

NAY: **Gloria Johnson-Scott**

Passed

b. Conditional Use - Ballantyne Dwelling Rental - 715 S. Ocean Drive, Unit B

Ms. Hofmeister gave an overview of the application and answered questions from the Board on guest parking spaces and the number of Conditional Use approvals for the building. Ms. Hofmeister stated since the application triggers the state requirement for a change of use and fire sprinklers, she does not foresee any more rentals at the building due to being cost prohibitive.

No one spoke for or against the application.

Motion was made by Bob Burdge, and seconded by Michael Broderick to recommend approval with the following six (6) conditions:

1. **The property manager for the vacation rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.**
2. **Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.**
3. **The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.**
4. **There shall be a limitation of no more than no two (2) vehicles per unit.**
5. **The City of Fort Pierce Business Tax License number shall be included on all advertising.**
6. **Third-party liability insurance is required.**

AYE: **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Chairman Frank Creyaufmiller**

Passed

c. **Conditional Use - Danaluk Dwelling Rental - 715 S. Ocean Drive, Unit L**

Ms. Hofmeister gave an overview of the application and answered questions from the Board. Ms Hofmeister explained the 2-story duplex is a separate building located on the parcel and the building does not trigger the states 25% requirements because it is only two units.

No one spoke for or against the application.

Motion was made by Bob Burdge, and seconded by Patricia Diaz to approve with the following six (6) conditions:

1. **The property manager for the vacation rental shall be available at all times to resolve complaints or violations of city code. Said manager shall reside in St. Lucie County and shall be registered with the City of Fort Pierce.**
2. **Guide booklets (available from Code Enforcement) shall be provided to renters regarding local rules and public service resources, to minimize conflicts.**
3. **The applicant shall file for and obtain St. Lucie County and City of Fort Pierce Business Tax Licenses within thirty (30) days of issuance of a license from the Florida Department of Business & Professional Regulation.**
4. **There shall be a limitation of no more than no two (2) vehicles per unit.**
5. **The City of Fort Pierce Business Tax License number shall be included on all advertising.**
6. **Third-party liability insurance is required.**

AYE: **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Chairman Frank Creyaufmiller**

Passed

d. **Annexation - Jetson - 504 Tumblin Kling Road**

Mr. Creagan gave an overview of the application and answered questions from the Board on the residential area. Mr. Creagan explained that the property is zoned commercial in St. Lucie County and the city is not allowed to down zone the property.

Mr. Burdge noted that a barrier would be required between the commercial development and residential property.

Ms. Hofmeister stated the Planning department will put the elements in the review process for Jetson's expansion and the site plan will come before the Planning Board.

Motion was made by Bob Burdge, **and seconded by Michael Broderick to recommend approval of the proposed annexation Future Land Use designation of GC and the Zoning designation of C-3.**

AYE: **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Chairman Frank Creyaufmiller**

Passed

7. **ELECTION OF CHAIR AND VICE-CHAIR**

Mr. Broderick nominated the current Chair, Mr. Creyaufmiler, for Chairman.

Mr. Burdge nominated Mr. Broderick as Chair but Mr. Broderick stated he would be more effective in the Vice-Chair position and Mr. Creyaufmiller would be better suited as Chairman.

Motion was made by Michael Broderick, **and seconded by Patricia Diaz to elect Mr. Creyaufmiller as Chairman.**

AYE: **Marcia Baker**, **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Chairman Frank Creyaufmiller**

Passed

Motion was made by Patricia Diaz, **and seconded by Marcia Baker to elect Mr. Broderick as Vice-Chair.**

AYE: **Bob Burdge**, **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Chairman Frank Creyaufmiller**

Passed

8. **COMMENTS FROM THE PUBLIC**

Any person who wishes to comment on any subject may be heard at this time. Please limit your comments to three (3) minutes or less, as directed by the Chair, as this section of the Agenda is limited to thirty minutes. The Planning Board will not be able to take any official actions under Comments from the Public. Speakers will address the Board and the Public with respect. Inappropriate language will not be tolerated.

There were no comments from the public.

9. **DIRECTOR'S REPORT**

Ms. Hofmeister reminded the Board that Mr. Broderick will be presenting the proposed dwelling rental conditions to the City Commission at the Conference Agenda on Monday, September 14, 2020 at 9:00 AM.

10. BOARD COMMENTS

Ms. Baker suggested the dwelling rental insurance condition be limited to third-party liability insurance, so the owner is spending the least amount of money on insurance to protect the general public and adjoining neighbors.

Chairman Creyaufmiller reminded the Board of the upcoming CeeCee Ross Lyles 9/11 Virtual Memorial Ceremony.

Motion was made by Michael Broderick, and seconded by Bob Burdge to add the condition that third-party liability insurance be required on all dwelling rentals.

AYE: **Gloria Johnson-Scott**, **Michael Broderick**, **Solomon Lee**, **Patricia Diaz**, **Marcia Baker**, **Bob Burdge**, **Chairman Frank Creyaufmiller**

Passed

11. ADJOURNMENT

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

DEVELOPMENT REVIEW

Property address or Location: North side of Okeechobee Road - Approximately 1/4 mile NE of S 33rd Street

Parcel ID #(s): 2417-504-0020-001-6

Project description: Aria Apartments

Arrow Investment Group, LLC	Michael Sanchez/Managed Land Entitlements
Property Owner(s)	**Applicant/Representative, Title, Company**
4512 N. Flagler Drive, Suite 2056	3710 Buckeye Street, Suite 100
Street Address	Street Address
West Palm Beach, FL 33407	Palm Beach Gardens, FL 33410
City State Zip	City State Zip
(561) 324-4439	561-568-8045
Phone Number	Phone Number
capitalinvestments@usa.com	michael@mylandentitlements.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below sholl also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 24 day of June, 2020, by Mustafa Alnok who is personally known to me or has produced FLDL as identification.

Signature of Notary (seal)

NOTARY PUBLIC
MARIA TELLEZ-HURST
Notary Public. State of Florida
Commission# GG 104011
My comm. expires June 13, 2021

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____ Fees_____ Control #_____ B. Permit #_____

Intake Planner_____

Planner Assigned_____

Approved By_____ Date _____

Comments_____

Intake Date Stamp

❑ DEVELOPMENT REVIEW

General Information

- ❑ Incomplete application packets cannot be accepted.
- ❑ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
☒ Site Plan	☒ Conditional Use with New Const.	❑ Major Amendment
❑ Conceptual Development Plan		❑ Minor Amendment

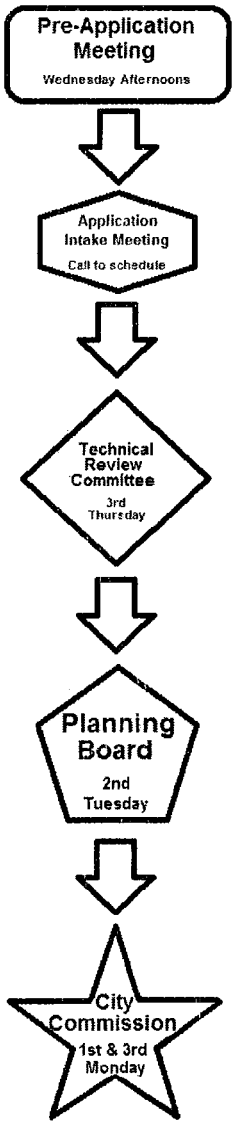
Site Information:

Non-Residential: Proposed Sq. Ft.: _____ Residential: Proposed Units: 112 Units

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West
Single Family	Commercial	Commercial	Multifamily/Commercial

Application Outlook



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ❑ Complete notarized application
- ❑ Warranty Deed
- ❑ SLC Property Record Card
- ❑ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ❑ General location map (see Section 22-58.d.2)
- ❑ Survey (see Section 22-58.d.3)
- ❑ Site Plan (see Section 22-58.d.4)
- ❑ Landscaping Plan (see Section 22-187)
- ❑ Storm Drainage Plan (see Section 22-58.d.6)
- ❑ Environmental Impact Report
- ❑ Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ❑ Lighting Plan (see Section 22-58.d.8)
- ❑ Design Review submittals (see Design Review application)
- ❑ Traffic Impact Report
- ❑ Concurrency Review submittals (see Concurrency Review application)

ARIA APARTMENTS

CITY OF FORT PIERCE

FUTURE LAND USE MAP AMENDMENT, REZONING, CONDITIONAL USE AND SITE PLAN APPROVAL

PROJECT NARRATIVE/JUSTIFICATION STATEMENT

JUNE 26, 2020

REQUEST SUMMARY

Arrow Investments Group, LLC (the "Applicant"), hereby respectfully requests approval from the City of Fort Pierce (the "City") of the following applications related to the Aria Apartments project proposed on a 6.796-acre property located on the north side of Okeechobee Road approximately ¼ mile east of S. 33rd Street (the "Property"):

- Future Land Use Map Amendment to change the land use designation of the Property from General Commercial (GC) to Medium Density Residential (RM);
- Zoning Map Amendment to change the zoning designation of the Property from General Commercial (C3) to Medium Density Residential (R-4);
- Site Plan Approval to allow the construction of a 112-unit luxury rental apartment project on the Property to be referred to as the "Aria" apartment complex (the "Project"); and
- Conditional Use Approval to allow for an "Innovative Residential Development" for the Project.

PROPERTY DETAILS

The Property is currently vacant and, to the best knowledge of the Applicant, has never been developed. Limited clearing had previously occurred on the Property, and the Property is currently dominated by cleared land with some remnant forest communities consisting of Cabbage Palm and Brazilian Pepper (please see "Environmental" section of this narrative for additional information regarding existing vegetation and a small, isolated wetland). A drainage ditch exists along the west perimeter of the Property.

The Property contains a General Commercial (CG) Future Land Use Designation and a General Commercial (C3) zoning designation.

ADJACENT PROPERTIES DETAILS

Details regarding the land use, zoning and existing uses of the properties adjacent to the Property are noted below:

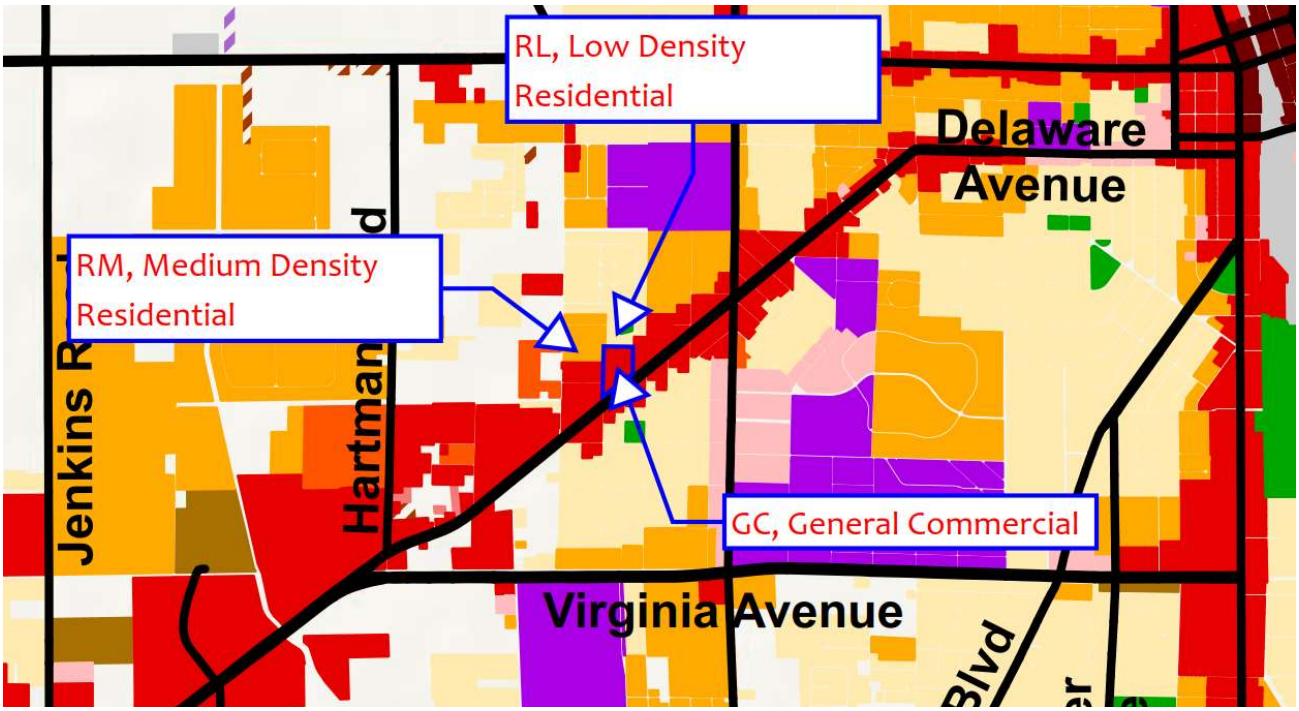
	Current FLU	Current Zoning	Existing Uses
North	RL, Residential Low Density	R2, Single Family Intermediate Residential	Vacant single family
South	GC, General Commercial	C3, General Commercial	Funeral home; grocery store
East	GC, General Commercial	C3, General Commercial	Used car sales; Habitat for Humanity
West	GC, General Commercial; RM, Medium Density Residential	C3, General Commercial; R4, Medium Density Residential	Contractor's Office; Religious Institutions

The graphic below identifies the Property in red and identifies the existing uses of the adjacent properties:

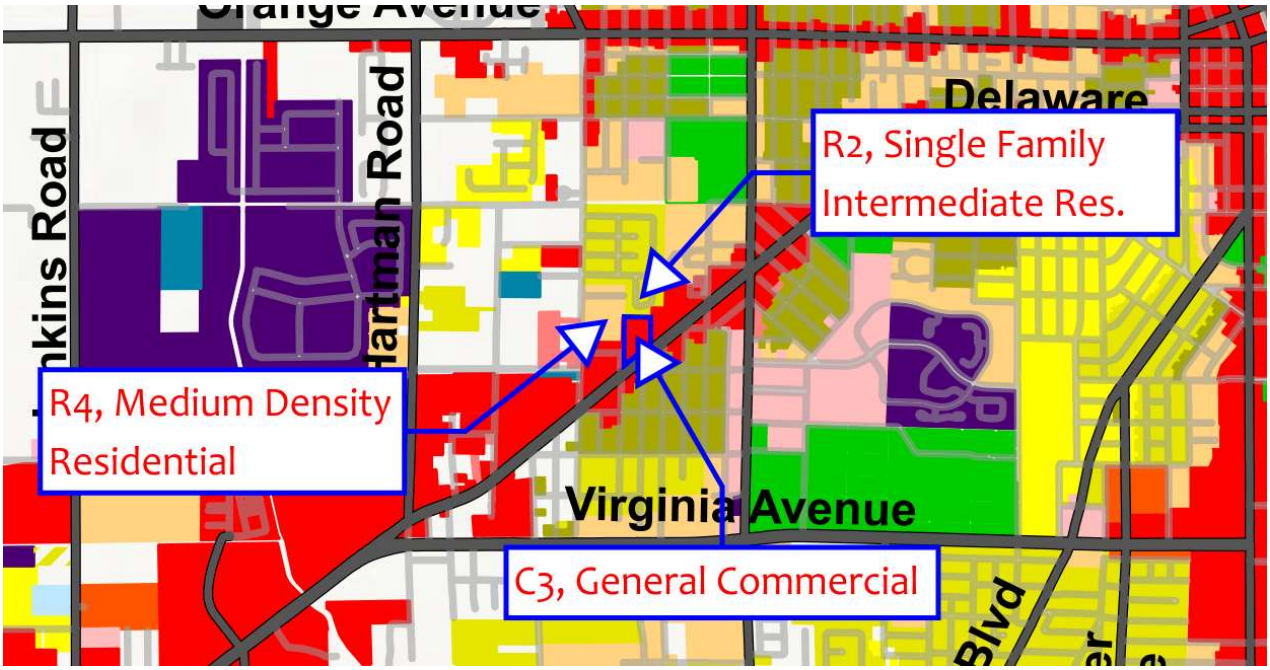


The graphics below identify the Future Land Use and Zoning of the subject property and adjacent properties:

FUTURE LAND USE



ZONING



GENERAL DESCRIPTION OF SUBJECT REQUEST AND NARRATIVE FORMAT

The Applicant is proposing to change the future land use designation of the Property to Medium Density Residential (RM) and rezone the Property to Medium Density Residential (R4) in order to allow for the development of a 112-unit residential apartment project consisting of five (5) residential buildings of between two (2) and three (3) stories in height, a clubhouse, a pool and other amentities.

The balance of this Narrative will provide (1) discussion regarding the proposed change from commercial to residential future land use and zoning designations; (2) discussion regarding the proposed density within the Project; (3) descriptions of the physical improvements proposed for the Project and related issues; and (4) demonstration of compliance with the Innovative Residential Development criteria.

FUTURE LAND USE MAP AMENDMENT AND REZONING FROM COMMERCIAL TO RESIDENTIAL

The Property currently has commercial land use and zoning designations similar to other properties that front along the north and south sides of Okeechobee Road. The portion of Okeechobee Road extending from Virginia Avenue to Delaware Avenue is developed on both sides of the road with an eclectic mix of uses including, but not limited to, smaller retail strip centers, automobile repair, used auto sales, small restaurants, small personal service uses, small office uses, day care, convenience stores, gas stations, bank, religious institutions and other uses. There are no large-scale commercial developments within said stretch of Okeechobee Road since those developments would typically locate on a road with a higher traffic volume such as Virginia Avenue.

It is the Applicant's opinion that (1) an approximately 6.8-acre property such as the Property is not suitable for large scale commercial development given its location along a lesser traveled roadway, and (2) a much more suitable and feasible use for the Property would be medium-scale multifamily development that would be appropriate along a four-lane divided roadway such as the section of Okeechobee Road in front of the Property and which would provide a logical transition from the single family and multi-family residential uses to the north to Okeechobee Road.

The requested Medium Density Residential (RM) future land use designation is consistent with the land use designation of properties to the west and northwest of the Property, provides for a logical transition from the Low Density Residential (RL) land use designation of the properties to the north to Okeechobee Road and is compatible with the General Commercial (GC) land use designations to the west, east and south.

The same logic as above applies to the requested Medium Density Residential (R4) zoning district as it relates to the zoning designations of surrounding properties.

Consistency with Comprehensive Plan

The following are excerpts from the Future Land Use Element of the County's Comprehensive Plan as it relates to the requested Medium Density Residential (RM) designation, each followed by the Applicant's demonstration of the proposed Project's compliance with the referenced provisions of the Comprehensive Plan:

- Section A: *The Medium Density Residential designation is intended for parcels that are best suited for multifamily residential uses ranging in density from 6.5 to 12 du/ac. This category allows small-lot single family units and multifamily dwellings including duplexes, condominiums and townhouses. Limited*

commercial uses intended to serve the residential uses shall be allowed. Compatible public, quasi-public, and special uses including parks, churches, non-profit clubs, schools, and daycare facilities shall be allowed.

Demonstration of compliance: *The proposed land use designation is consistent with the intended use of the property as multi-family apartments, and uses allowed with the RM future land use designation are consistent with other uses existing along Okeechobee Road based on the allowable uses within the RM designation noted above.*

- Objective 1.2: *The City shall use innovative Land Development Regulations to encourage flexibility in development to support compact, mixed-uses compatible with local context and character.*

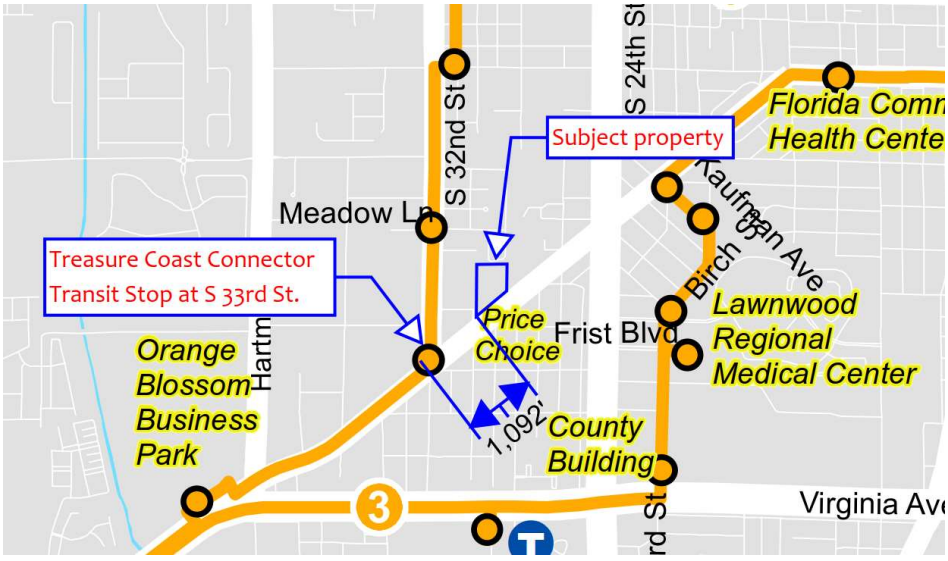
  Demonstration of compliance: *The proposed Project will be a compact development providing new, high-quality apartment housing for residents of the City which is compatible with the local context and character of the area. The increased residential density in the area will help to support the neighboring commercial uses along Okeechobee Road, and the Project's compact, walkable design will help to further the interrelationship between the residential and commercial uses in the area.*

Density

The proposed Project provides for a density of 16.48 du/ac.

The County's Comprehensive Plan provides that the Medium Density Residential (RM) future land use designation allows for between 6.5-12 du/ac. However, Policy 1.1.5 states "The City will allow a density bonus of 5 dwelling units per acre above the maximum density for developments within ¼ mile of a rail station, multimodal transit center or transit stop."

As demonstrated the map below, the Property is located less than ¼ mile from a transit stop for the County's Treasure Coast Connector bus system that is located at the northwest corner of the intersection of Okeechobee Road and S. 33rd Avenue. Accordingly, the Applicant intends to utilize the additional five (5) du/ac authorized by the above-referenced Policy 1.1.5 of the Comprehensive Plan bringing the total density permitted under the RM future land use designation to 17 du/ac.



With respect to zoning, the Medium Density Residential Zone (R-4) allow for a maximum density of ten (10) du/ac for conventional developments and twelve (12) du/ac for innovative developments. The Applicant is requesting approval of a Conditional Use to allow an "Innovative Residential Development" as demonstrated in the "Innovative Residential Development/Conditional Use Approval" section of this narrative and, thus, will be utilizing the additional density allowed for such developments (12 du/ac) for the purposes of this application. The maximum density for the Project with respect to zoning has been calculated at 17 du/ac based on the 12 du/ac allowed with an innovative development + the additional five (5) du/ac density bonus authorized by the above-referenced Policy 1.1.5 of the Comprehensive Plan for developments within a ¼ mile of a transit stop.

The proposed density of 16.48 du/ac per acre complies with the 17 du/ac maximum allowed by the future land use and zoning designations noted above.

PROJECT DETAILS

General Project Improvements

A summary of proposed Project improvements depicted in the development plans provided with this submittal is contained below:

- Development program: The Project comprises a multifamily apartment project consisting of 112 dwelling units ranging from one (1) to three (3) bedrooms in five (5) buildings. Four (4) of the buildings will be three (3) stories in height; and the fifth building will be two (2) stories in height. A clubhouse, pool area and other amenities listed below are also proposed.

- General design intent/summary: The design intent of the Project was to create an innovative, walkable and compact apartment project with high quality architecture, landscaping and amenities that raise the bar for new development in the area, increase property values and create an inviting sense of place for its residents. Four (4) of the residential building are placed around a central retention lake which has been provided an amenity for the Project. The lake will have a fountain and littoral plantings to enhance the amenity, and a sidewalk has been provided around the entire lake with benches so that residents can enjoy the lake views and recreate/exercise around the lake. A palm tree-lined roundabout is proposed at the entrance into the Project which will have a specimen tree as a focal point and will provide for an aesthetically pleasing entry into the Project. Parking and dumpsters are evenly and conveniently distributed throughout the Project. Other amenities include a clubhouse with a fitness center, kitchen, multipurpose room, restrooms and a covered area over the pool deck for shade lounging; a passive park with picnic tables, benches and shade trees; a large pool with seating areas and planters; a tot lot with playground equipment and fenced dog park. Additionally, Building 1 and the clubhouse have been placed against the street to add visual interest and to help screen the parking area from the adjacent roadway.

- Parking: Parking is provided within the Project based on a rate of 1.5 spaces/unit. 168 spaces are required, and 172 spaces are provided.

- Open Space/Outdoor Amenities: Section 22-27(b)(3) of the City's Land Development Code requires that buildings within multi-family housing developments in the Medium Density Residential (R-4) zoning district not cover more than 50% of the lot area. The Project proposes a building coverage of only 18.0% and a total open space of 127,934 square feet or 43.2% of the project site. Outdoor amenities include

walking paths throughout the site including around the retention lake, seating areas around the lake; a passive park with benches, tables and shade trees; a large pool; a fenced dog park and a tot lot.

Architecture

Both the two story and three buildings are designed in a contemporary style that mirrors current trends in many residential projects. The building footprints allow the building mass to be broken up reducing overall scale and creating a more visually interesting facade. The fenestration utilizes contemporary features and materials including cantilevered balconies, horizontal railing, variations in roof types and heights, metal eyebrow shades, faux horizontal wood siding, and smooth stucco broken into different wall panels by the building mass and vinyl stucco joints. The color and material palette is contemporary and brings good contrast for visual interest using white for trim, window frames, walls, sun shades and railings; light grey for wall panels, medium grey for the faux wood siding and dark grey for the flat concrete roof tiles.

The maximum height allowed in the Medium Density Residential (R-4) zoning district is 45'-0". The maximum height of the tallest building is 39'-0".

Mechanical equipment will be located on the roof and screened from view.

A monument sign is proposed on the south side of the Project entrance, and details regarding said sign are provided with this submittal on the "Sheet A-1 – Entry Monument" plan. The design of the monument sign incorporates the same colors and materials as the buildings on site and has been sized in accordance with the City's requirements for residential development signage.

Landscaping/Tree Mitigation

The Applicant has gone to every effort to save and/or relocate existing native trees on site which include Pine, Live Oak and Cabbage Palm. The Tree Mitigation Plans provided with this submittal provide that (1) 155 cabbage palms will be relocated on site; (2) 552" of trees will be removed in order to allow for the Project; and (3) 316" of trees will be preserved in place. The total mitigation requirement is 236".

The Applicant is proposing an very dense landscape design in order to satisfy the minimum landscape requirements of the City, provide additional trees to satisfy the mitigation requirement and provide additional landscaping to satisfy the "Innovative Residential Development" requirements as further discussed in the "Innovative Residential Development/Conditional Use Approval" section of this narrative.

The Project requires 56 interior trees, where 166 interior trees are being provided (110 additional trees or 196% additional). The project requires 112 buffer trees, where 137 trees are being provided (25 additional trees or 22.3% additional). A total of 137 additional trees are proposed on the Project. Additionally, the height of trees and palms proposed (Slash Pine, Bald Cypress, Live Oak, Japanese Blueberry, Crape Mrytle, Yellow Tabebuia, Royal Poinciana, Christmas Palm, Washington Palms, etc.) have been increased by at least 10% beyond the minimum size requirements at planting to provide additional justification for the Innovative Residential Development proposal.

The Applicant has increased the landscape buffers along the west, north and east sides beyond the minimum 10-foot requirement to 20', 15' and 15', respectively in order to further justify the Project and provide additional buffering for adjacent properties.

The proposed landscape palette provides native vegetation and careful placement of trees to provide shade in open spaces areas, screening where required, planting of the littoral areas of the retention pond for aesthetics and enhanced aesthetics at the Project entrance, residential buildings, clubhouse and other areas.

A cabbage palm hammock is proposed at the southwest corner of the Project, and a "Range Live Oak" is proposed at the roundabout at the Project entrance to serve as a focal point and enhance the Project.

Site Lighting

A photometric plan has been provided with this submittal which depicts the proposed exterior lighting within the Project. Pole mounted lights and building lights are proposed to provide lighting within the parking areas and pedestrian walks, bollard lighting is provided at the passive park and pedestrian scale pole-mounted lights are provided within the pool area. All lighting will be high efficiency LED lighting.

Drainage

The proposed surface water management system will collect stormwater runoff and direct it to the on-site detention area via a network of underground pipes. Stormwater will be stored in the detention area and on surface for large, infrequent storm events. A small exfiltration system is provided to assist with pre-treatment prior to discharge. Finished floors will be protected from the 100-year 3-day storm event. Roadways will be protected from the 10-year 1-day storm event. A perimeter berm will be established and retain the 25-year 3-day storm event on-site.

The drainage ditch along the west side of the property will lie outside the storage basin and act as the receiving body for controlled discharge. Water from the ditch will exit to the west via a culvert under South 31st Street into a City of Fort Pierce drainage ditch that runs west to and under South 33rd Street. At that point, the drainage system becomes part of North St. Lucie River Water Control District Canal 6 and stormwater flows west to Five Mile Creek.

Utilities

Domestic and Fire Water supply will be provided through an 8" water main loop through the project with two connection points to the existing water main located within Okeechobee Road right-of-way. This system will be constructed to Fort Pierce Utility Authority standards and be turned over to the utility for operation and maintenance.

Sanitary sewage will be collected via a service from each building that connects to a sanitary main. The main directs flow to an on-site private lift station located near Building 1 at the southwest corner of the site. The lift station will pump flow to an existing manhole operated and maintained by Fort Pierce Utility Authority. The on-site sanitary system is proposed to be privately operated and maintained.

Traffic Concurrency and Capacity Analysis

Included with this submittal are (1) a future land use amendment traffic analysis (the "FLUA Analysis"), and (2) a traffic impact analysis for the Project (the "TIA").

The FLUA Analysis concludes that the proposed change in land use will be a decrease in project trips and will not impact roadways in the vicinity of the project and, therefore, the proposed change in future land use for the Project meets applicable criteria for an amendment to the City's Comprehensive Plan.

The TIA concludes that (1) the roadway links are sufficient to accommodate the Project traffic in the AM and PM peak hours; (2) the existing geometry at the intersections of S 25th Street & Okeechobee Road and Okeechobee Road and Virginia Avenue are expected to operate acceptably under existing, background and future total conditions; and (3) an eastbound left turn lane is required. The Project plans provided with this submittal include the required eastbound left turn lane.

INNOVATIVE RESIDENTIAL DEVELOPMENT/CONDITIONAL USE APPROVAL

Section 22-82 of the City's Land Development Code contains the following standards applicable to a multifamily residential developments that shall be satisfied in order to qualify for the two (2) additional dwelling units per acre and the related Conditional Use approval by the City. The Applicant's demonstration of compliance with said criteria is contained below in *italics* typeface:

(a) Purpose. Innovative residential developments are developments which achieve a more creative and imaginative housing environment than normally occurs by use of the clustering technique, by employing various other methods to achieve distinctiveness and excellence in siting, design and/or landscaping. Density bonuses and reductions in various building restrictions are used to encourage these developments.

Demonstration of Compliance: *The Project has been thoughtfully and carefully designed to create a more innovative project than normally occurs. Factors that, in the opinion of the Applicant, qualify the Project as an innovative residential development that are above-and-beyond a "normal" apartment building project and the minimum requirements of the City are listed below:*

- *Four (4) of the five (5) residential building have been clustered around a central retention lake which is proposed as an amenity (as opposed to a depressed grassed stormwater detention area).*
- *The central lake will have a fountain and a walking trail with sitting areas.*
- *A passive park is proposed as a project amenity with picnic tables, benches and shade trees.*
- *A luxurious clubhouse with a multipurpose room, kitchen, fitness center, etc. is proposed.*
- *A large pool with a large pool deck area decorated with planters is proposed.*
- *A fenced dog park is being provided as an extra amenity.*
- *A fenced tot lot is provided as an extra amenity.*
- *Pedestrian paths are provided throughout the Project.*
- *A central roundabout with a large Oak Tree will serve as a focal point upon entry into the Project.*
- *A high quality of architecture is proposed as discussed in the "Architecture" section of this narrative.*
- *The fifth residential building and the clubhouse have been located against Okeechobee Road to provide visual interest and screen the parking area from view.*
- *A large number of trees and palms are either being preserved or relocated on site.*
- *The landscape buffer along the west side has been increased to 20 feet and the landscape buffers on the north and east sides have been increased to 15, where ten (10) feet is required on the sides and rear of the Project.*

- *Significant enhancements to landscaping beyond the minimum requirements are provided as further discussed in the "Landscaping" section below.*

(e)(1) Landscaping. Landscaping. The gross density may be increased up to one unit per acre for landscaping plans which provide for effective use of existing vegetation and/or for approved landscape plans for streetscapes, pedestrian ways, bicycle paths, areas near buildings, open spaces and/or recreation areas. This increased density may only be awarded if the landscaping of the innovative residential development will exceed the requirements in section for landscaped area by ten (10) per cent, for amount of trees by ten (10) per cent and/or in terms of qualitative characteristics of the landscaping.

Demonstration of Compliance: *As depicted on the landscape plans provided with this submittal, the Applicant is proposing a carefully designed, very dense landscape design and substantial additional landscaping in order to create an aesthetically pleasing project and to satisfy the innovative residential development criteria. Details regarding the "extra" landscaping proposed are noted below:*

- *The landscape buffer along the west side has been increased to 20 feet and the landscape buffers on the north and east sides have been increased to 15, where ten (10) feet is required on the sides and rear of the Project.*
- *The passive park has been densely landscaped to create an inviting and shaded sitting area for enjoyment of the tenants.*
- *The Project entry and roundabout are lined with palms typical of a luxury development.*
- *The residential buildings, clubhouse and pool are densely landscaped typical of a luxury development.*
- *43.2% open space is provided where only 40% is required.*
- *166 interior trees are provided where only 56 are required (196% additional).*
- *137 buffer trees are provided where only 112 trees are required (25 additional trees = 22.3% additional).*
- *Littoral plantings are proposed around the lake as an added aesthetic enhancement for the Project.*
- *The height of trees and palms proposed (Slash Pine, Bald Cypress, Live Oak, Japanese Blueberry, Crape Mrytle, Yellow Tabebuia, Royal Poinciana, Christmas Palm, Washington Palms, etc.) have been increased by at least 10% beyond the minimum size requirements at planting to provide additional justification for the Innovative Residential Development proposal.*

(e)(2) Siting. The gross density may be increased (up to one-half unit per acre in R-3 and R-4 zones and one unit per acre in an R-5 zone) for creative placement of buildings and/or other facilities in terms of visual focal points, use of existing physical features such as topography, views, sun and wind orientation, the circulation pattern, variation in building setbacks and/or building and facility groupings.

Demonstration of Compliance: *As demonstrated below, the site design and placement of buildings have been creatively designed in order to establish an innovative residential development by use of visual focal points and physical features as much as possible on a 6.796-acre property.*

- *Four (4) of the five (5) residential building have been clustered around a central retention lake which is proposed as an amenity (as opposed to a depressed grassed stormwater detention area).*

The placement of the buildings around the lake will enhance views from both the residential units and from tenants recreating/exercising/sitting around the lake.

- ❖ *A central roundabout lined with palm trees and with a large Oak Tree in the center will serve as a focal point upon entry into the Project.*
- ❖ *The fifth residential building and the clubhouse have been located against Okeechobee Road to provide visual interest and screen the parking area from view.*
- ❖ *Pedestrian pathways are provided throughout the development to create a walkable community.*

(e)(3) Design. The gross density may be increased (up to one-half unit per acre in R-3 and R-4 zones and one unit per acre in an R-S zone) for imaginative design features including architectural styles, harmonious use of building materials, varied use of housing types and/or other design elements of the innovative residential development.

Demonstration of Compliance: *The Applicant is proposing enhanced architectural features beyond a standard multi-family housing project as demonstrated in the "Architecture" section of this narrative.*

(g) Open Spaces. Innovative residential developments which receive density bonuses in accordance with subsection (e) of this section shall comply with the following provisions: (1) In all such innovative residential developments, at least forty (40) percent of the site, exclusive of aquatic areas, shall be devoted to open space. Of this required open space area, no more than twenty-five (25) percent may be utilized privately by individuals or users of the innovated residential development. At least seventy-five (75) per cent of the required open space area must be common open space.

Demonstration of Compliance: *Open space is provided at 43.2% of the site where only 40 is required. Additionally, all open space on site will be for the enjoyment of all residents of the community.*

CLOSING

The Applicant respectfully requests the City's consideration and approval of the subject application based on the justification provided herein. The Applicant believes that the Project will provide a substantial enhancement to the area and help to spur other redevelopment in the area. The Applicant looks forward to working with the City to bring a high-quality project to the City.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Application for Future Land Use Map Amendment

☐ Future Land Use Map Amendment – Large Scale (>10 acres)

☒ Future Land Use Map Amendment – Small Scale (<10 acres)

In accordance with Chapter 163.3187, Florida Statutes, The City of Fort Pierce will consider applications for land use changes on parcels in excess of 10 aces ("Large Scale Amendments") only twice each calendar year. The City Commission will consider applications for land use changes on parcels less than or equal to 10 acres with a maximum density of 10 units per acres or less at any time during the calendar year. You are encouraged to schedule a pre-application meeting with the planning staff and to submit your application up to three months in advance of the application deadline.

Application submission shall include the following:

•**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**Planning Board**: One (1) original and (13) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**City Commission**: One (1) original and (11) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

In addition to a complete application, packets shall include:

- ☐ Warranty Deed & Legal Description
- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: North side of Okeechobee Road - Approximately 1/4 mile NE of S 33rd Street
2. Property Tax ID(s): 2417-504-0020-001-6
3. Total Acreage: 6.796 acres
4. Existing Future Land Use Designation: GC - General Commercial
5. Existing Zoning Classification: C3 - General Commercial
6. Proposed Zoning Classification: (FLU) RM - Medium Density Residential (ZONING) R4 - Medium Density Residential
7. Other applications being submitted concurrent with this application, if any: Zoning Map Amendment, Design Review
8. Describe the existing uses, improvements and structures on the amendment lands: Vacant
9. Are there any identified or possible historical structures on the amendment lands? No
10. The reason for making this request: Proposed luxury apartment project. See Project Narrative.

11. **Capacity Analysis:**

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Single Family	RL - Low Density Residential	R2 - Single Family Intermediate Density
South	Commercial	GC - General Commercial	C3 - General Commercial
East	Commercial	GC - General Commercial	C3 - General Commercial
West	Commercial/Religious Institution	RM - Medium Density Residential GC - General Commercial	R4 - Medium Density Residential C3 - General Commercial

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	GC - General Commercial	C3 - General Commercial	1.0 FAR = 296,033 SF	6.796 acres	
Proposed	RM - Medium Density Residential	R4 - Medium Density Residential	12 du/ac + 5 du/ac bonus per FLUE Policy 1.1.5 = 17 du/ac = 115 units	6.796 acres	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 37,004
Change in Demand	**Total gallons per day** -7,104

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 29,603
Change in Demand	**Total gallons per day** +297

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	884.54	890.52	+5.98
Urban District	5 acres per 1,000 people	221.14	222.63	+1.49
Community	2.5 acres per 1,000 people	110.57	113.32	+0.75
Neighborhood	1.36 acres per 1,000 people	60.15	60.56	+0.41

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name	Chester A Moore Elementary/Dan McCarty Middle	Fort Pierce Central High
City	Fort Pierce	Fort Pierce
Distance	0.5-0.8 mile	0.5 mile
Current Zoning Enrollment Demand	N/A	N/A
Proposed Zoning Enrollment Demand	34.01	79.35
Change in Demand	+34.01	+79.35

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	Demand for commercial not listed above.
Proposed Zoning	16 yards
Change in Demand	Need demand for commercial

F. Stormwater: Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)	
Impact	See drainage report provided with submittal.

G. Transportation Analysis: Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning	8,300	65/83
Proposed Zoning	609	38/49
Change in Demand	Trips	Trips
Impact to Capacity	-7,691	-27/-34

12. Name of Owner(s): Arrow Investment Group, LLC
Mailing Address: 4512 N. Flagler Drive, Suite 2056
City West Palm Beach State FL Zip 33407
Phone # (561) 324-4439
E-mail: capitalinvestments@usa.com

13. Name of Applicant: Same as Owner
Mailing Address: _____
City _____ State _____ Zip _____
Phone # _____ Fax # _____
E-mail: _____

14. Name of Representative: Michael Sanchez/Managed Land Entitlements
Mailing Address: 3710 Buckeye Street, Suite 100
City Palm Beach Gardens State FL Zip 33410
Phone # 561-568-8045 Fax # _____
E-mail: michael@mylandentitlements.com

15. Applicant Acknowledgements (Owner's signature must be notarized)

I certify that: (Check One)

X I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

_____ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

_____

Same as Owner

Applicant's Signature Date

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

(561) 324-4439 capitalinvestments@usa.com

Phone Fax E-mail Address

16. Property Owners Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application for a change in zoning classification. The property owner's signature(s) below shall also authorize the Applicant (if other than the property owner) and/or Agent to act in his/her behalf for the purposes of seeking this change to the City' Land Development Regulations for the property described herein.

Arrow Investment Group, LLC

by: (561) 324-4439

Property Owner's Name (Please Print) Phone

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

Property Owner's Signature Date

STATE OF FLORIDA)
ST LUCIE COUNTY)

The foregoing instrument was acknowledged before me this 24 day of June, 2020, by MUSTAFA ACUNOK who is personally known to me or has produced FL DL as identification.

Signature of Notary (seal)

MARIA TELLEZ-HURST
Notary Public. State of Florida
Commission# GG 104011
My comm. expires June 13, 2021

OFFICE USE:		
DATE RECEIVED:	Signed:	
File Number:	Check No:	Receipt No:
TRC Review:	Planning Board Review:	City Commission:
Ordinance No:	Date Approved:	

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CAPACITY ANALYSIS

I. Site Data:

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F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	See drainage report provided with submittal.

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	8,300	65/83
****Proposed Zoning/FLU**	609	38/49
***Change in Demand**	Trips	Trips
Impact to Capacity	-7,691	-27/-34

IV. Project Description

PHASING
Is this project (phase) part of a larger project? [ ] Yes [X] No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: 112 Single Family: Multifamily: 112
Non-residential (square footage):
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family		112	6.796	03/21	03/22
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. [ ] Yes [X] No

B. 1. Does this application involve demolition or re-use of any structure(s)? [ ] Yes [X] No
If yes, what is the size of the structure(s) to be demolished or re-used? _____
2. What is the current use of the structure to be demolished or re-used? _____
3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? [ ] Yes [ ] No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Application for Zoning Atlas Map Amendment

Application submission shall include the following:

•**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

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- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: North side of Okeechobee Road - Approximately 1/4 mile NE of S 33rd Street
2. Property Tax ID(s): 2417-504-0020-001-6
3. Total Acreage: 6.796 acres
4. Existing Future Land Use Designation: GC - General Commercial
5. Existing Zoning Classification: C3 - General Commercial
6. Proposed Zoning Classification: (ZONING) R4 - Medium Density Residential
7. Other applications being submitted concurrent with this application, if any: FLU Amendment, Design Review

8. Describe the existing uses, improvements and structures on the amendment lands: Vacant

9. Are there any identified or possible historical structures on the amendment lands? No

10. The reason for making this request: Proposed luxury apartment project. See Project Narrative.

11. CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Single Family	RL - Low Density Residential	R2 - Single Family Intermediate Density
South	Commercial	GC - General Commercial	C3 - General Commercial
East	Commercial	GC - General Commercial	C3 - General Commercial
West	Commercial/Religious Institution	RM - Medium Density Residential GC - General Commercial	R4 - Medium Density Residential C3 - General Commercial

	Future Land Use	Zoning Classification	Maximum Intensity **Residential: Dwelling Units per Acre** **Other: Square Footage**	Total Acreage	Flood Zone
Current	GC - General Commercial	C3 - General Commercial	1.0 FAR = 296,033 SF	6.796 acres	
Proposed	RM - Medium Density Residential	R4 - Medium Density Residential	12 du/ac + 5 du/ac bonus per FLUE Policy 1.1.5 = 17 du/ac = 115 units	6.796 acres	N/A

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 37,004
Change in Demand	**Total gallons per day** -7,104

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 29,900
Proposed Zoning	Total gallons per day 29,603
Change in Demand	**Total gallons per day** +297

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	884.54	890.52	+5.98
Urban District	5 acres per 1,000 people	221.14	222.63	+1.49
Community	2.5 acres per 1,000 people	110.57	113.32	+0.75
Neighborhood	1.36 acres per 1,000 people	60.15	60.56	+0.41

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name	Chester A Moore Elementary/Dan McCarty Middle	Fort Pierce Central High
City	Fort Pierce	Fort Pierce
Distance	0.5-0.8 mile	0.5 mile
Current Zoning Enrollment Demand	N/A	N/A
Proposed Zoning Enrollment Demand	34.01	79.35
Change in Demand	+34.01	+79.35

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	Demand for commercial not listed above.
Proposed Zoning	16 yards
Change in Demand	Need demand for commercial

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	See drainage report provided with submittal.

III. Transportation Analysis

G. Traffic Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning	8,300	65/83
Proposed Zoning	609	38/49
Change in Demand	Trips	Trips
Impact to Capacity	-7,691	-27/-34

12. Name of Owner(s): Arrow Investment Group, LLC
Mailing Address: 4512 N. Flagler Drive, Suite 2056
City West Palm Beach State FL Zip 33407
Phone # (561) 324-4439
E-mail: capitalinvestments@usa.com

13. Name of Applicant: Same as Owner
Mailing Address: _____
City _____ State _____ Zip _____
Phone # _____ Fax # _____
E-mail: _____

14. Name of Representative: Michael Sanchez/Managed Land Entitlements
Mailing Address: 3710 Buckeye Street, Suite 100
City Palm Beach Gardens State FL Zip 33410
Phone # 561-568-8045 Fax # _____
E-mail: michael@mylandentitlements.com

15. **Applicant Acknowledgements** (Owner's signature must be notarized)

I certify that: (Check One)

X I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

_____ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

Same as Owner
Applicant's Signature Date

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

(561) 324-4439 capitalinvestments@usa.com

Phone Fax E-mail Address

16. Property Owners Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application for a change in zoning classification. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Agent to act in his/her behalf for the purposes of seeking this change to the City' Land Development Regulations for the property described herein.

Arrow Investment Group, LLC
by: (561) 324-4439

Property Owner's Name (Please Print) Phone

4512 N. Flagler Drive, Suite 2056, West Palm Beach, Florida 33407

Address State Zip

6/24/20

Property Owner's Signature Date

STATE OF FLORIDA)
ST LUCIE COUNTY)

The foregoing instrument was acknowledged before me this 24 day of June, 2020, by Mustafa Altinok who is personally known to me or has produced _____ as identification.

Signature of Notary (seal)

MARIA TELLEZ-HURST
Notary Public. State of Florida
Commission# GG 104011
My comm. expires June 13, 2021

OFFICE USE:

DATE RECEIVED:_____ Signed:_____

File Number:_____ Check No: _____ Receipt No: _____

TRC Review:_____ Planning Board Review: _____ City Commission: _____

Ordinance No:_____ Date Approved: _____

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

GENERAL ADDRESS REQUEST

[X] Assigned [ ] Corrected [ ] Changed

Property Owner(s): Arrow Investment Group, LLC

Parcel Identification(s): 2417-504-0020-001-6

Legal Description: See attached survey

Current Address: No address assigned

Use of Property: Proposed 112 unit multifamily apartment project

Reason for Request: New development.

Applicants Signature: _____ **Date:** 6/24/20

Arrow Investment Group, LLC

Printed Name: by: MUSTAFA ALTINOK

_____I am not the owner of the described property; however, the owner(s) authorizes me to act as agent for the owner(s) of record. (Provide copy of authorization).

Contact Information: Phone: (561) 324-4439 Email: capitalinvestments@usa.com

Office Use Only

PROPOSED NEW ADDRESS: _____

Signature of City Representative: _____

LOCATION MAP



Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address:	OKEECHOBEE RD
Parcel ID:	2417-504-0020-001-6
Account #:	26668
Map ID:	24/17N
Use Type:	1000
Zoning:	General Co
City/County:	Fort Pierce

Ownership

Arrow Investment Group LLC
4512 N Flagler DR # 2056
West Palm Beach, FL 33407

Legal Description

COLLIER`S S/D BLK D ALL BLK D-LESS S 27 FT AND SELY 7 FT FOR RD R/W AND LESS THAT PART MPDAF: BEG INT OF SE COR OF BLK D AND NLY RD R/W LI OF OKEEC RD RUN N 28 00 23 W 167.87 FT,TH N 89 51 15 E 79 FT TO E LI OF BLK D,TH S 00 04 02 W ALG E LI 148.41 FT TO NLY RD R/W LI OF OKEEC RD AND POB- (6.86 AC)



Current Values

Just/Market Value:	$732,700
Assessed Value:	$732,700
Exemptions:	$0
Taxable Value:	$732,700

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.87
Land Size (SF):	299,058

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Sale History

Date:	Sep 26, 2019
Book/Page:	4327 / 0333
Sale Code:	0002
Deed:	SP
Grantor:	Cypress Trust Company (TR)
Price:	$450,000
Date:	May 27, 2010
Book/Page:	3204 / 0743
Sale Code:	0112
Deed:	SP
Grantor:	Cypress Trust Company (TR)
Price:	$100
Date:	Dec 17, 2008
Book/Page:	3049 / 2156

Sale Code:	XX01
Deed:	CT
Grantor:	Mid South Acquisitions LLC
Price:	$299,000
Date:	Mar 9, 2006
Book/Page:	2511 / 0830
Sale Code:	XX00
Deed:	WD
Grantor:	Zog Limited Partnership
Price:	$1,728,800
Date:	Mar 25, 2004
Book/Page:	1936 / 0579
Sale Code:	XX00
Deed:	WD
Grantor:	B + M Construction Co Inc
Price:	$448,500
Date:	Sep 16, 1999
Book/Page:	1251 / 1882
Sale Code:	XX00
Deed:	WD
Grantor:	B + M Construction Co Inc
Price:	$260,000
Date:	Sep 14, 1998
Book/Page:	1171 / 1672
Sale Code:	XX01
Deed:	WD
Grantor:	SCOTTY`S INC
Price:	$95,700
Date:	Jan 1, 1986
Book/Page:	0489 / 2883
Sale Code:	XX00
Deed:	CV
Grantor:	
Price:	$725,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Special Features and Yard Items

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$732,700
Just/Market:	$732,700
Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$732,700
Exemption(s):	$0
Taxable:	$732,700

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2006	0041	18.1	Fort Pierce Stormwater Charge	$1,248.90

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office .

Historical Values

Permits

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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/

LEGAL DESCRIPTION

LEGAL DESCRIPTION (ORB 3204, PAGE 743):

BLOCK "D", LESS RIGHTS-OF-WAY, COLLIER SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A RAILROAD SPIKE AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST, LUCIE COUNTY, FLORIDA;
THENCE RUN N 88°42'30"E, ALONG THE SOUTH LINE OF THE SAID NORTHEAST 1/4, A DISTANCE OF 661.40 FEET TO THE WEST LINE OF BLOCK "D" OF COLLIER'S SUBDIVISION, AS RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA;
THENCE RUN N 00°00'18" W, ALONG THE WEST LINE OF SAID BLOCK D, A DISTANCE OF 27.01 FEET, TO THE POINT OF BEGINNING;
THENCE CONTINUE N 00°00'18" W, A DISTANCE OF 796.62 FEET, TO THE NORTHWEST CORNER OF SAID BLOCK D;
THENCE RUN N 88°43'25" E, ALONG THE NORTH LINE OF SAID BLOCK D, A DISTANCE OF 460.00 FEET;
THENCE RUN S 00°04'02" W, A DISTANCE OF 470.52 FEET, TO THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE RUN S 49°35'30" W, ALONG THE SAID NORTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 516.56 FEET;
THENCE RUN S 88°42'30" W, A DISTANCE OF 65.96 FEET, TO THE POINT OF BEGINNING,
ALL LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THE FOLLOWING:

A PORTION OF BLOCK "D", COLLIER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 4, PAGE 63, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SAID BLOCK "D", SAID CORNER BEING SITUATED ON THE NORTHERLY RIGHT-OF-WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE, NORTH 28°00'23" W, A DISTANCE OF 167.87 FEET;
THENCE, NORTH 89°51'15" E, A DISTANCE OF 79.00 FEET TO THE EAST LINE OF SAID BLOCK D;
THENCE, SOUTH 00°04'02" W, ALONG SAID EAST LINE, A DISTANCE OF 148.41 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.
SAID LANDS SITUATE, LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA.

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 4623280 OR BOOK 4327 PAGE 333, Recorded 10/01/2019 12:37:51 PM Doc Tax: $3150.00

Prepared by and return to:
James H. Ryan
Attorney at Law
Gary, Dytrych & Ryan, P.A.
701 U. S. Highway One Suite 402
North Palm Beach, FL 33408
561-844-3700
File Number: **84101**

[Space Above This Line For Recording Data]

Special Warranty Deed

This Special Warranty Deed made this **30th** day of **September, 2019** between **Cypress Trust Company, a Florida corporation**, as Trustee under Special Purpose Revocable Trust Agreement dated November 22, 2013, as modified; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated May 18, 2004, as modified; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated June 8, 2004; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated June 2, 2004; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated October 17, 2003; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated March 23, 2005; Cypress Trust Company, as Trustee under Special Purpose Revocable Trust Agreement dated February 21, 2006; and Cypress Trust Company, as Trustee under IRA Self-directed Trust Agreement dated February 13, 2005, whose post office address is **251 Royal Palm Way, Suite 500, Palm Beach, FL 33480**, grantor, and **Arrow Investment Group LLC, a Florida limited liability company**, whose post office address is **4512 North Flagler Dr., #2056, West Palm Beach, FL 33407**, grantee:

(Whenever used herein the terms grantor and grantee include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Saint Lucie County, Florida**, to-wit:

Block "D", Less rights-of-way, COLLIER'S SUBDIVISION, according to the Plat thereof, recorded in Plat Book 4, Page 63, Public Records of St. Lucie County, Florida, being more particularly described as follows:
Commence at a railroad spike at the Southwest corner of the Northeast 1/4 of Section 17, Township 35 South, Range 40 East, St, Lucie County, Florida; thence run N 88°42'30"E, along the South line of the said Northeast 1/4, a distance of 661.40 feet to the West line of Block "D" of Collier's Subdivision, as recorded in Plat Book 4, Page 63, Public Records of St. Lucie County, Florida; thence run N 00°00'18" W, along the West line of said Block D, a distance of 27.01 feet, to the POINT OF BEGINNING; thence continue N 00°00'18" W, a distance of 796.62 feet, to the Northwest corner of said Block D; thence run N 88°43'25" E, along the North line of said Block D, a distance of 460.00 feet; thence run S 00°04'02" W, a distance of 470.52 Feet, to the Northerly right-of-way line of Okeechobee Road [State Road 70]; thence run S 49°35'30" W, along the said Northerly right-of-way line, a distance of 516.56 feet; thence run S 88°42'30" W, a distance of 65.96 feet, to the POINT OF BEGINNING, all lying and being in Section 17, Township 35 South, Range 40 East, St. Lucie County, Florida.
Less and excepting the following:
A portion of Block "D", COLLIER'S SUBDIVISION, according to the Plat thereof as recorded in Plat Book 4, Page 63, of the Public Records of St. Lucie County, Florida.
Being more particularly described as follows:

Begin at the Southeast corner of said Block "D", said corner being situated on the Northerly right-of-way line of Okeechobee Road [State Road 70]; thence, North 28°00'23" W, a distance of 167.87 feet; thence, North 89°51'15" E, a distance of 79.00 feet to the East line of said Block D; thence,
South 00°04'02" W, along said East line, a distance of 148.41 feet to the Point of Beginning of the herein described parcel of land.
Said lands situate, lying and being in Section 17, Township 35 South, Range 40 East, City of Fort Pierce, St. Lucie County, Florida.

Parcel Identification Number: 2417-504-0020-001-6

Subject to taxes for 2019 and subsequent years; covenants, conditions, restrictions, easements, reservations and limitations of record, if any.

Grantor is an institutional lender and is acting solely in a fiduciary capacity.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under grantors.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Witness Name: Donna Pfister

Witness Name: Jamie Reid

Cypress Trust Company, a Florida corporation, as Trustee

By: _____
Roxanne Ertle, Vice President

(Corporate Seal)

State of Florida
County of Palm Beach

The foregoing instrument was acknowledged before me this 26 day of September, 2019 by Roxanne Ertle, Vice President of Cypress Trust Company, a Florida corporation, as Trustee, on behalf of the corporation. He/she [ ] is personally known to me or [ ] has produced a driver's license as identification.

[Notary Seal]

JAMIE REID
Notary Public - State of Florida
Commission # FF 936732
My Comm. Expires Jan 21, 2020
Bonded through National Notary Assn.

Notary Public

Printed Name: Jamie Reid

My Commission Expires: 01 | 21 | 2020

DoubleTime®

CONCEPTUAL SURFACE WATER MANAGEMENT REPORT AND CALCULATIONS

For

ARIA APARTMENTS

June 2020

SINCE 1979

Prepared by:

Michael B. Schorah and Associates, Inc.
1850 Forest Hill Blvd., Suite 206
West Palm Beach, Florida 33406
(561) 968-0080
EB#2438

MICHAEL J. LACOURSIERE LICENSE No. 41071 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY MICHAEL J. LACOURIERE, P.E. ON 6/16/20 USING A SHA-1 AUTHENTICATION CODE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Michael J. LaCoursiere, P.E.
Florida Registration No. 41071
for Michael B. Schorah and Associates, Inc.

Date

MICHAEL J. LaCOURSIERE LICENSE 41071 STATE OF FLORIDA PROFESSIONAL ENGINEER 6/16/2020

INTRODUCTION

This drainage report is prepared and presented as a support document for an application being submitted to City of Fort Pierce Technical Review Committee. The application proposes development of 112 multi-family residential units located in five (5) two- and three-story buildings on approximately 6.8 acres. The site is located on Okeechobee Road at the intersection with South 30th Street. A clubhouse and pool amenity are also proposed. The site is currently undeveloped. An existing ditch runs along the west side of the property. This on-stie ditch appears to provide conveyance of off-site water south to an existing culvert located off-site near the southwest corner of property. Water from the ditch passes through the culvert, under South 31st Street, and into a City of Fort Pierce (CFP) drainage ditch. Flow from the CFP ditch continues westward under South 33rd Avenue and into the North St. Lucie River Water Control District (NSLRWCD) Canal 6 and ultimately to Five Mile Creek (NSLRWCD Canal 29). Therefore, the subject parcel has legal positive outfall.

PROPOSED SURFACE WATER MANAGEMENT SYSTEM

The proposed surface water management design considers the existing on-site ditch as the receiving body (receiving ditch) for stormwater discharge. Discharge from the receiving ditch into the CFP ditch is controlled by an existing 36" RCP pipe with a west invert elevation of 13.4. Therefore, we can assume that water elevations in the receiving ditch can rise to this elevation and artificially control the new system at the same elevation. Conservatively, the following surface water management calculations assume an on-site control elevation of 13.4. The calculations demonstrate the proposed development can meet regulatory criteria for finished floors (100-year 3-day stage), perimeter grades (25-year 3-day stage), and minimum pavement (10-year 1-day stage). We expect, however, that the on-site detention area water level will

fluctuate between elevation 13.4 and 10.5 (expected groundwater elevation). Elevation 10.5 is also the control elevation of NSLRWCD Canal 6. Accordingly, on-site storm stages will only rise as high as presented in the summary shown below during instances where the receiving ditch is full.

The site plan shows modifications to the receiving ditch. More specifically, as shown on the Conceptual Engineering Plan, a portion of the receiving ditch will be piped within the property limits. Sizing of the pipe will be determined based upon expected off-site flows. The site plan also considers re-grading the east bank of the receiving ditch.

We also note that the water surface of the proposed on-site detention area is less than 0.5 acres. This falls short of the minimum dimensional criteria established by South Florida Water Management District for water quality credit. Therefore, an exfiltration trench system is being established to provide necessary water quality treatment prior to off-site discharge.

WATER MANAGEMENT CALCULATIONS

Land Use Assumptions:

Total Site Area	=	6.50 ac.	(area within perimeter berm)	
Lake Area (Water)	=	0.36 ac.	el. 13.4	(100% imp.)
Lake Bank Area	=	0.23 ac.	el. 13.4→17.5	(0% imp.)
Building Area	=	1.39 ac.	el. 19.5 min.	(100% imp.)
Pavement Area	=	1.97 ac.	el. 17.25→18.5	(100% imp.)
Walk Area	=	0.29 ac.	el. 17.5→19.0	(100% imp.)
Remainder	=	2.26 ac.	el. 17.5→19.0	(0% imp.)

Soil Storage:

Wet Season Groundwater elevation is 13.4 NAVD.
Using Flatwoods Soil Storage:
Lake Bank (avg. 2.05' above GWT) = 0.23 ac. x 2.64 in. x 0.75= 0.46 ac.-in.

Remainder (avg. 4'+ above GWT) = 2.26 ac. x 9 in. x 0.75 = 15.26 ac.-in.

Total Soil Storage = 15.26 + 0.46 = 15.72 ac.-in. or 2.42 inches

Water Quality Retention Required:

Drainage Area= 6.5 ac.
1" over site:
V = 1" x 6.5 ac. x 1'/12" = 0.54 ac.-ft.`

2.5" x % impervious:
Site area for water quality = 6.5 – 1.39 – 0.36 = 4.75 ac.
Imp. area for water quality = 4.75 – 2.26– 0.23 = 2.26 ac.
% Impervious = 2.26 / 4.75 = 47.58%
2.5" x % impervious = 2.5" x 0.4758 = 1.19"
V = 1.19" x (6.5 – 0.36) ac. x 1'/12" = 0.61 ac.-ft.

Maximum controls, therefore, V = 0.61 ac.-ft.

Note: Detention area does not meet SFWMD dimensional criteria. Therefore, water quality will be provided by other means, see following exfiltration design.

Bleeder Criteria:

Type: Circular
Invert Elevation: 13.40'
Diameter: 3.75 in.
Weir Flow: 0.6
Orifice Flow: 0.6

Allowable Discharge:

Allowable Discharge = 0.216/24 x 6.5 x (43560 S.F. /3600 sec.) = 0.71 cfs*
Weir Top Elevation has been set above the 25-year 3-day flood stage.

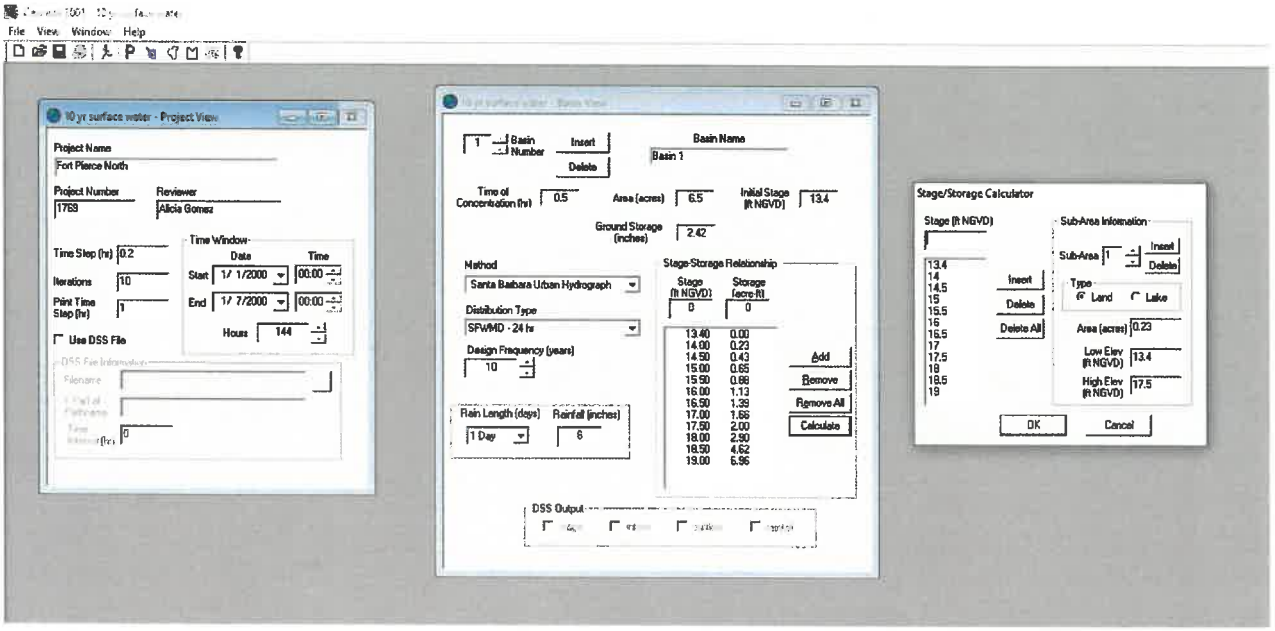
*Based on NSLRWCD criteria which is more restrictive than City of Fort Pierce pre vs. post analysis. NSLRWCD criteria = 2.6" in 24 hours.

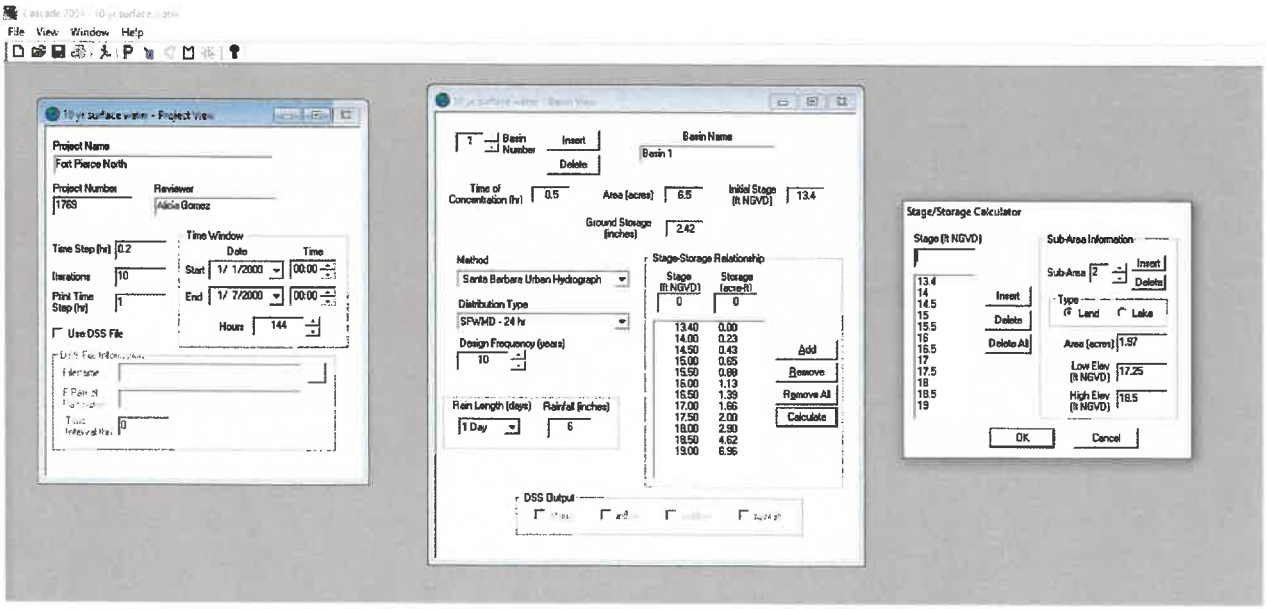
SUMMARY OF CONCEPTUAL DESIGN CRITERIA:

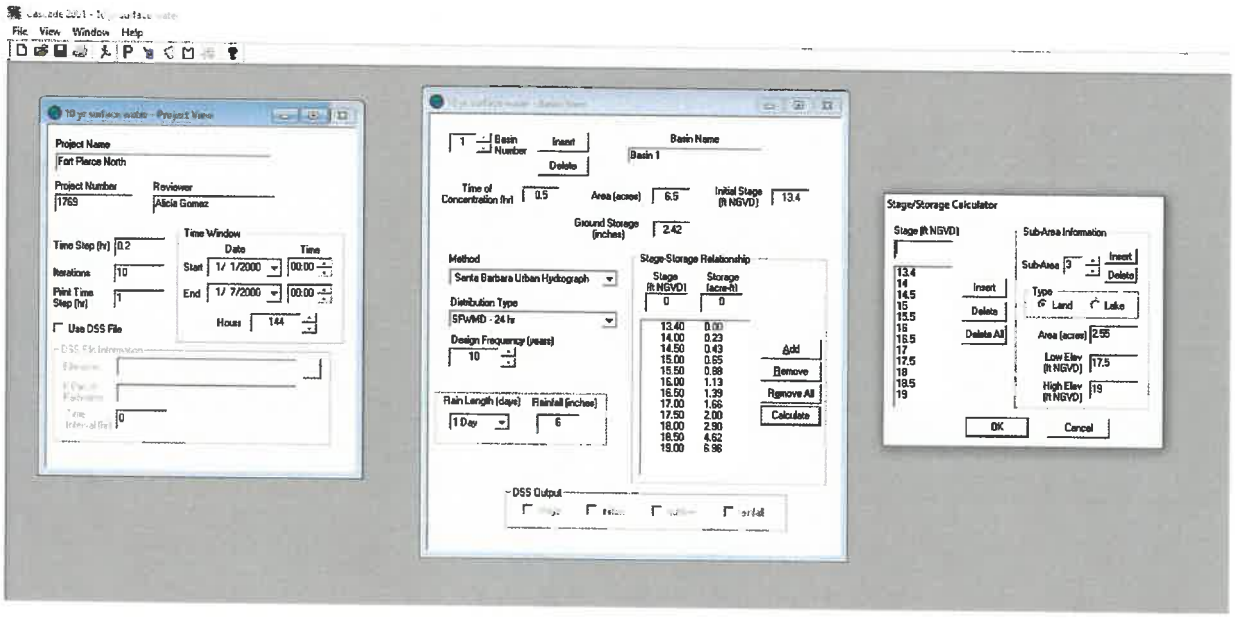
100 year –3 day Rainfall	12.23 inches
100 year - 3 day Flood Elevation	18.58' NAVD (zero discharge)
Minimum Finished Floor Elevation	19.50' NAVD
25 year – 3 day Rainfall	9.5 inches
25 year - 3 day Flood Elevation	17.76' NAVD
Minimum Perimeter Elevation	17.90' NAVD
Weir Elevation	17.90' NAVD
10 year - 1 day Rainfall	6 inches
10 year - 1 day Flood Elevation	16.16' NAVD
Minimum Pavement Elevation	17.25' NAVD

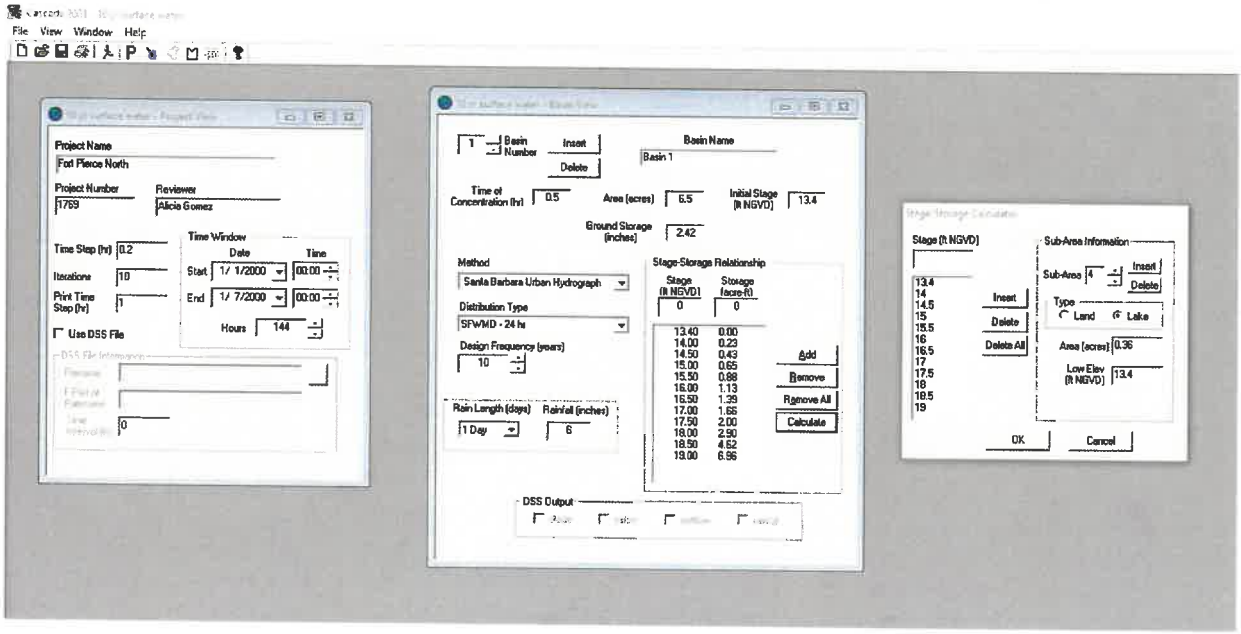
Stage/Storage Calculations on Cascade (Screenshots)

The following screenshots are presented to show the stage-storage table generated by the Cascade/SBWW program prior to hand entering storage associated with the proposed exfiltration trench.






File View Window Help
Project Name
Fort Pierce North
Project Number
1769
Reviewer
Alicia Gomez
Time Window
Time Step (hr) 0.2
Iterations 10
Print Time Step (hr) 1
Use DSS File
Start 1/ 1/2000
End 1/ 7/2000
Hours 144
Basin Number
Insert
Delete
Basin Name
Basin 1
Time of Concentration (hr) 0.5
Area (acres) 6.5
Initial Stage (ft NGVD) 13.4
Ground Storage (inches) 2.42
Method
Santa Barbara Urban Hydrograph
Distribution Type
SFWMD - 24 hr
Design Frequency (years) 10
Rain Length (days) 1 Day
Rainfall (inches) 6
Stage-Storage Relationship
Stage (ft NGVD) Storage (acre-ft)
13.40 0.00
14.00 0.23
14.50 0.43
15.00 0.65
15.50 0.88
16.00 1.13
16.50 1.39
17.00 1.66
17.50 2.00
18.00 2.90
18.50 4.62
19.00 6.96
Add
Remove
Remove All
Calculate
DSS Output
Stage/Storage Calculator
Stage (ft NGVD)
Sub-Area Information
Sub-Area 3
Type Land Lake
Area (acres) 2.55
Low Elev (ft NGVD) 17.5
High Elev (ft NGVD) 19
Delete All
OK
Cancel


File View Window Help
Project Name
Fort Pierce North
Project Number
1769
Reviewer
Alicia Gomez
Time Window
Time Step (hr) 0.2
Iterations 10
Print Time Step (hr) 1
Use DSS File
Start 1/ 1/2000
End 1/ 7/2000
Hours 144
Basin Number
Insert
Delete
Basin Name
Basin 1
Time of Concentration (hr) 0.5
Area (acres) 6.5
Initial Stage (ft NGVD) 13.4
Ground Storage (inches) 2.42
Method
Santa Barbara Urban Hydrograph
Distribution Type
SFWMD - 24 hr
Design Frequency (years) 10
Rain Length (days) 1 Day
Rainfall (inches) 6
Stage-Storage Relationship
Stage (ft NGVD) Storage (acre-ft)
13.40 0.00
14.00 0.23
14.50 0.43
15.00 0.65
15.50 0.88
16.00 1.13
16.50 1.39
17.00 1.66
17.50 2.00
18.00 2.90
18.50 4.62
19.00 6.96
Add
Remove
Remove All
Calculate
DSS Output
Stage (ft NGVD)
Sub-Area Information
Sub-Area 4
Type Land Lake
Area (acres) 0.36
Low Elev (ft NGVD) 13.4
Delete All
OK
Cancel

EXFILTRATION TRENCH DATA:

18" PERFORATED H.D.P.E PIPE
TRENCH DEPTH 3.5', TRENCH WIDTH 6'
OVERFLOW ELEVATION = 13.40 NAVD
PIPE INVERT ELEVATION = 12.75 NAVD
12" MINIMUM COVER OF COARSE ROCK OVER PIPE
TOP OF TRENCH ELEVATION = 15.25 NAVD
BOTTOM OF TRENCH ELEVATION = 11.75 NAVD
WATER TABLE ELEVATION = 13.40 NAVD

k = HYDRAULIC CONDUCTIVITY *	6.32E-05 cfs/sq.ft-ft-head	
V = VOLUME TO BE TREATED	0.61 Ac-in	Max. Allowed Volume
W = TRENCH WIDTH	6.00 feet	
Ds = SATURATED TRENCH DEPTH	1.65 feet	
Du = NON-SATURATED TRENCH DEPTH	1.85 feet	
H2 = DEPTH OF WT FROM CONTROL ELEV.	3.85 feet	(17.25-13.40)

EXFILTRATION TRENCH LENGTH

L = V / K(H2xW+2xH2xDu-Du^2+2xH2xDs) +(1.39x10-4)WxDu

L = 135.86 feet

*HYDRAULIC CONDUCTIVITY FROM SOIL REPORT. SEE ATTACHED EXHIBIT.

STAGE-STORAGE TABLE:

Stage (Ft NAVD)	Storage (acre-ft)	+	Exfiltration Trench (acre-ft)	=	Total Storage (acre-ft)
13.40	0	+	0.31	=	0.31
14.00	0.23	+	0.41	=	0.64
14.50	0.43	+	0.49	=	0.92
15.00	0.65	+	0.57	=	1.22
15.50	0.88	+	0.61	=	1.49
16.00	1.13	+	0.61	=	1.74
16.50	1.39	+	0.61	=	2.00
17.00	1.66	+	0.61	=	2.27
17.50	2.00	+	0.61	=	2.61
18.00	2.90	+	0.61	=	3.51
18.50	4.62	+	0.61	=	5.23
19.00	6.96	+	0.61	=	7.57
	Generated from Cascade				

Project Name: Fort Pierce North
Reviewer: Alicia Gomez
Project Number: 1769
  Period Begin: Jan 01, 2000;0000 hr End: Jan 07, 2000;0000 hr Duration: 144 hr
  Time Step: 0.2 hr, Iterations: 10

Basin 1: Basin 1

  Method: Santa Barbara Unit Hydrograph
  Rainfall Distribution: SFWMD - 3day
  Design Frequency: 100 year
  3 Day Rainfall: 12.23 inches
  Area: 6.5 acres
  Ground Storage: 2.42 inches
  Time of Concentration: 1 hours
  Initial Stage: 13.4 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
13.40	0.31
14.00	0.64
14.50	0.92
15.00	1.22
15.50	1.49
16.00	1.74
16.50	2.00
17.00	2.27
17.50	2.61
18.00	3.51
18.50	5.23
19.00	7.57

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NAVD)
0.00	13.40
1000.00	13.40

Structure: 1

  From Basin: Basin 1
  To Basin: Offsite1
  Structure Type: Gravity
    Weir: None
    Bleeder: None
    Pipe: None

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
0.00	0.00	0.00	0.00	0.00	13.40	13.40
1.00	0.05	0.00	0.00	0.00	13.40	13.40
2.00	0.11	0.00	0.00	0.00	13.40	13.40
3.00	0.16	0.00	0.00	0.00	13.40	13.40
4.00	0.22	0.00	0.00	0.00	13.40	13.40
5.00	0.27	0.00	0.00	0.00	13.40	13.40
6.00	0.33	0.00	0.00	0.00	13.40	13.40
7.00	0.38	0.00	0.00	0.00	13.40	13.40
8.00	0.44	0.00	0.00	0.00	13.40	13.40
9.00	0.49	0.00	0.00	0.00	13.40	13.40
10.00	0.55	0.01	0.00	0.00	13.40	13.40
11.00	0.60	0.02	0.00	0.00	13.40	13.40
12.00	0.66	0.03	0.00	0.00	13.41	13.40
13.00	0.71	0.05	0.00	0.00	13.41	13.40
14.00	0.77	0.06	0.00	0.00	13.42	13.40
15.00	0.82	0.07	0.00	0.00	13.43	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
16.00	0.88	0.08	0.00	0.00	13.44	13.40
17.00	0.93	0.09	0.00	0.00	13.45	13.40
18.00	0.99	0.10	0.00	0.00	13.47	13.40
19.00	1.04	0.11	0.00	0.00	13.49	13.40
20.00	1.09	0.12	0.00	0.00	13.50	13.40
21.00	1.15	0.13	0.00	0.00	13.52	13.40
22.00	1.20	0.14	0.00	0.00	13.54	13.40
23.00	1.26	0.15	0.00	0.00	13.56	13.40
24.00	1.31	0.15	0.00	0.00	13.59	13.40
25.00	1.39	0.21	0.00	0.00	13.61	13.40
26.00	1.47	0.24	0.00	0.00	13.65	13.40
27.00	1.55	0.26	0.00	0.00	13.68	13.40
28.00	1.63	0.27	0.00	0.00	13.72	13.40
29.00	1.71	0.28	0.00	0.00	13.77	13.40
30.00	1.79	0.29	0.00	0.00	13.81	13.40
31.00	1.87	0.30	0.00	0.00	13.85	13.40
32.00	1.95	0.31	0.00	0.00	13.90	13.40
33.00	2.03	0.32	0.00	0.00	13.95	13.40
34.00	2.11	0.33	0.00	0.00	14.00	13.40
35.00	2.19	0.34	0.00	0.00	14.04	13.40
36.00	2.27	0.34	0.00	0.00	14.09	13.40
37.00	2.35	0.35	0.00	0.00	14.15	13.40
38.00	2.43	0.36	0.00	0.00	14.20	13.40
39.00	2.51	0.36	0.00	0.00	14.25	13.40
40.00	2.59	0.37	0.00	0.00	14.30	13.40
41.00	2.67	0.37	0.00	0.00	14.36	13.40
42.00	2.75	0.38	0.00	0.00	14.42	13.40
43.00	2.83	0.38	0.00	0.00	14.47	13.40
44.00	2.91	0.39	0.00	0.00	14.53	13.40
45.00	2.99	0.39	0.00	0.00	14.58	13.40
46.00	3.07	0.40	0.00	0.00	14.63	13.40
47.00	3.15	0.40	0.00	0.00	14.69	13.40
48.00	3.23	0.40	0.00	0.00	14.75	13.40
49.00	3.32	0.44	0.00	0.00	14.80	13.40
50.00	3.41	0.46	0.00	0.00	14.87	13.40
51.00	3.52	0.53	0.00	0.00	14.93	13.40
52.00	3.64	0.59	0.00	0.00	15.01	13.40
53.00	3.79	0.74	0.00	0.00	15.11	13.40
54.00	3.98	0.93	0.00	0.00	15.24	13.40
55.00	4.20	1.13	0.00	0.00	15.40	13.40
56.00	4.46	1.34	0.00	0.00	15.60	13.40
57.00	4.77	1.61	0.00	0.00	15.84	13.40
58.00	5.15	1.98	0.00	0.00	16.13	13.40
59.00	5.65	2.65	0.00	0.00	16.49	13.40
60.00	9.13	16.79	0.00	0.00	17.45	13.40
61.00	10.13	9.84	0.00	0.00	18.05	13.40
62.00	10.59	5.41	0.00	0.00	18.22	13.40
63.00	10.88	3.12	0.00	0.00	18.32	13.40
64.00	11.15	2.23	0.00	0.00	18.38	13.40
65.00	11.31	1.47	0.00	0.00	18.43	13.40
66.00	11.47	1.19	0.00	0.00	18.46	13.40
67.00	11.64	1.09	0.00	0.00	18.49	13.40
68.00	11.80	1.05	0.00	0.00	18.51	13.40
69.00	11.91	0.82	0.00	0.00	18.52	13.40
70.00	12.01	0.74	0.00	0.00	18.54	13.40
71.00	12.12	0.70	0.00	0.00	18.55	13.40
72.00	12.23	0.69	0.00	0.00	18.56	13.40
73.00	12.23	0.26	0.00	0.00	18.57	13.40
74.00	12.23	0.09	0.00	0.00	18.57	13.40
75.00	12.23	0.03	0.00	0.00	18.57	13.40
76.00	12.23	0.01	0.00	0.00	18.58	13.40
77.00	12.23	0.00	0.00	0.00	18.58	13.40
78.00	12.23	0.00	0.00	0.00	18.58	13.40
79.00	12.23	0.00	0.00	0.00	18.58	13.40
80.00	12.23	0.00	0.00	0.00	18.58	13.40
81.00	12.23	0.00	0.00	0.00	18.58	13.40
82.00	12.23	0.00	0.00	0.00	18.58	13.40
83.00	12.23	0.00	0.00	0.00	18.58	13.40
84.00	12.23	0.00	0.00	0.00	18.58	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
85.00	12.23	0.00	0.00	0.00	18.58	13.40
86.00	12.23	0.00	0.00	0.00	18.58	13.40
87.00	12.23	0.00	0.00	0.00	18.58	13.40
88.00	12.23	0.00	0.00	0.00	18.58	13.40
89.00	12.23	0.00	0.00	0.00	18.58	13.40
90.00	12.23	0.00	0.00	0.00	18.58	13.40
91.00	12.23	0.00	0.00	0.00	18.58	13.40
92.00	12.23	0.00	0.00	0.00	18.58	13.40
93.00	12.23	0.00	0.00	0.00	18.58	13.40
94.00	12.23	0.00	0.00	0.00	18.58	13.40
95.00	12.23	0.00	0.00	0.00	18.58	13.40
96.00	12.23	0.00	0.00	0.00	18.58	13.40
97.00	12.23	0.00	0.00	0.00	18.58	13.40
98.00	12.23	0.00	0.00	0.00	18.58	13.40
99.00	12.23	0.00	0.00	0.00	18.58	13.40
100.00	12.23	0.00	0.00	0.00	18.58	13.40
101.00	12.23	0.00	0.00	0.00	18.58	13.40
102.00	12.23	0.00	0.00	0.00	18.58	13.40
103.00	12.23	0.00	0.00	0.00	18.58	13.40
104.00	12.23	0.00	0.00	0.00	18.58	13.40
105.00	12.23	0.00	0.00	0.00	18.58	13.40
106.00	12.23	0.00	0.00	0.00	18.58	13.40
107.00	12.23	0.00	0.00	0.00	18.58	13.40
108.00	12.23	0.00	0.00	0.00	18.58	13.40
109.00	12.23	0.00	0.00	0.00	18.58	13.40
110.00	12.23	0.00	0.00	0.00	18.58	13.40
111.00	12.23	0.00	0.00	0.00	18.58	13.40
112.00	12.23	0.00	0.00	0.00	18.58	13.40
113.00	12.23	0.00	0.00	0.00	18.58	13.40
114.00	12.23	0.00	0.00	0.00	18.58	13.40
115.00	12.23	0.00	0.00	0.00	18.58	13.40
116.00	12.23	0.00	0.00	0.00	18.58	13.40
117.00	12.23	0.00	0.00	0.00	18.58	13.40
118.00	12.23	0.00	0.00	0.00	18.58	13.40
119.00	12.23	0.00	0.00	0.00	18.58	13.40
120.00	12.23	0.00	0.00	0.00	18.58	13.40
121.00	12.23	0.00	0.00	0.00	18.58	13.40
122.00	12.23	0.00	0.00	0.00	18.58	13.40
123.00	12.23	0.00	0.00	0.00	18.58	13.40
124.00	12.23	0.00	0.00	0.00	18.58	13.40
125.00	12.23	0.00	0.00	0.00	18.58	13.40
126.00	12.23	0.00	0.00	0.00	18.58	13.40
127.00	12.23	0.00	0.00	0.00	18.58	13.40
128.00	12.23	0.00	0.00	0.00	18.58	13.40
129.00	12.23	0.00	0.00	0.00	18.58	13.40
130.00	12.23	0.00	0.00	0.00	18.58	13.40
131.00	12.23	0.00	0.00	0.00	18.58	13.40
132.00	12.23	0.00	0.00	0.00	18.58	13.40
133.00	12.23	0.00	0.00	0.00	18.58	13.40
134.00	12.23	0.00	0.00	0.00	18.58	13.40
135.00	12.23	0.00	0.00	0.00	18.58	13.40
136.00	12.23	0.00	0.00	0.00	18.58	13.40
137.00	12.23	0.00	0.00	0.00	18.58	13.40
138.00	12.23	0.00	0.00	0.00	18.58	13.40
139.00	12.23	0.00	0.00	0.00	18.58	13.40
140.00	12.23	0.00	0.00	0.00	18.58	13.40
141.00	12.23	0.00	0.00	0.00	18.58	13.40
142.00	12.23	0.00	0.00	0.00	18.58	13.40
143.00	12.23	0.00	0.00	0.00	18.58	13.40
144.00	12.23	0.00	0.00	0.00	18.58	13.40

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	0.00	0.00	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Basin 1	18.58	81.60	13.40	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Basin 1	5.27	0.00	0.00	0.31	5.58	0.00

Project Name: Fort Pierce North
Reviewer: Alicia Gomez
Project Number: 1769
  Period Begin: Jan 01, 2000;0000 hr End: Jan 07, 2000;0000 hr Duration: 144 hr
  Time Step: 0.2 hr, Iterations: 10

Basin 1: Basin 1

  Method: Santa Barbara Unit Hydrograph
  Rainfall Distribution: SFWMD - 3day
  Design Frequency: 25 year
  3 Day Rainfall: 9.5 inches
  Area: 6.5 acres
  Ground Storage: 2.42 inches
  Time of Concentration: 1 hours
  Initial Stage: 13.4 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
13.40	0.31
14.00	0.64
14.50	0.92
15.00	1.22
15.50	1.49
16.00	1.74
16.50	2.00
17.00	2.27
17.50	2.61
18.00	3.51
18.50	5.23
19.00	7.57

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NAVD)
0.00	13.40
24.00	13.40
48.00	13.60
68.00	14.50
360.00	13.40
1000.00	13.40

Structure: 1

  From Basin: Basin 1
  To Basin: Offsite1
  Structure Type: Gravity
    Weir: None
    Bleeder: Circular, Invert Elev = 13.4 ft NAVD, Diameter = 0.31 ft
      Default Coefs: Weir Coef = 0.6, Orifice Coef = 0.6
    Pipe: Diameter = 2 ft, Manning's n = 0.012, Length = 20 ft
      US Invert Elev = 11.8 ft NAVD, DS Invert Elev = 11.8 ft NAVD, flap gate

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
0.00	0.00	0.00	0.00	0.00	13.40	13.40
1.00	0.04	0.00	0.00	0.00	13.40	13.40
2.00	0.09	0.00	0.00	0.00	13.40	13.40
3.00	0.13	0.00	0.00	0.00	13.40	13.40
4.00	0.17	0.00	0.00	0.00	13.40	13.40
5.00	0.21	0.00	0.00	0.00	13.40	13.40
6.00	0.26	0.00	0.00	0.00	13.40	13.40
7.00	0.30	0.00	0.00	0.00	13.40	13.40
8.00	0.34	0.00	0.00	0.00	13.40	13.40
9.00	0.38	0.00	0.00	0.00	13.40	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
10.00	0.43	0.00	0.00	0.00	13.40	13.40
11.00	0.47	0.00	0.00	0.00	13.40	13.40
12.00	0.51	0.00	0.00	0.00	13.40	13.40
13.00	0.55	0.01	0.00	0.00	13.40	13.40
14.00	0.60	0.02	0.00	0.00	13.40	13.40
15.00	0.64	0.02	0.00	0.00	13.41	13.40
16.00	0.68	0.03	0.00	0.00	13.41	13.40
17.00	0.72	0.04	0.00	0.00	13.42	13.40
18.00	0.77	0.05	0.00	0.00	13.42	13.40
19.00	0.81	0.05	0.00	0.00	13.43	13.40
20.00	0.85	0.06	0.00	0.00	13.44	13.40
21.00	0.89	0.07	0.00	0.00	13.45	13.40
22.00	0.94	0.07	0.01	0.00	13.46	13.40
23.00	0.98	0.08	0.01	0.00	13.47	13.40
24.00	1.02	0.09	0.01	0.00	13.48	13.40
25.00	1.08	0.12	0.02	0.00	13.49	13.41
26.00	1.14	0.14	0.02	0.01	13.51	13.42
27.00	1.21	0.15	0.03	0.01	13.53	13.42
28.00	1.27	0.16	0.04	0.01	13.55	13.43
29.00	1.33	0.17	0.05	0.01	13.56	13.44
30.00	1.39	0.18	0.06	0.02	13.58	13.45
31.00	1.45	0.19	0.07	0.02	13.60	13.46
32.00	1.52	0.20	0.08	0.03	13.62	13.47
33.00	1.58	0.21	0.09	0.04	13.64	13.48
34.00	1.64	0.21	0.10	0.05	13.65	13.48
35.00	1.70	0.22	0.11	0.06	13.67	13.49
36.00	1.77	0.23	0.12	0.06	13.69	13.50
37.00	1.83	0.23	0.13	0.08	13.70	13.51
38.00	1.89	0.24	0.15	0.09	13.72	13.52
39.00	1.95	0.24	0.15	0.10	13.73	13.52
40.00	2.01	0.25	0.16	0.11	13.74	13.53
41.00	2.08	0.25	0.16	0.13	13.76	13.54
42.00	2.14	0.26	0.17	0.14	13.77	13.55
43.00	2.20	0.26	0.17	0.15	13.78	13.56
44.00	2.26	0.27	0.17	0.17	13.80	13.57
45.00	2.32	0.27	0.18	0.18	13.81	13.58
46.00	2.39	0.28	0.18	0.20	13.83	13.58
47.00	2.45	0.28	0.18	0.21	13.84	13.59
48.00	2.51	0.28	0.18	0.23	13.86	13.60
49.00	2.58	0.31	0.17	0.24	13.87	13.65
50.00	2.65	0.32	0.16	0.26	13.90	13.69
51.00	2.73	0.37	0.16	0.27	13.92	13.74
52.00	2.82	0.42	0.15	0.28	13.96	13.78
53.00	2.94	0.53	0.16	0.29	14.01	13.83
54.00	3.09	0.66	0.16	0.31	14.07	13.87
55.00	3.26	0.81	0.18	0.32	14.16	13.91
56.00	3.47	0.97	0.20	0.34	14.26	13.96
57.00	3.70	1.16	0.22	0.36	14.39	14.01
58.00	4.00	1.44	0.25	0.38	14.54	14.05
59.00	4.39	1.95	0.29	0.40	14.73	14.10
60.00	7.10	12.58	0.42	0.43	15.45	14.14
61.00	7.87	7.41	0.60	0.47	16.95	14.19
62.00	8.23	4.08	0.66	0.52	17.52	14.23
63.00	8.45	2.36	0.67	0.58	17.63	14.27
64.00	8.66	1.69	0.67	0.63	17.69	14.32
65.00	8.79	1.12	0.67	0.69	17.72	14.36
66.00	8.91	0.91	0.66	0.74	17.74	14.41
67.00	9.04	0.83	0.66	0.80	17.75	14.45
68.00	9.16	0.80	0.66	0.85	17.76	14.50
69.00	9.25	0.63	0.66	0.91	17.76	14.50
70.00	9.33	0.56	0.66	0.96	17.76	14.49
71.00	9.42	0.54	0.66	1.02	17.75	14.49
72.00	9.50	0.53	0.66	1.07	17.74	14.48
73.00	9.50	0.19	0.66	1.12	17.73	14.48
74.00	9.50	0.07	0.65	1.18	17.71	14.48
75.00	9.50	0.03	0.65	1.23	17.68	14.47
76.00	9.50	0.01	0.65	1.29	17.65	14.47
77.00	9.50	0.00	0.65	1.34	17.62	14.47
78.00	9.50	0.00	0.64	1.39	17.59	14.46

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
79.00	9.50	0.00	0.64	1.45	17.56	14.46
80.00	9.50	0.00	0.64	1.50	17.53	14.45
81.00	9.50	0.00	0.63	1.55	17.50	14.45
82.00	9.50	0.00	0.63	1.60	17.43	14.45
83.00	9.50	0.00	0.62	1.66	17.35	14.44
84.00	9.50	0.00	0.61	1.71	17.28	14.44
85.00	9.50	0.00	0.60	1.76	17.20	14.44
86.00	9.50	0.00	0.60	1.81	17.13	14.43
87.00	9.50	0.00	0.59	1.85	17.06	14.43
88.00	9.50	0.00	0.58	1.90	16.98	14.42
89.00	9.50	0.00	0.57	1.95	16.90	14.42
90.00	9.50	0.00	0.56	2.00	16.81	14.42
91.00	9.50	0.00	0.55	2.04	16.72	14.41
92.00	9.50	0.00	0.54	2.09	16.64	14.41
93.00	9.50	0.00	0.53	2.13	16.56	14.41
94.00	9.50	0.00	0.52	2.18	16.48	14.40
95.00	9.50	0.00	0.51	2.22	16.39	14.40
96.00	9.50	0.00	0.50	2.26	16.31	14.39
97.00	9.50	0.00	0.49	2.30	16.23	14.39
98.00	9.50	0.00	0.48	2.34	16.16	14.39
99.00	9.50	0.00	0.47	2.38	16.08	14.38
100.00	9.50	0.00	0.46	2.42	16.00	14.38
101.00	9.50	0.00	0.45	2.46	15.93	14.38
102.00	9.50	0.00	0.44	2.50	15.86	14.37
103.00	9.50	0.00	0.43	2.53	15.78	14.37
104.00	9.50	0.00	0.42	2.57	15.71	14.36
105.00	9.50	0.00	0.41	2.60	15.64	14.36
106.00	9.50	0.00	0.40	2.63	15.58	14.36
107.00	9.50	0.00	0.39	2.67	15.51	14.35
108.00	9.50	0.00	0.38	2.70	15.45	14.35
109.00	9.50	0.00	0.37	2.73	15.39	14.35
110.00	9.50	0.00	0.36	2.76	15.34	14.34
111.00	9.50	0.00	0.35	2.79	15.28	14.34
112.00	9.50	0.00	0.34	2.82	15.23	14.33
113.00	9.50	0.00	0.33	2.85	15.18	14.33
114.00	9.50	0.00	0.33	2.87	15.13	14.33
115.00	9.50	0.00	0.32	2.90	15.08	14.32
116.00	9.50	0.00	0.31	2.93	15.03	14.32
117.00	9.50	0.00	0.30	2.95	14.99	14.32
118.00	9.50	0.00	0.29	2.97	14.95	14.31
119.00	9.50	0.00	0.28	3.00	14.91	14.31
120.00	9.50	0.00	0.27	3.02	14.87	14.30
121.00	9.50	0.00	0.26	3.04	14.83	14.30
122.00	9.50	0.00	0.26	3.06	14.79	14.30
123.00	9.50	0.00	0.25	3.09	14.76	14.29
124.00	9.50	0.00	0.24	3.11	14.73	14.29
125.00	9.50	0.00	0.23	3.13	14.69	14.29
126.00	9.50	0.00	0.22	3.14	14.66	14.28
127.00	9.50	0.00	0.22	3.16	14.63	14.28
128.00	9.50	0.00	0.21	3.18	14.60	14.27
129.00	9.50	0.00	0.20	3.20	14.57	14.27
130.00	9.50	0.00	0.19	3.21	14.55	14.27
131.00	9.50	0.00	0.18	3.23	14.52	14.26
132.00	9.50	0.00	0.18	3.24	14.50	14.26
133.00	9.50	0.00	0.17	3.26	14.47	14.26
134.00	9.50	0.00	0.16	3.27	14.45	14.25
135.00	9.50	0.00	0.15	3.28	14.42	14.25
136.00	9.50	0.00	0.14	3.30	14.40	14.24
137.00	9.50	0.00	0.14	3.31	14.38	14.24
138.00	9.50	0.00	0.13	3.32	14.36	14.24
139.00	9.50	0.00	0.12	3.33	14.34	14.23
140.00	9.50	0.00	0.11	3.34	14.33	14.23
141.00	9.50	0.00	0.11	3.35	14.31	14.23
142.00	9.50	0.00	0.10	3.36	14.29	14.22
143.00	9.50	0.00	0.09	3.36	14.28	14.22
144.00	9.50	0.00	0.08	3.37	14.27	14.21

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	0.67	64.00	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Basin 1	17.76	68.80	13.40	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Basin 1	3.85	0.00	3.37	0.31	0.79	0.00

Project Name: Fort Pierce North
Reviewer: Alicia Gomez
Project Number: 1769
  Period Begin: Jan 01, 2000;0000 hr End: Jan 07, 2000;0000 hr Duration: 144 hr
  Time Step: 0.2 hr, Iterations: 10

Basin 1: Basin 1

  Method: Santa Barbara Unit Hydrograph
  Rainfall Distribution: SFWMD - 24 hr
  Design Frequency: 10 year
  1 Day Rainfall: 6 inches
  Area: 6.5 acres
  Ground Storage: 2.42 inches
  Time of Concentration: 1 hours
  Initial Stage: 13.4 ft NAVD

Stage (ft NAVD)	Storage (acre-ft)
13.40	0.31
14.00	0.64
14.50	0.92
15.00	1.22
15.50	1.49
16.00	1.74
16.50	2.00
17.00	2.27
17.50	2.61
18.00	3.51
18.50	5.23
19.00	7.57

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NAVD)
0.00	13.40
24.00	13.40
48.00	13.60
68.00	14.50
360.00	13.40
1000.00	13.40

Structure: 1

  From Basin: Basin 1
  To Basin: Offsite1
  Structure Type: Gravity
    Weir: None
    Bleeder: Circular, Invert Elev = 13.4 ft NAVD, Diameter = 0.31 ft
      Default Coefs: Weir Coef = 0.6, Orifice Coef = 0.6
    Pipe: Diameter = 2 ft, Manning's n = 0.012, Length = 20 ft
      US Invert Elev = 11.8 ft NAVD, DS Invert Elev = 11.8 ft NAVD, flap gate

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
0.00	0.00	0.00	0.00	0.00	13.40	13.40
1.00	0.06	0.00	0.00	0.00	13.40	13.40
2.00	0.12	0.00	0.00	0.00	13.40	13.40
3.00	0.19	0.00	0.00	0.00	13.40	13.40
4.00	0.27	0.00	0.00	0.00	13.40	13.40
5.00	0.37	0.00	0.00	0.00	13.40	13.40
6.00	0.50	0.00	0.00	0.00	13.40	13.40
7.00	0.65	0.05	0.00	0.00	13.40	13.40
8.00	0.82	0.15	0.00	0.00	13.42	13.40
9.00	1.03	0.31	0.01	0.00	13.45	13.40

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
10.00	1.28	0.53	0.02	0.00	13.51	13.40
11.00	1.61	0.91	0.07	0.01	13.61	13.40
12.00	3.94	8.63	0.26	0.02	14.06	13.40
13.00	4.60	5.35	0.44	0.05	15.01	13.40
14.00	4.91	3.04	0.51	0.09	15.56	13.40
15.00	5.10	1.81	0.55	0.14	15.86	13.40
16.00	5.28	1.33	0.57	0.18	16.02	13.40
17.00	5.39	0.89	0.58	0.23	16.10	13.40
18.00	5.50	0.72	0.58	0.28	16.13	13.40
19.00	5.60	0.67	0.58	0.33	16.15	13.40
20.00	5.71	0.65	0.59	0.37	16.16	13.40
21.00	5.78	0.51	0.59	0.42	16.15	13.40
22.00	5.86	0.46	0.58	0.47	16.14	13.40
23.00	5.93	0.44	0.58	0.52	16.11	13.40
24.00	6.00	0.43	0.58	0.57	16.09	13.40
25.00	6.00	0.16	0.57	0.62	16.04	13.41
26.00	6.00	0.06	0.56	0.66	15.97	13.42
27.00	6.00	0.02	0.55	0.71	15.88	13.42
28.00	6.00	0.01	0.54	0.75	15.79	13.43
29.00	6.00	0.00	0.53	0.80	15.70	13.44
30.00	6.00	0.00	0.52	0.84	15.62	13.45
31.00	6.00	0.00	0.51	0.88	15.53	13.46
32.00	6.00	0.00	0.50	0.93	15.45	13.47
33.00	6.00	0.00	0.49	0.97	15.38	13.48
34.00	6.00	0.00	0.48	1.01	15.30	13.48
35.00	6.00	0.00	0.47	1.05	15.23	13.49
36.00	6.00	0.00	0.46	1.08	15.16	13.50
37.00	6.00	0.00	0.45	1.12	15.09	13.51
38.00	6.00	0.00	0.44	1.16	15.02	13.52
39.00	6.00	0.00	0.43	1.19	14.96	13.52
40.00	6.00	0.00	0.42	1.23	14.90	13.53
41.00	6.00	0.00	0.41	1.26	14.84	13.54
42.00	6.00	0.00	0.40	1.30	14.79	13.55
43.00	6.00	0.00	0.39	1.33	14.73	13.56
44.00	6.00	0.00	0.38	1.36	14.68	13.57
45.00	6.00	0.00	0.37	1.39	14.63	13.58
46.00	6.00	0.00	0.36	1.42	14.58	13.58
47.00	6.00	0.00	0.35	1.45	14.53	13.59
48.00	6.00	0.00	0.34	1.48	14.48	13.60
49.00	6.00	0.00	0.32	1.51	14.43	13.65
50.00	6.00	0.00	0.30	1.53	14.38	13.69
51.00	6.00	0.00	0.28	1.56	14.34	13.74
52.00	6.00	0.00	0.26	1.58	14.30	13.78
53.00	6.00	0.00	0.24	1.60	14.26	13.83
54.00	6.00	0.00	0.22	1.62	14.23	13.87
55.00	6.00	0.00	0.19	1.64	14.20	13.91
56.00	6.00	0.00	0.17	1.65	14.17	13.96
57.00	6.00	0.00	0.14	1.66	14.15	14.01
58.00	6.00	0.00	0.10	1.67	14.13	14.05
59.00	6.00	0.00	0.06	1.68	14.12	14.10
60.00	6.00	0.00	0.00	1.68	14.12	14.14
61.00	6.00	0.00	0.00	1.68	14.12	14.19
62.00	6.00	0.00	0.00	1.68	14.12	14.23
63.00	6.00	0.00	0.00	1.68	14.12	14.27
64.00	6.00	0.00	0.00	1.68	14.12	14.32
65.00	6.00	0.00	0.00	1.68	14.12	14.36
66.00	6.00	0.00	0.00	1.68	14.12	14.41
67.00	6.00	0.00	0.00	1.68	14.12	14.45
68.00	6.00	0.00	0.00	1.68	14.12	14.50
69.00	6.00	0.00	0.00	1.68	14.12	14.50
70.00	6.00	0.00	0.00	1.68	14.12	14.49
71.00	6.00	0.00	0.00	1.68	14.12	14.49
72.00	6.00	0.00	0.00	1.68	14.12	14.48
73.00	6.00	0.00	0.00	1.68	14.12	14.48
74.00	6.00	0.00	0.00	1.68	14.12	14.48
75.00	6.00	0.00	0.00	1.68	14.12	14.47
76.00	6.00	0.00	0.00	1.68	14.12	14.47
77.00	6.00	0.00	0.00	1.68	14.12	14.47
78.00	6.00	0.00	0.00	1.68	14.12	14.46

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NAVD)	Tail Water Stage (ft NAVD)
79.00	6.00	0.00	0.00	1.68	14.12	14.46
80.00	6.00	0.00	0.00	1.68	14.12	14.45
81.00	6.00	0.00	0.00	1.68	14.12	14.45
82.00	6.00	0.00	0.00	1.68	14.12	14.45
83.00	6.00	0.00	0.00	1.68	14.12	14.44
84.00	6.00	0.00	0.00	1.68	14.12	14.44
85.00	6.00	0.00	0.00	1.68	14.12	14.44
86.00	6.00	0.00	0.00	1.68	14.12	14.43
87.00	6.00	0.00	0.00	1.68	14.12	14.43
88.00	6.00	0.00	0.00	1.68	14.12	14.42
89.00	6.00	0.00	0.00	1.68	14.12	14.42
90.00	6.00	0.00	0.00	1.68	14.12	14.42
91.00	6.00	0.00	0.00	1.68	14.12	14.41
92.00	6.00	0.00	0.00	1.68	14.12	14.41
93.00	6.00	0.00	0.00	1.68	14.12	14.41
94.00	6.00	0.00	0.00	1.68	14.12	14.40
95.00	6.00	0.00	0.00	1.68	14.12	14.40
96.00	6.00	0.00	0.00	1.68	14.12	14.39
97.00	6.00	0.00	0.00	1.68	14.12	14.39
98.00	6.00	0.00	0.00	1.68	14.12	14.39
99.00	6.00	0.00	0.00	1.68	14.12	14.38
100.00	6.00	0.00	0.00	1.68	14.12	14.38
101.00	6.00	0.00	0.00	1.68	14.12	14.38
102.00	6.00	0.00	0.00	1.68	14.12	14.37
103.00	6.00	0.00	0.00	1.68	14.12	14.37
104.00	6.00	0.00	0.00	1.68	14.12	14.36
105.00	6.00	0.00	0.00	1.68	14.12	14.36
106.00	6.00	0.00	0.00	1.68	14.12	14.36
107.00	6.00	0.00	0.00	1.68	14.12	14.35
108.00	6.00	0.00	0.00	1.68	14.12	14.35
109.00	6.00	0.00	0.00	1.68	14.12	14.35
110.00	6.00	0.00	0.00	1.68	14.12	14.34
111.00	6.00	0.00	0.00	1.68	14.12	14.34
112.00	6.00	0.00	0.00	1.68	14.12	14.33
113.00	6.00	0.00	0.00	1.68	14.12	14.33
114.00	6.00	0.00	0.00	1.68	14.12	14.33
115.00	6.00	0.00	0.00	1.68	14.12	14.32
116.00	6.00	0.00	0.00	1.68	14.12	14.32
117.00	6.00	0.00	0.00	1.68	14.12	14.32
118.00	6.00	0.00	0.00	1.68	14.12	14.31
119.00	6.00	0.00	0.00	1.68	14.12	14.31
120.00	6.00	0.00	0.00	1.68	14.12	14.30
121.00	6.00	0.00	0.00	1.68	14.12	14.30
122.00	6.00	0.00	0.00	1.68	14.12	14.30
123.00	6.00	0.00	0.00	1.68	14.12	14.29
124.00	6.00	0.00	0.00	1.68	14.12	14.29
125.00	6.00	0.00	0.00	1.68	14.12	14.29
126.00	6.00	0.00	0.00	1.68	14.12	14.28
127.00	6.00	0.00	0.00	1.68	14.12	14.28
128.00	6.00	0.00	0.00	1.68	14.12	14.27
129.00	6.00	0.00	0.00	1.68	14.12	14.27
130.00	6.00	0.00	0.00	1.68	14.12	14.27
131.00	6.00	0.00	0.00	1.68	14.12	14.26
132.00	6.00	0.00	0.00	1.68	14.12	14.26
133.00	6.00	0.00	0.00	1.68	14.12	14.26
134.00	6.00	0.00	0.00	1.68	14.12	14.25
135.00	6.00	0.00	0.00	1.68	14.12	14.25
136.00	6.00	0.00	0.00	1.68	14.12	14.24
137.00	6.00	0.00	0.00	1.68	14.12	14.24
138.00	6.00	0.00	0.00	1.68	14.12	14.24
139.00	6.00	0.00	0.00	1.68	14.12	14.23
140.00	6.00	0.00	0.00	1.68	14.12	14.23
141.00	6.00	0.00	0.00	1.68	14.12	14.23
142.00	6.00	0.00	0.00	1.68	14.12	14.22
143.00	6.00	0.00	0.00	1.68	14.12	14.22
144.00	6.00	0.00	0.00	1.68	14.12	14.21

STRUCTURE MAXIMUM AND MINIMUM DISCHARGE

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	0.59	20.40	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Basin 1	16.16	20.40	13.40	0.00

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Basin 1	2.08	0.00	1.68	0.31	0.71	0.00

ENVIRONMENTAL ASSESSMENT

6.87-ACRE PARCEL ALONG OKEECHOBEE ROAD

FT. PIERCE, ST. LUCIE COUNTY, FLORIDA

August 2019
Updated June 2020

For

Michael Moore
Arrow Investments
4512 North Flagler Drive, Ste. 216
West Palm Beach, Florida 33412

Prepared by:
David Nickerson, Inc.
6687 SE. Silverbell Avenue
Stuart, Florida 34997
561-891-1572

www.environmentalconsultflorida.com

Environmental Assessment

Project Name: 6.87-Acre Parcel **Project No.** C19012

Work Date: August 7 and 8, 2019

Site Location: Just east of South 31st Street, north side of Okeechobee Road
Ft. Pierce, Florida

Objective of Work: David Nickerson, Inc., (DNI) conducted an environmental assessment to document occurrences of any significant environmental resources including vegetative communities, jurisdictional wetland areas, and listed plant or wildlife species.

Site Description: The 6.87acre parcel is a vacant commercially zoned lot established in a commercial district located in Section 19, Township 35 South, Range 40 East, in Ft. Pierce, Florida (Figure 1). The property comprises 6.87 acres and is located east of South 31st Street, north of Okeechobee Road, west of developed commercial enterprises and south of undeveloped land. A small wetland ditch exists near the northwestern corner of the property and is connected to the dry drainage ditch located along the western property boundary. The entire site is disturbed and is dominated by cleared land on which a variety of weedy herbaceous plants occur. Remnant forest communities occur along the northeastern, northern and northwestern portions of the site. Several small to large isolated Cabbage palm (*Sabal palmetto*)/Brazilian pepper (*Schinus terebinthifolius*) heads occur along the southern site boundary and interior to the property. The largest of these, near the southwestern portion, supports an active homeless camp. Two well-worn foot paths occur onsite. One servicing the homeless camp from offsite at the intersection of Nebraska Avenue and South 31st Street and the other occurs along the eastern portion from the northern property line south to the business located offsite at the extreme southeastern property corner. No structures or other site improvements occur on the parcel.

Methodology: Prior to the site visit, the U.S. Geological Survey 7.5-minute Quadrangle Topographic Map, Ft. Pierce Quadrangle (Photo-revised 2015) and the Soil Survey of St. Lucie County Florida (U.S. Department of Agriculture 2014) were reviewed to determine topographic features and site soil map



NORTH

David Nickerson, Inc. www.environmentalconsultflorida.com	**Location Map** **6.87-Acre Okeechobee Road Parcel** **Ft. Pierce, Florida**	**Figure 1** August 2019 Not To Scale

units. Copies of Google 2016 aerial photographs of the parcel were obtained and reviewed to determine potential location of environmental features.

Pedestrian surveys of the parcel were conducted on August 7 and 8, 2019 to map approximate locations and boundaries of significant environmental resources, vegetative communities and occurrence of listed plant or animal species. Approximate locations of vegetative community cover type boundaries and other features were mapped on an aerial photograph of the site. Vegetative communities were identified in accordance with Florida Land Use Cover and Forms Classification System Handbook (FLUCFCS) (Florida Department of Transportation 1999).

Listed species of plants and wildlife are found in Florida's Endangered Species, Threatened Species, and Species of Special Concern, Official Lists (Florida Fish and Wildlife Conservation Commission 2013) and Preservation of Native Flora of Florida, Chapter 5B-40 (Florida Department of Agriculture and Consumer Services, Division of Plant Industry, October 2017). Any occurrences of listed species were recorded.

Technical Staff: David Nickerson

Findings: The entire 6.87-acre parcel is disturbed including vegetation and soil surface. Site investigation confirmed mapped soils on the southern half of the property as Tantile and Pomona sands and the northern half is underlain by Nettles and Oldsmar sands. Natural Resource and Conservation Service mapped soils are shown in Attachment A. Relatively intact native upland habitat does not occur on the property. Due to previous clearing, exotic and nuisance plant pioneers have replaced the historic pine flatwood understory vegetation naturally occurring on Tantile and Pomona sands and Nettles and Oldsmar sands soils in this part of St. Lucie County. The narrow forested areas along western and southern portions comprise mostly exotic plant species and the wetland buffer also contains exotic canopy and subcanopy species. Following partial clearing and local/regional historic drainage, six cover types currently occur on site and include Disturbed Herbaceous, Brazilian Pepper, Disturbed Mixed Hardwoods, Brazilian Pepper Cabbage Palm, Disturbed Pine Oak Cabbage Palm and Ditches. The cover types are described below and their locations on the parcel are depicted in Figure 2.



NORTH

LEGEND

- Parcel Boundary
- Human Paths

3101 – Disturbed Herbaceous
4141 – Disturbed Pine Oak Cabbage Palm
4220 – Brazilian Pepper
4221 – Brazilian Pepper Cabbage Palm
4381 – Disturbed Mixed Hardwoods
5101– Ditches
Source – *Florida Land Use, Cover and Forms Classification System* 1999

David Nickerson, Inc. www.environmentalconsultflorida.com	**Vegetation Communities Map 6.87 Acre Okeechobee Road Parcel Ft. Pierce, Florida**	Figure 2 August 2019 Not to Scale

Disturbed Herbaceous – FLUCFCS 3101; Disturbed Herbaceous cover type is the dominant cover on site, occurring on approximately 2.25 acres of the 6.87-acre parcel. Because this cover type has been cleared of all but herbaceous plants, no canopy, subcanopy or shrub plants occur. Bahiagrass (*Paspalum notatum*), in the eastern and southern portions, and St. Augustine grass (*Stenotaphrum secundatum*), in the northern and western portions, dominate the vegetation in the ground cover layer. Additional exotic and native herbaceous plants found in the ground cover include creeping oxeye (*Sphagneticola trilobata*), beggarticks (*Bidens pilosa*), sandspur (*Cenchrus spinifex*), morning glory (*Ipomea imperati*), frostweed (*Verbesina virginica*), creeping beggar weed (*Desmodium incanum*), pepper vine (*Ampleopsis arborea*), creeping indigo (*Indigofera spicata*), large flower pusley (*Richardia grandiflora*), West Indian dropseed (*Sporobolus jacquemontii*), shrubby false button (*Spermacoce verticillata*) and Guinea grass (*Panicum maximum*). Occasionally, ragweed (*Ambrosia artimisifolia*), dayflower (*Commelina* sp.), wild grape (*Vitis rotundifolia*), broomsedge bluestem (*Andropogon virginicus*), catbriar (*Smilax* spp.), wild poinsettia (*Poinsettia cyathophora*), Florida threeawn (*Aristida rhizomophora*), and dog fennel (*Eupatorium capillifolium*) also occur. Select photographs of this cover type are provided in Attachment B.

Disturbed Pine Oak Cabbage Palm – FLUCFCS 4141: Disturbed Pine Oak Cabbage Palm cover type occurs along the northern and eastern property boundaries. It comprises 2.1 acres. Evidence of disturbance observed includes abundant solid waste, soil disturbance and invasion of exotic plants. Only a few slash pine (*Pinus elliottii*) remain in the community and they occur in the northern extreme of the cover type. Other canopy plants include cabbage palm, laurel oak (*Quercus laurifolia*), melaleuca (*Melaleuca quinquenervia*) and Brazilian pepper with occasional horse bush (*Peltophorum dubium*), Mexican fan palm (*Washingtonia robusta*), and Queen Palm (*Syagrus romanzoffiana*). Subcanopy vegetation comprises Brazilian pepper, cabbage palm, melaleuca, Guinea grass and carrotwood (*Cupaniopsis anacardioides*). Ground cover includes Brazilian pepper, cabbage palm, carrotwood, Surinam cherry (*Ugenia uniflora*), blechnum fern (*Blechnum serrulatum*), with occasional marlberry (*Ardisia escallonioides*), beauty berry (*Callicarpa americana*), caesar weed (*Urena lobata*), frostweed, cat briar (*Smilax* sp.), and monk orchid (*Oceoclades maculata*).

Brazilian Pepper – FLUCFCS 4220; Brazilian Pepper cover type occurs south of the Disturbed Pine Oak Cabbage Palm and north of Disturbed Herbaceous and Disturbed Mixed Hardwoods in the northwestern forested portion of the property. It

comprises approximately 0.92 acres. Canopy trees are dominated by the exotic Brazilian pepper (*Schinus terebinthifolius*) with occasional representation by cabbage palm (*Sabal palmetto*), laurel oak and queen palm. Brazilian pepper also dominates the subcanopy with occasional laurel oak and cabbage palm. Ground cover plants are sparse and include seedlings of Brazilian pepper, Caesar weed (*Urena lobata*), pepper vine and frostweed (*Verbesina virginica*). Select photographs of this cover type are provided in Attachment B.

Brazilian Pepper Cabbage Palm – FLUCFCS 4221; Brazilian Pepper Cabbage Palm cover type occurs mostly as isolated tree "heads" within the Disturbed Herbaceous cover and includes an upland fringing community along the west central site boundary. It comprises approximately 0.92 acres. This community is highly disturbed as evidenced by dominance of exotic and invasive plants and scattered solid waste in each area. The largest of the heads contains an active homeless camp with several tents, makeshift tables and clothes lines (Figure 2) and Attachment B. Trees in the canopy layer of this cover type are dominated by the exotic Brazilian pepper and include Cabbage palm and an occasional laurel oak. Subcanopy plants include Brazilian pepper, strangler fig (*Ficus aurea*), occasional laurel oak and the invasive Surinam cherry (*Ugenia uniflora*). Ground cover plants are sparse but include Brazilian pepper, West Indian dropseed, Caesar weed, bahia grass and Florida threeawn. Select photographs of this cover type are provided in Attachment B.

Disturbed Mixed Hardwoods – FLUCFCS 4381; Disturbed Mixed Hardwoods cover type occurs in a small area along the west central portion of the property south of the Brazilian Pepper and north of the Disturbed Herbaceous cover type. It comprises 0.39 acres. Canopy vegetation comprises False Tamarind (*Lysiloma latisiliquum*), cabbage palm, rosewood (*Dalbergia sissoo*), Brazilian pepper and laurel oak. Subcanopy plants include Brazilian pepper, rosewood, cabbage palm, Surinam cherry and laurel oak. Ground cover comprises seedlings of canopy and subcanopy species as well as Guinea grass, pepper vine, frostweed, Bahia grass and Caesar weed. A photograph of this cover type is provided in Attachment B.

Ditches – FLUCFCS 5101; Ditches cover type occurs as a 10-20 foot wide mostly dry drainage ditch along and just within the western property boundary from Okeechobee Road north to the Disturbed Pine Oak Cabbage Palm community. It comprises approximately 0.29 acres. On the day of this assessment, standing water was observed to occur only in the northern half of the ditch. The southern two fifths of the ditch and its banks are open and without any shrubs or trees. The northern three fifths of the ditch length are covered by

overhanging vegetation and the portion west of the Disturbed Mixed Hardwoods community has Primrose willow (*Ludwigia peruviana*) plants growing in the ditch. No canopy trees actually grow in the ditch but overhanging Brazilian pepper predominates over the ditch in that community and an occasional laurel oak and Carolina willow (Salix caroliniana) overhang to the south. Herbaceous plants growing in the open portion of the ditch include Guinea grass, West Indian dropseed, pepper vine, Caesar weed, rattlebox, blechnum fern (*Blechnum serrulatum*), with occasional maidencane (*Panicum hemitomon*) and plants typically found in the Disturbed Herbaceous cover type to the east. Select photographs of this cover type are provided in Attachment B.

A Gopher Tortoise Burrow Survey was conducted on the property. No active or inactive burrows were found. No other animals listed as protected by federal, state, or local environmental regulatory agencies, nor any signs of such animals, were observed on the parcel. Unlisted animal species and/or sign observed on the parcel included southern leopard frog (*Lithobates utricularia*), common oak toad (*Bufo quercicus*), Cuban anole (*Anolis sagrei*), Southern black racer (*Coluber constrictor*), mourning dove (*Zenaida macroura*), northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), mockingbird (*Mimus polyglottos*), loggerhead shrike (*Lanius ludovicianus*), zebra longwing butterfly (*Heliconius charitonia*) and a few other butterflies. Sign of animal occurrence observed include common rabbit (*Sylvilagus floridanus*) scat.

No plant species regulated by the Florida Department of Agriculture and Consumer Services were observed on the property.

Recommendations: Ft. Pierce Land Development Regulations address Tree Protection of native trees. A tree removal permit and a land clearing permit must be obtained prior to conducting any site work. No tree removal permit is required should only Brazilian pepper, Australian pine or Melaleuca trees be removed. Ft. Pierce Landscape Code defines material standards as to species and sizes. A tree survey may be necessary as the few native trees occurring onsite are required to be protected onsite or replaced with same species in future landscaping areas.

A small area of low land adjacent to and east of northern portions of the western drainage ditch is jurisdictional wetland and a wetland delineation was conducted to determine and mark the actual jurisdictional wetland limits on site in accordance with South Florida Water Management District (SFWMD) rules. The wetland delineation has been approved by SFWMD and the wetland has been determined to be an isolated wetland less than 0.5

acre in area. Should the wetland be maintained as part of the site plan, a 25 foot wide upland buffer must be maintained outside and surrounding the jurisdictional wetland line. Should the isolated wetland be impacted by the project, no mitigation would be required in accordance with SFWMD rules.

Because native upland habitat does not occur on site, Ft. Pierce Land Development Regulations (LDR) do not require any portion of onsite upland habitat to be protected in an upland preserve area on site.

Additionally, in accordance with Fort Pierce rules, all prohibited exotic plant species occurring on the property must be eradicated as a condition of building permit approval. Consequently, all prohibited species, including Brazilian pepper, camphor tree, Old World climbing fern and Guinea grass found on the site must be removed during the development process.

DNI can assist in addressing all of the above topics by conducting pre-permit application meetings with environmental regulatory agencies, preparing permit applications in cooperation with planners and engineers, and defining options that will assist in the development goals for the parcel.

Figures:

Figure 1 – Location Map
Figure 2 – Vegetative Communities Map

References:

Florida Association of Environmental Soil Scientists. 1995. Hydric Soils of Florida Handbook, second edition. University of Florida, United States Department of Agriculture, Florida Department of Environmental Protection, and St. Johns River Water Management District. 409p.

Florida Fish and Wildlife Conservation Commission. 2013. Florida's Endangered Species, Threatened Species and Species of Special Concern, Official Lists. Tallahassee, Florida. 12p.

U. S. Department of Agriculture, Soil Conservation Service. 2014. NRCS Web Soil Survey, Custom Soil Resource Report for St Lucie County

Attachment A

Area Soils Map



Map Scale: 1:8,520 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Natural Resources Web Soil Survey **Conservation Service** National Cooperative Soil Survey Soil Map—St. Lucie County, Florida (6.87 Acre Parcel)

MAP LEGEND

Area of Interest (AOI)
Area of Interest (AOI)
Soils
Soil Map Unit Polygons
Soil Map Unit Lines
Soil Map Unit Points
Special Line Features
Blowout
Borrow Pit
Clay Spot
Closed Depression
Gravel Pit
Gravelly Spot
Landfill
Lava Flow
Marsh or swamp
Mine or Quarry
Miscellaneous Water
Perennial Water
Rock Outcrop
Saline Spot
Sandy Spot
Severely Eroded Spot
Sinkhole
Slide or Slip
Sodic Spot
Spoil Area
Stony Spot
Very Stony Spot
Wet Spot
Other
Special Point Features
Water Features
Streams and Canals
Transportation
Rails
Interstate Highways
US Routes
Major Roads
Local Roads
Background
Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were m

Warning: Soil Map may not be valid at this

Enlargement of maps beyond the scale of misunderstanding of the detail of mapping line placement. The maps do not show th contrasting soils that could have been sho scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are re

This product is ge NRCS certified data as of the version date(s) lis

Soil Survey Area: St. Lucie
Survey Area Data: Version 11, Sep 17, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were 2019—Mar 23, 2019

The orthophoto or other base map on which compiled and digitized probably differs from the displayed on these maps. As a result, some mir shifting of map unit boundaries may be evident.

Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ankona and Farmton sands	12.2	3.7%
4	Arents, 0 to 5 percent slopes	5.6	1.7%
21	Lawnwood and Myakka sands	1.9	0.6%
25	Nettles and Oldsmar sands	29.7	9.0%
31	Pepper and EauGallie sands	55.0	16.6%
32	Pineda sand, 0 to 2 percent slopes	1.5	0.4%
40	Samsula muck, frequently ponded, 0 to 1 percent slopes	2.7	0.8%
44	Tantile and Pomona sands	188.8	57.0%
50	Waveland and Immokalee fine sands	1.2	0.4%
52	Waveland-Urban land complex	29.7	9.0%
99	Water	2.6	0.8%
Totals for Area of Interest		**330.9**	**100.0%**

Attachment B
Selected Photographs



Brazilian Pepper Cabbage Palm Head & Disturbed Herbaceous cover at SE property corner view to W



Disturbed Herbaceous cover and Human Path at SE property corner view to N



Disturbed Pine Oak Cabbage Palm, Disturbed Herbaceous & Human Path at NE corner view to S



Disturbed Herbaceous and Pine Oak Cabbage Palm at NE corner view to W



Adjacent land, Ditch, Disturbed Herbaceous & Brazilian Pepper head at SW corner view to N



Ditch, Disturbed Herbaceous & Brazilian Pepper Cabbage Palm head at SW corner view to ENE



Disturbed Herbaceous & Brazilian Pepper Heads from S of Disturbed Mixed Hardwoods view to SE



BP head, Disturbed Herbaceous and Brazilian Pepper head along street near SW corner view to E



Eastern Disturbed Pine Oak Cabbage Palm interior view to SE



Northern Disturbed Pine Oak Cabbage Palm western interior view to SW



False Tamarind tree and Brazilian pepper in Disturbed Mixed Hardwoods View to NW



Disturbed Herbaceous, Wetland portion of Ditch and Mexican fan palms in NW portion view to NNW



Homeless camp in Largest Brazilian Pepper Cabbage Palm head in SW portion of site view to ESE

Kimley»Horn

June 22, 2020

Arrow Investment Group, LLC
c/o Michael Sanchez
4512 North Flagler Drive, Suite 206
West Palm Beach, Florida 33407

Re: Arrow Fort Pierce North Residential – Future Land Use Plan Amendment Analysis
Fort Pierce, Florida
Kimley-Horn #043264001

Dear Mr. Sanchez:

Kimley-Horn and Associates, Inc. has prepared a future land use plan amendment traffic analysis for the site located in the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. The proposed plan of development includes changing the future land use designation from general commercial (GC) to medium density residential (RM). The parcel identification number for the site is 2417-504-0020-001-6.

The attached **Figure 1** shows the location of the site. The site plan and parcel number are attached for reference.

Table 1 summarizes the maximum development intensities for proposed future land use designation on the parcel based upon the proposed medium density residential (RM) designation. Per *City of Fort Pierce Comprehensive Plan* Policy 1.1.5, the City allows a density bonus of 5 dwelling units per acre for developments located within a ¼ mile of a rail station, multimodal transit center, or transit stop.

This analysis was conducted following short-term and long-term analysis procedures typically used to evaluate comprehensive plan amendments in Fort Pierce as outlined in the Comprehensive Plan. This report summarizes the findings of the comprehensive plan land use amendment traffic analysis.

TRIP GENERATION

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the project, and the distribution and assignment of that traffic over the study roadway network.

The trip generation calculations are based on the trip generation rates and equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 10th Edition* for the following:

- Scenario A: Maximum development potential under the existing FLU – General Commercial (GC)
- Scenario B: Maximum development potential under the future FLU – Medium Density Residential (RM)

The trip differential between the maximum development potential of the existing FLU site and maximum development potential of the proposed FLU was used for the short-range (year 2025) analysis and for the long-range (year 2040) analysis. As indicated in **Table 2**, the proposed development is a decrease in 26 net new external AM peak hour trips and a decrease in 32 net new external PM peak hour trips. Therefore, no further analysis is required for the proposed future lane use.

CONCLUSION

The foregoing comprehensive plan traffic analysis has been conducted to evaluate the proposed future land use to medium density residential at the site located in the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. Based on the trip generation calculation between the existing and proposed future land use, the proposed change in land use will be a decrease in project trips and will not impact roadways in the vicinity of the project. Therefore, the change in future land use for the subject parcel meets applicable criteria for an amendment to Fort Pierce's comprehensive plan.

Please contact me at (561) 840-0874 or adam.kerr@kimley-horn.com should you have any questions.

Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.

Adam B. Kerr, P.E.
Transportation Engineer

Florida Registration
Number 64773
Certificate of Authorization
Number 696

Attachments

k:\wpb_tpto\0432\043264001 - arrow fp north\flupa\2020-03-19 arrow flupa.docx

TABLE 1: MAXIMUM DEVELOPMENT INTENSITIES ARROW FORT PIERCE NORTH RESIDENTIAL			
Scenario	Maximum Intensity	Acreage	Max
Existing Future Land Use *General Commercial (GC)*	1.0 FAR	6.796	296,034 SF
Proposed Future Land Use *Medium Density Res (RM)*	17 DU per Acre	6.796	115 DU

TABLE 2
WEEKDAY TRIP GENERATION
ARROW FORT PIERCE NORTH RESIDENTIAL

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Existing Future Land Use								
Commercial	296.034 KSF	12,576	99	26	73	126	77	49
Subtotal		*12,576*	*99*	*26*	*73*	*126*	*77*	*49*
Pass-By								
Commercial	34%	4,276	34	9	25	43	26	17
Net External Trips		*8,300*	*65*	*17*	*48*	*83*	*51*	*32*
Proposed Future Land Use								
Multifamily Residential (Mid-Rise)	115 DU	625	39	10	29	51	31	20
Net External Trips		*625*	*39*	*10*	*29*	*51*	*31*	*20*
Existing Future Land Use - Proposed Future Land Use		*(7,675)*	*(26)*	*(7)*	*(19)*	*(32)*	*(20)*	*(12)*

Trip generation was calculated using the following data:

Daily Trip Generation			
Commercial	[ITE 820]	=	Ln(T) = 0.68Ln(X) + 5.57 trips/1,000 SF
Multifamily Residential (Mid-Rise)	[ITE 221]	=	T = 5.45(X) - 1.75 trips/DU
AM Peak Hour Trip Generation			
Commercial	[ITE 820]	=	T = 0.50(X) + 151.78 trips/1,000 SF (62% in, 38% out)
Multifamily Residential (Mid-Rise)	[ITE 221]	=	Ln(T) = 0.98Ln(X) - 0.98 trips/DU (26% in, 74% out)
PM Peak Hour Trip Generation			
Commercial	[ITE 820]	=	Ln(T) = 0.74 Ln(X) + 2.89 trips/1,000 SF (48% in, 52% out)
Multifamily Residential (Mid-Rise)	[ITE 221]	=	Ln(T) = 0.96Ln(X) - 0.63 trips/DU (61% in, 39% out)

Kimley»Horn


S 25TH STREET
VIRGINIA AVENUE
OKEECHOBEE ROAD
FIGURE 1
SITE LOCATION
ARROW FP NORTH RESIDENTIAL
Kimley»Horn
LEGEND
Project Site
NORTH

SITE INFORMATION

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address: OKEECHOBEE RD	Parcel ID: 2417-504-0020-001-6	Account #: 26668	Sec/Town/Range: 17/35S/40E
Use Type: 1000	Jurisdiction: Fort Pierce	Map ID: 24/17N	Zoning: General Co

Ownership

Arrow Investment Group LLC
4512 N Flagler DR # 2056
West Palm Beach, FL 33407

Legal Description

COLLIER`S S/D BLK D ALL BLK D-LESS S 27 FT AND SELY 7 FT FOR RD R/W AND LESS THAT PART MPDAF: BEG INT OF SE COR OF BLK D AND NLY RD R/W LI OF OKEEC RD RUN N 28 00 23 W 167.87 FT,TH N 89 51 15 E 79 FT TO E LI OF BLK D,TH S 00 04 02 W ALG E LI 148.41 FT TO NLY RD R/W LI OF OKEEC RD AND POB- (6.86 AC)

Current Values

Just/Market:	$732,700	Assessed:	$732,700
Exemptions:	$0	Taxable:	$732,700

Historical Values 3-year

Year	Just/Market	Assessed	Exemptions	Taxable
2019	$732,700	$732,700	$0	$732,700
2018	$732,700	$732,700	$0	$732,700
2017	$732,700	$732,700	$0	$732,700

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
09-26-2019	4327 / 0333	0112	SP	Cypress Trust Company (TR)	$450,000
05-27-2010	3204 / 0743	0112	SP	Cypress Trust Company (TR)	$100
12-17-2008	3049 / 2156	XX01	CT	Mid South Acquisitions LLC	$299,000

Primary Building Information

Finished Area of this building: 0 SF
Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:	Building Type:
Year Built: N/A	Frame:	Grade:	Effective Year: N/A
Primary Wall:	Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	A/C %: 0%	Electric:	Primary Int Wall:
Full Baths: 0	Heated %: N/A%	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Sprinkled %: 0%	Heat Fuel:	Primary Floors:



Image or Sketch unavailable for display

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.87
Land Size (SF):	299,058
Total Building Count:	1

Special Features and Yard Items

Type	Qty	Units	Year Blt

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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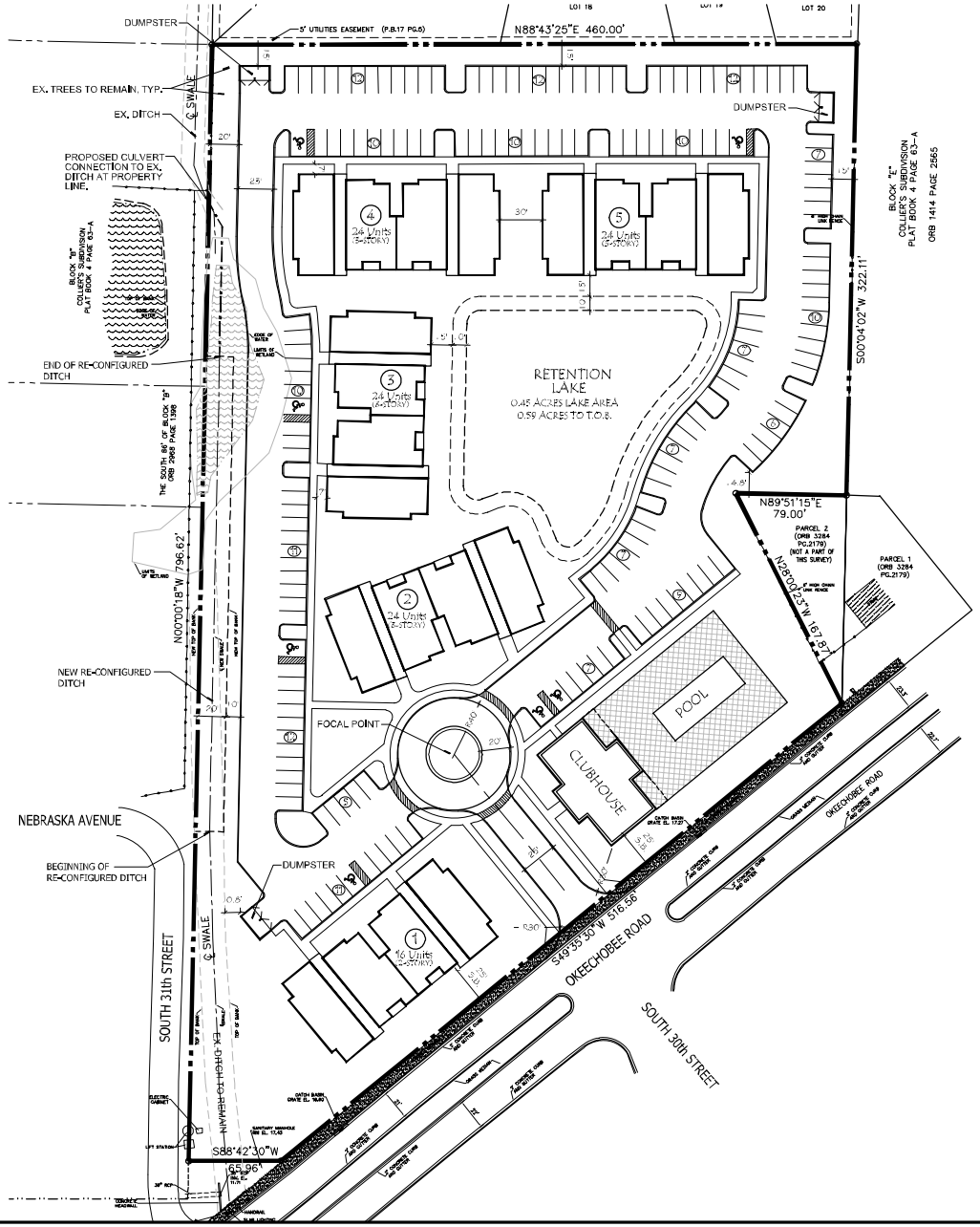

MANAGED LAND ENTITLEMENTS

3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8065

APPLICATION DATA:

NAME OF APPLICATION:	ARROW FP NORTH RESIDENTIAL
PARCEL ID:	2417-504-0020-001-6
SITE ADDRESS:	TBD
EXISTING FUTURE LAND USE:	GENERAL COMMERCIAL (GC)
PROPOSED FUTURE LAND USE:	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING DESIGNATION:	GENERAL COMMERCIAL (CG)
PROPOSED ZONING DESIGNATION:	MEDIUM DENSITY RESIDENTIAL (R-4)
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (112 UNITS)
PROPOSED DENSITY:	*16.48 D.U.'S PER ACRE

*PROJECT UTILIZES DENSITY BONUS FOR PROXIMITY TO TRANSIT STOP (+5 D.U.'S/ACRE) AND FOR INNOVATIVE DESIGN (+2 D.U.'S/ACRE)

SITE DATA:

GROSS SITE AREA:	296,012.97 S.F. (6.796 ACRES)
OPEN SPACE REQUIRED:	118,405.19 S.F. (40%)
PERVIOUS AREA PROVIDED:	109,454.95 S.F. (36.9%)
RETENTION AREA PROVIDED:	25,674.63 S.F. (8.7%)
TOTAL OPEN SPACE AREA:	135,129.58 S.F. (45.6%)

PARKING DATA:

PROPOSED USES (FLEX SPACE)

USE	UNITS	PARKING RATE	REQUIRED PARKING
MULTI-FAMILY RESIDENTIAL	112 UNITS	1.5/UNIT	168 SPACES
	TOTAL PARKING REQUIRED:		168 SPACES
	TOTAL PARKING PROVIDED:		175 SPACES
	HANDICAP SPACES REQ'D.:		6 SPACES
	HANDICAP SPACES PROV.:		7 SPACES

PROJECT TEAM

OWNER
Arrow Investment Group, LLC
4512 North Flagler Drive, Suite 2056
West Palm Beach, Florida 33407

ARCHITECT
Architectural Studios, Inc.
300 Avenue of the Champions, Suite 260
Palm Beach Gardens, Florida 33418
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CIVIL ENGINEER/SURVEYOR
Michael G. Schorah & Associates, Inc.
1650 Forest Hill Blvd., Suite 208
West Palm Beach, Florida 33406
Contact: Michael LaCoursiere (561-368-0080)

DEVELOPMENT MANAGER/AGENT
Managed Land Entitlements, LLC
3710 Buckeye Street, Suite 100
Palm Beach Gardens, Florida 33410
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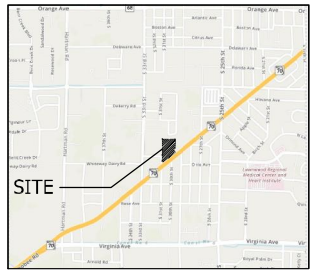
LANDSCAPE ARCHITECT
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Florida 34990
Contact: Jason Litterick (561-719-3878)

SURVEYOR
Brown & Phillips, Inc.
1860 Old Okeechobee Road, Suite 509
West Palm Beach, Florida 33409
Contact: John Phillips (561-478-3888)

LOCATION MAP



Site Plan

0 25' 50' 100' 150' 200'

NORTH

Scale: 1" = 50'

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, FL 34990
561-719-3878
JasonLA1677@yahoo.com

Project Name

Arrow FP North Residential
Ft. Pierce, Florida

Landscape Architect of Record

Jason M. Litterick FLA
LA0001677

Scale: 1" = 50'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	3/13/2020
Job No.	
Revisions:	

Sheet No.
SP-1

TRAFFIC IMPACT ANALYSIS

ARIA APARTMENTS
FT PIERCE, FL

PREPARED FOR:
ARROW INVESTMENT GROUP, LLC.

Kimley»Horn

Project # 043264001
June 22, 2020
CA 00000696
Kimley-Horn and Associates, Inc.
1920 Wekiva Way
West Palm Beach, Florida 33411
561/845-0665 TEL

TRAFFIC IMPACT ANALYSIS

ARIA APARTMENTS

FT PIERCE, FL

Prepared by:
Kimley-Horn and Associates, Inc.
West Palm Beach, Florida

Project # 043264001
June 22, 2020
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1920 Wekiva Way
West Palm Beach, Florida 33411
561/845-0665 TEL

Adam B. Kerr, P.E.
Florida Registration Number 64773

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Introduction

Kimley-Horn and Associates, Inc. has performed a traffic impact analysis to evaluate future traffic conditions associated with the proposed development located on the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. The traffic impact analysis has been conducted using a buildout year of 2025. Figure 1 illustrates the location of the project site. The Parcel ID for the site is 2417-504-0020-001-6.

The proposed site plan and parcel information are included in *Appendix A*.

Kimley-Horn and Associates, Inc was retained to prepare a traffic impact analysis for the proposed development. The study quantifies the project's impact on the adjacent transportation network. This report summarizes the project trip generation, distribution, and intersection analyses. This analysis followed the methodology and procedures determined by St Lucie County's *Standardized Traffic Impact Studies Methodology and Procedures.*



NORTH

LEGEND

Project Site

FIGURE 1
SITE LOCATION
ARIA APARTMENTS

Kimley»Horn

Inventory and Planning Data

The data used in this analysis was obtained from St. Lucie County and from the Florida Department of Transportation. The data included:

- Roadway link volume data
- Committed Developments
- Historical growth rate information

Turning movement counts were collected at the following intersections during the AM peak period (7:00 am to 9:00 am) and PM peak period (4:00 pm to 6:00 pm). Counts at the intersection of N 25th Street & Okeechobee Road were performed on Tuesday, October 22, 2019 and the interaction of Okeechobee Road & Virginia Avenue were performed on Wednesday, April 3, 2019:

- N 25th Street & Okeechobee Road
- Okeechobee Road & Virginia Avenue

Roadway link volumes and the committed developments are included in *Appendix B.* The growth rate calculation is included in *Appendix C* and turning movement counts are included in *Appendix D.*

Project Traffic

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the project and the distribution and assignment of that traffic over the study roadway network.

Existing and Proposed Land Uses

The existing site is vacant. The proposed plan of development includes 112 multifamily (mid-rise) dwelling units.

Trip Generation

The trip generation potential for the proposed redevelopment was calculated using the trip generation rates and equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 10th Edition*. Land Use [221] rates and equations were used for multifamily residential (mid-rise) use. As indicated in Table 1, the proposed development is projected to generate 609 net new external daily trips, an increase in 38 net new AM peak hour trips (+10 in, +28 out), and an increase of 49 net new external PM peak hour trips (+30 in, +19 out). Based on the new external daily trips, the area of influence is one-mile.

Table 1: Trip Generation

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Proposed								
Multifamily Residential (Mid-Rise)	112 DU	609	38	10	28	49	30	19
Driveway Volumes		609	38	10	28	49	30	19
Net External Trips		*609*	*38*	*10*	*28*	*49*	*30*	*19*

Trip generation was calculated using the following data:

Daily Trip Generation
- Multifamily Residential (Mid-Rise) [ITE 221] = T = 5.45(X) - 1.75 trips/DU

AM Peak Hour Trip Generation
- Multifamily Residential (Mid-Rise) [ITE 221] = Ln(T) = 0.98Ln(X) - 0.98 trips/DU (26% in, 74% out)

PM Peak Hour Trip Generation
- Multifamily Residential (Mid-Rise) [ITE 221] = Ln(T) = 0.96Ln(X) - 0.63 trips/DU (61% in, 39% out)

Traffic Distribution

Traffic distribution is the pairing of trip ends from the subject site with other land uses in the area. The project assignment on the study roadway links based on the characteristics of the proposed land use and existing travel demands.

The distribution is the following:

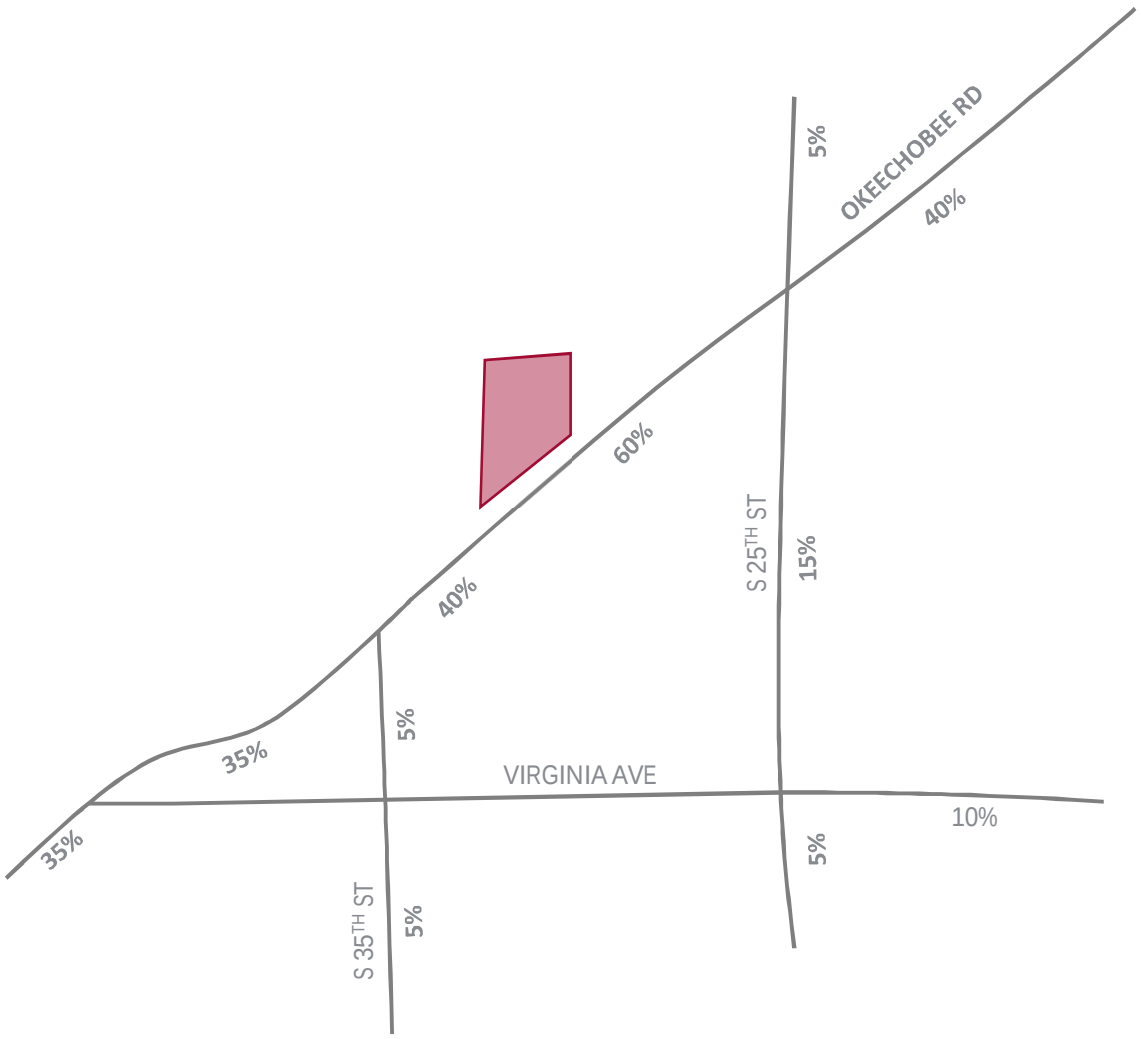
NORTH	5 percent
SOUTH	10 percent
WEST	35 percent
EAST	40 percent

Traffic Assignment

The site traffic was assigned to the surrounding roadway network based upon existing travel patterns and the traffic distribution. The function classification of the surround roadways is the following:

- Okeechobee Road – Minor Arterial
- S 35th Street – Major Collector
- S 25th Street – Other Principal Arterial
- Virginia Avenue – Other Principal Arterial

Figure 2 illustrates the roadway link assignment. The AM and PM peak hour trips for the project were then assigned to the surrounding roadway network projected to be in place by 2025.



NORTH

LEGEND

Project Site

XX% Project Assignment

FIGURE 2
PROJECT ASSIGNMENT
ARIA APARTMENTS

Kimley»Horn

Background Traffic

Background traffic is calculated from historical annual growth rates and/or traffic from the unbuilt portions of committed developments. For this study, the areawide growth rate was calculated as 2.53% and was applied to links and intersections to account for background growth not related to the approved projects. Growth rate calculations are included in *Appendix C*. St Lucie County provided committed development projects in the area. The impacts of the approved projects were added to links and intersections that were subject to analysis.

A nominal 1% growth rate was applied to links and intersections (to which committed project traffic was already added) to account for background growth not related to the approved projects. The total background traffic for each significantly impacted link and intersection was then determined as the greater of the following:

- Existing traffic volumes plus growth due to a historic growth rate of 2.53%
- Existing traffic volumes plus growth due to committed projects and a nominal 1% background growth rate

Roadway Segment Analysis

The roadway segments within the adjacent influence area were analyzed and are summarized in Table 2. Significantly impacted roadways, where the project traffic consumes one percent or more of the existing peak hour peak direction service capacity, are considered significantly impacted and required further analysis. The following roadway segments were significantly impacted due to the project traffic:

AM Peak Hour and PM Peak Hour

- Okeechobee Road: S 25th Street to Georgia Avenue

The future volume on each significantly impacted roadway segment was analyzed in comparison to its peak hour directional service capacity volume. Committed development information for each significantly impacted link was provided by St Lucie County. It should be noted, committed developments which were identified to be insignificant (fewer than 20 peak hour trips) did not have a provided inbound/outbound distribution. Committed developments that generated greater traffic volumes were applied using the corresponding approved traffic study, attached in *Appendix B*. As seen in Table 2, the significantly impacted roadways are projected to operate acceptably during the AM and PM peak hours through buildout 2025.

Table 2: Peak Hour Peak Direction Roadway Segment Analysis

Roadway			Existing		Existing Base Peak Direction Volume/LOS		Peak Hour Peak Direction Project Traffic					Background Traffic			Capacity	
From	To		Lanes	Peak Hour Service Capacity			Last Count Year	% Assignment	Project Trips	% Impact	Significant Impact ?	Growth Rate (1)	2025 Background Growth	2025 Background Traffic	2025 Project	Over Capacity ?
AM PEAK HOUR PEAK DIRECTION																
Okeechobee Rd																
Virginia Ave	S 35th Street		4	1630	687	C	2020	35%	10	0.61%	No	2.53%	91	778	788	-
S 35th Street	Project Driveway		4	1630	922	C	2020	35%	10	0.61%	No	2.53%	123	1,045	1,055	-
Project Driveway	S 25th Street		4	1630	922	C	2020	40%	11	0.67%	No	2.53%	123	1,045	1,056	-
S 25th Street	Georgia Ave		4	1630	777	C	2020	60%	17	1.04%	Yes	2.53%	103	880	897	No
S 35th Street																
Cortez Blvd	Virginia Ave		2	790	497	D	2020	5%	1	0.13%	No	2.53%	66	563	564	-
Virginia Ave	Okeechobee Rd		2	750	279	C	2016	5%	1	0.13%	No	2.53%	70	349	350	-
S 25th Street																
Cortez Blvd	Virginia Ave		5	2000	1182	C	2020	5%	1	0.05%	No	2.53%	157	1,339	1,340	-
Virginia Ave	Okeechobee Rd		5	2000	1193	C	2017	15%	4	0.20%	No	2.53%	264	1,457	1,461	-
Okeechobee Rd	Georgia Ave		5	1630	1196	D	2017	5%	1	0.06%	No	2.53%	265	1,461	1,462	-
Virginia Avenue																
Okeechobee Rd	S 35th Street		6	3020	1169	C	2017	0%	0	0.00%	No	2.53%	259	1,428	1,428	-
S 35th Street	S 25th Street		6	3020	1169	C	2017	0%	0	0.00%	No	2.53%	259	1,428	1,428	-
S 25th Street	13th Street		6	3020	1093	C	2017	10%	3	0.10%	No	2.53%	242	1,335	1,338	-
PM PEAK HOUR PEAK DIRECTION																
Okeechobee Rd																
Virginia Ave	S 35th Street		4	1630	727	C	2020	35%	11	0.67%	No	2.53%	97	824	835	-
S 35th Street	Project Driveway		4	1630	902	C	2020	35%	11	0.67%	No	2.53%	120	1,022	1,033	-
Project Driveway	S 25th Street		4	1630	922	C	2020	40%	12	0.74%	No	2.53%	123	1,045	1,057	-
S 25th Street	Georgia Ave		4	1630	738	C	2020	60%	18	1.10%	Yes	2.53%	98	836	854	No
S 35th Street																
Cortez Blvd	Virginia Ave		2	790	406	D	2020	5%	2	0.25%	No	2.53%	54	460	462	-
Virginia Ave	Okeechobee Rd		2	750	280	C	2016	5%	2	0.27%	No	2.53%	71	351	353	-
S 25th Street																
Cortez Blvd	Virginia Ave		5	2000	1261	C	2020	5%	2	0.10%	No	2.53%	168	1,429	1,431	-
Virginia Ave	Okeechobee Rd		5	2000	1069	C	2017	15%	5	0.25%	No	2.53%	237	1,306	1,311	-
Okeechobee Rd	Georgia Ave		5	1630	1159	D	2017	5%	2	0.12%	No	2.53%	256	1,415	1,417	-
Virginia Avenue																
Okeechobee Rd	S 35th Street		6	3020	1126	C	2017	0%	0	0.00%	No	2.53%	249	1,375	1,375	-
S 35th Street	S 25th Street		6	3020	1126	C	2017	0%	0	0.00%	No	2.53%	249	1,375	1,375	-
S 25th Street	13th Street		6	3020	1164	C	2017	10%	3	0.10%	No	2.53%	258	1,422	1,425	-

Intersection Analysis

The operating conditions for the existing, background, and future total buildout was analyzed using Trafficware's *Synchro 10.0* Software during the AM peak hour and the PM peak hour at the following intersections because the intersection is part of the impacted roadway:

1. S 25th Street & Okeechobee Road (signalized)

In addition to the intersection of S 25th Street & Okeechobee Road, the intersection of Okeechobee Road & Virginia Avenue was analyzed for the existing, background, and future total buildout.

These analyses use the methodologies outlined in the *Highway Capacity Manual*, 6th *Edition* in order to determine the overall intersection level of service and delay. The signal timing sheet was provided by the City of Ft Pierce and is included in *Appendix E.* Table 3 summarizes the level of service and delay at the study intersections under existing, background, and future total conditions. As shown in Table 3, the intersection operates at an acceptable overall level of service during the existing, background, and future total (with project traffic) conditions.

Table 3: Intersection Analysis

Intersection	Type	Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Existing Scenario						
S 25th Street & Okeechobee Road	Signalized	EB	42.7	D	35.4	D
		WB	31.1	C	34.2	C
		NB	32.9	C	45.3	D
		SB	52.1	D	58.8	E
		Overall	41.1	D	45.3	D
Okeechobee Road & Virginia Avenue	Signalized	EB	6.3	A	10.1	B
		WB	53.8	D	45.8	D
		SB	5.6	A	10.6	B
		Overall	16.3	B	20.7	C
Background Scenario						
S 25th Street & Okeechobee Road	Signalized	EB	24.4	C	44.0	D
		WB	20.5	C	40.8	D
		NB	43.9	D	47.0	D
		SB	85.6	F	67.5	E
		Overall	49.3	D	51.5	D
Okeechobee Road & Virginia Avenue	Signalized	EB	8.0	A	14.8	B
		WB	51.5	D	42.3	D
		SB	7.1	A	15.8	B
		Overall	17.1	B	23.0	C
Future Total Scenario						
S 25th Street & Okeechobee Road	Signalized	EB	24.2	C	40.7	D
		WB	20.2	C	34.8	C
		NB	43.9	D	47.8	D
		SB	85.9	F	62.6	E
		Overall	49.3	D	49.0	D
Okeechobee Road & Virginia Avenue	Signalized	EB	8.0	A	27.0	C
		WB	51.5	D	26.4	C
		SB	7.1	A	29.1	C
		Overall	17.0	B	27.2	C

The 95th percentile queue lengths are summarized in Table 4 for the study intersection of S 25th Street & Okeechobee Road. As shown in Table 4, the queues will remain within the provided storage through future total buildout year.

Table 4: 95th Percentile Queue Lengths

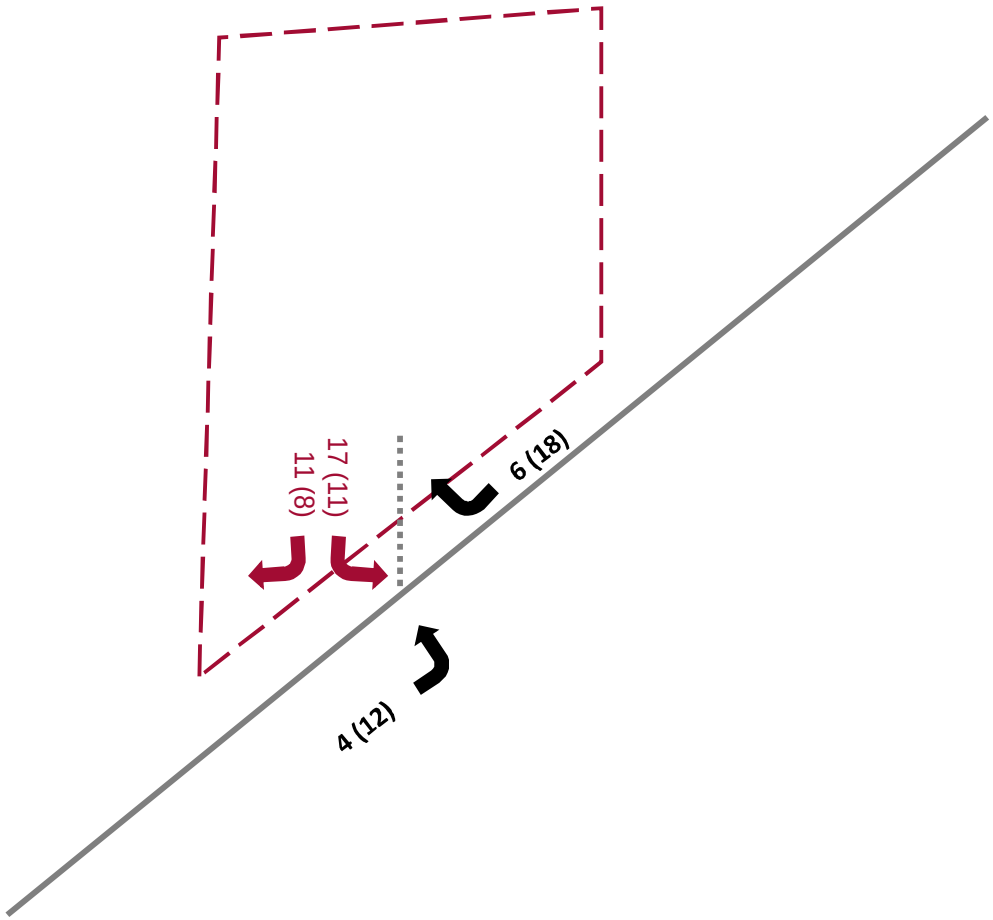
Movement	EBL	WBL	NBL	SBL
Provided Storage	225	200	225	200
Existing Scenario				
AM Peak Hour	108	84	80	33
PM Peak Hour	184	154	145	43
Background Scenario				
AM Peak Hour	125	97	102	37
PM Peak Hour	266	199	182	48
Future Total Scenario				
AM Peak Hour	126	97	109	37
PM Peak Hour	186	141	149	47

The volume development sheet is included in *Appendix F*. The Synchro output sheets are included in *Appendix G*.

Access Review

Access to the proposed site includes one proposed full-access driveway on Okeechobee Road *Figure 3* illustrates the AM peak hour and PM peak hour driveway volumes. According to the FDOT's Driveway Information Guide, exclusive right-turn lanes are recommended at unsignalized intersections for roadways with a posted speed limit of 45 mph or less when the volume of right turns per hour exceed 80 vehicles. As shown in *Figure 3,* the project driveway volume on Okeechobee Road is not expected to generate 80 vehicles; therefore, a right-turn lane is not required. The need for left-turn lanes is evaluated based on the Pennsylvania Department of Transportation's (PennDOT) Publication 46. This warrant considers the left-turn volume, the adjacent volume ("advancing" volume), the conflicting volume ("opposing" volume), and the posted speed limit to determine whether the percentage of left-turns justifies the presence of an exclusive left-turn lane.

Under existing conditions, the advancing volume is the eastbound through volume and the opposing volume is the westbound through volume. The highest eastbound left-turn volume is anticipated to be 12 vehicles per hour, which is projected to occur during the PM peak hour and constitutes approximately 1.8% percent of the total advancing volume. The opposing volume during this hour is 733 vehicles. The volumes were compared to the thresholds defined for a four-lane divided highway with a speed of 35 mph. The left-turn lane warrant worksheet is included in *Appendix H* for Okeechobee Road. The results of the analysis show that an eastbound left turn lane is warranted on Okeechobee Road at the proposed project driveway under current conditions. With the buildout of the proposed development, a left turn lane will be provided on Okeechobee Road.



NORTH

LEGEND

Project Site

XX (XX) AM (PM) Inbound Driveway Volumes

XX (XX) AM (PM) Outbound Driveway Volumes

FIGURE 3
DRIVEWAY VOLUMES
ARIA APARTMENTS

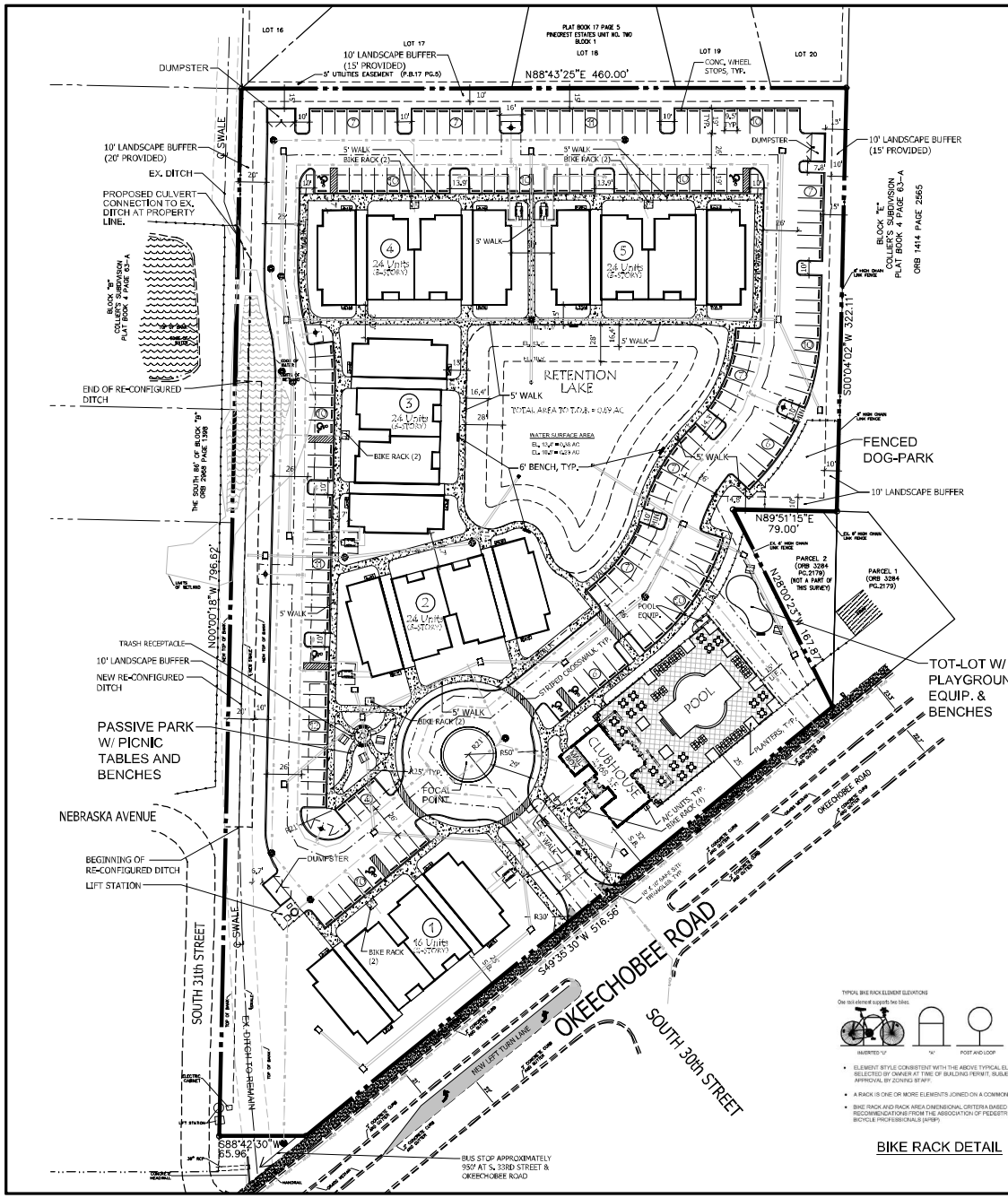
Kimley»Horn

Conclusion

The proposed plan of development includes 112 multifamily (mid-rise) dwelling units located in the northeast corner of Okeechobee Road & S 31st Street in Fort Pierce, Florida. Based on the analysis undertaken, the roadway links are sufficient to accommodate the project traffic during the AM and PM peak hours.

An intersection analysis was conducted at the signalized intersection of S 25th Street & Okeechobee Road, which is the intersection that was part of a significantly impacted roadway. In addition, an intersection analysis was conducted at Okeechobee Road & Virginia Avenue. Based on the intersection analysis, the existing geometry is expected to operate acceptably under existing, background, and future total conditions. The 95th percentile queue lengths at S 25th Street & Okeechobee Road are within the provided storage through future total conditions. An eastbound left turn lane is required per Pennsylvania Department of Transportation's (PennDOT) Publication 46 warrant criteria. With the buildout of the proposed development, a left turn lane will be provided on Okeechobee Road.

Appendix A: Project Site Data



APPLICATION DATA:

NAME OF APPLICATION:	ARIA AAPARTMENTS
PARCEL ID:	2417-504-3020-001-6
SITE ADDRESS:	TBD
EXISTING FUTURE LAND USE:	GENERAL COMMERCIAL (GC)
PROPOSED FUTURE LAND USE:	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING DESIGNATION:	GENERAL COMMERCIAL (CG)
PROPOSED ZONING DESIGNATION:	MEDIUM DENSITY RESIDENTIAL (R-4)
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (112 UNITS)
PROPOSED DENSITY:	*16.48 D.U.'S PER ACRE

*PROJECT UTILIZES DENSITY BONUS FOR PROXIMITY TO TRANSIT STOP (+5 D.U.'S/ACRE) AND FOR INNOVATIVE DESIGN (+2 D.U.'S/ACRE)

SITE DATA:

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RETENTION AREA PROVIDED:	25,674.63 S.F. (8.7%)
TOTAL OPEN SPACE AREA:	135,129.58 S.F. (45.6%)

PARKING DATA:

PROPOSED USES (FLEX SPACE)

USE	UNITS	PARKING RATE	REQUIRED PARKING
MULTI-FAMILY RESIDENTIAL	112 UNITS	1.5/UNIT	168 SPACES
	TOTAL PARKING REQUIRED:		168 SPACES
	TOTAL PARKING PROVIDED:		172 SPACES
	HANDICAP SPACES REQ'D.:		6 SPACES
	HANDICAP SPACES PROV.:		7 SPACES

BICYCLE PARKING REQUIRED: 12 SPACES (1 PER 10 UNITS)
BICYCLE PARKING PROVIDED: 14 SPACES



TRASH RECEPTACLE DETAIL
N.T.S.

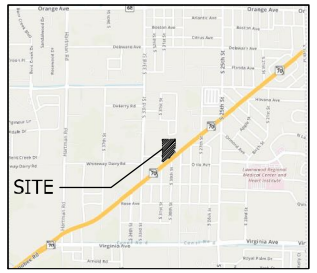
BIKE RACK DETAIL



LANDSCAPE FORMS • CHASE PARK BENCH CAST ALUM./W STEEL FRAMES & ARMREST ARMS

BENCH DETAIL
N.T.S.

LOCATION MAP



Site Plan

0 20' 40' 80' 120' 160'

NORTH

Scale: 1" = 40'

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

PROJECT TEAM

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1650 Forest Hill Blvd., Suite 206
West Palm Beach, Florida 33406
Contact: Michael LaCoursiere (561-368-0080)

DEVELOPMENT MANAGER/AGENT
Managed Land Entitlements, LLC
3710 Buckeye Street, Suite 100
Palm Beach Gardens, Florida 33410
Contact: Michael Sanchez (561-568-8045)

LANDSCAPE ARCHITECT
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Florida 34990
Contact: Jason Litterick (561-719-3878)

SURVEYOR
Brown & Phillips, Inc.
1860 Old Okeechobee Road, Suite 509
West Palm Beach, Florida 33409
Contact: John Phillips (561-478-3888)

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, FL 34990
561-719-3878
Jasonl.LA1677@yahoo.com

Project Name

Aria Apartments

Ft. Pierce, Florida

Landscape Architect of Record

Jason M. Litterick FLA 0001677

Scale: 1" = 40'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/15/2020
Job No.	
Revisions:	

Sheet No.

SP-1

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address: OKEECHOBEE RD	Parcel ID: 2417-504-0020-001-6	Account #: 26668	Sec/Town/Range: 17/35S/40E
Use Type: 1000	Jurisdiction: Fort Pierce	Map ID: 24/17N	Zoning: General Co

Ownership

Arrow Investment Group LLC
4512 N Flagler DR # 2056
West Palm Beach, FL 33407

Legal Description

COLLIER`S S/D BLK D ALL BLK D-LESS S 27 FT AND SELY 7 FT FOR RD R/W AND LESS THAT PART MPDAF: BEG INT OF SE COR OF BLK D AND NLY RD R/W LI OF OKEEC RD RUN N 28 00 23 W 167.87 FT,TH N 89 51 15 E 79 FT TO E LI OF BLK D,TH S 00 04 02 W ALG E LI 148.41 FT TO NLY RD R/W LI OF OKEEC RD AND POB- (6.86 AC)

Current Values

Just/Market:	$732,700	Assessed:	$732,700
Exemptions:	$0	Taxable:	$732,700

Historical Values 3-year

Year	Just/Market	Assessed	Exemptions	Taxable
2019	$732,700	$732,700	$0	$732,700
2018	$732,700	$732,700	$0	$732,700
2017	$732,700	$732,700	$0	$732,700

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
09-26-2019	4327 / 0333	0112	SP	Cypress Trust Company (TR)	$450,000
05-27-2010	3204 / 0743	0112	SP	Cypress Trust Company (TR)	$100
12-17-2008	3049 / 2156	XX01	CT	Mid South Acquisitions LLC	$299,000

Primary Building Information

Finished Area of this building: 0 SF
Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:	Building Type:
Year Built: N/A	Frame:	Grade:	Effective Year: N/A
Primary Wall:	Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	A/C %: 0%	Electric:	Primary Int Wall:
Full Baths: 0	Heated %: N/A%	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Sprinkled %: 0%	Heat Fuel:	Primary Floors:



Image or Sketch unavailable for display

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.87
Land Size (SF):	299,058
Total Building Count:	1

Special Features and Yard Items

Type	Qty	Units	Year Blt

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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Appendix B: St Lucie County Traffic Data

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
17TH ST	ORANGE AVE to AVENUE D	608	4,033	2016	750	236	C	0.638	225	C	0.608
17TH ST	AVENUE D to AVENUE Q	608	4,033	2016	750	236	C	0.638	225	C	0.608
25TH ST	MIDWAY RD to BELL AVE	940016	18,275	2017	2,100	1,310	C	0.652	1,222	C	0.608
25TH ST	BELL AVE to EDWARDS RD	159	19,040	2019	2,100	1,056	C	0.525	1,053	C	0.524
25TH ST	EDWARDS RD to CORTEZ BLVD	940021	22,049	2017	2,000	1,405	C	0.736	1,401	C	0.734
25TH ST	CORTEZ BLVD to VIRGINIA AVE	529	21,000	2020	2,000	1,182	C	0.619	1,261	C	0.660
25TH ST	VIRIGINIA AVE to NEBRASKA AVE	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	NEBRASKA AVE to OKEECHOBEE RD	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	OKEECHOBEE RD to GEORGIA AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	GEORGIA AVE to DELAWARE AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	DELAWARE AVE to ORANGE AVE	940014	19,612	2017	1,630	1,021	D	0.626	1,015	D	0.623
25TH ST	ORANGE AVE to AVENUE D	610	19,000	2020	1,630	877	D	0.538	904	D	0.555
25TH ST	AVENUE D to AVENUE Q	940050	15,331	2017	1,630	807	D	0.495	784	D	0.481
25TH ST	AVENUE Q to JUANITA AVE	945152	13,301	2017	2,000	752	C	0.394	689	C	0.361
25TH ST	JUANITA AVE to ST LUCIE BLVD	940791	14,647	2013	2,100	794	C	0.395	745	C	0.371
25TH ST	ST LUCIE BLVD to US 1	945165	5,924	2017	2,100	340	C	0.169	380	C	0.189
33RD ST	OKEECHOBEE RD to DELAWARE AVE	611	7,000	2020	750	419	D	0.559	368	C	0.995
33RD ST	DELAWARE AVE to ORANGE AVE	948507	4,991	2017	790	230	C	0.622	230	C	0.622
35TH ST	KIRBY LOOP RD to CORTEZ BLVD	612	6,300	2020	540	497	D	0.920	406	D	0.752
35TH ST	CORTEZ BLVD to VIRGINIA AVE	612	6,300	2020	790	497	D	0.629	406	D	0.514
35TH ST	VIRGINIA AVE to OKEECHOBEE RD	613	4,600	2016	750	279	C	0.754	280	C	0.757
53RD ST	ANGLE RD to JUANITA AVE	614	2,767	2016	540	148	C	0.548	163	C	0.604
AE BACKUS AVE	7TH ST to US 1	632	1,033	2017	750	70	C	0.189	81	C	0.219
AIROSO BLVD	PORT ST LUCIE BLVD to THORNHILL DR	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423
AIROSO BLVD	THORNHILL DR to CROSSTOWN PKWY	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
OHIO AVE	SUNRISE BLVD to COLONIAL RD	686	4,250	2017	540	252	C	0.933	246	C	0.911
OHIO AVE	COLONIAL RD to US 1	686	4,250	2017	750	252	C	0.681	246	C	0.665
OKEECHOBEE RD	OKEECHOBEE C.L. to BLUEFIELD RD	687	10,500	2020	1,010	540	B	0.535	528	B	0.523
OKEECHOBEE RD	BLUEFIELD RD to CARLTON RD	687	10,500	2020	1,270	540	B	0.425	528	B	0.416
OKEECHOBEE RD	CARLTON RD to SNEED RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	IDEAL HOLDING RD to HEADER CANAL RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	SNEED RD to IDEAL HOLDING RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	HEADER CANAL RD to MIDWAY RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	MIDWAY RD to SHINN RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	SHINN RD to MCCARTY RD	940195	6,025	2017	1,810	327	B	0.181	327	B	0.181
OKEECHOBEE RD	MCCARTY RD to FLORIDA'S TURNPIKE	940025	7,551	2017	1,810	378	B	0.209	391	B	0.216
OKEECHOBEE RD	FLORIDA'S TURNPIKE to KINGS HWY	940025	7,551	2017	2,010	378	C	0.188	391	C	0.195
OKEECHOBEE RD	KINGS HWY to CROSSROADS PKWY	940748	21,250	2017	4,170	960	C	0.230	1,013	C	0.243
OKEECHOBEE RD	CROSSROADS PKWY to I-95	940106	24,585	2017	4,170	1,063	C	0.255	1,086	C	0.260
OKEECHOBEE RD	I-95 to JENKINS RD	940029	30,244	2017	4,240	1,976	C	0.474	1,709	C	0.410
OKEECHOBEE RD	JENKINS RD to MCNEIL RD	940029	30,244	2017	4,040	1,976	C	0.498	1,709	C	0.430
OKEECHOBEE RD	MCNEIL RD to VIRGINIA AVE	940742	28,870	2017	3,170	1,580	C	0.511	1,649	C	0.534
OKEECHOBEE RD	VIRGINIA AVE to HARTMAN RD	688	12,500	2020	2,100	687	C	0.342	727	C	0.362
OKEECHOBEE RD	HARTMAN RD to 35TH ST	688	12,500	2020	1,630	687	C	0.941	727	C	0.996
OKEECHOBEE RD	35TH ST to 33RD ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	33RD ST to 25TH ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	25TH ST to GEORGIA AVE	690	13,500	2020	1,630	777	D	0.477	738	D	0.453
OKEECHOBEE RD	GEORGIA AVE to DELAWARE AVE	690	13,500	2020	1,710	777	D	0.454	738	C	0.958
OLD DIXIE HWY	US 1 to SR A1A NORTH	691	5,150	2017	790	400	D	0.506	363	C	0.931
OLD DIXIE HWY	SR A1A NORTH to ST LUCIE BLVD	948521	1,383	2017	750	65	C	0.176	65	C	0.176

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
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Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
US 1	AVENUE H to OLD DIXIE HWY	715	33,500	2020	2,000	1,766	C	0.925	1,742	C	0.912
US 1	OLD DIXIE HWY to AVENUE O	940123	22,051	2017	2,000	1,530	C	0.801	1,196	C	0.626
US 1	AVENUE O to SR A1A NORTH	940123	22,051	2017	2,100	1,530	C	0.761	1,196	C	0.595
US 1	SR A1A NORTH to JUANITA AVE	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	JUANITA AVE to ST LUCIE BLVD	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	ST LUCIE BLVD to 25TH ST	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	25TH ST to INDRIO RD	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	INDRIO RD to TURNPIKE FEEDER RD	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
US 1	TURNPIKE FEEDER RD to INDIAN RIVER C.L.	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
VETERANS MEMORIAL PKWY	PORT ST LUCIE BLVD to LYNGATE DR	329	14,500	2019	2,100	779	C	0.388	817	C	0.406
VETERANS MEMORIAL PKWY	LYNGATE DR to US 1	327	14,911	2017	2,100	756	C	0.376	804	C	0.400
VILLAGE GREEN DR	US 1 to WALTON RD	716	9,600	2017	2,100	619	C	0.308	575	C	0.286
VILLAGE GREEN DR	WALTON RD to TIFFANY AVE	717	4,633	2017	920	249	C	0.286	235	C	0.270
VIRGINIA AVE	35TH ST to 25TH ST	940032	21,557	2017	3,020	1,111	C	0.378	1,083	C	0.368
VIRGINIA AVE	OKEECHOBEE RD to HARTMAN RD	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	HARTMAN RD to 35TH ST	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	25TH ST to 13TH ST	940033	20,913	2017	3,020	1,093	C	0.372	1,164	C	0.396
VIRGINIA AVE	13TH ST to 11TH ST	940794	22,873	2017	3,020	1,101	C	0.374	1,101	C	0.374
VIRGINIA AVE	11TH ST to SUNRISE BLVD	940794	22,873	2017	3,170	1,101	C	0.356	1,101	C	0.356
VIRGINIA AVE	SUNRISE BLVD to OLEANDER AVE	940792	19,519	2017	3,020	1,063	C	0.362	992	C	0.337
VIRGINIA AVE	OLEANDER AVE to COLONIAL RD	940034	18,483	2017	3,170	1,043	C	0.338	1,020	C	0.330
VIRGINIA AVE	COLONIAL RD to US 1	940034	18,483	2017	3,020	1,043	C	0.355	1,020	C	0.347
VILLAGE PKWY	DISCOVERY WAY to TRADITION PKWY	718	14,000	2019	2,650	732	C	0.595	797	C	0.648
VILLAGE PKWY	BECKER RD to DISCOVERY WAY	718	14,000	2019	1,710	732	C	0.951	797	D	0.466
VILLAGE PKWY	TRADITION PKWY to WESTCLIFFE LN	719	23,000	2019	1,710	1,208	D	0.706	1,265	D	0.740

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
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*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

Appendix C: Growth Rate Calculations

Road Segment	2015 Volume	2018 Volume	Growth Rate	Yearly Growth
Virginia Ave	22,000	22,000	0.00%	0
S 35th Street	7,900	10,900	11.33%	1235
S 25th Street	22,000	22,500	0.75%	169
Sum		55,400		1,404
Area Wide Growth Rate =			2.53%	

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0032 - SR 70/VIRGINIA AVE - W OF SR 615/25 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	22000 C	E 11000	W 11000	9.00	51.30	6.10
2017	20900 C	E 9900	W 11000	9.00	50.90	4.10
2016	20800 C	E 9800	W 11000	9.00	50.90	4.10
2015	22000 C	E 11000	W 11000	9.00	51.00	4.10
2014	21000 C	E 11000	W 10000	9.00	50.80	4.20
2013	21000 C	E 10500	W 10500	9.00	50.80	3.70
2012	23000 F	E 12000	W 11000	9.00	56.80	4.30
2011	23000 C	E 12000	W 11000	9.00	57.20	5.10
2010	22500 C	E 11500	W 11000	10.32	55.40	5.10
2009	22500 C	E 11500	W 11000	10.27	57.35	5.10
2008	23500 C	E 11500	W 12000	10.45	58.06	4.10
2007	25000 C	E 13000	W 12000	10.31	58.74	4.10
2006	21500 C	E 11500	W 10000	10.73	65.89	4.10
2005	23500 C	E 12000	W 11500	10.80	60.70	6.00
2004	22500 C	E 11500	W 11000	10.30	57.70	6.00
2003	20500 C	E 10500	W 10000	10.20	59.60	2.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0083 - S 35 ST- NORTH OFARNOLD RD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	10900 C	N 6500	S 4400	9.00	51.30	5.80
2017	8100 V	0	0	9.00	50.90	10.00
2016	8000 R	0	0	9.00	50.90	6.20
2015	7900 T	0	0	9.00	51.00	41.80
2014	7900 S			9.00	50.80	49.50
2013	7900 F	0	0	9.00	50.80	11.90
2012	7900 C	N 0	S 0	9.00	56.80	7.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0015 - SR 615/25 ST - N OF SR 70/VIRGINIA AVE (COUNTY 15)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	22500 C	N 11500	S 11000	9.00	51.30	5.40
2017	20500 C	N 11000	S 9500	9.00	50.90	4.80
2016	22500 C	N 11000	S 11500	9.00	50.90	4.80
2015	22000 C	N 11000	S 11000	9.00	51.00	4.80
2014	21000 C	N 10000	S 11000	9.00	50.80	4.20
2013	20500 C	N 10500	S 10000	9.00	50.80	4.20
2012	22500 C	N 11500	S 11000	9.00	56.80	4.20
2011	22500 C	N 12000	S 10500	9.00	57.20	3.00
2010	23000 C	N 12000	S 11000	10.32	55.40	3.00
2009	22500 C	N 12000	S 10500	10.27	57.35	3.00
2008	21500 C	N 11000	S 10500	10.45	58.06	3.90
2007	25000 C	N 13000	S 12000	10.31	58.74	3.90
2006	23000 C	N 11500	S 11500	10.73	65.89	3.90
2005	24000 C	N 12000	S 12000	10.80	60.70	3.10
2004	23000 C	N 11500	S 11500	10.30	57.70	3.10
2003	22500 C	N 11500	S 11000	10.20	59.60	3.60

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Appendix D: Turning Movement Counts

Traffic Survey Specialists, Inc.

Delray Beach, Florida

Phone (561) 272-3255 www.trafficsurveyspecialists.com

S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 1

Groups Printed- ALL VEHICLES

	S 25TH STREET From North				OKEECHOBEE ROAD From East				S 25TH STREET From South				OKEECHOBEE ROAD From West				
Start Time	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Int. Total
07:00	0	5	135	26	0	26	49	2	0	19	162	24	0	37	40	9	534
07:15	0	6	159	33	0	25	50	4	0	24	162	35	0	37	52	14	601
07:30	0	5	177	35	0	26	46	1	0	30	158	37	0	28	74	27	644
07:45	0	11	186	28	2	26	62	4	0	27	171	50	0	38	95	30	730
Total	0	27	657	122	2	103	207	11	0	100	653	146	0	140	261	80	2509
08:00	0	13	197	33	1	27	75	6	0	24	115	45	0	37	124	25	722
08:15	0	11	155	22	0	27	64	3	0	25	131	41	1	39	98	23	640
08:30	0	18	152	18	2	28	48	3	0	23	106	41	1	36	49	12	537
08:45	0	11	164	19	1	27	71	3	0	21	97	26	0	25	63	23	551
Total	0	53	668	92	4	109	258	15	0	93	449	153	2	137	334	83	2450
16:00	0	7	162	24	0	42	76	7	0	29	137	49	1	30	73	16	653
16:15	0	10	155	29	3	41	84	3	0	31	151	32	1	37	82	26	685
16:30	0	10	160	23	0	44	88	2	0	32	141	48	1	44	51	18	662
16:45	0	7	171	25	0	28	112	3	0	36	154	31	1	42	78	31	719
Total	0	34	648	101	3	155	360	15	0	128	583	160	4	153	284	91	2719
17:00	0	13	182	43	0	46	112	3	0	33	166	39	0	39	75	34	785
17:15	0	12	194	37	1	28	96	5	0	24	162	41	0	42	93	25	760
17:30	0	9	194	35	0	36	80	2	0	33	157	33	0	43	111	22	755
17:45	0	6	157	26	0	33	66	5	0	22	148	25	1	28	98	16	631
Total	0	40	727	141	1	143	354	15	0	112	633	138	1	152	377	97	2931
Grand Total	0	154	2700	456	10	510	1179	56	0	433	2318	597	7	582	1256	351	10609
Apprch %	0	4.7	81.6	13.8	0.6	29.1	67.2	3.2	0	12.9	69.2	17.8	0.3	26.5	57.2	16	
Total %	0	1.5	25.5	4.3	0.1	4.8	11.1	0.5	0	4.1	21.8	5.6	0.1	5.5	11.8	3.3	

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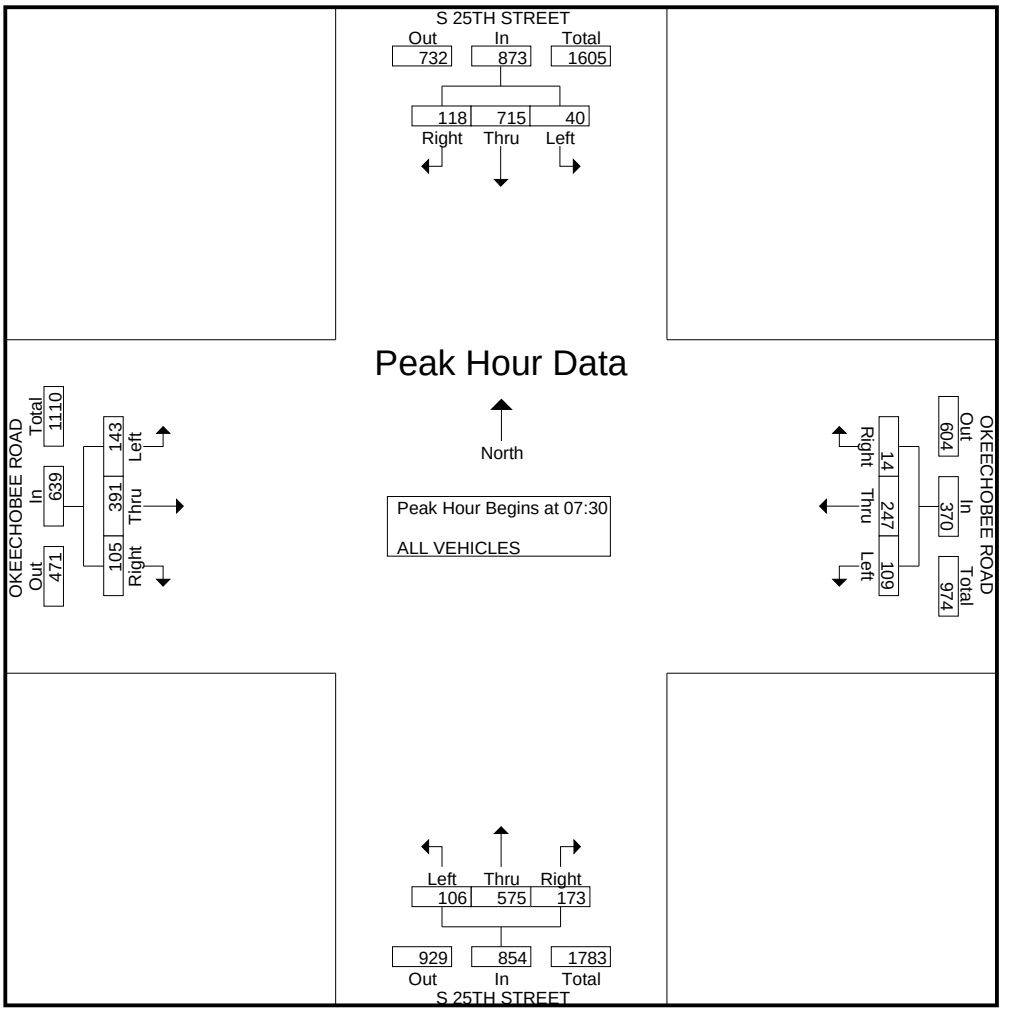
S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 2

	S 25TH STREET From North					OKEECHOBEE ROAD From East					S 25TH STREET From South					OKEECHOBEE ROAD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	0	5	177	**35**	217	0	26	46	1	73	0	**30**	158	37	225	0	28	74	27	129	644
07:45	0	11	186	28	225	**2**	26	62	4	94	0	27	**171**	**50**	**248**	0	38	95	**30**	163	**730**
08:00	0	**13**	**197**	33	**243**	1	**27**	**75**	**6**	**109**	0	24	115	45	184	0	37	**124**	25	**186**	722
08:15	0	11	155	22	188	0	27	64	3	94	0	25	131	41	197	**1**	**39**	98	23	161	640
Total Volume	0	40	715	118	873	3	106	247	14	370	0	106	575	173	854	1	142	391	105	639	2736
% App. Total	0	4.6	81.9	13.5		0.8	28.6	66.8	3.8		0	12.4	67.3	20.3		0.2	22.2	61.2	16.4		
PHF	.000	.769	.907	.843	.898	.375	.981	.823	.583	.849	.000	.883	.841	.865	.861	.250	.910	.788	.875	.859	.937



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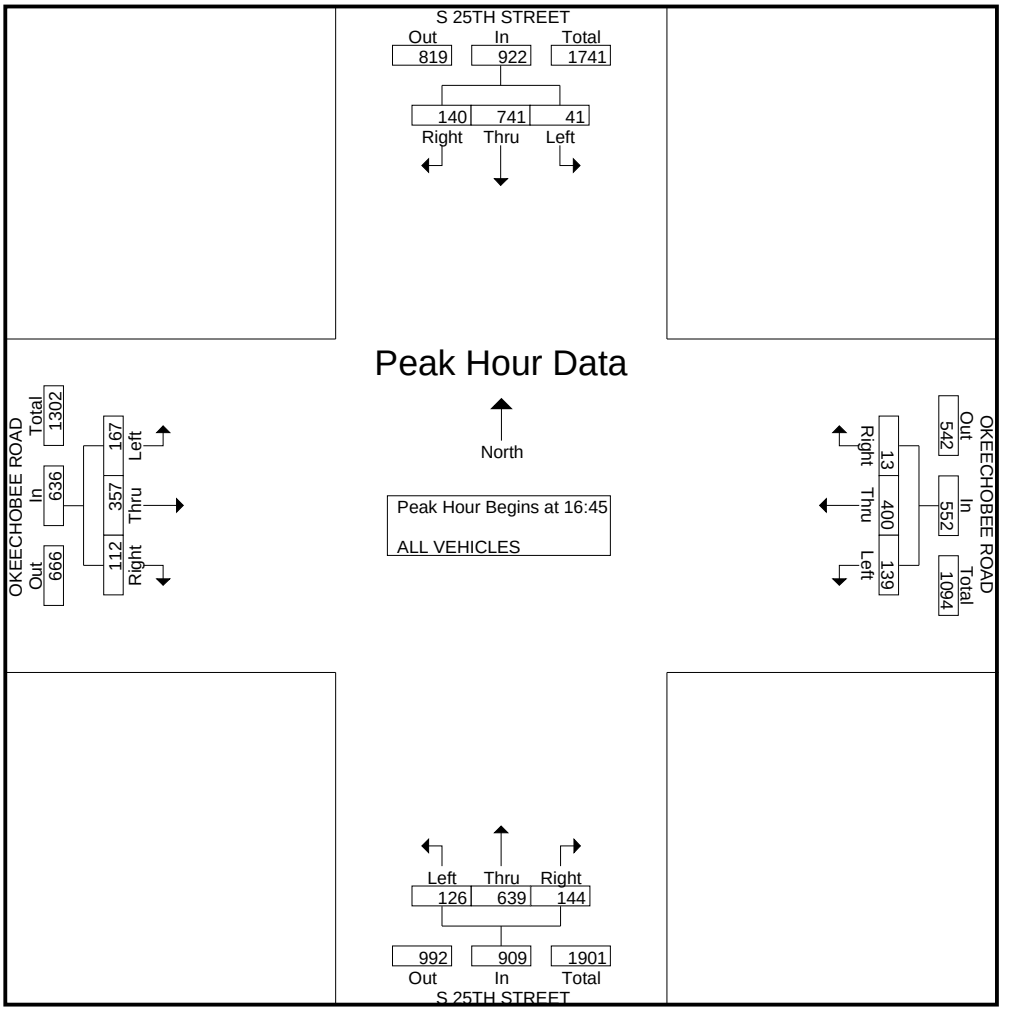
S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 3

	S 25TH STREET From North					OKEECHOBEE ROAD From East					S 25TH STREET From South					OKEECHOBEE ROAD From West					
Start Time	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	UTurn	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	7	171	25	203	0	28	**112**	3	143	0	**36**	154	31	221	**1**	42	78	31	152	719
17:00	0	**13**	182	**43**	238	0	**46**	112	3	**161**	0	33	**166**	39	**238**	0	39	75	**34**	148	**785**
17:15	0	12	**194**	37	**243**	**1**	28	96	**5**	130	0	24	162	**41**	227	0	42	93	25	160	760
17:30	0	9	194	35	238	0	36	80	2	118	0	33	157	33	223	0	**43**	**111**	22	**176**	755
Total Volume	0	41	741	140	922	1	138	400	13	552	0	126	639	144	909	1	166	357	112	636	3019
% App. Total	0	4.4	80.4	15.2		0.2	25	72.5	2.4		0	13.9	70.3	15.8		0.2	26.1	56.1	17.6		
PHF	.000	.788	.955	.814	.949	.250	.750	.893	.650	.857	.000	.875	.962	.878	.955	.250	.965	.804	.824	.903	.961



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S 25TH STREET & OKEECHOBEE ROAD
FORT PIERCE, FLORIDA

File Name : 25TH & OKEECHOBEE
Site Code : 190177
Start Date : 10/22/2019
Page No : 1

Groups Printed- PEDESTRIANS & BIKES

	S 25TH STREET From North				OKEECHOBEE ROAD From East				S 25TH STREET From South				OKEECHOBEE ROAD From West				
Start Time	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Int. Total
08:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3
16:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
16:45	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	0	4
Total	0	0	2	0	0	0	0	0	0	0	1	0	1	0	2	0	6
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15	0	0	1	0	0	0	0	0	1	0	1	0	1	0	0	0	4
17:45	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
Total	0	0	1	0	0	0	1	0	1	0	2	0	1	0	1	0	7
Grand Total	1	0	4	0	0	0	1	0	2	0	3	0	2	0	3	0	16
Apprch %	20	0	80	0	0	0	100	0	40	0	60	0	40	0	60	0	
Total %	6.2	0	25	0	0	0	6.2	0	12.5	0	18.8	0	12.5	0	18.8	0	

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE
Page : 1

ALL VEHICLES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/03/19																	
07:00	0	0	47	0	0	0	102	0	0	0	0	0	0	0	70	114	333
07:15	0	0	71	0	0	0	114	0	0	0	0	0	0	0	82	165	432
07:30	0	0	104	0	0	0	136	0	0	0	0	0	0	0	126	252	618
07:45	0	0	99	0	0	0	124	0	0	0	0	0	0	0	134	317	674
Hr Total	0	0	321	0	0	0	476	0	0	0	0	0	0	0	412	848	2057
08:00	0	0	97	0	0	0	133	0	0	0	0	0	0	0	113	258	601
08:15	0	0	89	0	0	0	133	0	0	0	0	0	0	0	104	259	585
08:30	0	0	103	0	0	0	144	0	0	0	0	0	0	0	112	244	603
08:45	0	0	103	0	0	0	149	0	0	0	0	0	0	0	90	216	558
Hr Total	0	0	392	0	0	0	559	0	0	0	0	0	0	0	419	977	2347
---------- * BREAK * ----------																	
16:00	0	0	129	0	0	0	229	0	0	0	0	0	0	0	128	207	693
16:15	0	0	105	0	0	0	197	0	0	0	0	0	0	0	128	225	655
16:30	0	0	149	0	0	0	203	0	0	0	0	0	0	0	119	227	698
16:45	0	0	141	0	0	0	231	0	0	0	0	0	0	0	123	215	710
Hr Total	0	0	524	0	0	0	860	0	0	0	0	0	0	0	498	874	2756
17:00	0	0	161	0	0	0	272	0	0	0	0	0	0	0	109	233	775
17:15	0	0	167	0	0	0	200	0	0	0	0	0	0	0	160	223	750
17:30	0	0	130	0	0	0	210	0	0	0	0	0	0	0	145	256	741
17:45	0	0	137	0	0	0	202	0	0	0	0	0	0	0	144	245	728
Hr Total	0	0	595	0	0	0	884	0	0	0	0	0	0	0	558	957	2994
TOTAL	0	0	1832	0	0	0	2779	0	0	0	0	0	0	0	1887	3656	10154

TRAFFIC SURVEY SPECIALISTS, INC.

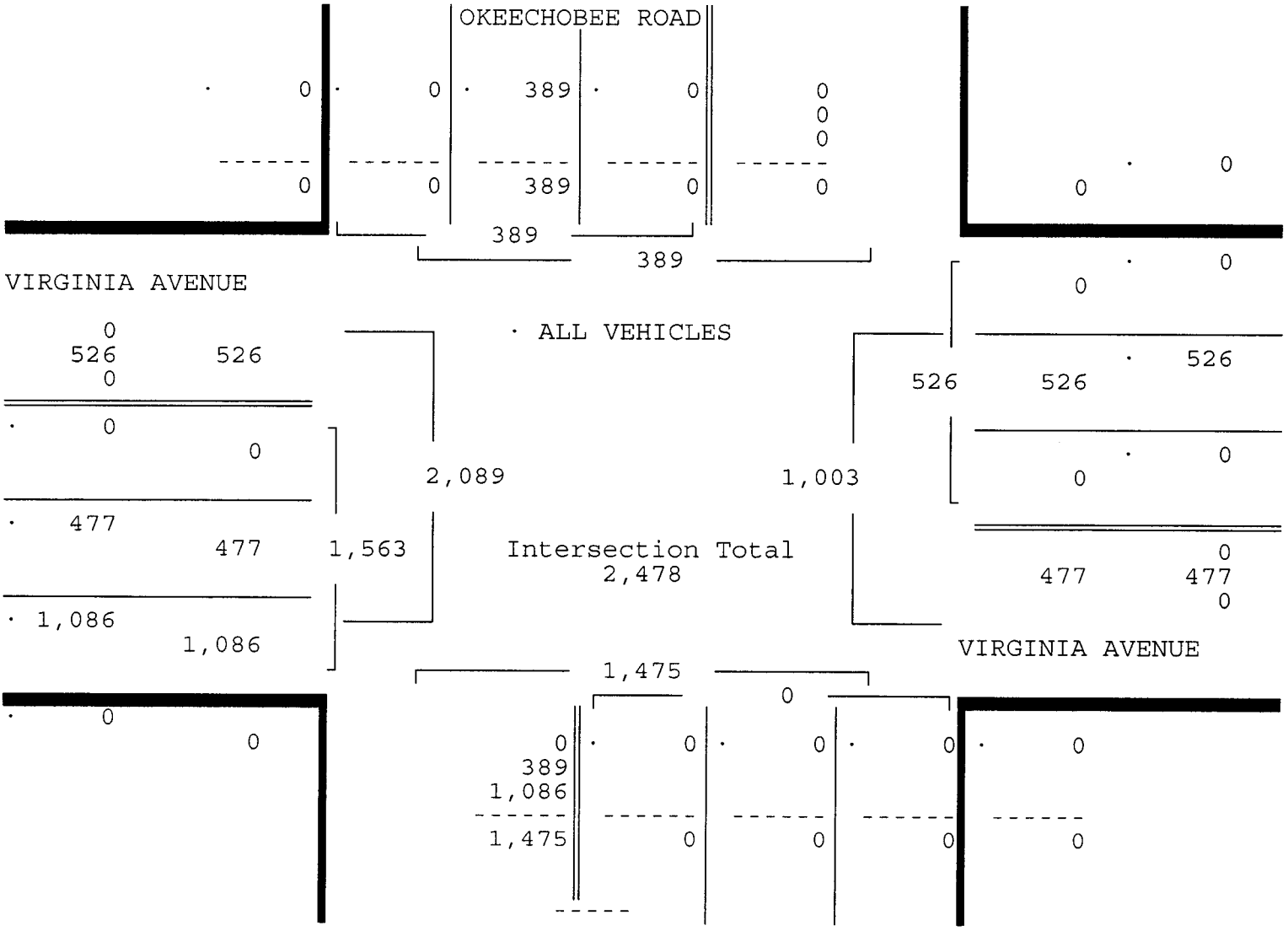
VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE

ALL VEHICLES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/03/19																	
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 04/03/19																	
Peak start	07:30				07:30				07:30				07:30				
Volume	0	0	389	0	0	0	526	0	0	0	0	0	0	0	477	1086	
Percent	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	31%	69%	
Pk total	389				526				0				1563				
Highest	07:30				07:30				07:00				07:45				
Volume	0	0	104	0	0	0	136	0	0	0	0	0	0	0	134	317	
Hi total	104				136				0				451				
PHF	.94				.97				.0				.87				



TRAFFIC SURVEY SPECIALISTS, INC.

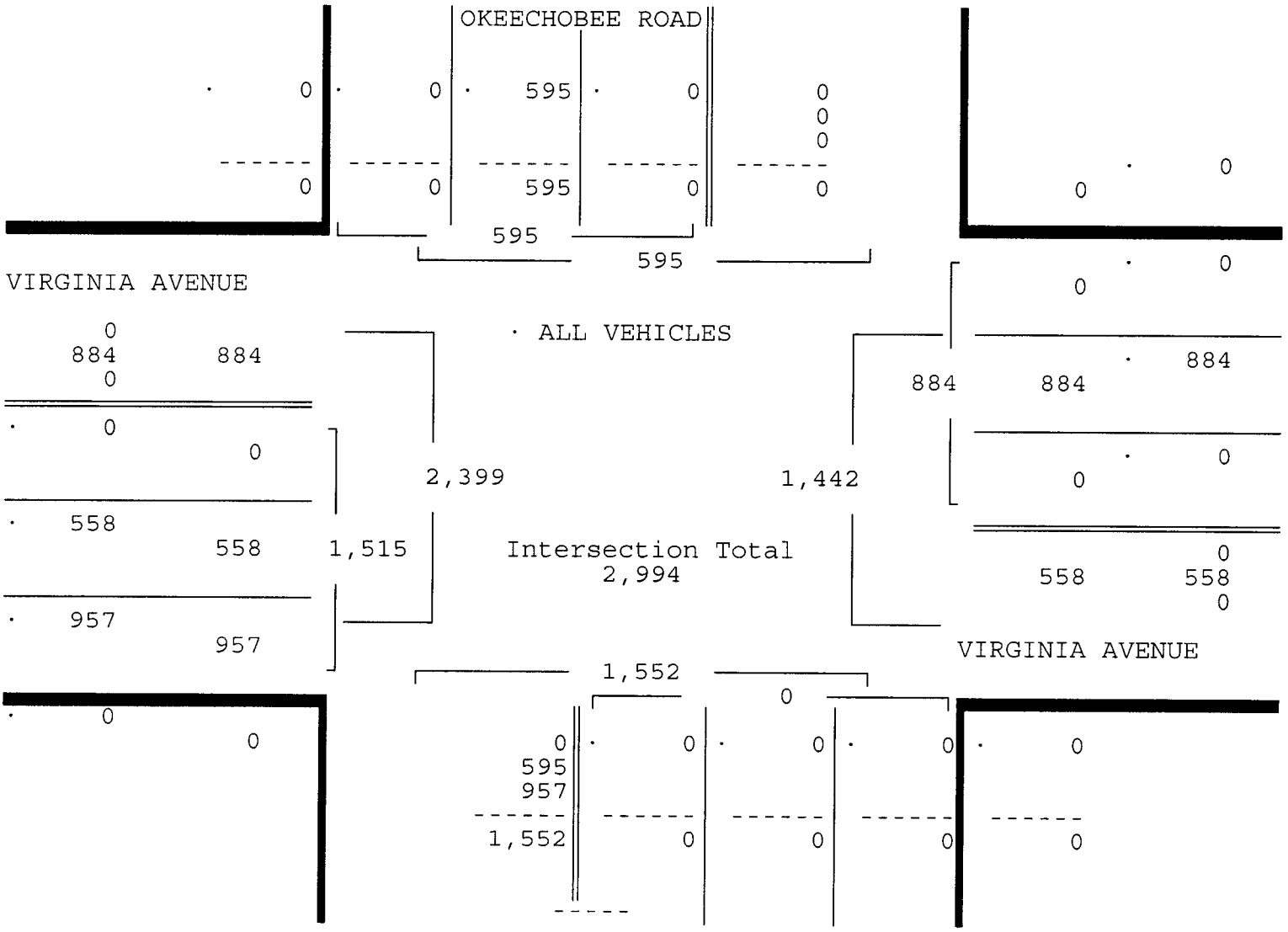
VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE
Page : 3

ALL VEHICLES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 04/03/19																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 04/03/19																	
Peak start	17:00				17:00				17:00				17:00				
Volume	0	0	595	0	0	0	884	0	0	0	0	0	0	0	558	957	
Percent	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	37%	63%	
Pk total	595				884				0				1515				
Highest	17:15				17:00				07:00				17:30				
Volume	0	0	167	0	0	0	272	0	0	0	0	0	0	0	145	256	
Hi total	167				272				0				401				
PHF	.89				.81				.0				.94				



TRAFFIC SURVEY SPECIALISTS, INC.

VIRGINIA AVENUE & OKEECHOBEE ROAD
FT PIERCE, FLORIDA
COUNTED BY: S. SALVO & L. PALOMINO (V)
NOT SIGNALIZED

85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00190070
Start Date: 04/03/19
File I.D. : VIRG_OKE
Page : 1

PEDESTRIANS & BIKES

	OKEECHOBEE ROAD From North				VIRGINIA AVENUE From East				----- From South				VIRGINIA AVENUE From West				
	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 04/03/19																	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
* BREAK *																	
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2

Appendix E: Signal Timing Sheet

City of Fort Pierce Engineering Department

Intersection Timing Sheet

Name **SR-615 at Okeechobee Road**

Part I — Actuated Timing Information

Non-coordinated Operation

Phase	1	2	3	4	5	6	7	8		
Approach	EBLT	WB	SBLT	NB	WBLT	EB	NBLT	SB		
Initial	12	12	9	12	12	12	9	12		
Passage	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Max1	15.0	35.0	20.0	45.0	15.0	35.0	20.0	45.0		
Yellow	4.0	3.7	4.0	4.4	3.7	4.0	4.4	4.0		
Red	2.6	2.7	2.0	2.1	2.6	2.7	2.0	2.1		
Walk		7.0		7.0		7.0		7.0		
Ped Clear		28.0		25.0		30.0		29.0		
Recall		Min				Min				
LT Type	Prot+Perm		Prot+Perm		Prot+Perm		Prot+Perm			

Part II — Coordinated Timing Information

Pattern Tables

PHASE	1	2	3	4	5	6	7	8	Cycle	Offset
Split Pattern 1	17	25	15	33	17	25	15	33	90	59
Split Pattern 2	18	31	15	36	18	31	15	36	100	50
Split Pattern 3	17	44	15	64	17	44	23	56	140	49
Split Pattern 4	15	22	15	28	15	22	15	28	80	42
Split Pattern 5	15	33	15	37	15	33	15	37	100	30

Schedule Implementation

Schedule Notes

Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
Start	End	Split	Start	End	Split			
0:00	6:30	100	0:00	7:00	100			
6:30	10:00	1	7:00	10:00	4			
10:00	15:00	2	10:00	18:00	5			
15:00	19:00	3	18:00	21:00	4			
19:00	21:00	4	21:00	0:00	100			
21:00	0:00	100						

Part III — Notes and Comments

1. Installed new system and signal timing by AECOM (FDOT Retiming Contract C9O28; FM 230017 7 32 01)

Office DEPOT®

City of Fort Pierce Engineering Department

Intersection Timing Sheet

Name **SR-70 at Okeechobee Road**

Part I — *Actuated Timing Information*

Non-coordinated Operation

Phase	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*		
Approach		EB/SBR		WBT						
Initial		12		12						
Passage		5.0		5.0						
Max1		60.0		60.0						
Max2										
Yellow		4.8		4.8						
Red		2.5		2.5						
Walk		5.0								
Ped Clear		9.0								
Recall				Min						
LT Type										

Part II — *Coordinated Timing Information*

Pattern Tables

PHASE	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*Cycle*	*Offset*
Split Pattern 1		60		70					130	34
Split Pattern 2		65		65					130	22
Split Pattern 3		65		65					130	103
Split Pattern 4		50		50					100	70
Split Pattern 5		55		65					120	80

Schedule Implementation

Schedule Notes

Day Plan 1 (WEEKDAYS)			Day Plan 2 (WEEKENDS)			Day Plan 3 (Special)		
Start	End	Pattern	Start	End	Pattern			
0:00	6:30	Free	0:00	7:00	Free			
6:30	10:00	1	7:00	10:00	4			
10:00	15:00	2	10:00	18:00	5			
15:00	19:00	3	18:00	21:00	4			
19:00	21:00	4	21:00	0:00	Free			
21:00	0:00	Free						

Part III — *Notes and Comments*

1. Installed new system and signal timing by AECOM (FDOT Retiming Contract C9O28; FM 230017 7 32 01)
2. Coord offset reference - Phase 4

Appendix F: Volume Development Worksheet

VOLUME DEVELOPMENT SHEET
ARROW FORT PIERCE NORTH RESIDENTIAL
OKEECHOBEE ROAD & VIRIGNIA AVENUE

Peak Season =	1.01	1.01
Buildout Year =	2025	2025
Years =	6	6

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 04/03/2019	0	0	0	0	389	0	0	477	1,086	0	526	0
Peak Season Volume	0	0	0	0	393	0	0	482	1,097	0	531	0
Growth Rate				2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	0	0	0	0	64	0	0	78	177	0	86	0
Committed Celebration Pointe												
Inbound Traffic Assignment					5.0%						15.0%	
Inbound Traffic Volumes					5						15	
Outbound Traffic Assignment								5.0%	15.0%			
Outbound Traffic Volumes								19	56			
Project Traffic	0	0	0	0	5	0	0	19	56	0	15	0
Committed Bent Creek												
Inbound Traffic Assignment					10.0%						10.0%	
Inbound Traffic Volumes					38						38	
Outbound Traffic Assignment								10.0%	10.0%			
Outbound Traffic Volumes								51	51			
Project Traffic	0	0	0	0	38	0	0	51	51	0	38	0
Committed Carriage Pointe												
Inbound Traffic Assignment					20.0%							
Inbound Traffic Volumes					7							
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Project Traffic	0	0	0	0	7	0	0	0	0	0	0	0
Committed Camping World												
Inbound Traffic Assignment					5.0%						25.0%	
Inbound Traffic Volumes					2						11	
Outbound Traffic Assignment								5.0%	25.0%			
Outbound Traffic Volumes								1	3			
Project Traffic	0	0	0	0	2	0	0	1	3	0	11	0
Total Committed Projects	0	0	0	0	52	0	0	71	110	0	64	0
1.0% Traffic Volume Growth	0	0	0	0	24	0	0	30	67	0	33	0
Committed + 1.0% Growth	0	0	0	0	76	0	0	101	177	0	97	0
Max (Committed + 1.0% or Historic Growth)	0	0	0	0	76	0	0	101	177	0	97	0
Background Traffic Volumes	0	0	0	0	469	0	0	583	1,274	0	628	0
Project Traffic												
Inbound Traffic Assignment								35.0%				
Inbound Traffic Volumes								4				
Outbound Traffic Assignment					35.0%							
Outbound Traffic Volumes					10							
Project Traffic	0	0	0	0	10	0	0	4	0	0	0	0
Total Traffic w/o RTOR	0	0	0	0	479	0	0	587	1,274	0	628	0
RTOR Reduction												
TOTAL TRAFFIC	0	0	0	0	479	0	0	587	1,274	0	628	0

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 04/03/2019	0	0	0	0	595	0	0	558	957	0	884	0
Peak Season Volume	0	0	0	0	601	0	0	564	967	0	893	0
Growth Rate				2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	0	0	0	0	97	0	0	91	156	0	144	0
Committed Celebration Pointe												
Inbound Traffic Assignment					5.0%						15.0%	
Inbound Traffic Volumes					20						60	
Outbound Traffic Assignment								5.0%	15.0%			
Outbound Traffic Volumes								11	32			
Project Traffic	0	0	0	0	20	0	0	11	32	0	60	0
Committed Bent Creek												
Inbound Traffic Assignment					10.0%						10.0%	
Inbound Traffic Volumes					23						23	
Outbound Traffic Assignment								10.0%	10.0%			
Outbound Traffic Volumes								63	63			
Project Traffic	0	0	0	0	23	0	0	63	63	0	23	0
Committed Carriage Pointe												
Inbound Traffic Assignment					20.0%							
Inbound Traffic Volumes					25							
Outbound Traffic Assignment												
Outbound Traffic Volumes												
Project Traffic	0	0	0	0	25	0	0	0	0	0	0	0
Committed Camping World												
Inbound Traffic Assignment					5.0%						25.0%	
Inbound Traffic Volumes					3						17	
Outbound Traffic Assignment								5.0%	25.0%			
Outbound Traffic Volumes								4	20			
Project Traffic	0	0	0	0	3	0	0	4	20	0	17	0
Total Committed Projects	0	0	0	0	71	0	0	78	115	0	100	0
1.0% Traffic Volume Growth	0	0	0	0	37	0	0	35	59	0	55	0
Committed + 1.0% Growth	0	0	0	0	108	0	0	113	174	0	155	0
Max (Committed + 1.0% or Historic Growth)	0	0	0	0	108	0	0	113	174	0	155	0
Background Traffic Volumes	0	0	0	0	709	0	0	677	1,141	0	1,048	0
Project Traffic												
Inbound Traffic Assignment								35.0%				
Inbound Traffic Volumes								11				
Outbound Traffic Assignment					35.0%							
Outbound Traffic Volumes					7							
Project Traffic	0	0	0	0	7	0	0	11	0	0	0	0
Total Traffic w/o RTOR	0	0	0	0	716	0	0	688	1,141	0	1,048	0
RTOR Reduction												
TOTAL TRAFFIC	0	0	0	0	716	0	0	688	1,141	0	1,048	0

VOLUME DEVELOPMENT SHEET
ARROW FORT PIERCE NORTH RESIDENTIAL
S 25TH STREET & OKEECHOBEE ROAD

Peak Season =	1.11	1.11
Buildout Year =	2025	2025
Years =	6	6

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/22/2019	106	575	173	40	715	118	143	391	105	109	247	14
Peak Season Volume	118	638	192	44	794	131	159	434	117	121	274	16
Growth Rate	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	19	103	31	7	128	21	26	70	19	20	44	3
1.0% Traffic Volume Growth	7	39	12	3	49	8	10	27	7	7	17	1
Committed + 1.0% Growth	7	39	12	3	49	8	10	27	7	7	17	1
Max (Committed + 1.0% or Historic Growth)	19	103	31	7	128	21	26	70	19	20	44	3
Background Traffic Volumes	137	741	223	51	922	152	185	504	136	141	318	19
Project Traffic												
Inbound Traffic Assignment	15.0%				5.0%						40.0%	
Inbound Traffic Volumes	2				1						4	
Outbound Traffic Assignment							5.0%	40.0%	15.0%			
Outbound Traffic Volumes							1	11	4			
Project Traffic	2	0	0	0	1	0	1	11	4	0	4	0
Total Traffic w/o RTOR	139	741	223	51	923	152	186	515	140	141	322	19
RTOR Reduction												
TOTAL TRAFFIC	139	741	223	51	923	152	186	515	140	141	322	19

PM Peak Hour

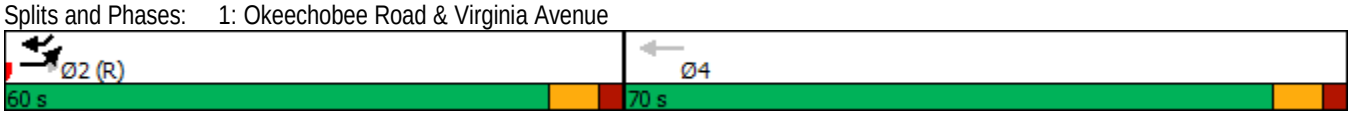
	Northbound			Southbound			Eastbound			Westbound		
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT
Existing Volume on 10/22/2019	126	639	144	41	741	140	167	357	112	139	400	13
Peak Season Volume	140	709	160	46	823	155	185	396	124	154	444	14
Growth Rate	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
Traffic Volume Growth	23	115	26	7	133	25	30	64	20	25	72	2
1.0% Traffic Volume Growth	9	44	10	3	51	10	11	24	8	9	27	1
Committed + 1.0% Growth	9	44	10	3	51	10	11	24	8	9	27	1
Max (Committed + 1.0% or Historic Growth)	23	115	26	7	133	25	30	64	20	25	72	2
Background Traffic Volumes	163	824	186	53	956	180	215	460	144	179	516	16
Project Traffic												
Inbound Traffic Assignment	15.0%				5.0%						40.0%	
Inbound Traffic Volumes	5				2						12	
Outbound Traffic Assignment							5.0%	40.0%	15.0%			
Outbound Traffic Volumes							1	8	3			
Project Traffic	5	0	0	0	2	0	1	8	3	0	12	0
Total Traffic w/o RTOR	168	824	186	53	958	180	216	468	147	179	528	16
RTOR Reduction												
TOTAL TRAFFIC	168	824	186	53	958	180	216	468	147	179	528	16

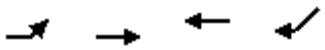
Appendix G: Synchro Analyses

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	482	1097	531	393
Future Volume (vph)	482	1097	531	393
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	60.0	60.0	70.0	60.0
Total Split (%)	46.2%	46.2%	53.8%	46.2%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	94.5	94.5	20.9	94.5
Actuated g/C Ratio	0.73	0.73	0.16	0.73
v/c Ratio	0.20	0.31	0.68	0.19
Control Delay	6.3	6.8	55.6	0.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.3	6.8	55.6	0.7
LOS	A	A	E	A
Approach Delay		6.6	55.6	
Approach LOS		A	E	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 34 (26%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 36.2%	ICU Level of Service A
Analysis Period (min) 15	

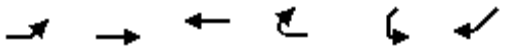
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	507	1155	559	414
v/c Ratio	0.20	0.31	0.68	0.19
Control Delay	6.3	6.8	55.6	0.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.3	6.8	55.6	0.7
Queue Length 50th (ft)	62	112	164	0
Queue Length 95th (ft)	96	155	198	15
Internal Link Dist (ft)		358	1207	
Turn Bay Length (ft)				
Base Capacity (vph)	2494	3694	2452	2141
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.31	0.23	0.19

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	482	1097	531	0	0	393
Future Volume (vph)	482	1097	531	0	0	393
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	507	1155	559	0	0	414
RTOR Reduction (vph)	0	0	0	0	0	113
Lane Group Flow (vph)	507	1155	559	0	0	301
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	94.5	94.5	20.9			94.5
Effective Green, g (s)	94.5	94.5	20.9			94.5
Actuated g/C Ratio	0.73	0.73	0.16			0.73
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2495	3696	817			2025
v/s Ratio Prot	0.15					0.11
v/s Ratio Perm		c0.23	c0.11			
v/c Ratio	0.20	0.31	0.68			0.15
Uniform Delay, d1	5.7	6.3	51.4			5.4
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.2	0.2	2.4			0.2
Delay (s)	5.9	6.5	53.8			5.6
Level of Service	A	A	D			A
Approach Delay (s)		6.3	53.8		5.6	
Approach LOS		A	D		A	

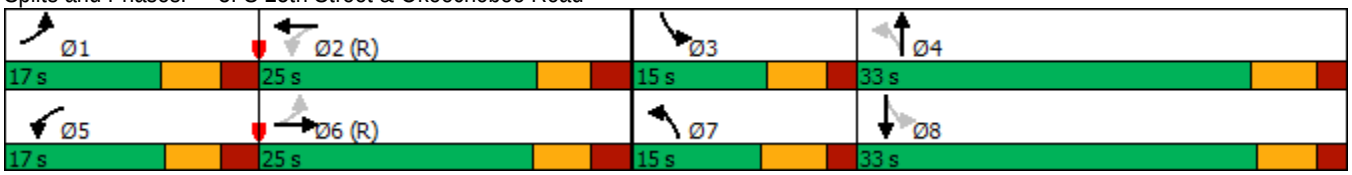
Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		

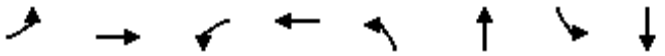
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	159	434	121	274	118	638	44	794
Future Volume (vph)	159	434	121	274	118	638	44	794
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	10.4	12.0	10.7	12.0	8.6	12.0	9.0	12.0
Minimum Split (s)	17.0	24.7	17.0	24.7	15.0	24.5	15.0	24.1
Total Split (s)	17.0	25.0	17.0	25.0	15.0	33.0	15.0	33.0
Total Split (%)	18.9%	27.8%	18.9%	27.8%	16.7%	36.7%	16.7%	36.7%
Yellow Time (s)	4.0	4.0	3.7	3.7	4.4	4.4	4.0	4.0
All-Red Time (s)	2.6	2.7	2.6	2.7	2.0	2.1	2.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.7	6.3	6.4	6.4	6.5	6.0	6.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	28.9	18.4	29.5	18.7	37.7	32.4	35.9	26.8
Actuated g/C Ratio	0.32	0.20	0.33	0.21	0.42	0.36	0.40	0.30
v/c Ratio	0.41	0.80	0.42	0.42	0.51	0.69	0.15	0.93
Control Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
LOS	C	D	C	C	C	C	B	D
Approach Delay		37.3		29.5		28.0		44.9
Approach LOS		D		C		C		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 59 (66%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 35.7	Intersection LOS: D
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: S 25th Street & Okeechobee Road

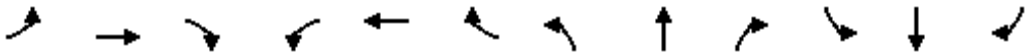




Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	167	580	127	305	124	874	46	974
v/c Ratio	0.41	0.80	0.42	0.42	0.51	0.69	0.15	0.93
Control Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	41.7	22.5	32.4	23.7	28.6	14.7	46.3
Queue Length 50th (ft)	62	156	46	77	39	233	14	276
Queue Length 95th (ft)	108	#234	84	117	80	#333	33	#402
Internal Link Dist (ft)		1962		574		2034		690
Turn Bay Length (ft)	225		200		225		200	
Base Capacity (vph)	409	725	305	732	243	1259	298	1050
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.80	0.42	0.42	0.51	0.69	0.15	0.93

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	159	434	117	121	274	16	118	638	192	44	794	131
Future Volume (vph)	159	434	117	121	274	16	118	638	192	44	794	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3427		1770	3510		1770	3417		1770	3464	
Flt Permitted	0.54	1.00		0.25	1.00		0.12	1.00		0.22	1.00	
Satd. Flow (perm)	1001	3427		457	3510		230	3417		405	3464	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	167	457	123	127	288	17	124	672	202	46	836	138
RTOR Reduction (vph)	0	28	0	0	5	0	0	28	0	0	14	0
Lane Group Flow (vph)	167	552	0	127	300	0	124	846	0	46	960	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	26.4	16.0		27.0	16.3		41.0	32.4		34.6	29.2	
Effective Green, g (s)	26.4	16.0		27.0	16.3		41.0	32.4		34.6	29.2	
Actuated g/C Ratio	0.29	0.18		0.30	0.18		0.46	0.36		0.38	0.32	
Clearance Time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	382	609		293	635		251	1230		237	1123	
v/s Ratio Prot	0.05	c0.16		c0.05	0.09		c0.05	c0.25		0.01	c0.28	
v/s Ratio Perm	0.08			0.08			0.18			0.06		
v/c Ratio	0.44	0.91		0.43	0.47		0.49	0.69		0.19	0.85	
Uniform Delay, d1	24.8	36.3		24.2	33.0		17.5	24.5		18.1	28.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.8	19.6		1.0	2.5		1.5	1.6		0.4	6.5	
Delay (s)	25.6	55.8		25.2	35.5		19.1	26.1		18.5	34.9	
Level of Service	C	E		C	D		B	C		B	C	
Approach Delay (s)		49.1			32.5			25.2			34.2	
Approach LOS		D			C			C			C	

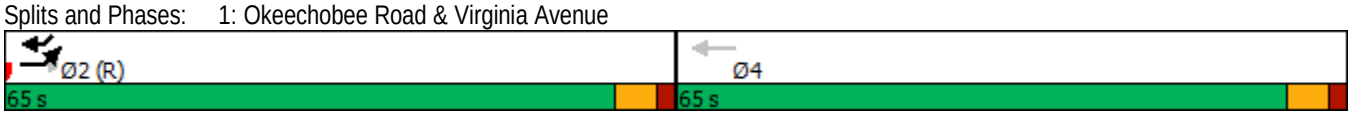
Intersection Summary			
HCM 2000 Control Delay	34.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

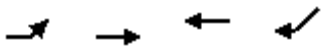
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	564	967	893	601
Future Volume (vph)	564	967	893	601
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0
Total Split (s)	65.0	65.0	65.0	65.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	84.5	84.5	33.5	84.5
Actuated g/C Ratio	0.65	0.65	0.26	0.65
v/c Ratio	0.27	0.31	0.72	0.34
Control Delay	10.6	10.8	46.9	9.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.6	10.8	46.9	9.2
LOS	B	B	D	A
Approach Delay		10.7	46.9	
Approach LOS		B	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 103 (79%), Referenced to phase 2:EBTL and 6:, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 48.3%	ICU Level of Service A
Analysis Period (min) 15	

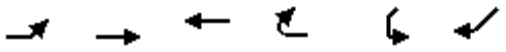
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	594	1018	940	633
v/c Ratio	0.27	0.31	0.72	0.34
Control Delay	10.6	10.8	46.9	9.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.6	10.8	46.9	9.2
Queue Length 50th (ft)	102	128	265	100
Queue Length 95th (ft)	153	178	293	159
Internal Link Dist (ft)		326	1056	
Turn Bay Length (ft)				
Base Capacity (vph)	2230	3304	2307	1853
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.41	0.34

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	564	967	893	0	0	601
Future Volume (vph)	564	967	893	0	0	601
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0			6.0
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	594	1018	940	0	0	633
RTOR Reduction (vph)	0	0	0	0	0	42
Lane Group Flow (vph)	594	1018	940	0	0	591
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	84.5	84.5	33.5			84.5
Effective Green, g (s)	84.5	84.5	33.5			84.5
Actuated g/C Ratio	0.65	0.65	0.26			0.65
Clearance Time (s)	6.0	6.0	6.0			6.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2231	3305	1310			1811
v/s Ratio Prot	0.17					c0.21
v/s Ratio Perm		0.20	c0.18			
v/c Ratio	0.27	0.31	0.72			0.33
Uniform Delay, d1	9.6	10.0	43.9			10.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.2	1.9			0.5
Delay (s)	9.9	10.2	45.8			10.6
Level of Service	A	B	D			B
Approach Delay (s)		10.1	45.8		10.6	
Approach LOS		B	D		B	

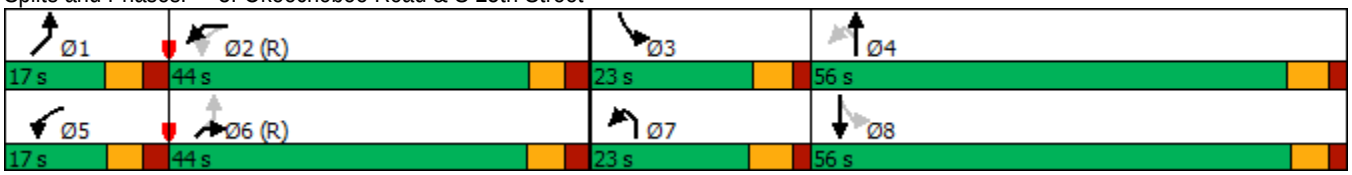
Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	154	444	140	709	46	823	185	396
Future Volume (vph)	154	444	140	709	46	823	185	396
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	44.0	23.0	56.0	23.0	56.0	17.0	44.0
Total Split (%)	12.1%	31.4%	16.4%	40.0%	16.4%	40.0%	12.1%	31.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	53.6	42.1	65.6	54.6	56.6	47.5	54.2	42.4
Actuated g/C Ratio	0.38	0.30	0.47	0.39	0.40	0.34	0.39	0.30
v/c Ratio	0.53	0.43	0.67	0.68	0.20	0.87	0.55	0.59
Control Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
LOS	C	C	D	D	C	D	D	D
Approach Delay		31.5		38.1		50.1	35.2	
Approach LOS		C		D		D	D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 39.9	Intersection LOS: D
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street





Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	162	482	147	914	48	1029	195	548
v/c Ratio	0.53	0.43	0.67	0.68	0.20	0.87	0.55	0.59
Control Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	30.6	42.8	37.3	20.3	51.4	35.3	35.1
Queue Length 50th (ft)	93	138	77	357	22	445	115	192
Queue Length 95th (ft)	154	193	145	414	43	533	184	267
Internal Link Dist (ft)		574		2034		690	3530	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	306	1122	260	1360	337	1249	354	934
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.43	0.57	0.67	0.14	0.82	0.55	0.59

Intersection Summary

Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	154	444	14	140	709	160	46	823	155	185	396	124
Future Volume (vph)	154	444	14	140	709	160	46	823	155	185	396	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	1.00		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3431		1770	3442		1770	3455		1770	2787	
Flt Permitted	0.29	0.95		0.08	1.00		0.19	1.00		0.36	1.00	
Satd. Flow (perm)	539	3431		142	3442		363	3455		679	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	162	467	15	147	746	168	48	866	163	195	417	131
RTOR Reduction (vph)	0	91	0	0	13	0	0	11	0	0	91	0
Lane Group Flow (vph)	162	391	0	147	901	0	48	1018	0	195	457	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	52.4	41.0		67.8	54.6		55.8	48.6		53.0	41.3	
Effective Green, g (s)	52.4	41.0		67.8	54.6		55.8	48.6		53.0	41.3	
Actuated g/C Ratio	0.37	0.29		0.48	0.39		0.40	0.35		0.38	0.29	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	301	1004		222	1342		217	1199		348	822	
v/s Ratio Prot	0.04	0.11		c0.06	c0.26		0.01	c0.29		c0.05	0.16	
v/s Ratio Perm	0.16			0.26			0.08			c0.17		
v/c Ratio	0.54	0.39		0.66	0.67		0.22	0.85		0.56	0.56	
Uniform Delay, d1	31.0	39.5		29.1	35.3		27.3	42.3		30.8	41.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	1.1		7.2	1.3		0.5	5.8		2.1	2.7	
Delay (s)	32.8	40.6		36.4	36.6		27.8	48.1		32.9	44.3	
Level of Service	C	D		D	D		C	D		C	D	
Approach Delay (s)		38.7			36.6			47.2		41.3		
Approach LOS		D			D			D		D		

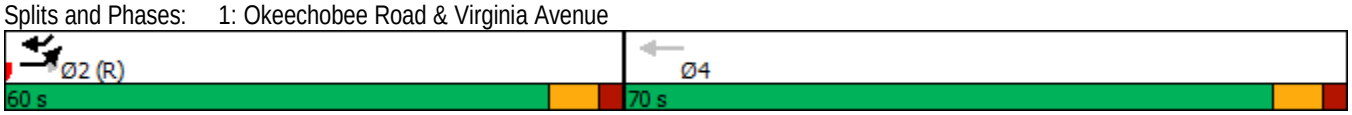
Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

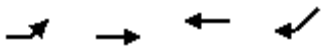
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	583	1274	628	469
Future Volume (vph)	583	1274	628	469
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	60.0	60.0	70.0	60.0
Total Split (%)	46.2%	46.2%	53.8%	46.2%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	91.0	91.0	24.4	91.0
Actuated g/C Ratio	0.70	0.70	0.19	0.70
v/c Ratio	0.26	0.38	0.69	0.24
Control Delay	7.8	8.6	53.0	2.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	2.9
LOS	A	A	D	A
Approach Delay		8.4	53.0	
Approach LOS		A	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 34 (26%), Referenced to phase 2:EBTL and 6:, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

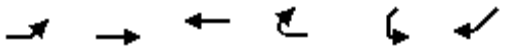
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	614	1341	661	494
v/c Ratio	0.26	0.38	0.69	0.24
Control Delay	7.8	8.6	53.0	2.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	2.9
Queue Length 50th (ft)	88	153	191	24
Queue Length 95th (ft)	132	207	225	51
Internal Link Dist (ft)		282	721	
Turn Bay Length (ft)				
Base Capacity (vph)	2402	3559	2452	2046
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.38	0.27	0.24

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	583	1274	628	0	0	469
Future Volume (vph)	583	1274	628	0	0	469
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	614	1341	661	0	0	494
RTOR Reduction (vph)	0	0	0	0	0	95
Lane Group Flow (vph)	614	1341	661	0	0	399
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	91.0	91.0	24.4			91.0
Effective Green, g (s)	91.0	91.0	24.4			91.0
Actuated g/C Ratio	0.70	0.70	0.19			0.70
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2403	3559	954			1950
v/s Ratio Prot	0.18					0.14
v/s Ratio Perm		c0.26	c0.13			
v/c Ratio	0.26	0.38	0.69			0.20
Uniform Delay, d1	7.1	7.9	49.3			6.8
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.3	2.2			0.2
Delay (s)	7.4	8.3	51.5			7.1
Level of Service	A	A	D			A
Approach Delay (s)		8.0	51.5		7.1	
Approach LOS		A	D		A	

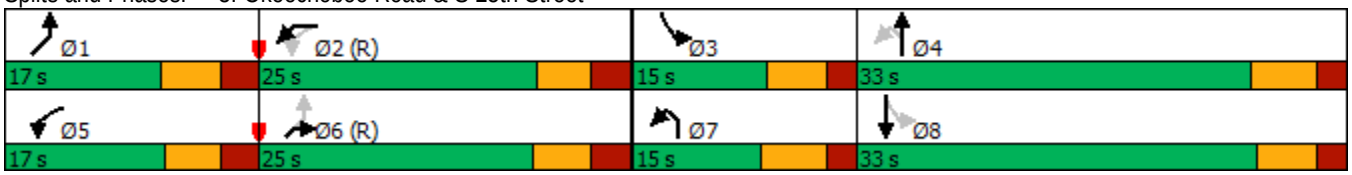
Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	141	318	137	741	51	922	185	504
Future Volume (vph)	141	318	137	741	51	922	185	504
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	25.0	15.0	33.0	15.0	33.0	17.0	25.0
Total Split (%)	18.9%	27.8%	16.7%	36.7%	16.7%	36.7%	18.9%	27.8%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	29.4	18.6	37.8	32.5	36.0	26.9	28.8	18.3
Actuated g/C Ratio	0.33	0.21	0.42	0.36	0.40	0.30	0.32	0.20
v/c Ratio	0.48	0.41	0.59	0.80	0.21	1.08	0.51	0.93
Control Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
LOS	C	B	C	C	B	F	C	D
Approach Delay		17.5		32.4		79.2	40.9	
Approach LOS		B		C		E	D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 59 (66%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 47.3	Intersection LOS: D
Intersection Capacity Utilization 79.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street





Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	148	355	144	1015	54	1131	195	674
v/c Ratio	0.48	0.41	0.59	0.80	0.21	1.08	0.51	0.93
Control Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	14.7	27.6	33.0	15.6	82.3	24.2	45.7
Queue Length 50th (ft)	54	38	46	288	16	~377	74	155
Queue Length 95th (ft)	97	76	#102	#427	37	#507	125	#276
Internal Link Dist (ft)		574		2034		690	2264	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	306	866	243	1261	258	1050	386	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.59	0.80	0.21	1.08	0.51	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	141	318	19	137	741	223	51	922	152	185	504	136
Future Volume (vph)	141	318	19	137	741	223	51	922	152	185	504	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	0.99		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3422		1770	3416		1770	3464		1770	2787	
Flt Permitted	0.25	0.95		0.12	1.00		0.15	1.00		0.48	1.00	
Satd. Flow (perm)	460	3422		229	3416		272	3464		888	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	148	335	20	144	780	235	54	971	160	195	531	143
RTOR Reduction (vph)	0	164	0	0	29	0	0	14	0	0	165	0
Lane Group Flow (vph)	148	191	0	144	986	0	54	1117	0	195	509	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Effective Green, g (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Actuated g/C Ratio	0.30	0.18		0.46	0.36		0.39	0.33		0.29	0.18	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	293	615		251	1233		194	1127		361	492	
v/s Ratio Prot	0.06	0.06		c0.05	c0.29		0.02	c0.32		c0.06	c0.18	
v/s Ratio Perm	0.09			0.21			0.09			0.10		
v/c Ratio	0.51	0.31		0.57	0.80		0.28	0.99		0.54	1.04	
Uniform Delay, d1	25.0	32.0		19.1	25.8		18.8	30.2		25.4	37.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	1.3		3.2	3.7		0.8	24.5		1.7	50.0	
Delay (s)	26.4	33.4		22.3	29.6		19.6	54.7		27.0	87.0	
Level of Service	C	C		C	C		B	D		C	F	
Approach Delay (s)		31.3			28.7			53.1		73.6		
Approach LOS		C			C			D		E		

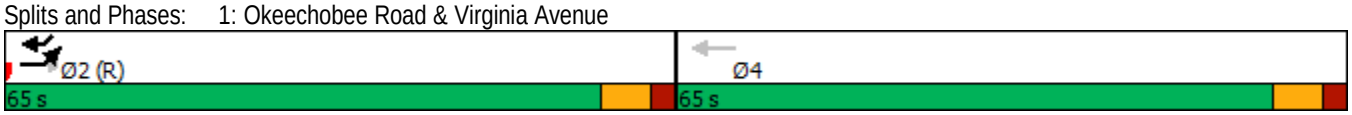
Intersection Summary			
HCM 2000 Control Delay	47.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		

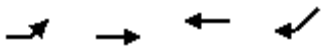
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	677	1141	1048	709
Future Volume (vph)	677	1141	1048	709
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	65.0	65.0	65.0	65.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	76.3	76.3	39.1	76.3
Actuated g/C Ratio	0.59	0.59	0.30	0.59
v/c Ratio	0.35	0.40	0.72	0.45
Control Delay	15.4	15.7	43.1	15.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.4	15.7	43.1	15.3
LOS	B	B	D	B
Approach Delay		15.6	43.1	
Approach LOS		B	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 57.2%	ICU Level of Service B
Analysis Period (min) 15	

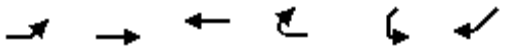
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	713	1201	1103	746
v/c Ratio	0.35	0.40	0.72	0.45
Control Delay	15.4	15.7	43.1	15.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.4	15.7	43.1	15.3
Queue Length 50th (ft)	154	191	304	172
Queue Length 95th (ft)	224	259	326	259
Internal Link Dist (ft)		557	1265	
Turn Bay Length (ft)				
Base Capacity (vph)	2015	2984	2256	1663
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.35	0.40	0.49	0.45

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	677	1141	1048	0	0	709
Future Volume (vph)	677	1141	1048	0	0	709
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	713	1201	1103	0	0	746
RTOR Reduction (vph)	0	0	0	0	0	28
Lane Group Flow (vph)	713	1201	1103	0	0	718
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	76.3	76.3	39.1			76.3
Effective Green, g (s)	76.3	76.3	39.1			76.3
Actuated g/C Ratio	0.59	0.59	0.30			0.59
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2014	2984	1529			1635
v/s Ratio Prot	0.21					c0.26
v/s Ratio Perm		0.24	c0.22			
v/c Ratio	0.35	0.40	0.72			0.44
Uniform Delay, d1	14.0	14.5	40.6			14.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.5	0.4	1.7			0.9
Delay (s)	14.5	14.9	42.3			15.8
Level of Service	B	B	D			B
Approach Delay (s)		14.8	42.3		15.8	
Approach LOS		B	D		B	

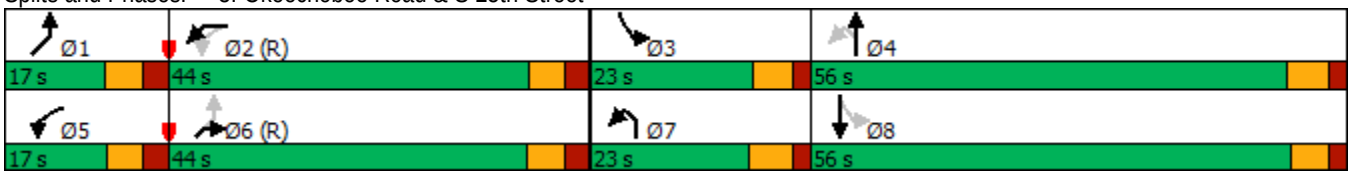
Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	179	516	163	824	53	956	215	460
Future Volume (vph)	179	516	163	824	53	956	215	460
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	44.0	23.0	56.0	23.0	56.0	17.0	44.0
Total Split (%)	12.1%	31.4%	16.4%	40.0%	16.4%	40.0%	12.1%	31.4%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	49.2	38.3	70.9	59.2	60.3	51.1	49.3	38.3
Actuated g/C Ratio	0.35	0.27	0.51	0.42	0.43	0.36	0.35	0.27
v/c Ratio	0.80	0.54	0.74	0.72	0.26	0.94	0.80	0.74
Control Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
LOS	E	D	D	D	C	E	D	D
Approach Delay		40.5		38.9		55.3	46.1	
Approach LOS		D		D		E	D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 45.7	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street





Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	188	560	172	1063	56	1195	226	636
v/c Ratio	0.80	0.54	0.74	0.72	0.26	0.94	0.80	0.74
Control Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	35.3	50.9	36.9	20.4	56.9	55.0	42.9
Queue Length 50th (ft)	116	174	101	421	25	540	143	246
Queue Length 95th (ft)	#200	234	182	511	48	#705	#261	327
Internal Link Dist (ft)		574		2034		690	4088	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	235	1031	260	1467	319	1271	282	856
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.54	0.66	0.72	0.18	0.94	0.80	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	179	516	16	163	824	186	53	956	180	215	460	144
Future Volume (vph)	179	516	16	163	824	186	53	956	180	215	460	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	1.00		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3431		1770	3441		1770	3455		1770	2787	
Flt Permitted	0.19	0.95		0.07	1.00		0.15	1.00		0.28	1.00	
Satd. Flow (perm)	360	3431		128	3441		285	3455		527	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	188	543	17	172	867	196	56	1006	189	226	484	152
RTOR Reduction (vph)	0	95	0	0	12	0	0	11	0	0	95	0
Lane Group Flow (vph)	188	465	0	172	1051	0	56	1184	0	226	541	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	47.9	37.1		72.5	59.2		59.5	52.2		48.1	37.2	
Effective Green, g (s)	47.9	37.1		72.5	59.2		59.5	52.2		48.1	37.2	
Actuated g/C Ratio	0.34	0.27		0.52	0.42		0.42	0.37		0.34	0.27	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	231	909		234	1455		198	1288		277	740	
v/s Ratio Prot	0.06	0.14		c0.08	c0.31		0.01	c0.34		c0.06	0.19	
v/s Ratio Perm	0.21			0.31			0.11			c0.22		
v/c Ratio	0.81	0.51		0.74	0.72		0.28	0.92		0.82	0.73	
Uniform Delay, d1	35.8	43.7		36.5	33.6		25.9	41.9		38.1	46.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	19.3	2.1		11.3	1.8		0.8	10.6		16.7	6.3	
Delay (s)	55.1	45.8		47.8	35.4		26.7	52.5		54.8	53.1	
Level of Service	E	D		D	D		C	D		D	D	
Approach Delay (s)		48.1			37.1			51.3		53.6		
Approach LOS		D			D			D		D		

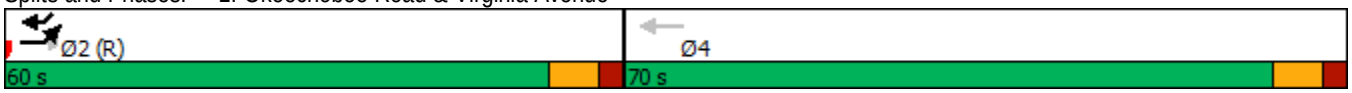
Intersection Summary			
HCM 2000 Control Delay	46.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		

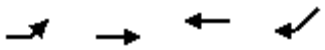
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	587	1274	628	479
Future Volume (vph)	587	1274	628	479
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	60.0	60.0	70.0	60.0
Total Split (%)	46.2%	46.2%	53.8%	46.2%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	None	C-Max
Act Effct Green (s)	91.0	91.0	24.4	91.0
Actuated g/C Ratio	0.70	0.70	0.19	0.70
v/c Ratio	0.26	0.38	0.69	0.25
Control Delay	7.8	8.6	53.0	3.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	3.0
LOS	A	A	D	A
Approach Delay		8.4	53.0	
Approach LOS		A	D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 34 (26%), Referenced to phase 2:EBTL and 6:, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 41.1%	ICU Level of Service A
Analysis Period (min) 15	

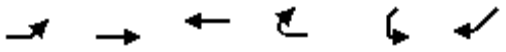
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	618	1341	661	504
v/c Ratio	0.26	0.38	0.69	0.25
Control Delay	7.8	8.6	53.0	3.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	8.6	53.0	3.0
Queue Length 50th (ft)	89	153	191	26
Queue Length 95th (ft)	132	207	225	53
Internal Link Dist (ft)		281	1314	
Turn Bay Length (ft)				
Base Capacity (vph)	2402	3559	2452	2046
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.38	0.27	0.25

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	587	1274	628	0	0	479
Future Volume (vph)	587	1274	628	0	0	479
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	618	1341	661	0	0	504
RTOR Reduction (vph)	0	0	0	0	0	95
Lane Group Flow (vph)	618	1341	661	0	0	409
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	91.0	91.0	24.4			91.0
Effective Green, g (s)	91.0	91.0	24.4			91.0
Actuated g/C Ratio	0.70	0.70	0.19			0.70
Clearance Time (s)	7.3	7.3	7.3			7.3
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	2403	3559	954			1950
v/s Ratio Prot	0.18					0.15
v/s Ratio Perm		c0.26	c0.13			
v/c Ratio	0.26	0.38	0.69			0.21
Uniform Delay, d1	7.1	7.9	49.3			6.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.3	2.2			0.2
Delay (s)	7.4	8.3	51.5			7.1
Level of Service	A	A	D			A
Approach Delay (s)		8.0	51.5		7.1	
Approach LOS		A	D		A	

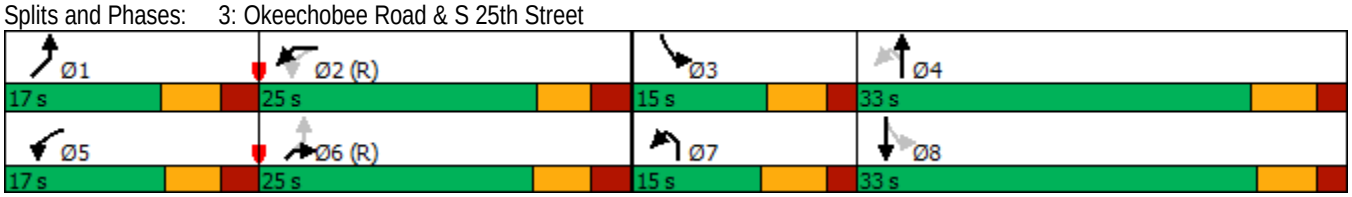
Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Configurations								
Traffic Volume (vph)	141	322	139	741	51	923	186	515
Future Volume (vph)	141	322	139	741	51	923	186	515
Turn Type	pm+pt	Prot	pm+pt	NA	pm+pt	NA	pm+pt	Prot
Protected Phases	5	2	7	4	3	8	1	6
Permitted Phases	2		4		8		6	
Detector Phase	5	2	7	4	3	8	1	6
Switch Phase								
Minimum Initial (s)	10.7	12.0	8.6	12.0	9.0	12.0	10.4	12.0
Minimum Split (s)	17.0	24.7	15.0	24.5	15.0	24.1	17.0	24.7
Total Split (s)	17.0	25.0	15.0	33.0	15.0	33.0	17.0	25.0
Total Split (%)	18.9%	27.8%	16.7%	36.7%	16.7%	36.7%	18.9%	27.8%
Yellow Time (s)	3.7	3.7	4.4	4.4	4.0	4.0	4.0	4.0
All-Red Time (s)	2.6	2.7	2.0	2.1	2.0	2.1	2.6	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.4	6.4	6.5	6.0	6.1	6.6	6.7
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None	None	C-Max
Act Effct Green (s)	29.4	18.6	37.8	32.5	36.0	26.9	28.8	18.3
Actuated g/C Ratio	0.33	0.21	0.42	0.36	0.40	0.30	0.32	0.20
v/c Ratio	0.48	0.41	0.60	0.80	0.21	1.08	0.51	0.95
Control Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
LOS	C	B	C	C	B	F	C	D
Approach Delay		17.6		32.4		79.5	43.9	
Approach LOS		B		C		E	D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 59 (66%), Referenced to phase 2:WBL and 6:NEL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 48.1	Intersection LOS: D
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Okeechobee Road & S 25th Street



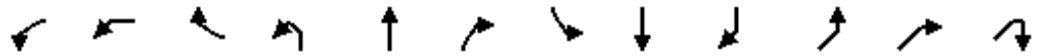


Lane Group	WBL2	WBL	NBL	NBT	SBL	SBT	NEL	NER
Lane Group Flow (vph)	148	359	146	1015	54	1132	196	689
v/c Ratio	0.48	0.41	0.60	0.80	0.21	1.08	0.51	0.95
Control Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	15.0	28.1	33.0	15.6	82.6	24.4	49.4
Queue Length 50th (ft)	54	39	47	288	16	~377	74	161
Queue Length 95th (ft)	97	77	#109	#427	37	#507	126	#286
Internal Link Dist (ft)		574		2034		690	4876	
Turn Bay Length (ft)	200	200	225		200		225	
Base Capacity (vph)	306	866	243	1261	258	1050	383	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.60	0.80	0.21	1.08	0.51	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	141	322	19	139	741	223	51	923	152	186	515	140
Future Volume (vph)	141	322	19	139	741	223	51	923	152	186	515	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Lane Util. Factor	1.00	0.97		1.00	0.95		1.00	0.95		1.00	0.88	
Frt	1.00	0.99		1.00	0.97		1.00	0.98		1.00	0.85	
Flt Protected	0.95	0.95		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3422		1770	3416		1770	3464		1770	2787	
Flt Permitted	0.25	0.95		0.12	1.00		0.15	1.00		0.47	1.00	
Satd. Flow (perm)	460	3422		229	3416		272	3464		878	2787	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	148	339	20	146	780	235	54	972	160	196	542	147
RTOR Reduction (vph)	0	164	0	0	29	0	0	14	0	0	165	0
Lane Group Flow (vph)	148	195	0	146	986	0	54	1118	0	196	524	0
Turn Type	pm+pt	Prot		pm+pt	NA		pm+pt	NA		pm+pt	Prot	
Protected Phases	5	2		7	4		3	8		1	6	
Permitted Phases	2			4			8			6		
Actuated Green, G (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Effective Green, g (s)	26.9	16.2		41.1	32.5		34.7	29.3		26.3	15.9	
Actuated g/C Ratio	0.30	0.18		0.46	0.36		0.39	0.33		0.29	0.18	
Clearance Time (s)	6.3	6.4		6.4	6.5		6.0	6.1		6.6	6.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	293	615		251	1233		194	1127		359	492	
v/s Ratio Prot	0.06	0.06		c0.06	c0.29		0.02	c0.32		c0.06	c0.19	
v/s Ratio Perm	0.09			0.21			0.09			0.10		
v/c Ratio	0.51	0.32		0.58	0.80		0.28	0.99		0.55	1.07	
Uniform Delay, d1	25.0	32.1		19.1	25.8		18.8	30.2		25.4	37.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	1.4		3.4	3.7		0.8	24.7		1.7	59.2	
Delay (s)	26.4	33.4		22.6	29.6		19.6	55.0		27.1	96.3	
Level of Service	C	C		C	C		B	D		C	F	
Approach Delay (s)		31.4			28.7			53.3		80.9		
Approach LOS		C			C			D		F		

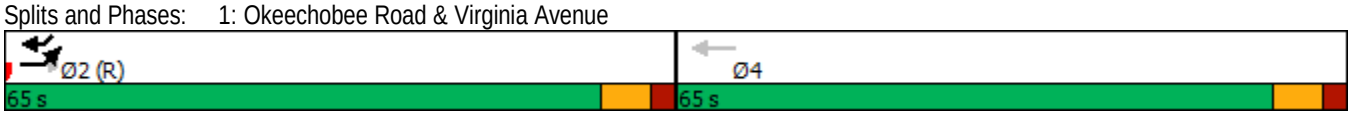
Intersection Summary			
HCM 2000 Control Delay	49.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

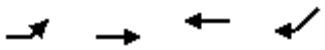
c Critical Lane Group

Lane Group	EBL	EBT	WBT	SWR
Lane Configurations				
Traffic Volume (vph)	688	1141	1048	716
Future Volume (vph)	688	1141	1048	716
Turn Type	Prot	NA	NA	Over
Protected Phases	2			2
Permitted Phases		2	4	
Detector Phase	2	2	4	2
Switch Phase				
Minimum Initial (s)	12.0	12.0	12.0	12.0
Minimum Split (s)	25.3	25.3	25.3	25.3
Total Split (s)	65.0	65.0	65.0	65.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.3	7.3
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	57.7	57.7	57.7	57.7
Actuated g/C Ratio	0.44	0.44	0.44	0.44
v/c Ratio	0.48	0.53	0.49	0.59
Control Delay	26.8	27.4	26.6	26.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.8	27.4	26.6	26.9
LOS	C	C	C	C
Approach Delay		27.2	26.6	
Approach LOS		C	C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 103 (79%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 57.5%	ICU Level of Service B
Analysis Period (min) 15	

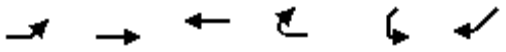
Splits and Phases: 1: Okeechobee Road & Virginia Avenue





Lane Group	EBL	EBT	WBT	SWR
Lane Group Flow (vph)	724	1201	1103	754
v/c Ratio	0.48	0.53	0.49	0.59
Control Delay	26.8	27.4	26.6	26.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.8	27.4	26.6	26.9
Queue Length 50th (ft)	218	265	237	244
Queue Length 95th (ft)	272	310	279	315
Internal Link Dist (ft)		228	779	
Turn Bay Length (ft)				
Base Capacity (vph)	1523	2256	2256	1274
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.53	0.49	0.59

Intersection Summary



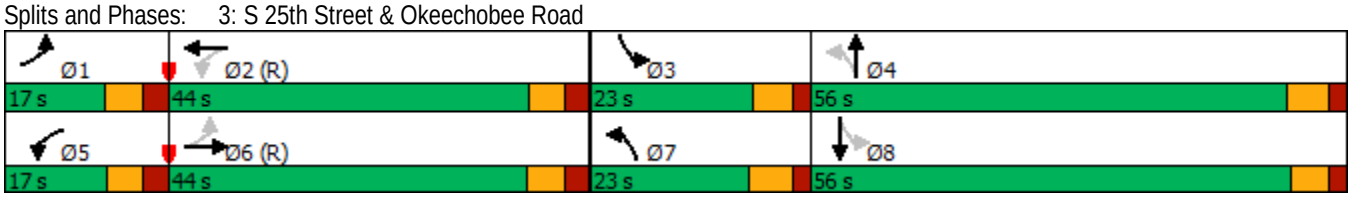
Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	688	1141	1048	0	0	716
Future Volume (vph)	688	1141	1048	0	0	716
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3			7.3
Lane Util. Factor	0.97	0.91	0.91			0.88
Frt	1.00	1.00	1.00			0.85
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	5085	5085			2787
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	5085	5085			2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	724	1201	1103	0	0	754
RTOR Reduction (vph)	0	0	0	0	0	37
Lane Group Flow (vph)	724	1201	1103	0	0	717
Turn Type	Prot	NA	NA			Over
Protected Phases	2					2
Permitted Phases		2	4			
Actuated Green, G (s)	57.7	57.7	57.7			57.7
Effective Green, g (s)	57.7	57.7	57.7			57.7
Actuated g/C Ratio	0.44	0.44	0.44			0.44
Clearance Time (s)	7.3	7.3	7.3			7.3
Lane Grp Cap (vph)	1523	2256	2256			1236
v/s Ratio Prot	0.21					c0.26
v/s Ratio Perm		0.24	c0.22			
v/c Ratio	0.48	0.53	0.49			0.58
Uniform Delay, d1	25.5	26.3	25.7			27.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.1	0.9	0.8			2.0
Delay (s)	26.5	27.2	26.4			29.1
Level of Service	C	C	C			C
Approach Delay (s)		27.0	26.4		29.1	
Approach LOS		C	C		C	

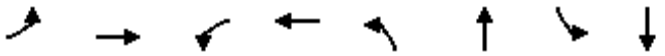
Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.6
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	186	515	141	322	139	741	51	923
Future Volume (vph)	186	515	141	322	139	741	51	923
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2		4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	10.4	12.0	10.7	12.0	8.6	12.0	9.0	12.0
Minimum Split (s)	17.0	24.7	17.0	24.7	15.0	24.5	15.0	24.1
Total Split (s)	17.0	44.0	17.0	44.0	23.0	56.0	23.0	56.0
Total Split (%)	12.1%	31.4%	12.1%	31.4%	16.4%	40.0%	16.4%	40.0%
Yellow Time (s)	4.0	4.0	3.7	3.7	4.4	4.4	4.0	4.0
All-Red Time (s)	2.6	2.7	2.6	2.7	2.0	2.1	2.0	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.7	6.3	6.4	6.4	6.5	6.0	6.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	51.5	40.4	51.0	40.1	68.3	57.3	59.5	50.3
Actuated g/C Ratio	0.37	0.29	0.36	0.29	0.49	0.41	0.42	0.36
v/c Ratio	0.51	0.69	0.60	0.36	0.68	0.72	0.24	0.90
Control Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
LOS	C	D	D	D	D	D	C	D
Approach Delay		44.7		40.5		38.0		51.2
Approach LOS		D		D		D		D

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 44.1	Intersection LOS: D
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: S 25th Street & Okeechobee Road

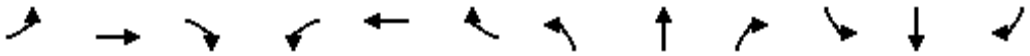




Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	196	689	148	359	146	1015	54	1132
v/c Ratio	0.51	0.69	0.60	0.36	0.68	0.72	0.24	0.90
Control Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	47.5	38.9	41.2	44.5	37.1	20.5	52.7
Queue Length 50th (ft)	122	293	89	139	77	390	24	486
Queue Length 95th (ft)	186	367	141	186	149	475	47	#641
Internal Link Dist (ft)		2355		574		2034		690
Turn Bay Length (ft)	225		200		225		200	
Base Capacity (vph)	384	1004	247	1009	258	1414	321	1275
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.69	0.60	0.36	0.57	0.72	0.17	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	515	140	141	322	19	139	741	223	51	923	152
Future Volume (vph)	186	515	140	141	322	19	139	741	223	51	923	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3426		1770	3510		1770	3416		1770	3464	
Flt Permitted	0.46	1.00		0.21	1.00		0.07	1.00		0.16	1.00	
Satd. Flow (perm)	848	3426		385	3510		130	3416		299	3464	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	196	542	147	148	339	20	146	780	235	54	972	160
RTOR Reduction (vph)	0	17	0	0	3	0	0	18	0	0	9	0
Lane Group Flow (vph)	196	672	0	148	356	0	146	997	0	54	1123	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	50.1	39.1		49.7	38.9		70.3	57.3		58.9	51.6	
Effective Green, g (s)	50.1	39.1		49.7	38.9		70.3	57.3		58.9	51.6	
Actuated g/C Ratio	0.36	0.28		0.36	0.28		0.50	0.41		0.42	0.37	
Clearance Time (s)	6.6	6.7		6.3	6.4		6.4	6.5		6.0	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	375	956		243	975		217	1398		202	1276	
v/s Ratio Prot	0.04	c0.20		c0.05	0.10		c0.06	c0.29		0.01	c0.32	
v/s Ratio Perm	0.15			0.17			0.27			0.10		
v/c Ratio	0.52	0.70		0.61	0.37		0.67	0.71		0.27	0.88	
Uniform Delay, d1	32.7	45.2		33.3	40.6		31.6	34.5		26.2	41.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	4.3		4.3	1.1		8.0	1.7		0.7	7.2	
Delay (s)	34.0	49.5		37.6	41.7		39.5	36.2		26.9	48.5	
Level of Service	C	D		D	D		D	D		C	D	
Approach Delay (s)		46.1			40.5			36.7			47.5	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Appendix H: Turn Lane Warrant Worksheet

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

AR Number:	N/A	Analysis Date:	3/19/2020
County:	Saint Lucie	Conducted By:	MAG
FDOT District:	5	Checked By:	ABK
		Agency/Company Name:	Kimley Horn

Intersection & Approach Description: Okeechobee Road and Project Driveway

Analysis Scenario:	Existing 2020	Number of Approach Lanes:	2
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Divided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	35		
Type of Terrain:	Level		

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	12	2.0%	13
	Through	-	705	2.0%	713
	Right	No		0.0%	N/A
Opposing	Left	No		0.0%	N/A
	Through	-	739	2.0%	747
	Right	Yes	18	2.0%	19

Advancing Volume:	726
Opposing Volume:	766
Left Turn Volume:	13
% Left Turns in Advancing Volume:	1.79%

TURN LANE WARRANT FINDINGS

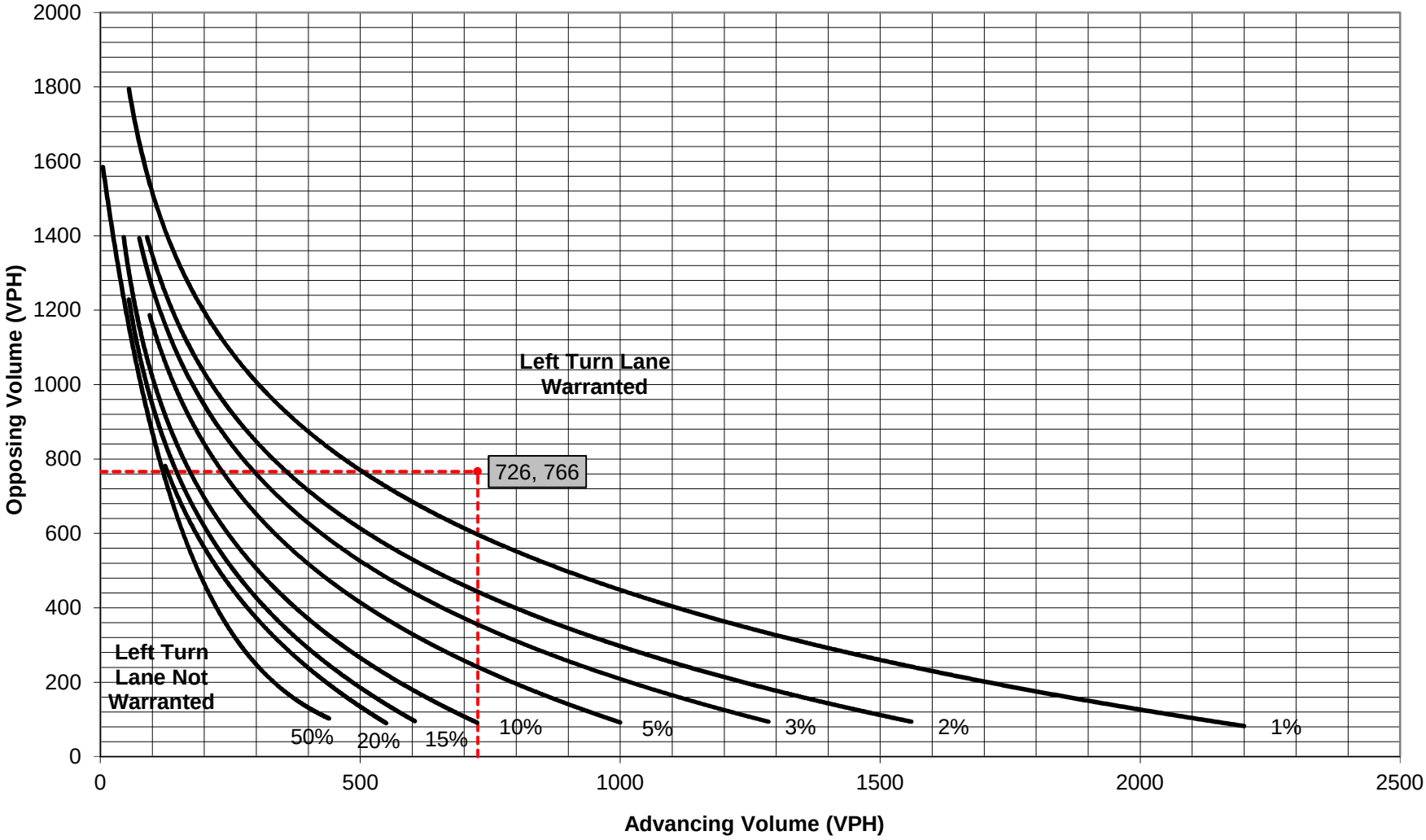
Left Turn Lane Warrant Findings

Applicable Warrant Figure: Figure 8

Warrant Met?: Yes

Additional Comments / Justifications:

Figure 8. Warrant for left turn lanes on four-lane, divided highways (unsignalized and signalized intersections)
(L = % Left Turns in Advancing Volume)





REAR ELEVATION
SCALE: 3/16" = 1'-0"



FRONT ELEVATION
SCALE: 3/16" = 1'-0"

revisions

no.	date
REVIEW	6/17/20

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job no.	190725_A16

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COLORED ELEVATIONS

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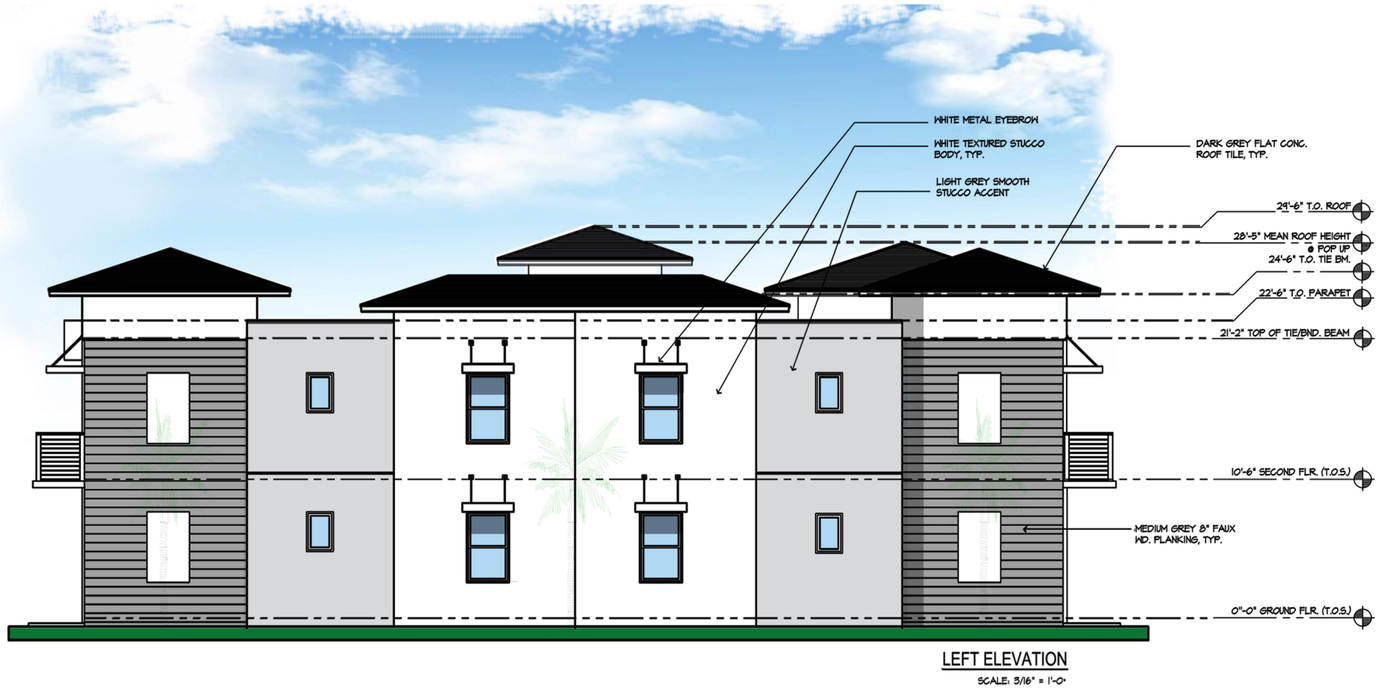
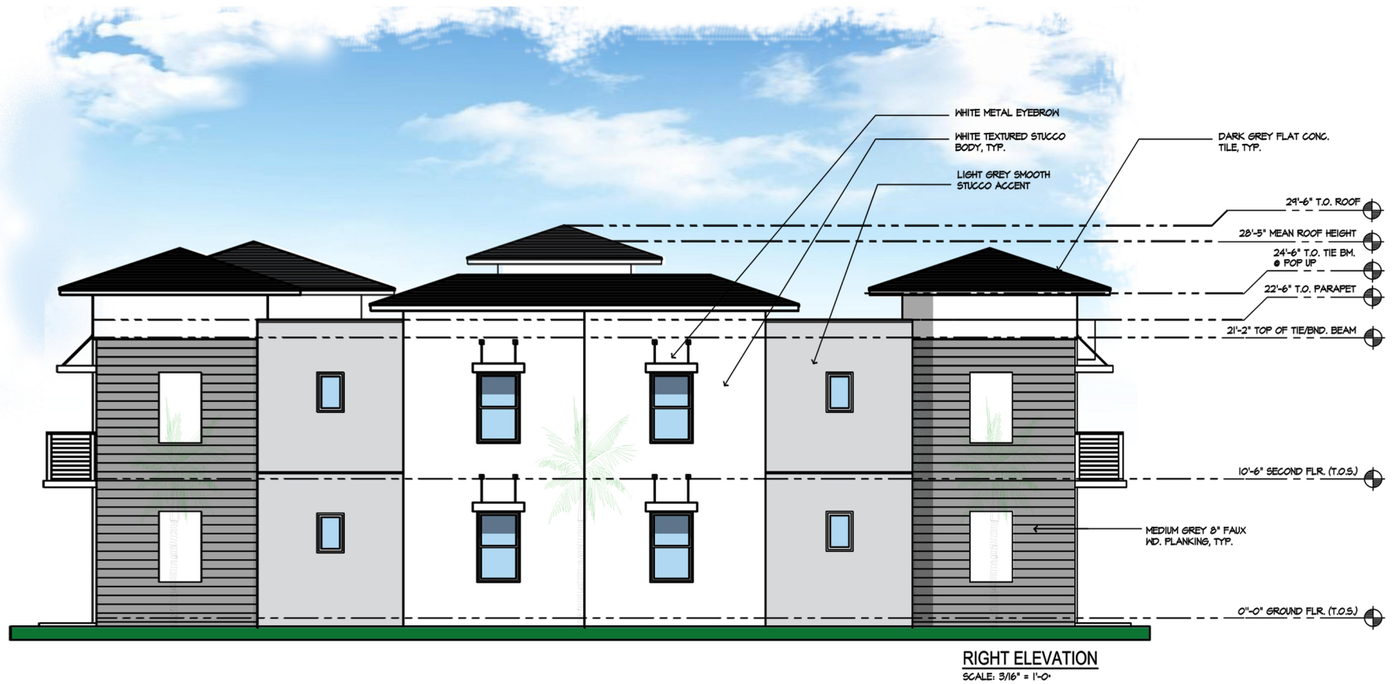
A-3



LEFT ELEVATION

SCALE: 3/16" = 1'-0"



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CALCULATIONS
(PER LEVEL)

AIR CONDITIONED AREAS

AC	UNIT A	735 SF
AC (2)	UNIT B	1227 SF
AC (3)	UNIT C	957 SF
AC (4)	UNIT D	957 SF
AC (4)	UNIT D	957 SF
AC (3)	UNIT C	957 SF
AC (2)	UNIT B	1227 SF
AC	UNIT A	735 SF
	TTL.	7752 SF

NON CONDITIONED AREAS

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NC (8)	BALCONY(B)	96 SF
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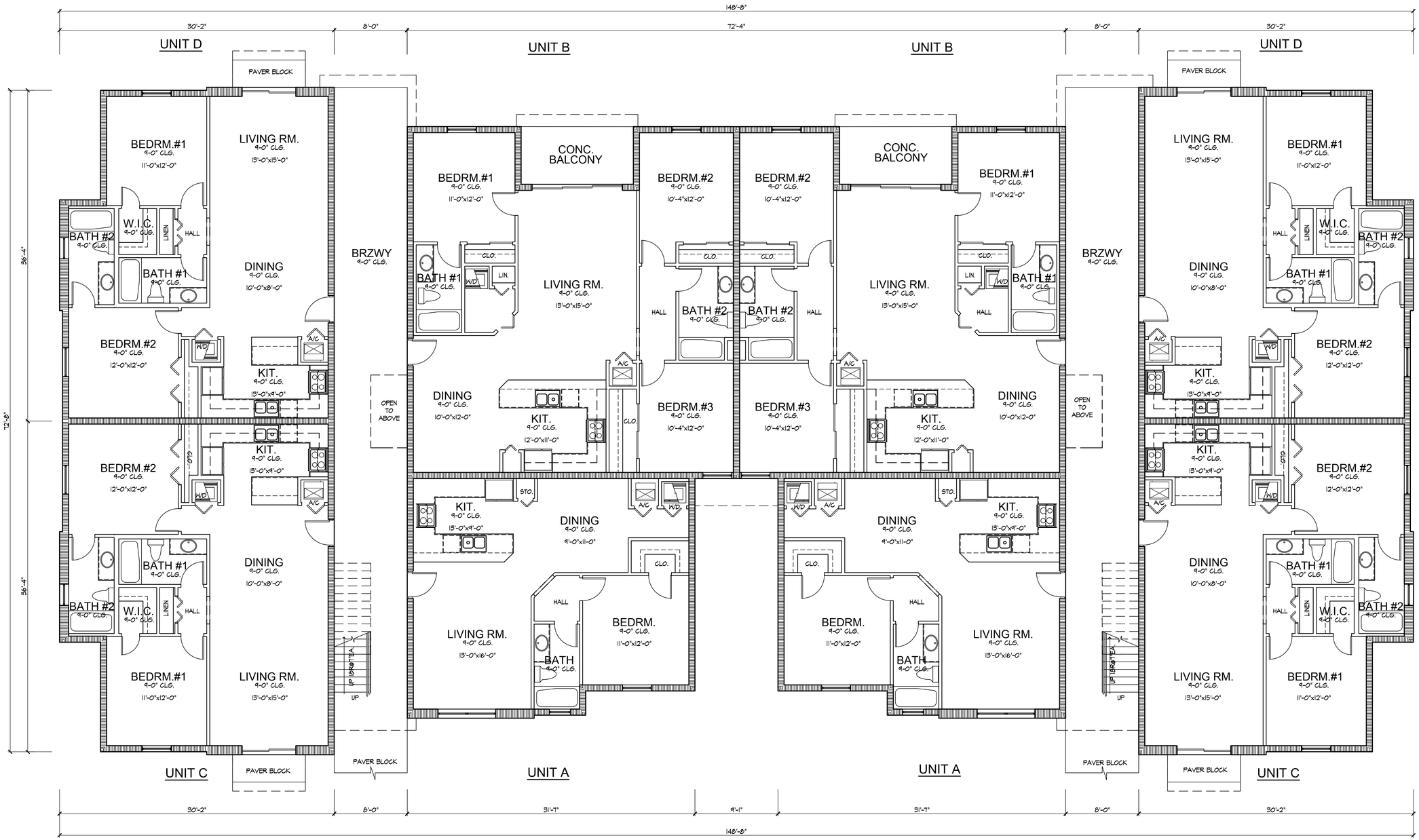
NC (5)	BALCONY(C)	32 SF
NC (7)	BALCONY(D)	32 SF
NC (6)	BALCONY(D)	32 SF
	TTL.	1364 SF

GROSS AREA

GROSS AREA	8159 SF

TOTAL ALL LEVELS:	
TOTAL AC AREA:	23256 SF
TOTAL NON-AC AREA:	4092 SF
TOTAL GROSS AREA:	24477 SF



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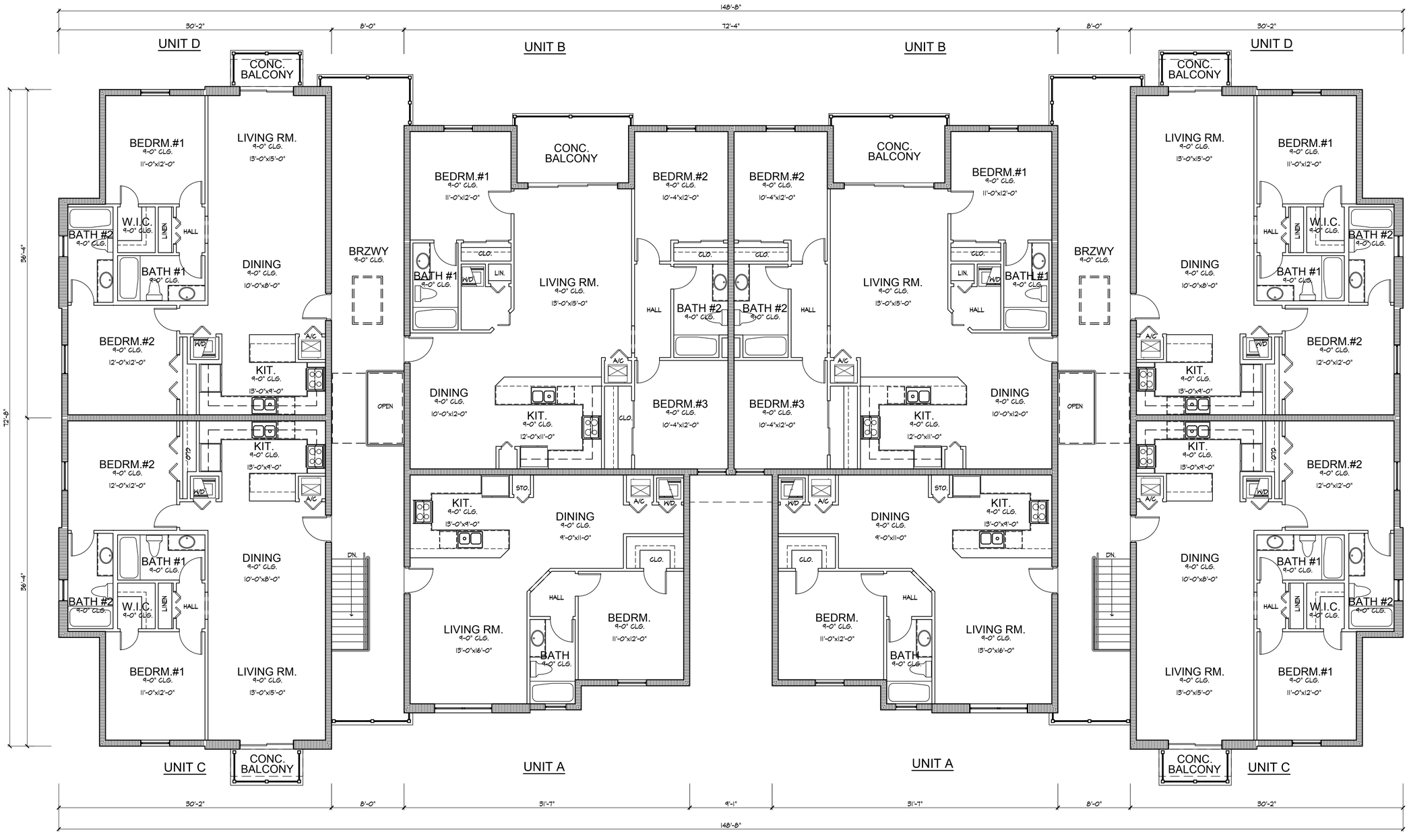

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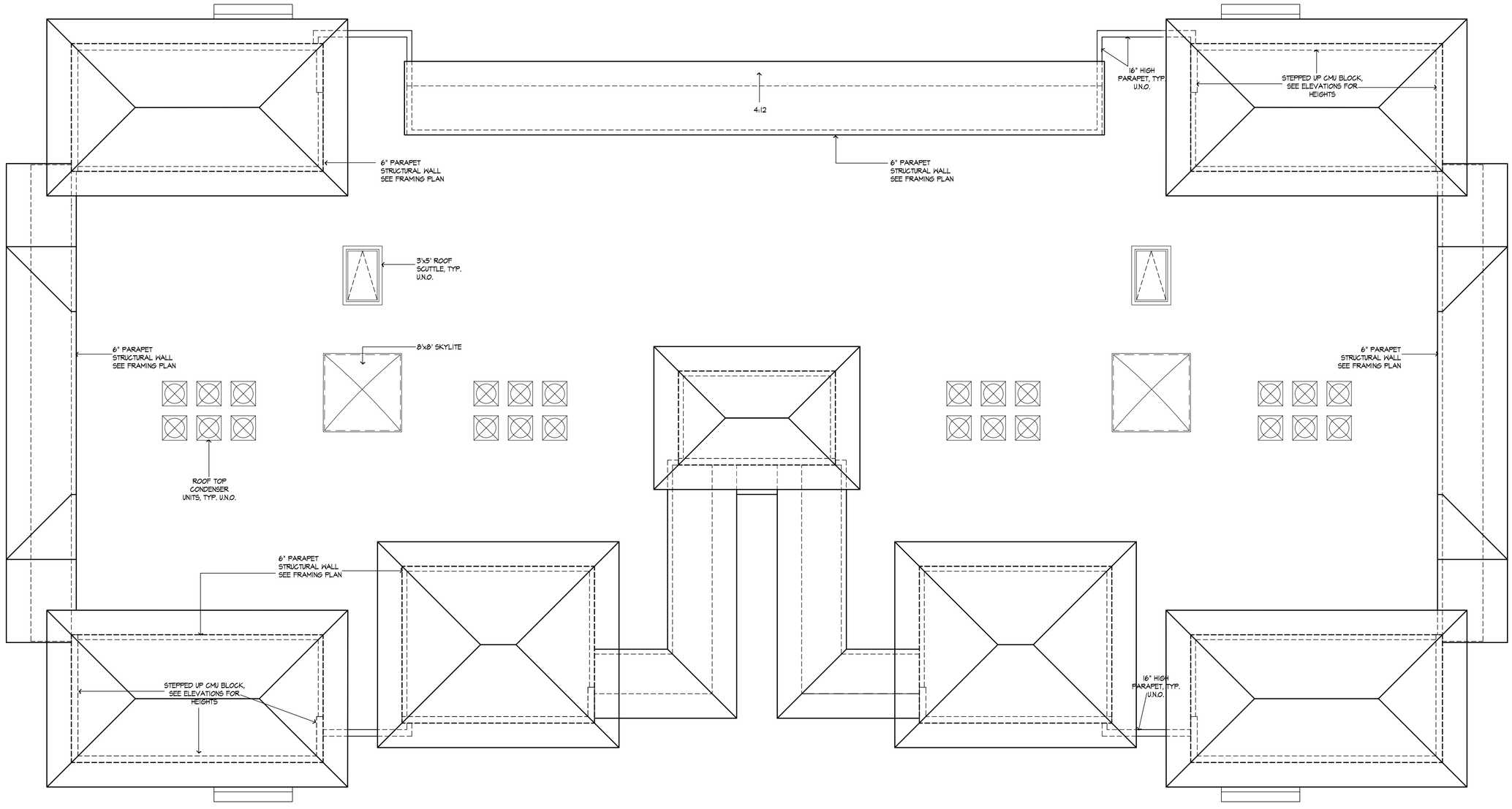

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REAR ELEVATION

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FRONT ELEVATION

SCALE: 3/16" = 1'-0"

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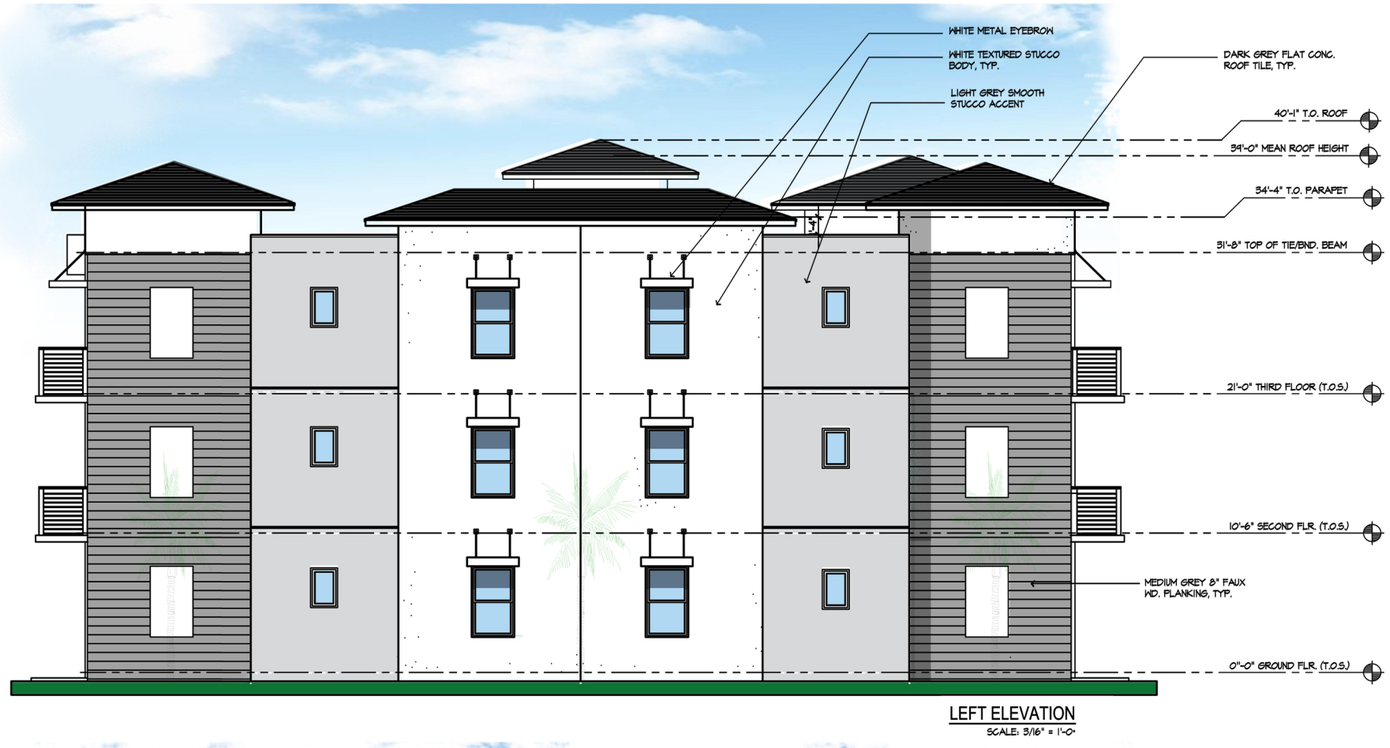

LEFT ELEVATION
SCALE: 3/16" = 1'-0"



RIGHT ELEVATION
SCALE: 3/16" = 1'-0"

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A-5

CALCULATIONS
(PER LEVEL)

AIR CONDITIONED AREAS

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GROSS AREA

GROSS AREA	8159 SF

TOTAL ALL LEVELS:	
TOTAL AC AREA:	23256 SF
TOTAL NON-AC AREA:	4092 SF
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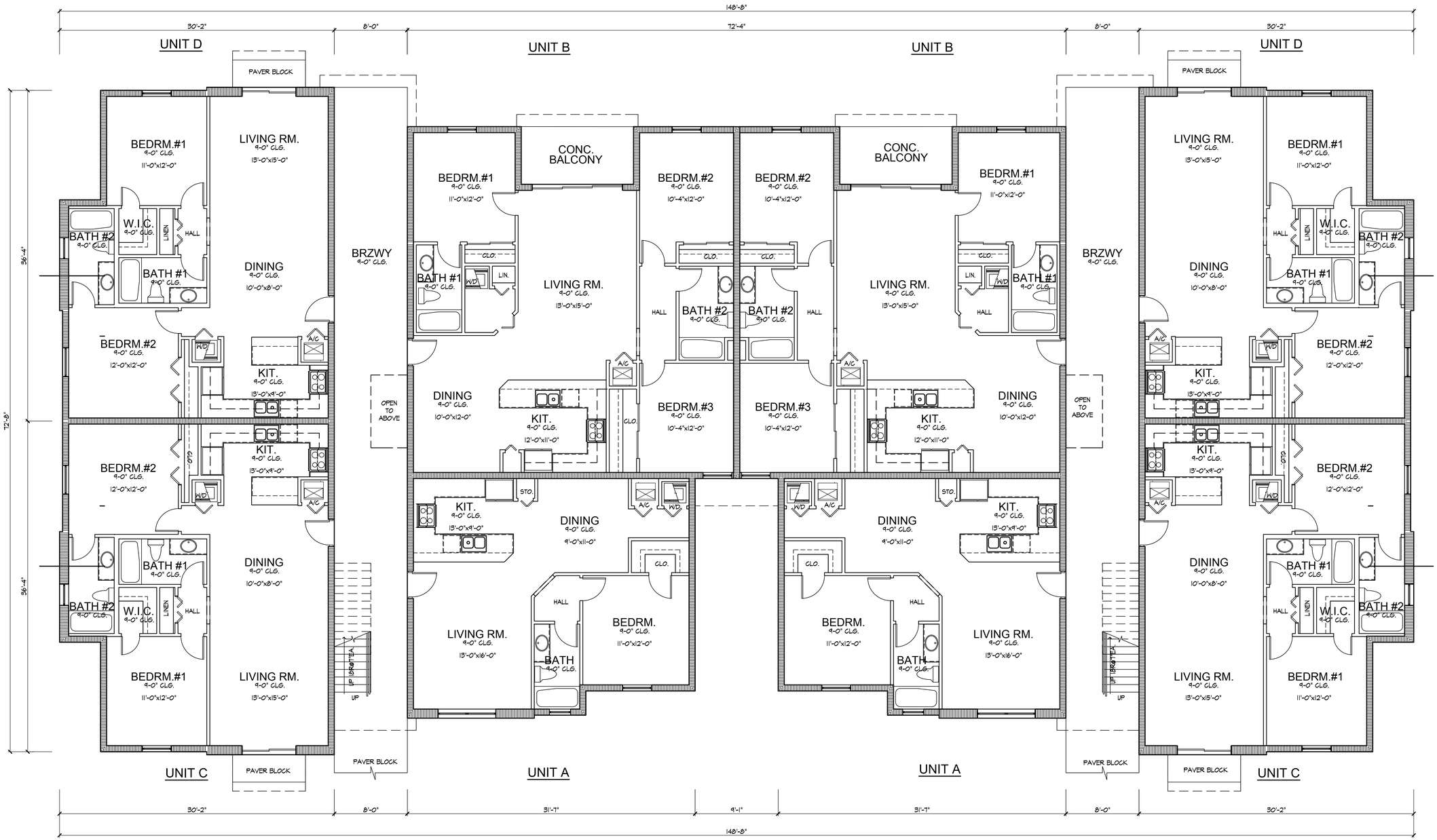

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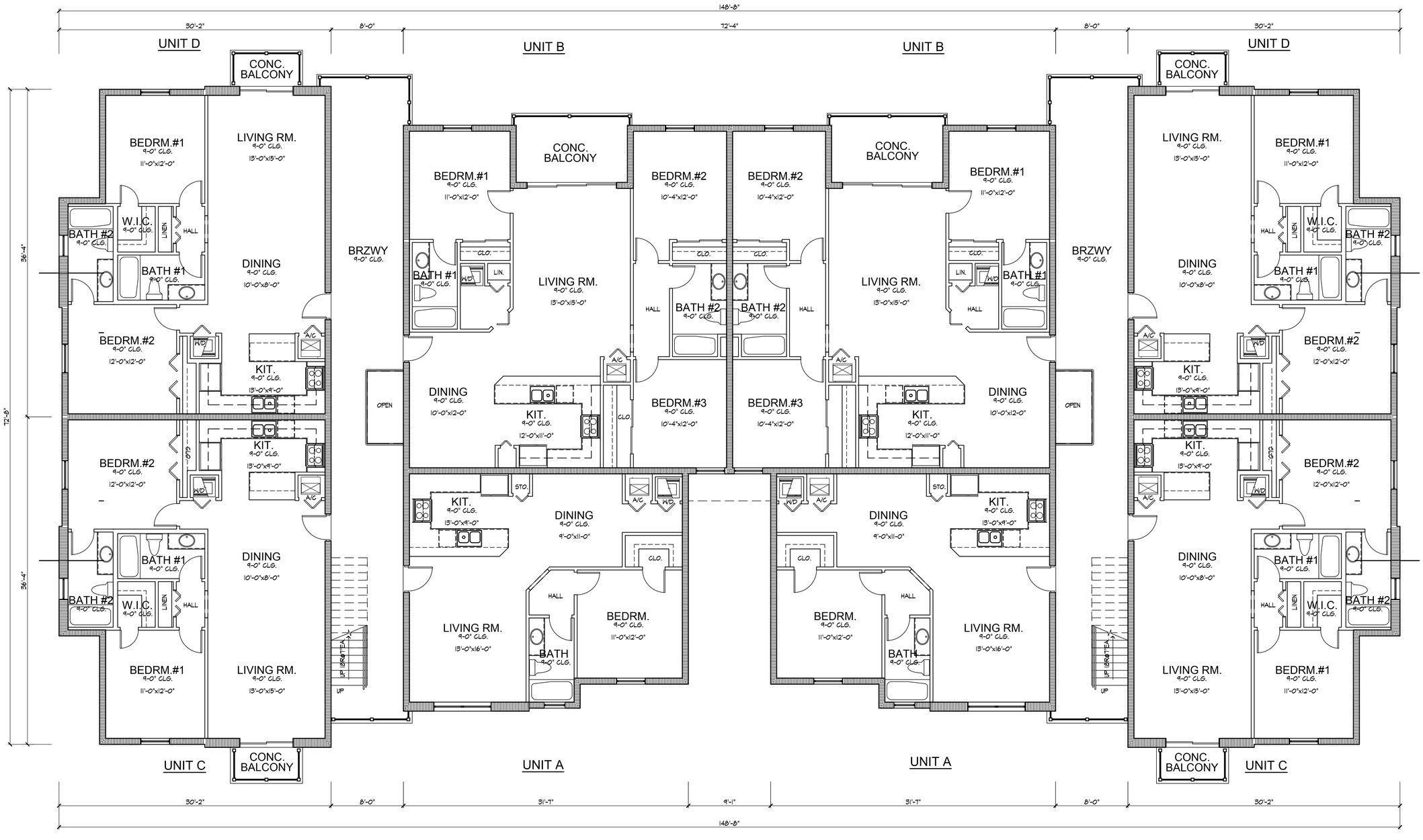

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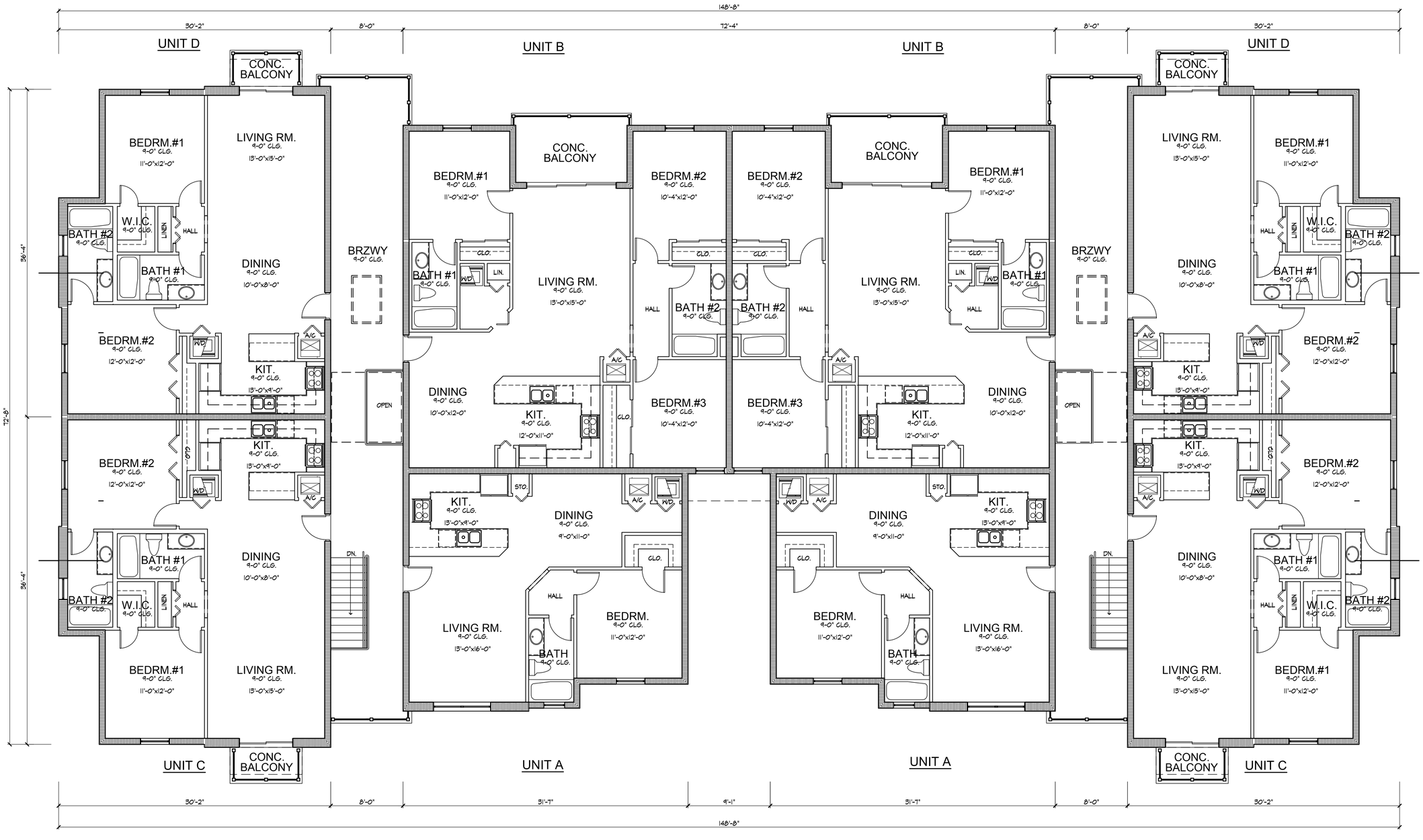

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THIRD FLOOR PLAN

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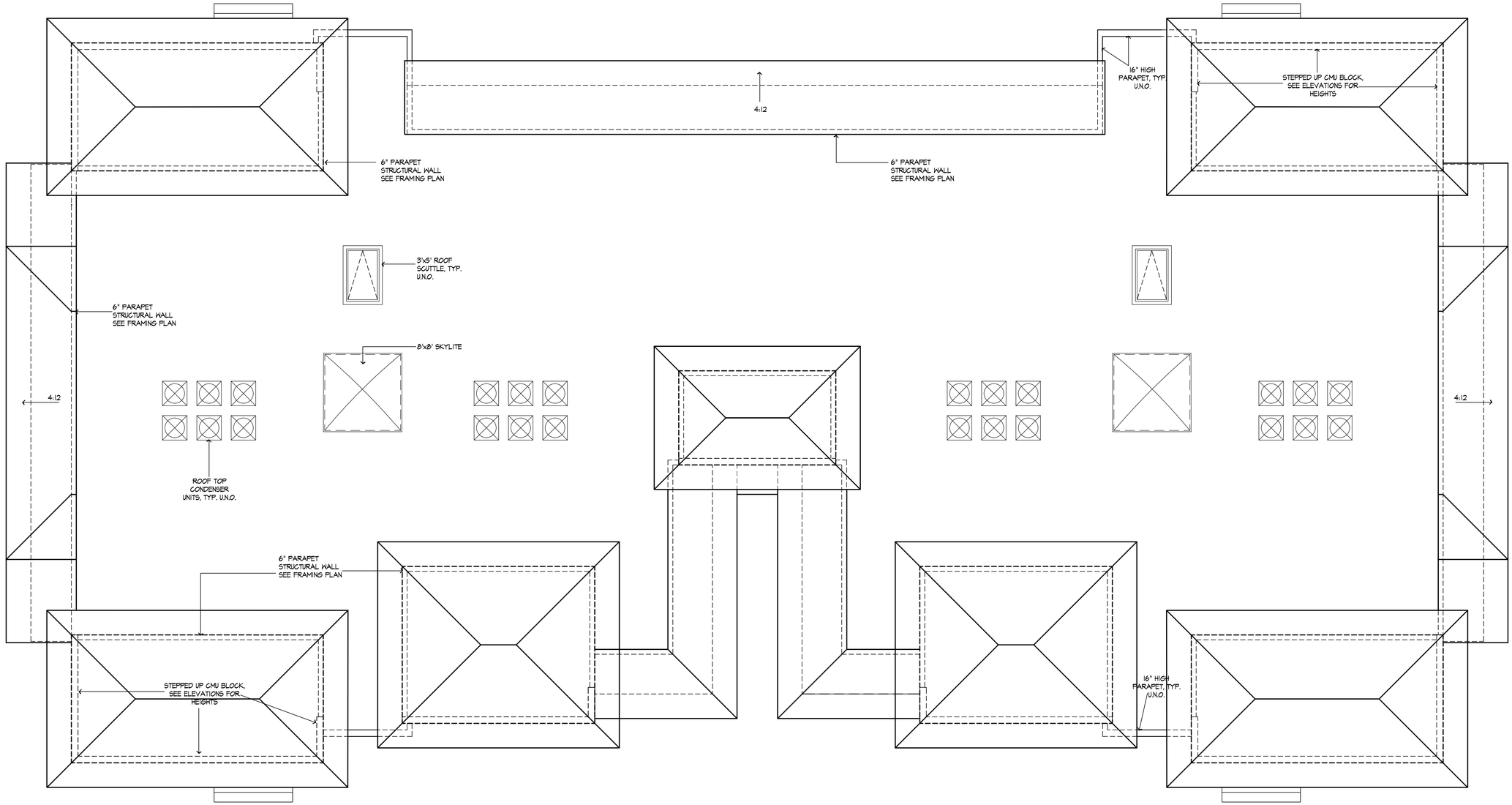
A-3



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ROOF PLAN

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A-6



LEFT ELEVATION



REAR ELEVATION



FRONT ELEVATION

revisions

no.	date
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designed	SBD
drawn	VHV
checked	SBD
date	6/19/20
scale	1/4"= 1'-0" (U.O.N.)
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CLUBHOUSE

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ELEVATIONS

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A-2



LEFT ELEVATION



RIGHT ELEVATION

revisions

no.	date
0	//

designed	SBD
drawn	VHV
checked	SBD
date	6/19/20
scale	1/4"= 1'-0" (U.O.N.)
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ELEVATIONS

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A-3

CALCULATIONS

AIR CONDITIONED AREAS

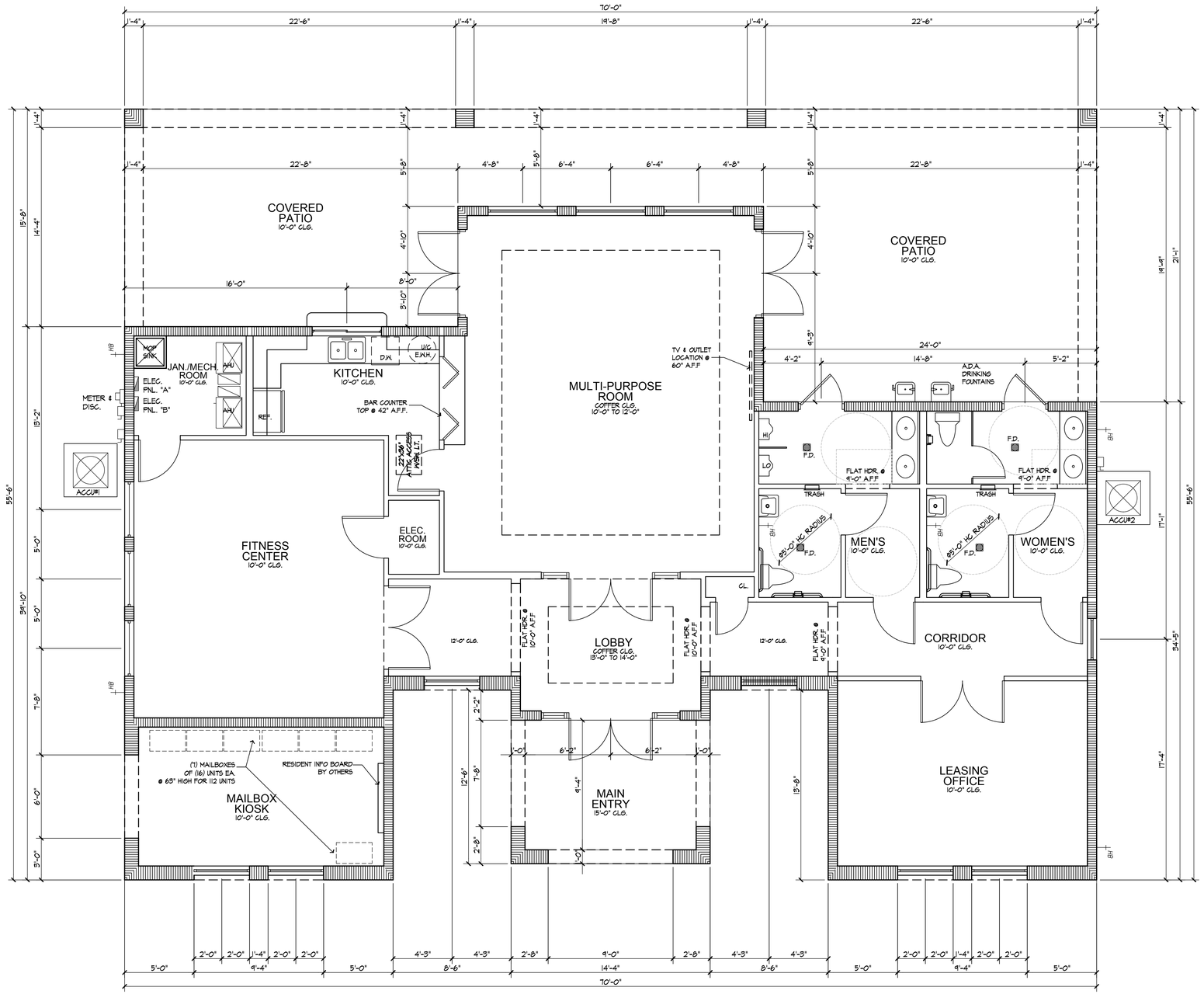
CLUBHOUSE A/C	2239 SF
	2239 SF

NON CONDITIONED AREAS

MAIN ENTRY	148 SF
MAILBOX KIOSK	213 SF
COVERED PATIO	1036 SF
	1397 SF

GROSS AREA

GROSS AREA	3636 SF



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CLUBHOUSE

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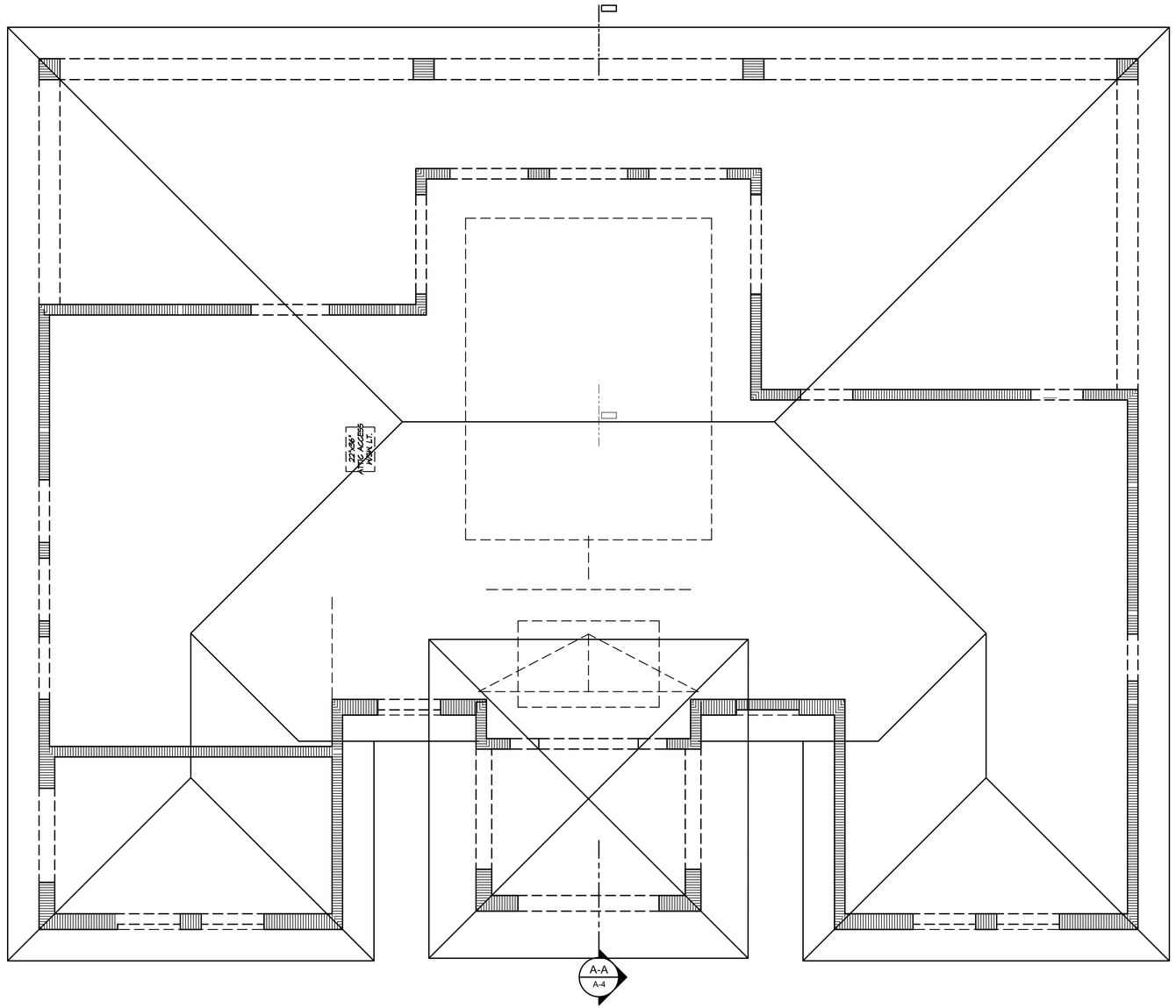

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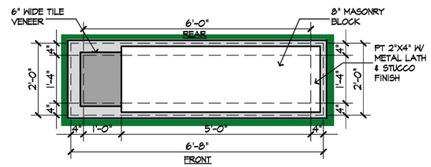
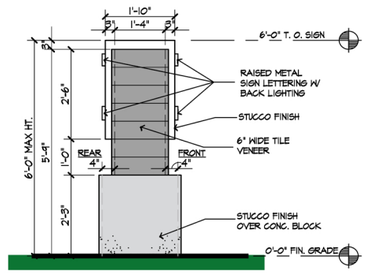
drawing
ROOF
FRAMING
PLAN

sheet
S-2



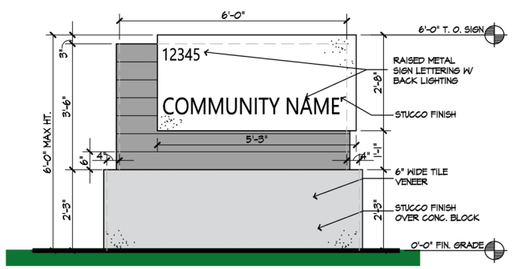
ENTRY MONUMENT PLAN

SCALE: 1/2" = 1'-0"



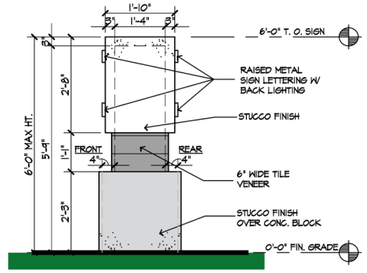
ENTRY MONUMENT LEFT SIDE ELEVATION

SCALE: 1/2" = 1'-0"



ENTRY MONUMENT FRONT ELEVATION

SCALE: 1/2" = 1'-0" (REAR ELEVATION TO MATCH FRONT ELEVATION)



ENTRY MONUMENT RIGHT SIDE ELEVATION

SCALE: 1/2" = 1'-0"

revisions

no.	date
0	//

designed	SBD
drawn	VHV
checked	SBD
date	06/12/20
scale	1/4"= 1'-0" (U.O.N.)
job no.	190724_EM.dig

Scott Blakeslee Disher
AR-0011586 AA-0003285

PROGRESS SET
06/15/20

project

ENTRY MONUMENT

FORT PIERCE NORTH APTS. & COMMERCIAL CENTER
FT. PIERCE, FLORIDA

by: ARROW INVESMENT GROUP

ARCHITECTURAL Studio, Inc.

Architecture
+
Planning

300 Avenue of Champions
Suite 260
Palm Beach Gardens, Florida 33418

Phone 561.202.6990
Fax 561.296.2494
archstudiofl.com

drawing

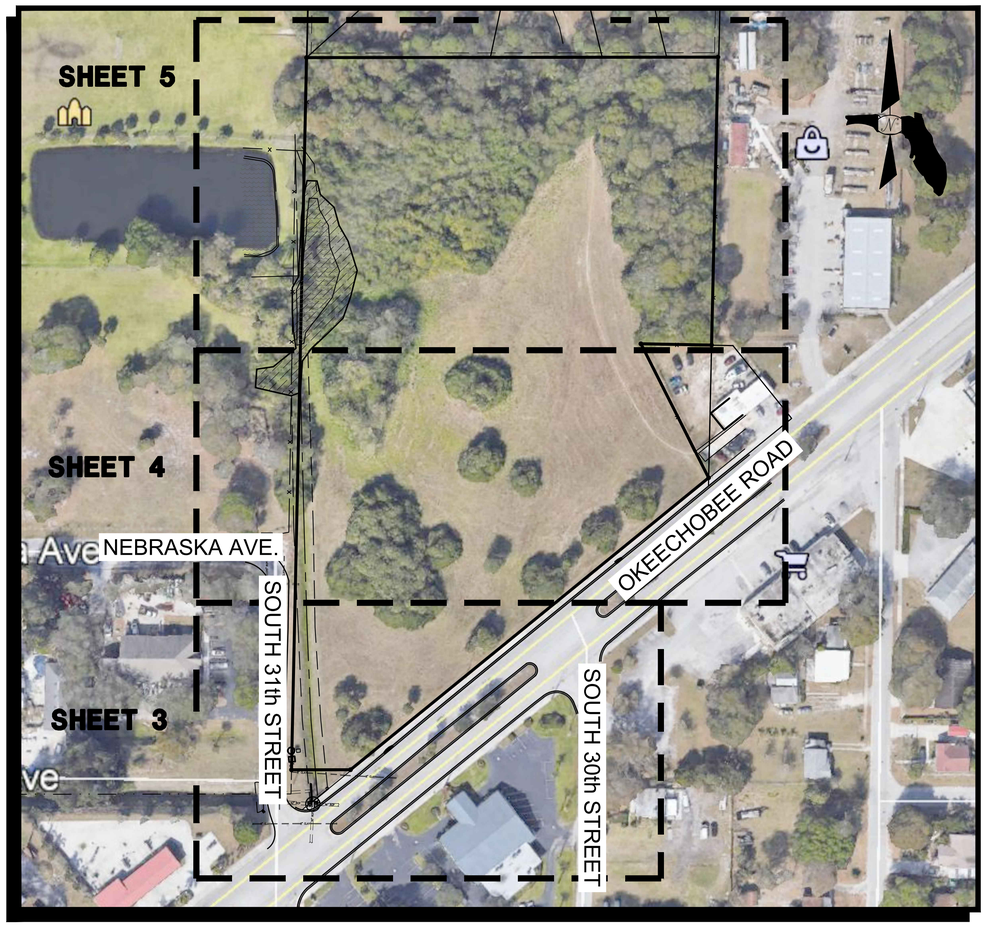
ENTRY MONUMENT

sheet

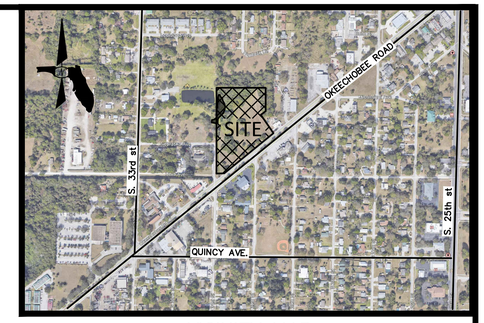
A-1

ST. LUCIE COUNTY
STATE OF FLORIDA

SKETCH OF BOUNDARY SURVEY
FOR
FORT PIERCE NORTH PROPERTY
OKEECHOBEE ROAD



KEY MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

ABBREVIATIONS:
P.O.C.– POINT OF COMMENCEMENT
P.O.B. – POINT OF BEGINNING
P.B. – PLAT BOOK
ORB – OFFICIAL RECORD BOOK
D.B. – DEED BOOK
PG. – PAGE
R/W – RIGHT–OF–WAY
R – RADIUS
Δ – CENTRAL ANGLE
A – ARC LENGTH
U.E. – UTILITY EASEMENT
D.E. – DRAINAGE EASEMENT
(P) – PLAT DIMENSION
(D) – DEED DIMENSION
(M) – MEASURED DIMENSION
℄ – CENTERLINE
IR – IRON ROD
IR/C – IRON ROD WITH CAP AS NOTED
C.M. – 4"x4" CONCRETE MONUMENT
PRM – PERMANENT REFERENCE MONUMENT
PCP – PERMANENT CONTROL POINT
N/D – NAIL & DISK
PK – PARKER KALON
NAD – NORTH AMERICAN DATUM
NAVD – NORTH AMERICAN VERTICAL DATUM
LB – LICENSED BUSINESS
WM – WATER MAIN
TOW – TOP OF WALL
INV – INVERT
DIP – DUCTILE IRON PIPE
PVC – POLYVINYL CHLORIDE PIPE
CMP – CORRUGATED METAL PIPE
CONC – CONCRETE
MON – MONUMENT
RCP – REINFORCED CONCRETE PIPE
HDPE – HIGH DENSITY POLYETHYLENE PIPE
EL. – ELEVATION

LEGAL DESCRIPTION (ORB 3204, PAGE 743):

BLOCK "D", LESS RIGHTS–OF–WAY, COLLIER SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A RAILROAD SPIKE AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST, LUCIE COUNTY, FLORIDA;
THENCE RUN N 88°42'30"E, ALONG THE SOUTH LINE OF THE SAID NORTHEAST 1/4, A DISTANCE OF 661.40 FEET TO THE WEST LINE OF BLOCK "D" OF COLLIER'S SUBDIVISION, AS RECORDED IN PLAT BOOK 4, PAGE 63, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA;
THENCE RUN N 00°00'18" W, ALONG THE WEST LINE OF SAID BLOCK D, A DISTANCE OF 27.01 FEET, TO THE POINT OF BEGINNING;
THENCE CONTINUE N 00°00'18" W, A DISTANCE OF 796.62 FEET, TO THE NORTHWEST CORNER OF SAID BLOCK D;
THENCE RUN N 88°43'25" E, ALONG THE NORTH LINE OF SAID BLOCK D, A DISTANCE OF 460.00 FEET;
THENCE RUN S 00°04'02" W, A DISTANCE OF 470.52 FEET, TO THE NORTHERLY RIGHT–OF–WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE RUN S 49°35'30" W, ALONG THE SAID NORTHERLY RIGHT–OF–WAY LINE, A DISTANCE OF 516.56 FEET;
THENCE RUN S 88°42'30" W, A DISTANCE OF 65.96 FEET, TO THE POINT OF BEGINNING,
ALL LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THE FOLLOWING:

A PORTION OF BLOCK "D", COLLIER'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 4, PAGE 63, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SAID BLOCK "D", SAID CORNER BEING SITUATED ON THE NORTHERLY RIGHT–OF–WAY LINE OF OKEECHOBEE ROAD [STATE ROAD 70];
THENCE, NORTH 28°00'23" W, A DISTANCE OF 167.87 FEET;
THENCE, NORTH 89°51'15" E, A DISTANCE OF 79.00 FEET TO THE EAST LINE OF SAID BLOCK D;
THENCE, SOUTH 00°04'02" W, ALONG SAID EAST LINE, A DISTANCE OF 148.41 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.
SAID LANDS SITUATE, LYING AND BEING IN SECTION 17, TOWNSHIP 35 SOUTH, RANGE 40 EAST, CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA.

SURVEY REPORT:

1. THIS IS A BOUNDARY SURVEY, PREPARED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF THE STANDARDS OF PRACTICE SET FORTH IN RULE 5J–17.051 THROUGH 5J–17.053, FLORIDA ADMINISTRATIVE CODE. THE FIELD WORK WAS COMPLETED ON SEPTEMBER 30, 2019.
2. THE SURVEY WAS BASED ON INSTRUCTIONS FROM CLIENT, AND ST. LUCIE COUNTY SURVEY DEPARTMENT INFORMATION.
3. BEARINGS ARE BASED ON S49°35'30"W (DEED) ALONG THE NORTH RIGHT–OF–WAY OF OKEECHOBEE ROAD.
4. THE LEGAL DESCRIPTION IS RECORDED IN OFFICIAL RECORD BOOK 3204 PAGE 743.
5. AREA = 6.796 ACRES, MORE OR LESS.
6. EASEMENTS, RESTRICTIONS, AND OTHER ITEMS OF RECORD SHOWN ARE PER OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO.756647, DATED JULY 8, 2019.

   NO SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED BY BROWN & PHILLIPS, INC.

   THERE MAY BE ADDITIONAL EASEMENTS AND/OR RESTRICTIONS NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF ST. LUCIE COUNTY.
7. ALL DISTANCES ARE MEASURED UNLESS NOTED OTHERWISE.
8. THE PROPERTY WAS VACANT AS OF THE DATE OF SURVEY. THE PROPOSED USE IS FOR SITE PLANNING.
9. ALL FIELD–MEASURED CONTROL MEASUREMENTS EXCEEDED AN ACCURACY OF 1:7,500.
10. THE CONTRACTED PURPOSE OF THIS SURVEY IS FOR SITE PLANNING THIS SURVEY IS NOT VALID FOR ANY OTHER USE.
11. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
12. THIS SURVEY WAS PREPARED FOR THE PARTIES LISTED BELOW AND IS NOT ASSIGNABLE:
    –ARROW INVESTMENT GROUP, LLC
    –LIGHTHOUSE GLOBAL INVESTMENTS, INC.
    –OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
13. THIS MAP IS INTENDED TO BE DISPLAYED AT A SCALE OF 1"=20' (SHEET 2) AND 1"=50' (SHEETS 3–5), ON 24"x 36" SHEETS.
14. SOME TOPOGRAPHIC FEATURES MAY BE EXAGGERATED IN SCALE FOR CLARITY. THE CENTER OF THE SYMBOL OF SUCH FEATURES IS THE CORRECT LOCATION.
15. NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED AS PART OF THIS SURVEY.
16. ELEVATIONS SHOWN HEREON ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988, AND ARE REFERENCED TO ST. LUCIE COUNTY BENCHMARK "VIR 3–10", ELEVATION=17.47.
17. +10.0 DENOTES SPOT ELEVATION, REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988.
18. © COPYRIGHT 2019 BY BROWN & PHILLIPS, INC. REPRODUCTIONS OF THIS SURVEY ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND STAMP, OR A DIGITALLY VERIFIED ELECTRONIC SIGNATURE AND SEAL, OF A FLORIDA LICENSED SURVEYOR AND MAPPER EMPLOYED BY BROWN & PHILLIPS, INC.

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561–615–3988, 615–3991 FAX

DATE	REVISIONS	#
12/19/19	ADD WETLANDS & TREE CHART	1
3/12/20	ADD'L WETLANDS DATA	2

DRAWN: JAO
CHECKED: JEP
F.B.ST. LUCIE CO.
PAGES: 32 – 33

PROJ. No. 19–098
SCALE: N.T.S.
DATE: SEPT 2019
SHT. 1 OF 6

JOHN E. PHILLIPS III
PROFESSIONAL LAND SURVEYOR
STATE OF FLORIDA No. 4826
DATE: _____

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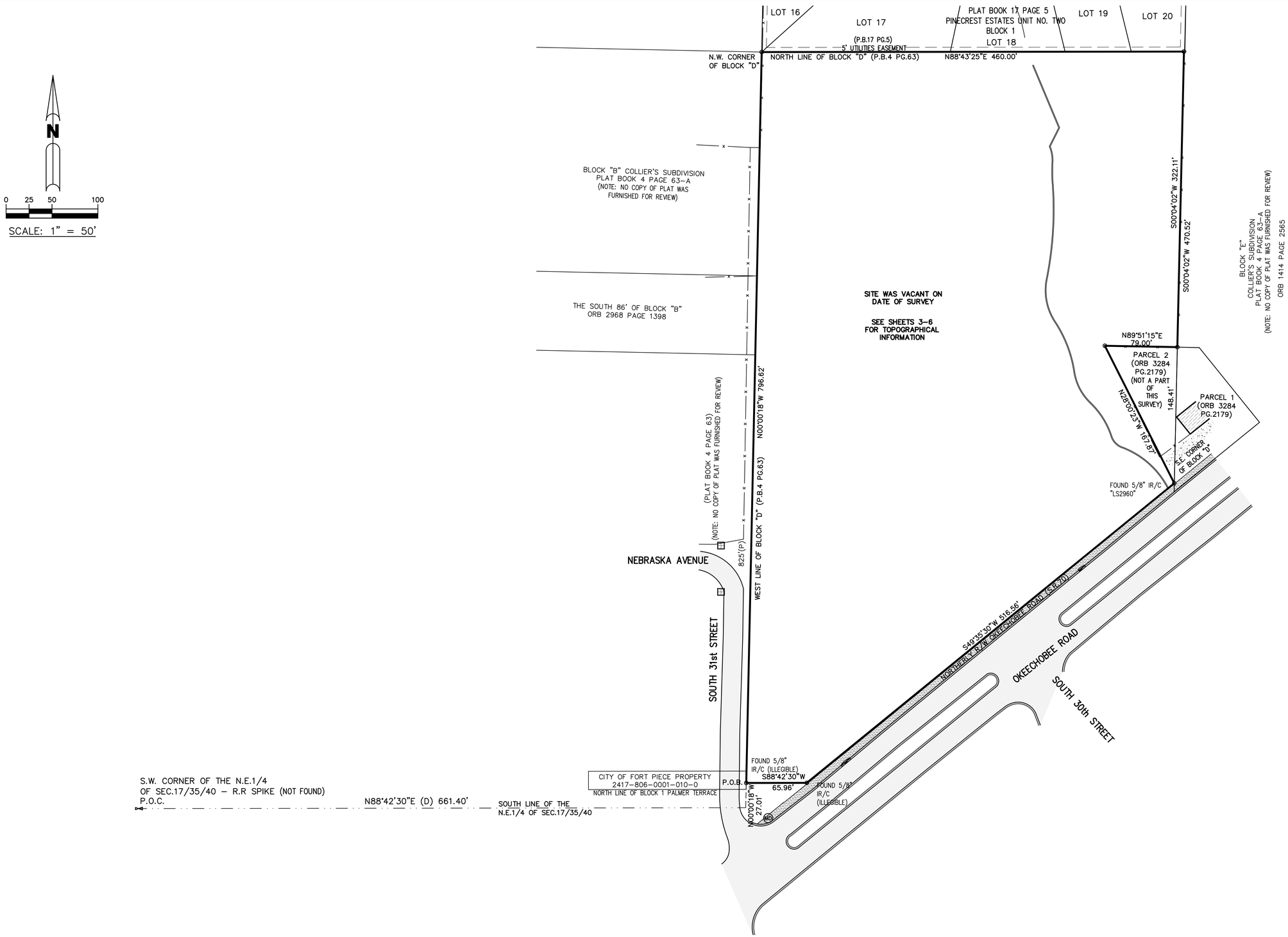

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

SKETCH OF BOUNDARY SURVEY

FORT PIERCE NORTH PROPERTY
OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 - 33

PROJ. No. 19-098
SCALE: 1"=50'
DATE: SEPT. 2019
SHEET 2 OF 6

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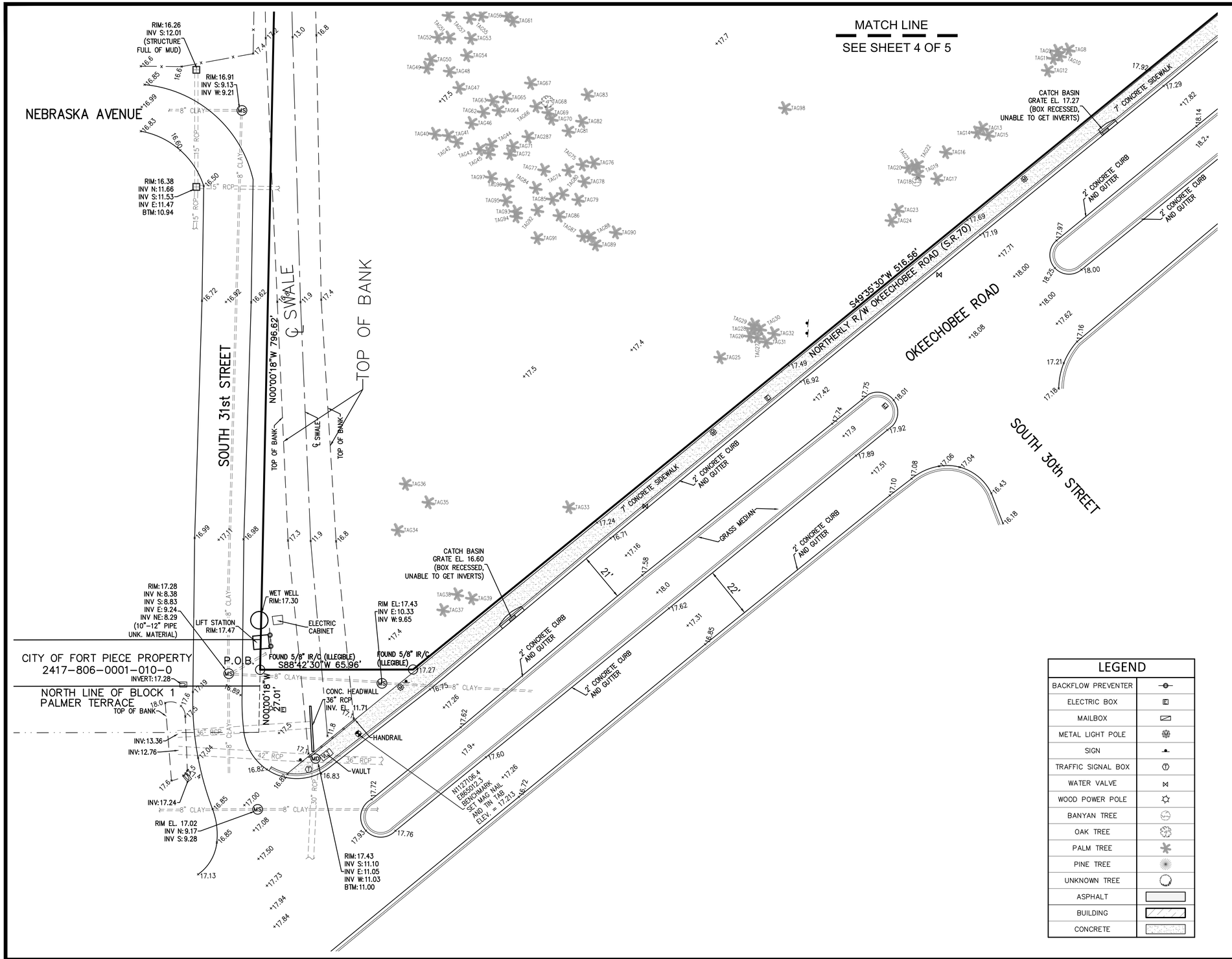

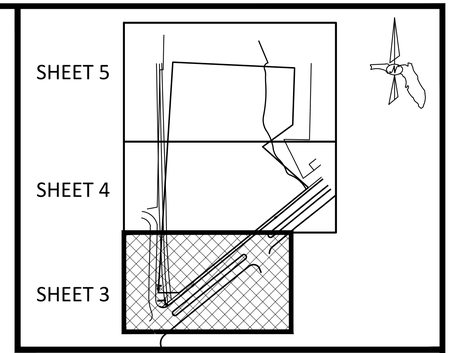

KEY MAP
NOT TO SCALE

N

0 10 20 40

SCALE: 1" = 20'

LEGEND	
BACKFLOW PREVENTER	
ELECTRIC BOX	
MAILBOX	
METAL LIGHT POLE	
SIGN	
TRAFFIC SIGNAL BOX	
WATER VALVE	
WOOD POWER POLE	
BANYAN TREE	
OAK TREE	
PALM TREE	
PINE TREE	
UNKNOWN TREE	
ASPHALT	
BUILDING	
CONCRETE	

ABBREVIATIONS:
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BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

SKETCH OF BOUNDARY SURVEY

FORT PIERCE NORTH PROPERTY OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 - 33

PROJ. No. 19-098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 3 OF 6

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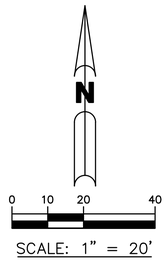

LEGEND			
BACKFLOW PREVENTER		BANYAN TREE	
ELECTRIC BOX		OAK TREE	
MAILBOX		PALM TREE	
METAL LIGHT POLE		PINE TREE	
SIGN		UNKNOWN TREE	
TRAFFIC SIGNAL BOX		ASPHALT	
WATER VALVE		BUILDING	
WOOD POWER POLE		CONCRETE	

ABBREVIATIONS:
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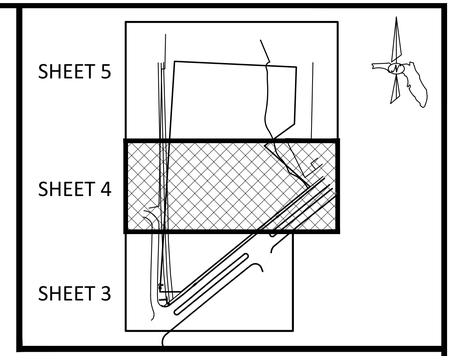
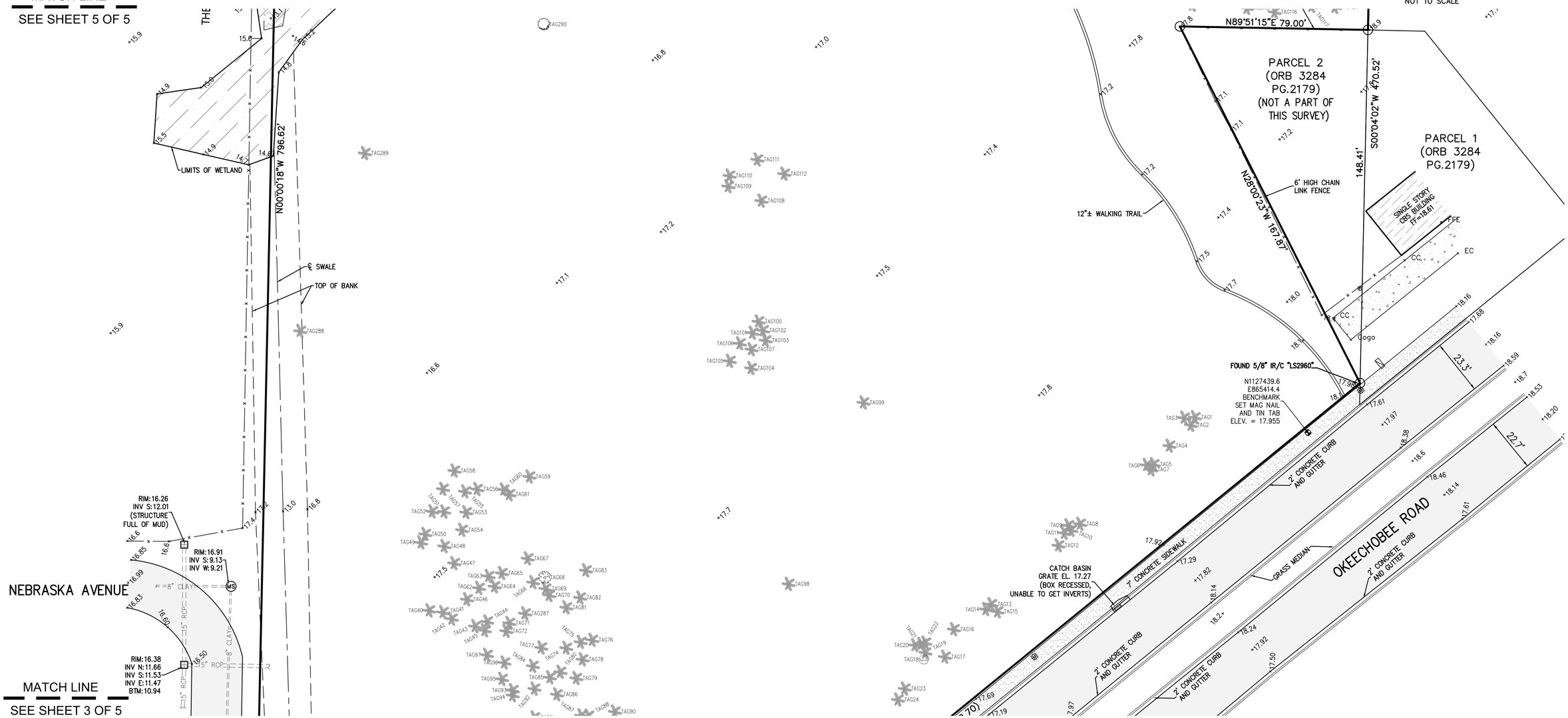


KEY MAP
NOT TO SCALE

MATCH LINE
SEE SHEET 5 OF 5



MATCH LINE
SEE SHEET 3 OF 5

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561–615–3988

DATE	REVISIONS	#

SKETCH OF
BOUNDARY SURVEY

FORT PIERCE NORTH
PROPERTY
OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 – 33

PROJ. No. 19–098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 4 OF 6

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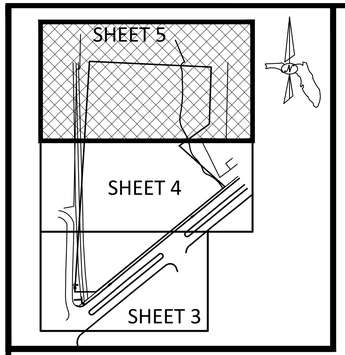

KEY MAP
NOT TO SCALE

LOTS VACANT ON DATE OF SURVEY

LOTS VACANT ON DATE OF SURVEY

℄ WALKING TRAIL

N88°43'25"E 460.00'

N00°00'18"W 796.62'

CHAINLINK FENCE

TOP OF BANK

TOP OF WATER
EL=14.6 ON 11/27/19

TOP OF BANK

EDGE OF WATER

EDGE OF WATER

LIMITS OF WETLAND

CHAINLINK FENCE

WETLAND
AREA=0.186ACRES
(WITHIN PROPOERTY)

TOP OF WATER
EL=13.7 ON 11/27/19

12"± WALKING TRAIL

6' HIGH CHAIN LINK FENCE

S00°04'02"W 322.11'

S00°04'02"W 470.52'

6' HIGH CHAIN LINK FENCE

N89°51'15"E 79.00'

PARCEL 2

MATCH LINE
SEE SHEET 4 OF 5

N

0 10 20 40

SCALE: 1" = 20'

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUTHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

SKETCH OF
BOUNDARY SURVEY

FORT PIERCE NORTH
PROPERTY
OKEECHOBEE ROAD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 – 33

PROJ. No. 19-098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 5 OF 6

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TAG NUMBER	TREE TYPE	DBH (INCHES)	CLEAR TRUNK HEIGHT
1	PALM	20	17'
2	PALM	16	17'
3	PALM	18	15'
4	PALM	14	22'
5	PALM	18	18'
6	PALM	16	14'
7	PALM	18	14'
8	PALM	20	18'
9	PALM	16	15'
10	PALM	24	15'
11	PALM	16	18'
12	PALM	16	19'
13	PALM	22	10'
14	PALM	24	15'
15	PALM	24	13'
16	PALM	16	14'
17	PALM	20	17'
18	BANYAN	48	
19	PALM	16	18'
20	PALM	14	18'
21	PALM	16	15'
22	PALM	16	10'
23	PALM	20	14'
24	PALM	18	15'
25	PALM	18	18'
26	PALM	16	15'
27	PALM	20	15'
28	PALM	16	17'
29	PALM	16	11'
30	PALM	18	14'
31	PALM	24	16'
32	PALM	16	7'
33	PALM	18	19'
34	PALM	16	17'
35	PALM	18	17'
36	PALM	18	18'
37	PALM	18	20'
38	PALM	16	21'
39	PALM	14	17'
40	PALM	20	18'
41	PALM	18	20'
42	PALM	16	19'
43	PALM	16	19'
44	PALM	16	21'
45	PALM	18	19'
46	PALM	20	22'
47	PALM	16	19'
48	PALM	16	18'
49	PALM	18	17'
50	PALM	16	20'
51	PALM	18	19'
52	PALM	10	18'
53	PALM	14	18'
54	PALM	18	18'
55	PALM	20	22'
56	PALM	14	19'
57	PALM	10	18'
58	PALM	14	19'
59	PALM	18	16'
60	PALM	16	16'
61	PALM	18	15'
62	PALM	16	23'
63	PALM	16	21'
64	PALM	20	18'
65	PALM	12	19'
66	PALM	18	21'
67	PALM	18	17'
68	OAKK	5	
69	PALM	20	18'
70	PALM	22	20'
71	PALM	20	20'
72	PALM	16	18'
74	PALM	14	18'
75	PALM	14	9'
76	PALM	24	19'
77	PALM	18	18'
78	PALM	18	17'
79	PALM	14	13'
80	PALM	18	18'
81	PALM	24	19'
82	PALM	18	16'
83	PALM	16	15'
84	PALM	16	19'
85	PALM	16	20'
86	PALM	18	17'
87	PALM	16	20'
88	PALM	16	18'
89	PALM	16	16'
90	PALM	18	22'
91	PALM	18	22'
92	PALM	16	19'
93	PALM	18	21'
94	PALM	14	20'
95	PALM	16	20'
96	PALM	18	20'

TAG NUMBER	TREE TYPE	DBH (INCHES)	CLEAR TRUNK HEIGHT
97	PALM	18	20'
98	PALM	18	19'
99	PALM	16	16'
100	PALM	18	17'
101	PALM	16	17'
102	PALM	18	19'
103	PALM	16	18'
104	PALM	16	18'
105	PALM	16	18'
106	PALM	14	15'
107	PALM	10	8'
108	PALM	18	19'
109	PALM	16	35'
110	PALM	14	20'
111	PALM	16	20'
112	PALM	18	18'
113	OAK	6	
114	PALM	14	13'
115	PALM	22	18'
116	PALM	20	20'
117	PALM	10	7'
118	UNKNOWN	12	
119	OAK	38	
120	PALM	14	18'
121	OAK	18	
122	OAK	12	
123	PALM	18	21'
124	PALM	18	16'
125	PALM	16	26'
126	PALM	18	29'
127	OAK	24	
128	PALM	16	32'
129	UNKNOWN	10	
130	PINE	28	
131	PALM	16	24'
132	UNKNOWN	24	
133	OAK	10	
134	OAK	28	
135	PALM	18	30'
136	OAK	40	
137	PALM	18	18'
138	PINE	10	
139	UNKNOWN	8	
140	OAK	36	
141	PALM	16	20'
142	PALM	14	25'
143	PALM	16	25'
144	OAK	20	
145	PALM	14	26'
146	PALM	16	21'
147	PALM	18	23'
148	OAK	16	
149	UNKNOWN	18	
150	PALM	22	18'
151	PALM	14	7'
152	PALM	22	22'
153	PALM	16	20'
154	PALM	22	18'
155	PALM	18	17'
156	PALM	18	16'
157	PALM	16	13'
158	PALM	12	10'
159	OAK	10	
160	OAK	16	
161	PALM	12	7'
162	PALM	18	24'
163	PALM	16	21'
164	OAK	36	
165	UNKNOWN	14	
166	UNKNOWN	10	
167	UNKNOWN	8	
168	OAKK	12	
169	OAKK	22	
170	OAKK	18	
171	PALM	16	17'
172	PALM	18	13'
173	PALM	12	6'
174	UNKNOWN	16	
175	OAKK	16	
176	UNKNOWN	20	
177	PALM	18	28'
178	PALM	8	8'
179	PALM	20	22'
180	PALM	12	6'
181	PALM	18	18'
182	PALM	18	16'
183	PALM	18	17'
184	OAKK	26	
185	PALM	16	28'
186	PALM	14	23'
187	PALM	16	14'
188	PALM	16	18'
189	PALM	16	20'
190	UNKNOWN	24	
191	PALM	16	14'
192	OAKK	36	
193	UNKNOWN	10	

TAG NUMBER	TREE TYPE	DBH (INCHES)	CLEAR TRUNK HEIGHT
194	OAK	36	
195	PALM	18	26'
196	OAK	18	
197	UNKNOWN	8	
198	UNKNOWN	8	
199	UNKNOWN	8	
200	OAK	10	
201	OAK	6	
202	OAK	6	
203	OAK	4	
204	OAK	6	
205	OAK	8	
206	OAK	8	
207	OAK	8	
208	OAK	6	
209	OAK	6	
210	UNKNOWN	10	
211	PALM	16	18'
212	PALM	18	18'
213	PALM	14	
214	OAK	20	
215	OAK	26	
216	OAK	30	
217	UNKNOWN	10	
218	OAK	14	
219	PALM	20	19'
220	OAK	30	
221	UNKNOWN	8	
222	UNKNOWN	12	
223	UNKNOWN	8	
224	PALM	18	20'
225	UNKNOWN	6	
226	UNKNOWN	6	
227	UNKNOWN	4	
228	UNKNOWN	6	
229	OAK	6	
230	UNKNOWN	12	
231	PALM	22	18'
232	UNKNOWN	30	
233	PALM	22	17'
234	OAK	12	
235	OAK	10	
236	UNKNOWN	8	
237	UNKNOWN	6	
238	UNKNOWN	6	
239	OAK	16	
240	OAK	10	
241	UNKNOWN	14	
242	UNKNOWN	8	
243	UNKNOWN	8	
244	UNKNOWN	10	
245	PINE	10	
246	PINE	10	
247	OAK	10	
248	OAK	10	
249	PALM	18	23'
250	PALM	18	20'
251	PINE	10	
252	PALM	16	22'
253	OAK	26	
254	OAK	16	
255	OAK	14	
256	OAK	12	
257	OAK	14	
258	PALM	22	28'
259	UNKNOWN	8	
260	PALM	12	6'
261	PALM	14	10'
262	UNKNOWN	10	
263	PINE	14	
264	OAK	18	
265	PALM	16	21'
266	PALM	18	20'
267	PALM	20	18'
268	PALM	20	20'
269	OAK	20	
270	OAK	10	
271	PALM	16	13'
272	OAK	36	
273	PALM	16	14'
274	UNKNOWN	6	
275	UNKNOWN	6	
276	PALM	16	25'
277	PALM	12	11'
278	PALM	18	18'
279	OAK	18	
280	OAK	18	
281	PALM	18	22'
282	PALM	18	18'
283	PALM	16	10'
284	PINE	16	
285	PINE	12	
286	PINE	10	
287	PALM	18	19'
288	PALM	16	18'
289	PALM	18	19'
290	UNKNOWN	30	

BROWN & PHILLIPS, INC.
PROFESSIONAL SURVEYING SERVICES
CERTIFICATE OF AUNKNOWNHORIZATION # LB 6473
1860 OLD OKEECHOBEE ROAKD, SUITE 509, WEST PALM BEACH, FLORIDA 33409 561-615-3988

DATE	REVISIONS	#

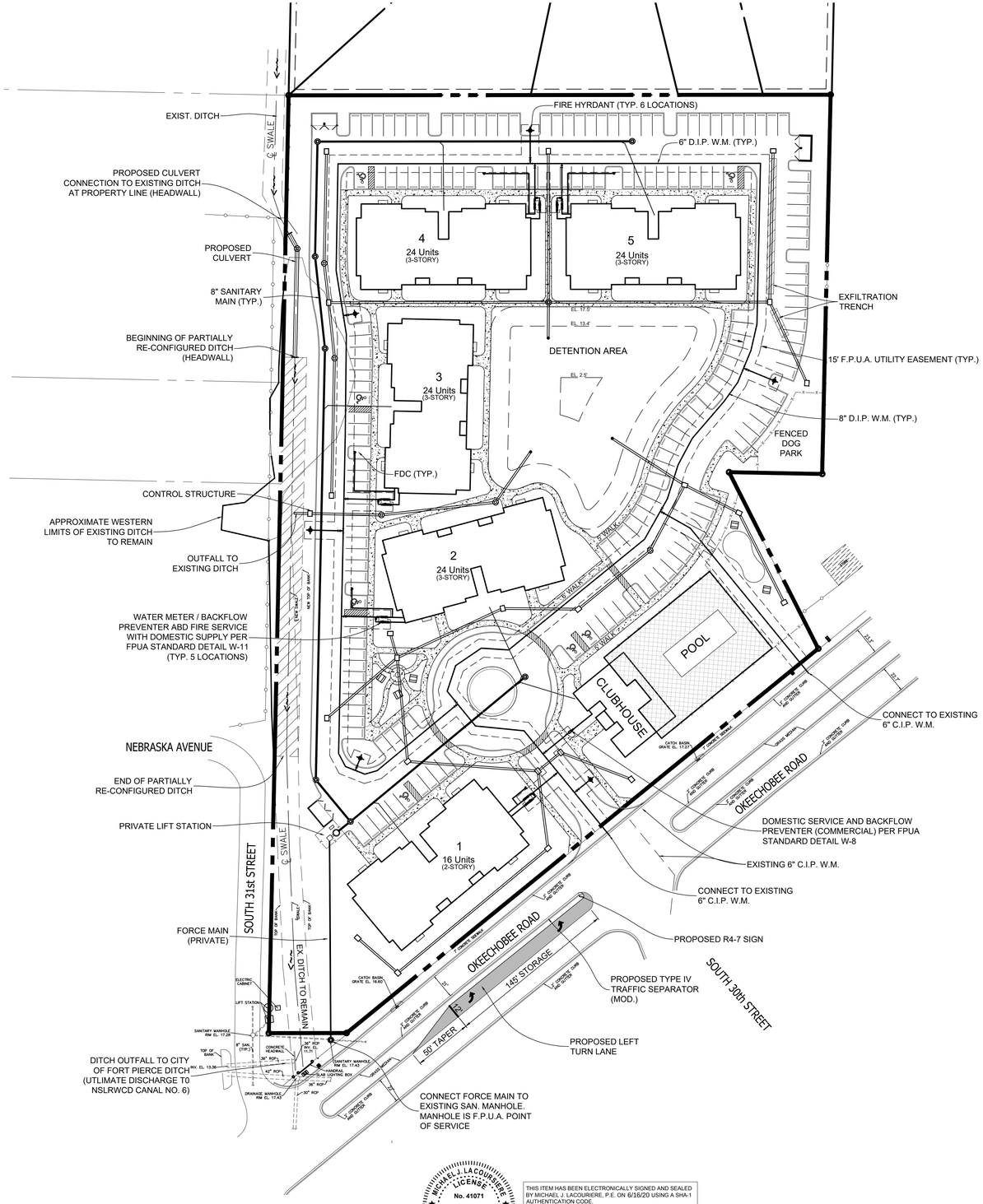
SKETCH OF
BOUNDARY SURVEY

FORT PINEERCE NORTH
PROPERTY
OKEECHOBEE ROAKD

DRAWN: JAO
CHECKED: JEP
F.B. ST. LUCIE Co.
PAGES: 32 - 33

PROJ. No. 19-098
SCALE: 1"=20'
DATE: SEPT. 2019
SHEET 6 OF 6

C:\Projects\Brown & Phillips\2019\19-098\19-098 Fort Pierce North Property Boundary Survey.dwg, 3/12/2020 10:35:47 PM, AutoCAD PDF (Smallest File).pc3



GRAPHIC SCALE

0 25 50 100 150

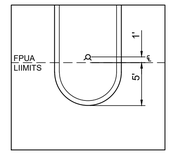
(IN FEET)
1 INCH = 50 FT.

LEGEND

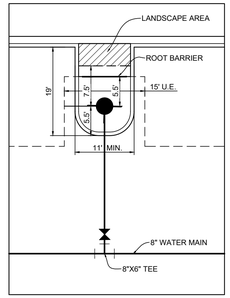
- DRAINAGE PIPE AND INLET (FINAL PIPE SIZES TO BE DETERMINED)
- SANITARY MAIN (8" PVC) AND MANHOLE (SANITARY SYSTEM TO BE PRIVATE)
- WATER MAIN (8" C-900 / D.I.P.)
- FIRE DEPARTMENT CONNECTION (FDC)
- FIRE HYDRANT
- RE-CONFIGURED DITCH

NOTES:

1. MINIMUM FINISHED FLOOR ELEVATION TO BE SET AT OR ABOVE 100 - YEAR, 3 - DAY STAGE (ZERO DISCHARGE)
2. MINIMUM PERIMETER ELEVATION TO BE SET AT OR ABOVE 25 - YEAR, 3- DAY STAGE.
3. RESIDENTIAL BUILDINGS TO BE FIRE SPRINKLED. FIRE DEPARTMENT CONNECTIONS TO BE LOCATED 100' MAXIMUM FROM A FIRE HYDRANT.
4. SANITARY SYSTEM TO BE PRIVATE.
5. WATER DISTRIBUTION SYSTEM TO BE PUBLIC, FORT PIERCE UTILITY AUTHORITY.
6. THIS DRAWING UTILIZES BASE SITE PLAN AND SURVEY INFORMATION PREPARED BY LITTERICK LANDSCAPE ARCHITECTURE AND BROWN AND PHILIPS. INC. USED WITH PERMISSION.

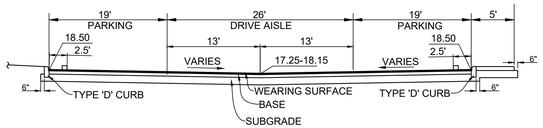


FDC NEAR UTILITY EASEMENT
NOT TO SCALE

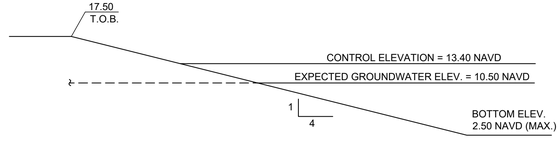


FIRE HYDRANT SHALL HAVE 5' CLEAR ON ALL SIDES
LANDSCAPE MATERIAL SHALL BE LIMITED TO SOD WITHIN 7.5' OF FIRE HYDRANT

HYDRANT LOCATION DETAIL
NOT TO SCALE



TYPICAL PARKING / DRIVE SECTION



DETENTION AREA BANK SECTION

100 YR - 3 D RAINFALL	12.23 INCHES
100 YR - 3 D FLOOD ELEV.	18.58' NAVD
MINIMUM FINISHED FLOOR	19.50' NAVD
25 YR - 3 D RAINFALL	9.5 INCHES
25 YR - 3 D FLOOD ELEV	17.76' NAVD
MINIMUM PERIMETER ELEVATION	17.90' NAVD
10 YR - 1 D RAINFALL	6.0 INCHES
10 YR - 1 D FLOOD ELEV	16.16 NAVD
MINIMUM ROADWAY ELEVATION	17.25' NAVD

CONCEPTUAL SURFACE WATER MANAGEMENT DATA

MICHAEL J. LACOURIERE
LICENSE
No. 41071
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY MICHAEL J. LACOURIERE, P.E. ON 6/16/20 USING A SHA-1 AUTHENTICATION CODE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

THE DOCUMENTS PRESENTED HEREIN ARE NOT IN FINAL FORM. THEY ARE TRANSMITTED TO RECEIVE PUBLIC AGENCY REVIEW, COMMENTS, AND INTERPRETATIONS.

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MICHAEL B. SCHORAH & ASSOCIATES, INC.
ENGINEERS ◆ SURVEYORS ◆ DEVELOPMENT CONSULTANTS
TEL. (561) 968.0080 LB# 2438
FAX. (561) 642-9726
www.schorah.com
EB# 2438
1850 FOREST HILL BLVD., SUITE 206
WEST PALM BEACH, FLORIDA 33406

REVISIONS

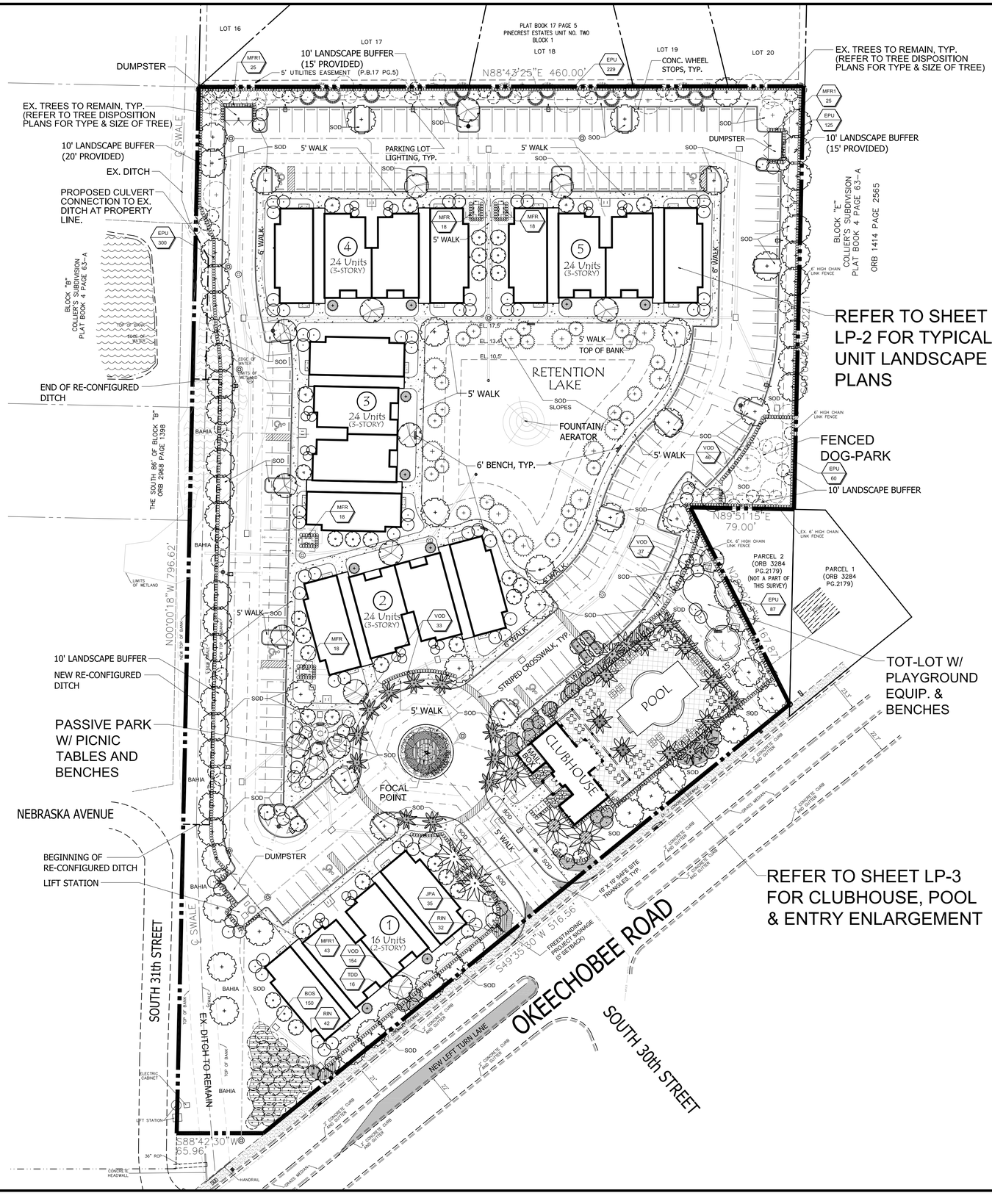
DRAWN/CHECKED: AMG/MJL
SCALE: 1" = 50'
DATE: MARCH 2020

MICHAEL J. LACOURIERE, P.E. FLORIDA LICENSE NO. 41071 FOR MICHAEL B. SCHORAH AND ASSOCIATES, INC.
DATE:

PROJECT: ARIA APARTMENTS
DESCRIPTION: CONCEPTUAL ENGINEERING PLAN

JOB NO. 1769
SHEET NO. 1
OF 1C

Path\Name : P:\1769 FORT PIERCE NORTH\CIVIL\CAD\1769 SITE.dwg
Date\Time : Tue, 16 Jun 2020 - 8:51am



EXISTING TREE LEGEND

	SYMBOL	QUANTITY
EXISTING PALM TO REMAIN	ESP	20
RELOCATED PALM	RSP	155
EXISTING PINE TO REMAIN	EPE	5
EXISTING OAK TO REMAIN	EQL	11

PROPOSED TREE LEGEND

	SYMBOL	QUANTITY
SPECIMEN LIVE OAK, RANCH STYLE *(QUERCUS VIRGINIANA)*	QV1	1
ROYAL POINCIANA *(DELONIX REGIA)*	DR	1
LIVE OAK *(QUERCUS VIRGINIANA)*	QV	67
SYLVESTER PALM *(PHOENIX SYLVESTRIS)*	PS	5
YELLOW TABEBUIA *(TABEBUIA CARAIBA)*	TC	19
CRAPE MYRTLE (MULTI-TRUNK) *(LAGERSTROEMIA INDICA 'MUSKOGEE')*	LM	25
CRAPE MYRTLE (SINGLE TRUNK) *(LAGERSTROEMIA INDICA 'NATCHEZ')*	LI	33
CABBAGE PALM *(SABAL PALMETTO)*	SP	91
WASHINGTON PALM *(WASHINGTONIA ROBUSTA)*	WR	11
COCONUT PALM *(COCOS NUCIFERA)*	CN	14
JAPANESE BLUEBERRY *(ELAEOCARPUS DECIPIENS)*	ED	10
BALD CYPRESS (SMALL) *(TAXODIUM DISTICHUM)*	TD	23
BALD CYPRESS (LARGE) *(TAXODIUM DISTICHUM)*	TD1	11
CHRISTMAS PALM (TRIPLE) *(ADONIDIA MERRILLII)*	AM3	10
S. FLORIDA SLASH PINE *(PINUS ELLIOTTII 'DENSA')*	PE	15

LANDSCAPE DATA

SITE AREA:	296,012.97 S.F. (6.796 ACRES)
VEHICULAR USE AREA:	82,965.43 S.F. (28.0%)
INTERIOR LANDSCAPE AREA REQUIRED:	5,531 S.F. (1 S.F. PER 15 S.F. OF VEH, USE AREA)
INTERIOR LANDSCAPE AREA PROVIDED:	8,284.25 S.F.
INTERIOR TREES REQUIRED:	56 TREES (1 TREE PER 100 S.F. OF REQ'D. INT. LANDSCAPE AREA)
INTERIOR TREES PROVIDED:	166 TREES (110 ADDITIONAL TREES)

PERIMETER LANDSCAPING REQUIREMENTS

BUFFER (SIDE)	LENGTH (L.F.)	REQ'D. WIDTH	PROVIDED WIDTH	REQ'D. AREA (S.F.)	TREES REQ'D.	TREES PROVIDED
NORTH	460'	10'	15'	4,600	*23	33 TREES
SOUTH	582.52'	10'	25'	5,825.2	**20	25 TREES
EAST	568.98'	10'	10-15'	5,689.8	*29	33 TREES
WEST	796.62'	10'	10-20'	7,966.2	*40	46 TREES
				TOTALS:	112	***137 TREES

* REQUIRES 1 TREE PER 200 S.F. OF BUFFER
** REQUIRES 1 TREE PER 300 S.F. OF BUFFER
*** 25 ADDITIONAL TREES

REFER TO SHEET LP-4 FOR PLANT LIST

Landscape Plan

0 20' 40' 80' 120' 160'

Scale: 1" = 40'

NORTH

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

LANDSCAPE NOTES

1. ALL PLANT MATERIAL SHALL BE FLORIDA NUMBER 1 OR BETTER AS DEFINED BY THE DIVISION OF PLANT INDUSTRY "GRADES AND STANDARDS" LATEST EDITION.
2. ALL LANDSCAPE SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FT. PIERCE CODE.
3. THE LANDSCAPE CONTRACTOR SHALL NOT MAKE ANY SUBSTITUTIONS CHANGES WITHOUT THE AUTHORIZATION OF THE CITY OF FT. PIERCE, THE OWNER AND THE LANDSCAPE ARCHITECT.
4. THE LANDSCAPE CONTRACTOR SHALL REVIEW THE PROJECT DRAINAGE AND UTILITY PLANS PRIOR TO CONSTRUCTION AND AVOID ALL CONFLICTS. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK.
5. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS.
6. ALL TREES SHALL BE LOCATED WITHIN A MULCH PLANTING BED WITH A MINIMUM OF TWO (2) FEET OF CLEARANCE TO THE EDGE OF THE BED.
7. ALL SOD SHALL BE STENOTAPHRUM SECONDATUM 'FLORITAM' (ST. AUGUSTINE SOD), UNLESS OTHERWISE NOTED.
8. ALL VEGETATION SHALL BE SELECTED AND POSITIONED SO THAT IT DOES NOT PRESENT OBSTRUCTIONS TO THE LINE OF SIGHT AT INTERSECTIONS PURSUANT TO FLORIDA DEPARTMENT OF TRANSPORTATION SIGHT LINE GUIDELINES.
9. CLEAR VISIBILITY SHALL BE MAINTAINED BETWEEN 30" AND 8' WITHIN SIGHT VISIBILITY TRIANGLES. 10' X 10' SIGHT VISIBILITY TRIANGLES SHALL BE PROVIDED AT THE INTERSECTIONS WITH THE PUBLIC RIGHT OF WAY. IN ADDITION, ALL LANDSCAPING SHALL CONFORM TO THE REQUIREMENTS OF FDOT INDEX 546.
10. ALL LANDSCAPE ISLANDS AND BEDS WILL BE FREE OF SHELL ROCK AND CONSTRUCTION DEBRIS, EXCAVATED TO A DEPTH OF 30 INCHES OR TO CLEAN NATIVE SOILS AND FILLED WITH THE SPECIFIED BACKFILL MIXTURE.
11. ALL PROPOSED LANDSCAPE AREAS SHALL RECEIVE 100% OVERLAP COVERAGE FROM A FULLY AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH A RAIN SENSING DEVICE ACCORDING TO LOCAL AND STATE CODES. IRRIGATION WATER SHALL BE PULLED FROM A WELL SOURCE AND CITY WATER WILL BE USED AROUND BUILDING.
12. ALL ABOVE GROUND UTILITIES SHALL BE SCREENED FROM VIEW ON THREE SIDES WITH AN APPROPRIATE HEDGE MATERIAL. HEIGHT OF PLANT MATERIAL AT TIME OF INSTALLATION SHALL BE AT LEAST AS TALL AS THE UTILITY BEING SCREENED AND SHALL BE SPACED APPROPRIATELY IN ORDER TO PROVIDE COMPLETE SCREENING OF UTILITY WITHIN ONE YEAR OF INSTALLATION.
13. ALL TREES NOT LOCATED WITHIN A LANDSCAPE BED SHALL RECEIVE A 4-5' DIA. MULCH RING.
14. ALL EXOTIC AND NUISANCE VEGETATION SHALL BE REMOVED FROM SUBJECT PROPERTY PRIOR TO ANY CERTIFICATE OF OCCUPANCY.
15. TREES ARE TO BE INSTALLED WITH A 10' SEPARATION FROM FROM ANY WATER OR SEWER MAIN AND/OR SERVICE, HYDRANTS, AND LIFT STATIONS. IF A 10' SEPARATION CANNOT BE ACHIEVED, THE TREE CAN BE INSTALLED WITH A ROOT BARRIER SYSTEM. HOWEVER IN NO CASE SHALL A TREE ENCROACH CLOSER THAT 5' WITH A ROOT BARRIER PRESENT. ONLY SOD CAN BE INSTALLED WITHIN 7.5' OF A FIRE HYDRANT UNLESS OTHERWISE APPROVED BY THE FIRE MARSHALL.
16. ALL PLANT MATERIAL SHALL BE INSTALLED AT THE HEIGHT, SPREAD AND DBH SHOWN ON THE PLANT LIST, CONTAINER SIZES ARE GIVEN AS A SUGGESTION ONLY.

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

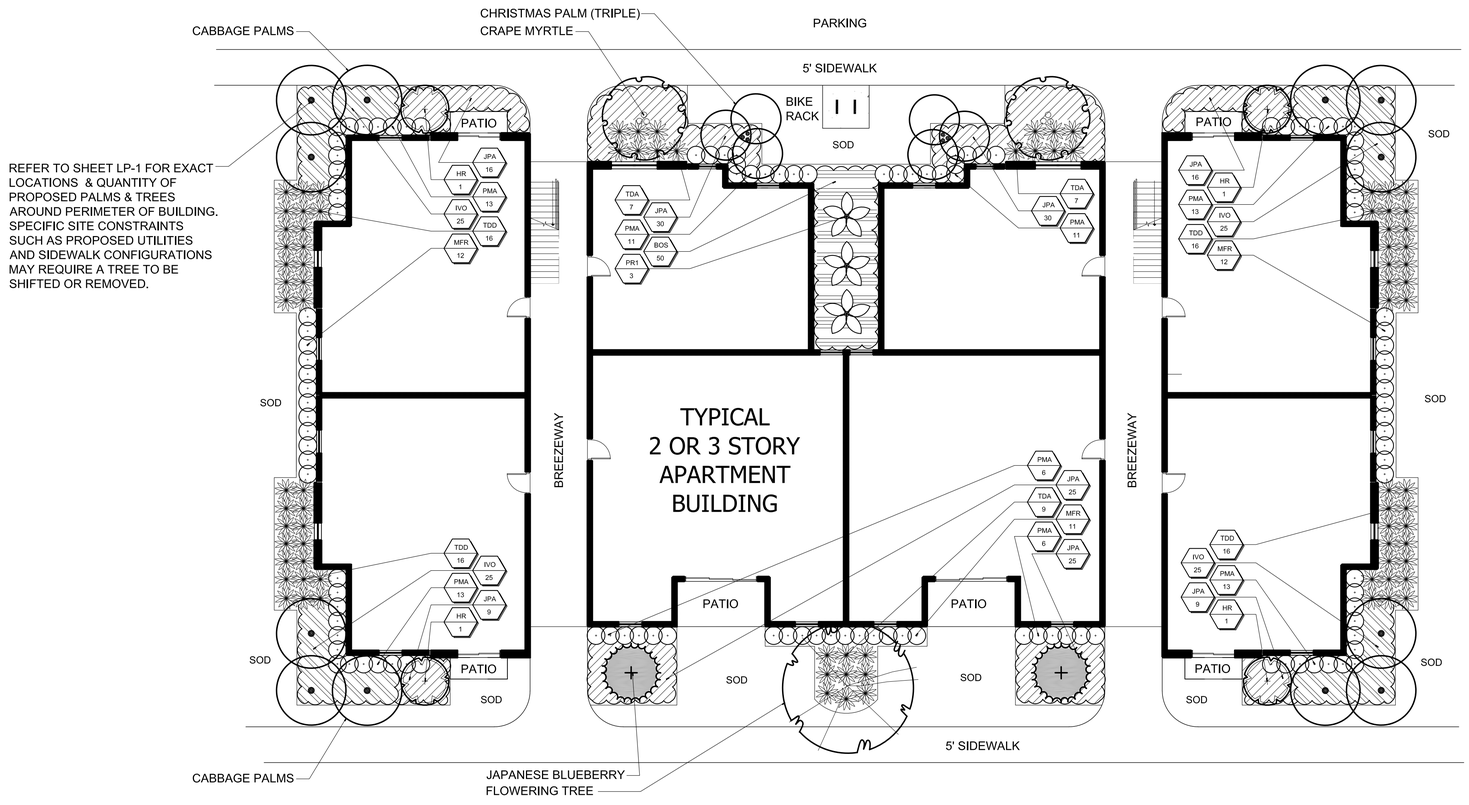
Scale: 1" = 40'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

LP-1

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045



TYPICAL UNIT PLANT LIST (5 BUILDINGS)

QUANTITIES ARE FOR EACH BUILDING

TREES

	SYM	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	SPR.	NOTES:
M	PR1	3	PHOENIX ROEBELENII	PYGMY DATE PALM (SINGLE)	7' O.A.	7'	FULL & THICK, SINGLE TRUNK SPECIMEN, MATCHED
M	HR	4	HIBISCUS ROSA-SINENSIS	PINK HIBISCUS STD.	6-7' O.A. STD.	3-4'	FULL & THICK, SINGLE TRUNK STD.

SHRUBS & GROUNDCOVERS

	SYM	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES:
* V	TDD	64	TRIPSACUM FLORIDANA	FLORIDA GAMA GRASS	#3, 16" O.A.	36" O.C.	FULL & THICK
* V	TDA	23	TRIPSACUM DACTYLOIDES	FAKAHATCHEE GRASS	#3, 24" O.A.	48" O.C.	FULL & THICK
* V	BOS	50	NEPHROLEPIS EXALTATA	BOSTON FERN	#3, 16" O.A.	24" O.C.	FULL & THICK
M	PMA	86	PODOCARPUS MACROPHYLLUS	PODOCARPUS	#3, 24" O.A.	24" O.C.	FULL & THICK
* V	MFR	35	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	#3, 24" O.A.	24" O.C.	FULL & THICK
* V	IVO	100	ILEX VOMITORIA	DWF. YAUPON HOLLY	#3, 14" O.A.	24" O.C.	FULL & THICK
M	JPA	160	JUNIPERUS CHINENSIS 'PARSONII'	PARSON'S JUNIPER	#3, 16" SPD.	24" O.C.	FULL & THICK

* ASTERISK DENOTES NATIVE PLANT MATERIAL
V INDICATES VERY DROUGHT TOLERANT PLANT MATERIAL
M INDICATES MODERATELY DROUGHT TOLERANT PLANT MATERIAL

SOD: ST. AUGUSTINE 'FLORITAM'
MULCH: 3" SHREDDED MELALEUCA MULCH (OR APPROVED RECYCLED MULCH) TO BE APPLIED TO ALL PLANTING BEDS.

IRRIGATION NOTE:
ALL NEW LANDSCAPE AREAS SHALL BE RECEIVE 100% OVERLAP COVERAGE FROM A FULLY AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH A RAIN SENSOR.

Typical Unit Landscape Plan

0 5' 10' 20' 30' 40'
NORTH
Scale: 1" = 10'

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

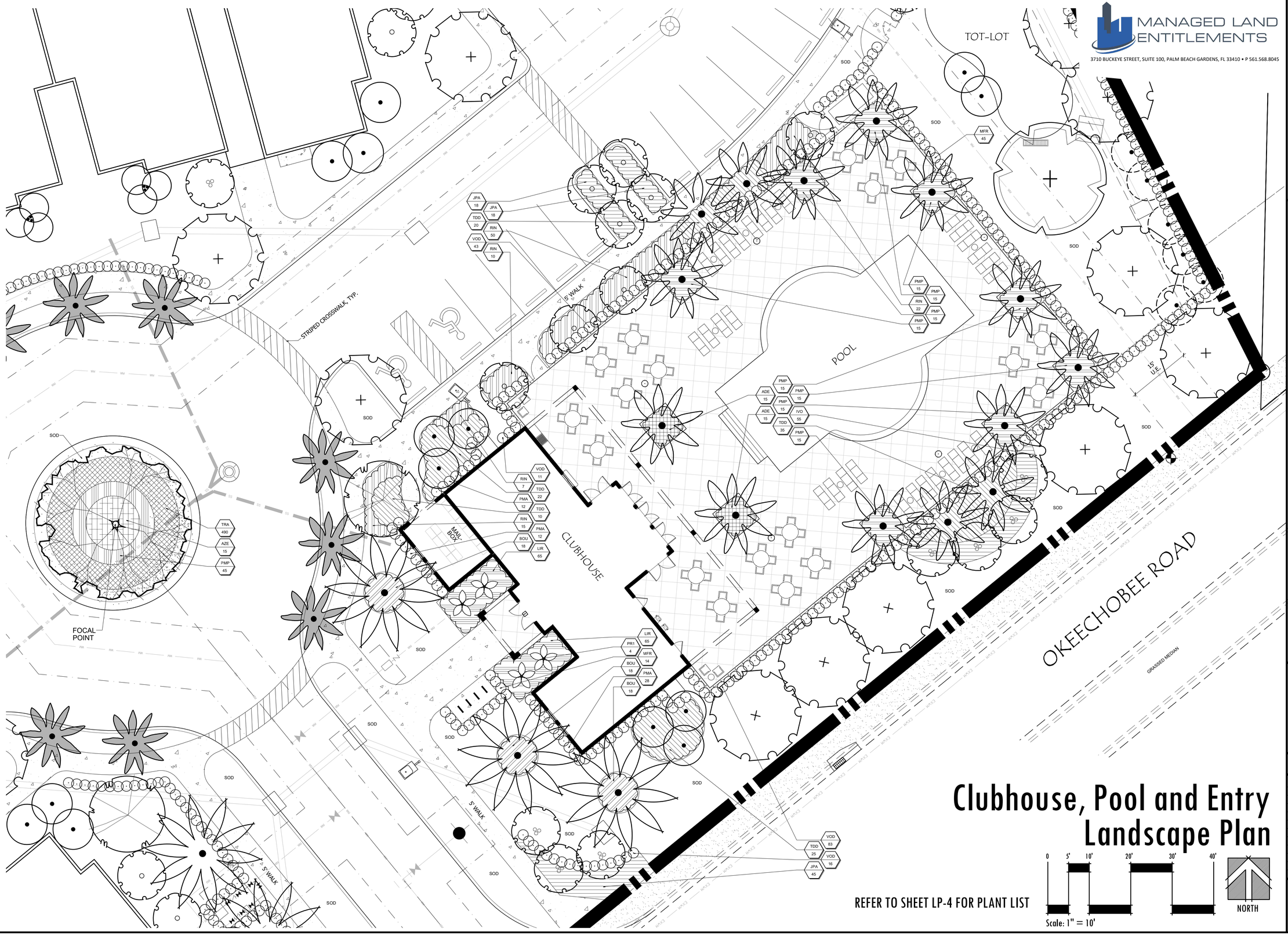
Ft. Pierce, Florida

Landscape Architect of Record
REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA
Jason M. Litterick, RLA
(LA0001677)

Scale: 1" = 10'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.
LP-2


TOT-LOT
SOD
MFR 45
JPA 18
JPA 18
TDD 20
RIN 50
VOD 43
RIN 10
5' WALK
STRIPED CROSSWALK, TYP.
PMP 15
PMP 15
RIN 22
PMP 15
PMP 15
POOL
15' SET
PMP 15
ADE 15
PMP 15
PMP 15
ADE 15
IVO 55
TDD 35
PMP 15
SOD
SOD
SOD

PLANT LIST (LP-1 & LP-3)

NOTE: DOES NOT INCLUDE PLANTS SPECIFIED ON SHEET LP-2, TYPICAL UNIT LANDSCAPE PLAN

	SYM	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT	SPR.	NOTES:
* V	RSP	155	SABAL PALMETTO	CABBAGE PALM	SEE DISPOSITION CHART		RELOCATED CABBAGE PALM
* V	ESP	20	SABAL PALMETTO	CABBAGE PALM	SEE DISPOSITION CHART		EXISTING CABBAGE PALM TO REMAIN
* V	EPE	5	PINUS ELLIOTTII 'DENSA'	S. FLA. SLASH PINE	SEE DISPOSITION CHART		EXISTING SLASH PINE TO REMAIN
* V	EQL	11	QUERCUS LAURIFOLIA	LAUREL OAK	SEE DISPOSITION CHART		EXISTING LAUREL OAK TO REMAIN
* V	PE	15	PINUS ELLIOTTII 'DENSA'	S. FLA. SLASH PINE	14' O.A., 3" DBH	6'	FULL & THICK, SINGLE TRUNK
* V	SP	91	SABAL PALMETTO	CABBAGE PALM	12-22' C.T.	N/A	SLICK TRUNK, HURRICANE CUT, STAGGER HEIGHTS
M	DR	1	DELONIX REGIA	ROYAL POINCIANA	14-16' O.A., 3.5" DBH	7'	FULL & THICK, SINGLE TRUNK, 3" CAL.
* V	TD	23	TAXODIUM DISTICHUM	BALD CYPRESS	8' O.A., 1.5" DBH	4'	FULL & THICK, SINGLE TRUNK
* V	TD1	11	TAXODIUM DISTICHUM	BALD CYPRESS	14' O.A., 3" DBH	6'	FULL & THICK, SINGLE TRUNK
M	WR	11	WASHINGTONIA ROBUSTA	WASHINGTON PALM	20' O.A.	N/A	FULL & THICK, MATCHED
* V	QV	67	QUESRCUS VIRGINIANA	LIVE OAK	14' O.A., 3" DBH	6'	FULL & THICK
* V	QV1	1	QUESRCUS VIRGINIANA	RANCH LIVE OAK	20' O.A., 8" DBH	20'	FULL & THICK, RANCH STYLE, MULTI-TRUNK SPECIMEN
V	PS	5	PHOENIX SYLVESTRIS	SYLVESTER PALM	12' WD	-	FULL & THICK, MATCHED SPECIMENS
M	ED	10	ELAEOCARPUS DECIPIENS	JAPANESE BLUEBERRY	14' O.A., 3" DBH	5'	FULL & THICK TO GROUND
M	LM	25	LAGERSTROEMIA INDICA 'MUSKOGEE'	CRAPE MYRTLE (LAVENDER)	14' O.A.	6'	FULL & THICK, MULTI-TRUNK, 5' C.T.
M	LI	33	LAGERSTROEMIA INDICA 'NATCHEZ'	CRAPE MYRTLE (WHITE)	12-14' O.A.	5'	FULL & THICK, SINGLE TRUNK STD., 2.5" DBH
M	TC	19	TABEBUIA CARAIBA	YELLOW TABEBUIA	14' O.A., 3" DBH	5'	FULL & THICK
M	AM3	10	ADONIDIA MERRILLII	CHRISTMAS PALM (TRIPLE)	14' O.A., TRIPLE	-	FULL & THICK, TRIPLE TRUNK
M	CN	14	COCOS NUCIFERA	COCONUT PALM	12' WD.	-	FULL & THICK, MATCHED HEIGHTS
M	PR1	4	PHOENIX ROEBELENII	PYGMY DATE PALM	7' O.A., SINGLE	7'	FULL & THICK, MATCHED HEIGHTS, SINGLE TRUNK

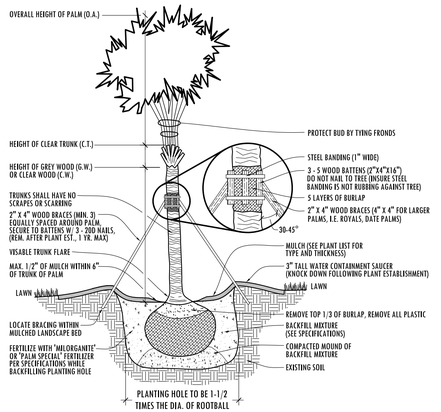
	SYM	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES:
* V	TDD	128	TRIPSACUM FLORIDANA	FLORIDA GAMA GRASS	#3, 16" O.A.	36" O.C.	FULL & THICK
V	PMA	52	PODOCARPUS MACROPHYLLUS	JAPANESE YEW	#7, 30" O.A.	24" O.C.	FULL & THICK
M	PMP	165	PODOCARPUS MACROPHYLLUS 'PRINGLES'	DWF. PODOCARPUS	#3, 14" X 14"	24" O.C.	FULL & THICK
* V	IVO	55	ILEX VOMITORIA	DWF. YAUPON HOLLY	#3, 14" X 14"	24" O.C.	FULL & THICK
* V	MFR	131	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	#3, 24" O.A.	24" O.C.	FULL & THICK
* V	MFR1	93	MYRCIANTHES FRAGRANS	SIMPSON STOPPER	#7, 36" O.A.	24" O.C.	FULL & THICK
M	VOD	423	VIBURNUM ODORITISSIMUM	SWEET VIBURNUM	#3, 24" O.A.	24" O.C.	FULL & THICK
M	LIR	130	LIRIOPE MUSCARI	GREEN LIRIOPE	#3, 14" X 14"	18" O.C.	FULL & THICK
M	EPU	801	ELEAGNUS PUNGENS	SILVERTHORN	#3, 24" O.A.	24" O.C.	FULL & THICK
M	RIN	178	RAPHIOLEPIS INDICA	INDIAN HAWTHORN	#3, 16" X 16"	24" O.C.	FULL & THICK
M	ADE	30	ASPARAGUS DENSIFLORUS 'MYERII'	FOXTAIL FERN	#3, 16" X 16"	24" O.C.	FULL & THICK
M	JPA	116	JUNIPERUS CHINENSIS 'PARSONII'	PARSON'S JUNIPER	#3, 16" SPD.	24" O.C.	FULL & THICK
* V	BOS	150	NEPHROLEPIS BISSERATA	BOSTON FERN	#3, 16" O.A.	36-48" O.C.	FULL & THICK
V	BOU	54	BOUGAINVILLEA 'HELEN JOHNSON'	DWF. BUGAINVILLEA	#3, 16" X 16"	24" O.C.	FULL & THICK
M	AZE	15	ALPINIA ZERUMBET	VAR. SHELL GINGER	#3, 20" O.A.	36" O.C.	FULL & THICK
M	TRA	490	TRACHELOSPERMUM ASIATICUM 'MINIMA'	DWF. JASMINE	#1, 12" SPD.	12" O.C.	FULL & THICK

* ASTERISK DENOTES NATIVE PLANT MATERIAL
V INDICATES VERY DROUGHT TOLERANT PLANT MATERIAL
M INDICATES MODERATELY DROUGHT TOLERANT PLANT MATERIAL

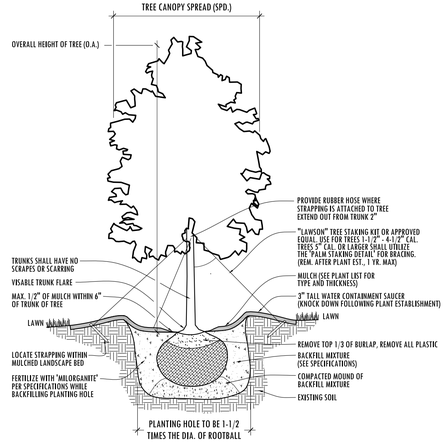
SOD: ST. AUGUSTINE 'FLORITAM' (BAHIA WHERE NOTED)
MULCH: 3" SHREDDED MELALEUCA MULCH (OR APPROVED RECYCLED MULCH) TO BE APPLIED TO ALL PLANTING BEDS.

IRRIGATION NOTE:
ALL NEW LANDSCAPE AREAS SHALL BE RECEIVE 100% OVERLAP COVERAGE FROM A FULLY AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH A RAIN SENSOR.
IRRIGATION WATER SOURCE: WELL & PUMP

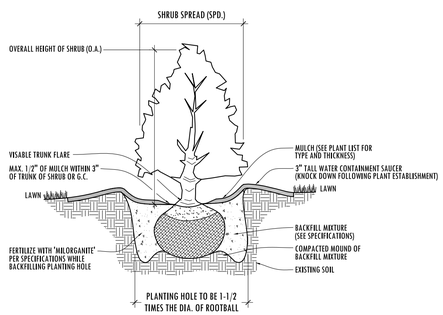
PLANTING DETAILS



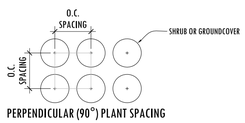
PALM PLANTING DETAIL



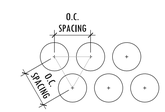
TREE PLANTING DETAIL



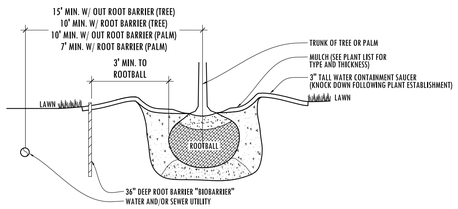
SHRUB & GROUNDCOVER PLANTING DETAIL



PERPENDICULAR (90°) PLANT SPACING



TRIANGULAR PLANT SPACING (RECOMMENDED)



ROOT BARRIER DETAIL

PLANTING SPECIFICATIONS

1. SCOPE OF WORK

LANDSCAPE CONTRACT WORK INCLUDES, BUT IS NOT LIMITED TO, SOIL PREPARATION, FINE OR FINISH GRADING, FURNISHING AND INSTALLING PLANT MATERIAL, WATERING, STAKING, GUYING AND MULCHING.

ALL LABOR AND MATERIAL FOR SOIL AMENDMENTS AND FERTILIZER THAT IS REQUIRED TO INSURE THE SUCCESSFUL ESTABLISHMENT AND SURVIVAL OF THE PROPOSED VEGETATION, AS WELL AS ALL THE COST FOR THE REMOVAL OF UNSUITABLE OR EXCESS BACKFILL MATERIAL, SHALL BE INCLUDED IN THE CONTRACTOR'S BID TO PERFORM THE WORK REPRESENTED IN THIS PLAN SET.

2. QUALITY ASSURANCE

LANDSCAPE CONTRACTOR MUST BE REGULARLY ENGAGED IN THE INSTALLATION OF LIVING PLANT MATERIAL. LABOR CREWS SHALL BE CONTROLLED AND DIRECTED BY A LANDSCAPE FOREMAN WELL VERSED IN LANDSCAPE INSTALLATION, PLANT MATERIALS, READING PLANS AND COORDINATION BETWEEN THE JOB AND NURSERY.

THE LANDSCAPE CONTRACTOR AND IRRIGATION CONTRACTOR SHALL REVIEW LAYOUT AND SCHEDULING PRIOR TO INSTALLATION OF MATERIAL. MINOR ADJUSTMENT TO IRRIGATION DESIGN MAY BE MADE IN RESPONSE TO THE NEEDS OF SPECIFIC PLANT MATERIAL. THE LANDSCAPE ARCHITECT MUST BE NOTIFIED OF SUCH CHANGES.

3. MATERIALS

PLANT SIZE AND QUALITY
PLANT SPECIES AND SIZES SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS, NOMENCLATURE SHALL CONFORM TO STANDARD PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS PARTS I & II, LATEST EDITION PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE FLORIDA GRADE NUMBER 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. TIGHTLY KNIT PLANT, SO TRAINED OR FAVORED IN ITS DEVELOPMENT THAT FIRST APPEARANCE IS UNQUESTIONABLE AND IT IS OUTSTANDINGLY SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND FREE OF DISEASE AND INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES AND PALMS FOR PLANTING ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT. THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY AND FLORIDA NUMBER 1. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. ALL PLANTS SHALL BE FREE OF WEEDS OR ANY OTHER OBJECTIONABLE VEGETATION.

ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS OF GOOD QUALITY AND BE IN A HEALTHY GROWING CONDITION.

CONTAINER GROWN PLANTS SHALL HAVE A DEVELOPED ROOT STRUCTURE SO THAT THE ROOT MASS STAYS IN TACT WHEN REMOVED FROM CONTAINER. IN NO CASE SHALL THE PLANT CONTAIN CIRCLING ROOTS NOR BE ROOT-BOUND.

QUANTITIES
ALL QUANTITIES INDICATED ON THE PLANT LIST ARE INTENDED AS A GUIDE FOR THE BIDDERS AND DOES NOT RELIEVE THE BIDDER OF HIS RESPONSIBILITY TO DO A COMPREHENSIVE PLANT TAKE OFF. SHALL A DISCREPANCY OCCUR BETWEEN THE BIDDER'S TAKE OFF AN THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT IS TO BE NOTIFIED FOR CLARIFICATION PRIOR TO THE SUBMISSION OF THE BID.

MULCH
MULCH SHALL BE A SHREDDED VARIETY AS SPECIFIED IN THE PLANT LIST. ALL MULCH IS TO BE APPLIED TO A DEPTH OF 3" EXCEPT FOR THOSE SPECIFIC SITUATIONS SHOWN BELOW IN SECTION 4 AND IN PLANTING DETAILS.

FERTILIZER
FERTILIZER IN BACKFILL MIXTURE FOR ALL PLANTS SHALL CONSIST OF 'MILORGANITE' ACTIVATED SLUDGE MIXED WITH THE BACKFILL AT A RATE OF NOT LESS THAN 50 LBS. PER CUBIC YARD.

FERTILIZER FOR TREES AND SHRUBS MAY BE TABLET FORM OR GRANULAR. GRANULAR FERTILIZER SHALL BE UNIFORM IN COMPOSITION, DRY AND FREE-FLOWING. THIS FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED BAGS, EACH BEARING THE MANUFACTURER'S STATEMENT OF ANALYSIS. FERTILIZE ALL NEW PLANTINGS PER RATES SHOWN BELOW:

TREES:
FERTILIZE NEW TREES WITH 'MILORGANITE' AT THE FOLLOWING RATES:
- 8' AND SMALLER: 2-4 LBS.
- 8'-12' TALL: 4-6 LBS.
- 12' AND TALER: 6-8 LBS.

(3 CUPS = 1 LB.)

SHRUBS:
FERTILIZE NEW SHRUBS AND ACCENTS WITH 'MILORGANITE' AT THE FOLLOWING RATES:
- 4-6" POTS: ⅛ CUP
- 1 GAL.: ¼ CUP
- 3 GAL.: 1 CUP
- 7-10 GAL.: 2 CUPS
- 15 GAL. AND GREATER: 3 CUPS

PALM TREES:
FERTILIZE NEW PALM TREES WITH A "PALM SPECIAL" FERTILIZER IN SLOW RELEASE FORM. FERTILIZER SHALL CONTAIN AN ADDITIONAL MAGNESIUM AND MICRO-NUTRIENT AMENDMENT

SOIL
PLANTING SOIL SHALL BE SANDY LOAM AND SHALL CONTAIN A 25% MINIMUM AMOUNT OF DECOMPOSED ORGANIC MATTER. PLANTING SOIL SHALL BE FREE OF CLAY, STONES, PLANTS, ROOTS AND OTHER FOREIGN MATERIALS WHICH MIGHT BE A HINDRANCE TO PLANTING OPERATIONS OR BE DETRIMENTAL TO GOOD PLANT GROWTH. SOIL SHALL BE DELIVERED IN A LOOSE FRIABLE CONDITION AND APPLIED IN ACCORDANCE WITH THE PLANTING SPECIFICATIONS.

ALL SHRUBS, TREES AND GROUND COVER WILL HAVE IMPROVED SOIL AS PER PLANTING SOIL NOTES. THE SOILS SHALL BE PLACED IN THE HOLE DURING PLANTING. TOP DRESSING ONLY IS NOT ACCEPTABLE.

DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. ALL TREES SHALL BE SPIKED IN UTILIZING WATER AND A TREE BAR.

WATER
WATER FOR PLANTING WILL BE AVAILABLE AT THE SITE AND WILL BE PROVIDED BY THE OWNER. LANDSCAPE CONTRACTOR SHALL NOT ASSUME THAT THE IRRIGATION SYSTEM WILL BE OPERATIONAL AT THE TIME OF PLANTING. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO PROVIDE ALL THE REQUIRED WATER NECESSARY TO MAINTAIN THE PLANT MATERIAL IN A HEALTHY GROWING CONDITION. THE WATERING MAY INCLUDE DEEP WATERING OF TREES ANT THE WATERING OF SHRUB AND GROUND COVER AREAS. ANY PLANT MATERIALS THAT DIE OR THAT ARE NOT IN A HEALTHY GROWING CONDITION DUE TO LACK OF WATER SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

4. EXECUTION

FIELD GROWN TREES AND PALMS PREVIOUSLY ROOT PRUNED SHALL OBTAIN A ROOT BALL WITH SUFFICIENT ROOTS FOR CONTINUED GROWTH WITHOUT RESULTING SHOCK.

CONTRACTOR SHALL NOT MARK OR SCAR TRUNK IN ANY FASHION.

PLANTS SHALL BE WATERED AS NECESSARY OR WITHIN 24 HOURS AFTER NOTIFICATION BY THE LANDSCAPE ARCHITECT.

THE LOCATIONS OF PLANTS, AS SHOWN IN THESE PLANS, ARE APPROXIMATE. THE FINAL LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN FIELD CONDITIONS. MAJOR ADJUSTMENTS TO THE LAYOUT ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT.

ALL PLASTIC FABRIC SHALL BE REMOVED FROM PLANT MATERIAL AT TIME OF INSTALLATION.

ALL TREES MUST BE STAKED AS SHOWN ON THE PLANTING DETAILS WITHIN 24 HOURS OF PLANTING. STAKES TO REMAIN FOR A MINIMUM OF 9 MONTHS, BUT NO LONGER THAN 18 MONTHS. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF THE STAKES.

ALL TREES MUST BE PRUNED AS PER LANDSCAPE ARCHITECT'S DIRECTION. SABAL PALMS MAY BE HURRICANE CUT.

ALL SHRUBS, TREES AND GROUND COVER WILL HAVE IMPROVED SOIL AS PER PLANTING SOIL NOTES. THE SOILS SHALL BE PLACED IN THE HOLE DURING PLANTING. TOP DRESSING ONLY IS NOT ACCEPTABLE.

DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. ALL TREES SHALL BE SPIKED IN UTILIZING WATER AND A TREE BAR.

AFTER FINAL SETTLING OF BALLED AND BURLAPED PLANTS, LOOSEN BURLAP WRAPPING EXPOSING THE TOP OF THE ROOTBALL, LEAVING THE BALL UNBROKEN. REMOVE EXCESS AMOUNTS OF BURLAP TO ELIMINATE VOIDS WHICH MAY BE CAUSED UPON DECOMPOSITION.

CONTAINER GROWN PLANTS SHALL, WHEN DELIVERED, SHALL HAVE SUFFICEINCY GROWTH TO HOLD EARTH INTACT WHEN REMOVED FROM CONTAINER AND SHALL NOT BE ROOT BOUND. PLANT PITS FOR CONTAINER MATERIALS SHALL BE FORMED FLAT ON THE BOTTOM TO AVOID AIR POCKETS AT THE BOTTOM OF ROOT BALLS AND CONTAINERS SHALL BE REMOVED CAREFULLY TO PREVENT DAMAGE TO THE PLANT OR ROOT SYSTEMS.

TEST TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE.PERCOLATION IS AVAILABLE. PITS WHICH ARE FOUND NOT TO BE ADEQUATELY DRAINING SHALL BE EXCAVATED TO A A DEPTH SUFFICIENT FOR DRAINAGE AND BACKFILLING WITH GRAVEL OR CRUSHED ROCK. NO ALLOWANCES WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE.

PLANTING BED PREPARATION
ALL PLANTING BEDS SHALL BE PROPERLY PREPARED PRIOR TO THE COMMENCEMENT OF ANY PLANTING. PLANTING AREAS, INCLUDING LAWNS SHALL BE FREE OF ALL WEEDS AND NUISANCE VEGETATION. IF TORPEDO GRASS (PANICUM REPENS) IS PRESENT OR ENCOUNTERED DURING PLANTING, THE LANDSCAPE CONTRACTOR SHALL STOP ALL PLANTING UNTIL IT CAN BE DEMONSTRATED THAT IT HAS BEEN COMPLETELY REMOVED OR ERADICATED. THERE SHALL BE NO EXCEPTIONS TO THIS PROVISION.

ALL LANDSCAPE ISLANDS AND BEDS WILL BE FREE OF SHELL ROCK AND CONSTRUCTION DEBRIS AND WILL BE EXCAVATED TO A DEPTH OF 30 INCHES OR TO CLEAN, NATIVE SOIL AND FILLED WITH THE SPECIFIED BACKFILL MIXTURE.

PLANTING TREES

EXCAVATE PIT AS PER PLANTING DETAILS. COMPACT LAYER OF TOPSOIL IN PIT WITH A SLIGHTLY DISHED GRADE TO CENTER.

BACKFILL AROUND BALL WITH TOPSOIL AND SLIGHTLY COMPACT, WATER THOROUGHLY AS LAYERS ARE PLACED TO ELIMINATE VOIDS AND AIR POCKETS. BUILD A 6" HIGH BERM OF TOPSOIL BEYOND EDGE OF EXCAVATION. APPLY 3" (AFTER SETTLEMENT) OF MULCH.

PRUNE TREE TO REMOVE DAMAGED BRANCHES, IMPROVE NATURAL SHAPE AND THIN OUT STRUCTURE. DO NOT REMOVE MORE THAN 15% OF BRANCHES. DO NOT PRUNE BACK TERMINAL LEADER.

GUY AND STAKE TREE IN ACCORDANCE WIT THE STAKING DETAILS IMMEDIATELY AFTER PLANTING.

PLANTING SHRUBS

LAYOUT SHRUBS TO CREATE A CONTINUOUS SMOOTH FRONT LINE AND FILL IN BEHIND.

EXCAVATE PIT OR TRENCH TO 1-1/2 TIMES THE DIAMETER OF THE BALLS OR CONTAINERS OR 1'-0" WIDER THAN THE SPREAD OF ROOTS AND 3" DEEPER THAN REQUIRED FOR POSITIONING AT PROPER HEIGHT. COMPACT A LAYER OF TOPSOIL IN BOTTOM BEFORE PLACING PLANTS. BACKFILL AROUND PLANTS WITH PLANTING MIXTURE, COMPACTED TO ELIMINATE VOIDS AND AIR POCKETS. FORM GRADE SLIGHTLY DISHED AND BERMED AT EDGES OF EXCAVATION. APPLY 3" OF MULCH.

PRUNE SHRUBS TO REMOVE DAMAGED BRANCHES, IMPROVE NATURAL SHAPE AND THIN OUT STRUCTURE. DO NOT REMOVE MORE THAN 15% OF BRANCHES.

PLANTING GROUND COVER

LOOSEN SUBGRADE TO DEPTH OF 4" IN AREAS WHERE TOPSOIL HAS BEEN STRIPPED AND SPREAD SMOOTH.

SPACE PLANTS AS OTHERWISE INDICATED. DIG HOLES LARGE ENOUGH TO ALLOW SPREADING OF ROOTS. COMPACT BACKFILL TO ELIMINATE VOIDS AND LEAVE GRADE SLIGHTLY DISHED AT EACH PLANT. WATER THOROUGHLY. APPLY 3" OF MULCH OVER ENTIRE PLANTING BED, LIFTING PLANT FOLIAGE ABOVE MULCH. PURPLE QUEEN GROUNDCOVER, IF SPECIFIED, SHALL ONLY RECEIVE 1" OF MULCH.

DURING PERIODS OF HOT SUN AND/OR WIND AT TIME OF PLANTING, PROVIDE PROTECTIVE COVER FOR SEVERAL DAYS OR AS NEEDED.

PLANTING SOD

SODDING: SOD TYPE SPECIFIED ON PLANT LIST SHALL BE MACHINE STRIPPED NOT MORE THAN 24 HOURS PRIOR TO LAYING. SOD SHALL BE FIRM, TOUGH TEXTURE, HAVING A COMPACT GROWTH OF GRASS WITH GOOD ROOT DEVELOPMENT, AND SHALL CONTAIN NO BERMUDA GRASS, WEEDS OR ANY OTHER OBJECTIONABLE VEGETATION.

LOOSEN SUBGRADE TO DEPTH OF 4" AND GRADE WITH TOPSOIL EITHER PROVIDED ON SITE OR IMPORTED TO FINISH DESIGN ELEVATIONS. IF SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO FINISH GRADE ALL LANDSCAPE AREAS, ELIMINATING ALL BUMPS, DEPRESSIONS, STICKS, STONES AND OTHER DEBRIS. ROLL PREPARED LAWN SURFACE. WATER THOROUGHLY, BUT DO NOT CREATE MUDDY SOIL CONDITION.

FERTILIZE SOIL AT THE RATE OF APPROXIMATELY 10 LBS. PER 1,000 S.F. SPREAD FERTILIZER OVER THE AREA TO RECEIVE GRASS BY USING AN APPROVED DISTRIBUTION DEVICE CALIBRATED TO DISTRIBUTE THE APPROPRIATE QUANTITY. DO NOT FERTILIZE WHEN WIND VELOCITY EXCEEDS 15 M.P.H. THOROUGHLY MIX FERTILIZER INTO THE TOP 2" OF TOPSOIL.

LAY SOD STRIPS WITH TIGHT JOINTS, DO NOT OVERLAP, STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. WORK SIFTED SOIL MIX INTO MINOR CRACKS BETWEEN PIECES OF SOD AND REMOVE EXCESS SOIL DEPOSITS FROM SODDED AREAS. SOD ON SLOPES GREATER THAN 3:1 SHALL BE STAKED IN PLACE. ROLL OR STAMP LIGHTLY AND WATER THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.

5. MISCELLANEOUS LANDSCAPE WORK

LANDSCAPE MAINTENANCE
MAINTAIN LANDSCAPE WORK IMMEDIATELY AFTER PLANTING AND UNTIL FINAL ACCEPTANCE IS ISSUED BY THE OWNER'S REPRESENTATIVE. INCLUDE WATERING, WEEDING, CULTIVATING, RESTORATION OF GRADE, MOWING AND TRIMMING GRASS, PRUNING TREES AND SHRUBS, PROTECTION FROM INSECTS AND DISEASES, FERTILIZING AND SIMILAR OPERATIONS AS NEEDED TO INSURE NORMAL GROWTH AND GOOD HEALTH FOR LIVE PLANT MATERIAL. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE, PLANTING SAUCERS RESTORED, AND DEFECTIVE WORK CORRECTED.

IN THE EVENT OF SERIOUS DAMAGE FROM INSECTS OR DISEASE PRIOR TO FINAL ACCEPTANCE, THE PLANTS SHALL BE TREATED BY PREVENTATIVE OR REMEDIAL MEASURES APPROVED FOR GOOD HORTICULTURAL PRACTICE AT NO ADDITIONAL COST TO THE OWNER.

CLEAN UP
THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR DEBRIS CAUSED BY HIS CREWS DURING THE PERFORMANCE OF THE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROMPTLY REMOVE ALL WASTE MATERIALS, DEBRIS, UNUSED PLANT MATERIAL, EMPTY PLANT CONTAINERS AND ALL EQUIPMENT FROM THE PROJECT SITE.

ANY SOIL, PEAT OR SIMILAR MATERIAL WHICH HAS BEEN BROUGHT ONTO ANY PAVED AREAS SHALL BE REMOVED PROMPTLY KEEPING THESE AREAS CLEAN AS THE WORK PROGRESSES. UPON COMPLETION OF THE PLANTING, ALL EXCESS SOIL, STONES AND DEBRIS WHICH HAS NOT BEEN PREVIOUSLY CLEANED UP SHALL BE REMOVED FROM THE SITE.

INSPECTION & ACCEPTANCE
THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT UPON COMPLETION OF THE WORK TO REQUEST A FINAL INSPECTION OF THE INSTALLATION AND PLANT MATERIALS. THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE WILL NOTIFY THE LANDSCAPE CONTRACTOR OF ANY DEFICIENCIES VIA A "PUNCH LIST" WHICH SHALL BE PROMPTLY CORRECTED BY THE LANDSCAPE CONTRACTOR. CONDITIONAL LANDSCAPE ACCEPTANCE OF ALL PLANT MATERIAL AND WORKMANSHIP WILL BE GIVEN IN WRITING BY THE LANDSCAPE ARCHITECT AFTER ALL "PUNCH LIST" ITEMS HAVE BEEN CORRECTED AND ANY PLANT REPLACEMENTS MADE. THIS ACCEPTANCE WILL BEGIN THE WARRANTEE PERIOD. DEFICIENCIES NOTED AFTER THE CONDITIONAL LANDSCAPE ACCEPTANCE SHALL BE RECTIFIED DURING THE WARRANTEE PERIOD AND PRIOR TO FINAL LANDSCAPE ACCEPTANCE.

GUARANTEE AND REPLACEMENT
ALL PLANT MATERIAL AND WORKMANSHIP SHALL BE GUARANTEED BY THE LANDSCAPE CONTRACTOR FOR A PERIOD OF SIX (6) MONTHS FROM THE DATE OF CONDITIONAL LANDSCAPE ACCEPTANCE BY THE LANDSCAPE ARCHITECT. ANY PLANT MATERIAL OR WORKMANSHIP THAT IS DEFICIENT OR HAS DIED SHALL BE REPLACED AT THE SAME SPECIFICATION NOTED IN THE APPROVED LANDSCAPE PLANS. REPLACEMENTS SHALL BE MADE BY THE LANDSCAPE CONTRACTOR WITHIN TWO (2) WEEKS OF NOTIFECTION BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER. WARRANTEES OF REPLACEMENT MATERIAL SHALL BE SIX (6) MONTHS FROM THE DATE OF REPLACEMENT INSTALLATION. DEATH OR DAMAGE RESULTING FROM LIGHTNING, VANDALISM OR AUTOMOBILES OR BY NEGLIGENCE BY THE OWNER SHALL NOT BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. UNLESS OTHERWISE ARRANGED WITH THE OWNER, THE CONTRACTOR IS RESPONSIBLE FOR GENERAL PLANT MAINTENANCE INCLUDING WATERING AND MOWING UP UNTIL THE DATE OF CONDITIONAL ACCEPTANCE.

PLANT MATERIAL SUBSTITUTION

THERE WILL BE NO SUBSTITUTION OF PLANT MATERIAL UNLESS AUTHORIZED BY THE LANDSCAPE ARCHITECT AND/OR OWNER. THIS INCLUDES SPECIES AND SIZE OF PLANT MATERIAL.

Landscape Specifications & Planting Details

ARROW FORT PIERCE NORTH

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	VOLT	LAMP TYPE	DIM TYPE	WATTS	MOUNTING	NOTES
SA	LED SITE HEAD	LUMARK	PRV-PA2A-740-U-T3-FINISH / MA1017-FINISH	UNV	LED	N/A	112W	20' POLE	NOTE 1, 2
SB	LED SITE HEAD	LUMARK	PRV-PA2A-740-U-T4W	UNV	LED	N/A	112W	20' POLE	NOTE 1, 2
SC	LED SITE HEAD	LUMARK	PRV-PA2A-740-U-T4W-HSS-FINISH / MA1017-FINISH	UNV	LED	N/A	112W	20' POLE	NOTE 1, 2
SD	LED DECORATIVE LUMINAIRE	INVUE	LXS-B3-LED-D1-T4-FINISH-S / ARPA2	UNV	LED	N/A	99W	13' POLE	NOTE 1, 3
SE	LED DECORATIVE LUMINAIRE	INVUE	LXS-B3-LED-D1-T5-FINISH-S / ARPA2	UNV	LED	N/A	86W	13' POLE	NOTE 1, 3
SF	LED BOLLARD	ILP	BLDT-15WLED-UNIV-4000K	UNV	LED	N/A	16.5W	IN-GROUND	
SW	LED WALL PACK	McGRAW-EDISON	GWC-AF-01-LED-E1-T4FT-FINISH-600	UNV	LED	N/A	34W	WALL	NOTE 1

FIXTURE SCHEDULE NOTES

NOTE 1: ADVISE FINISH

NOTE 2: FIXTURE MOUNTED ON 20' CONCRETE POLE #: USI28TI+4-9666

NOTE 3: FIXTURE MOUNTED ON 13' DIRECT BURIAL ALUMINUM POLE #: 1208-30504TE TO ACHIEVE 15FT AFG

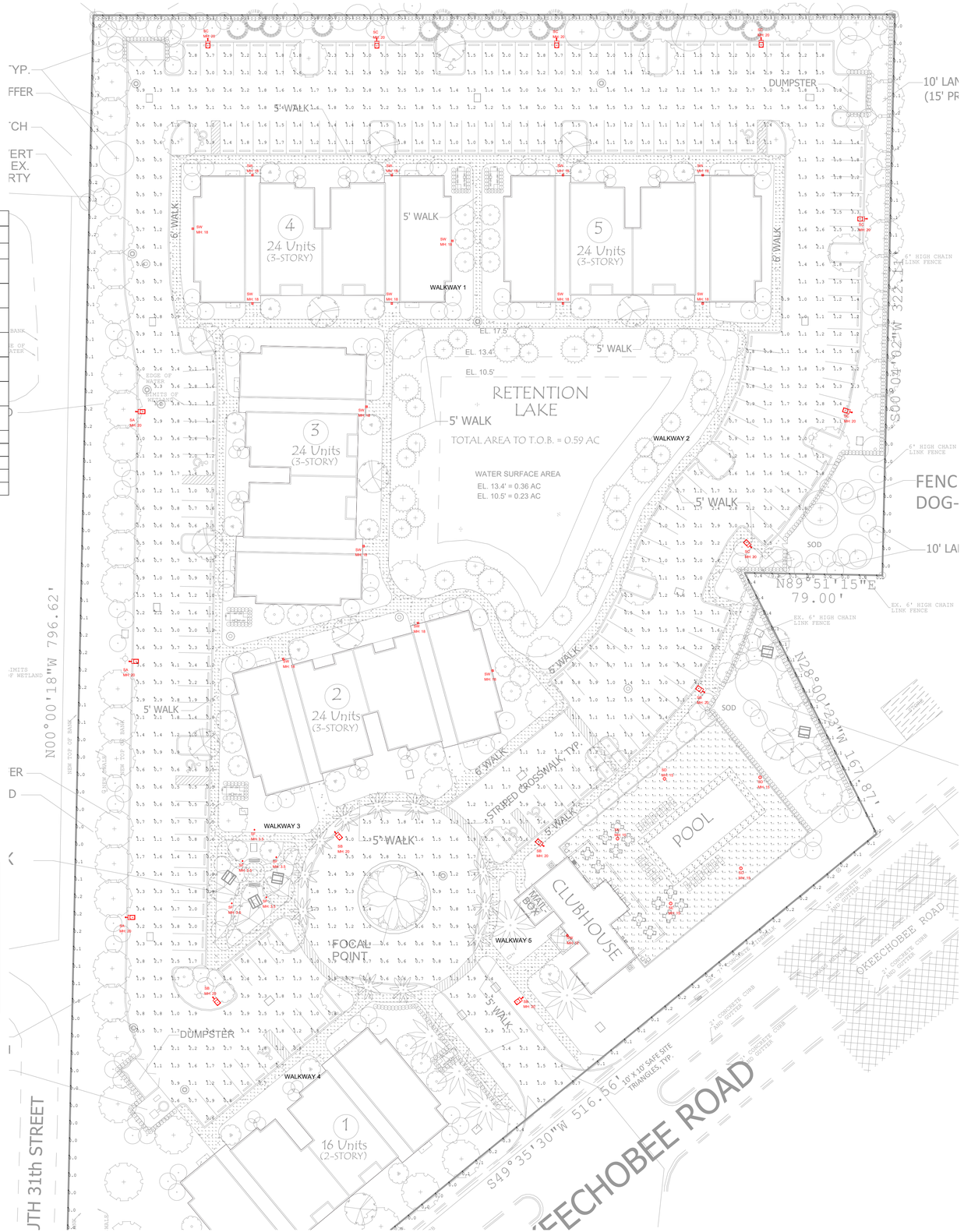
FOR QUESTIONS PERTAINING TO THIS FIXTURE SCHEDULE PLEASE CONTACT RYAN HUFF @ LIGHTING DYNAMICS- 772-285-7169

Photometrics Calculation Software Generated Luminaire Schedule

Symbol	Qty	Label	Arrangement	Lum. Lumens	Arr. Lum. Lumens	LLF	Lum. Watts	Arr. Watts
	3	SA	SINGLE	15749	15749	0.900	112	112
	5	SB	SINGLE	15560	15560	0.900	112	112
	7	SC	SINGLE	11268	11268	0.900	112	112
	3	SD	SINGLE	8200	8200	0.900	99	99
	2	SE	SINGLE	9131	9131	0.900	86	86
	5	SF	SINGLE	1209	1209	0.900	16.5	16.5
	16	SW	SINGLE	4311	4311	0.900	34	34

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING & ROADWAY	Illuminance	Fc	1.65	4.5	0.5	3.30	9.00
POOL AREA	Illuminance	Fc	2.79	5.2	0.7	3.99	7.43
PROPERTY LINE	Illuminance	Fc	0.08	0.4	0.0	N.A.	N.A.
WALKWAY 1	Illuminance	Fc	1.10	2.0	0.4	2.75	5.00
WALKWAY 2	Illuminance	Fc	0.95	2.0	0.3	3.17	6.67
WALKWAY 3	Illuminance	Fc	1.29	15.1	0.4	3.23	37.75
WALKWAY 4	Illuminance	Fc	0.67	1.3	0.3	2.23	4.33
WALKWAY 5	Illuminance	Fc	2.11	4.4	0.3	7.03	14.67
WET DECK	Illuminance	Fc	3.65	5.3	3.0	1.22	1.77



LIGHTING DYNAMICS INCORPORATED

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions. This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions.

NOTES:

No.	Revision/Issue	Date
3	UPDATE LFS	06/22/20
2	PHOTOMETRIC STUDY	06/19/20
1	PHOTOMETRIC STUDY	06/17/20

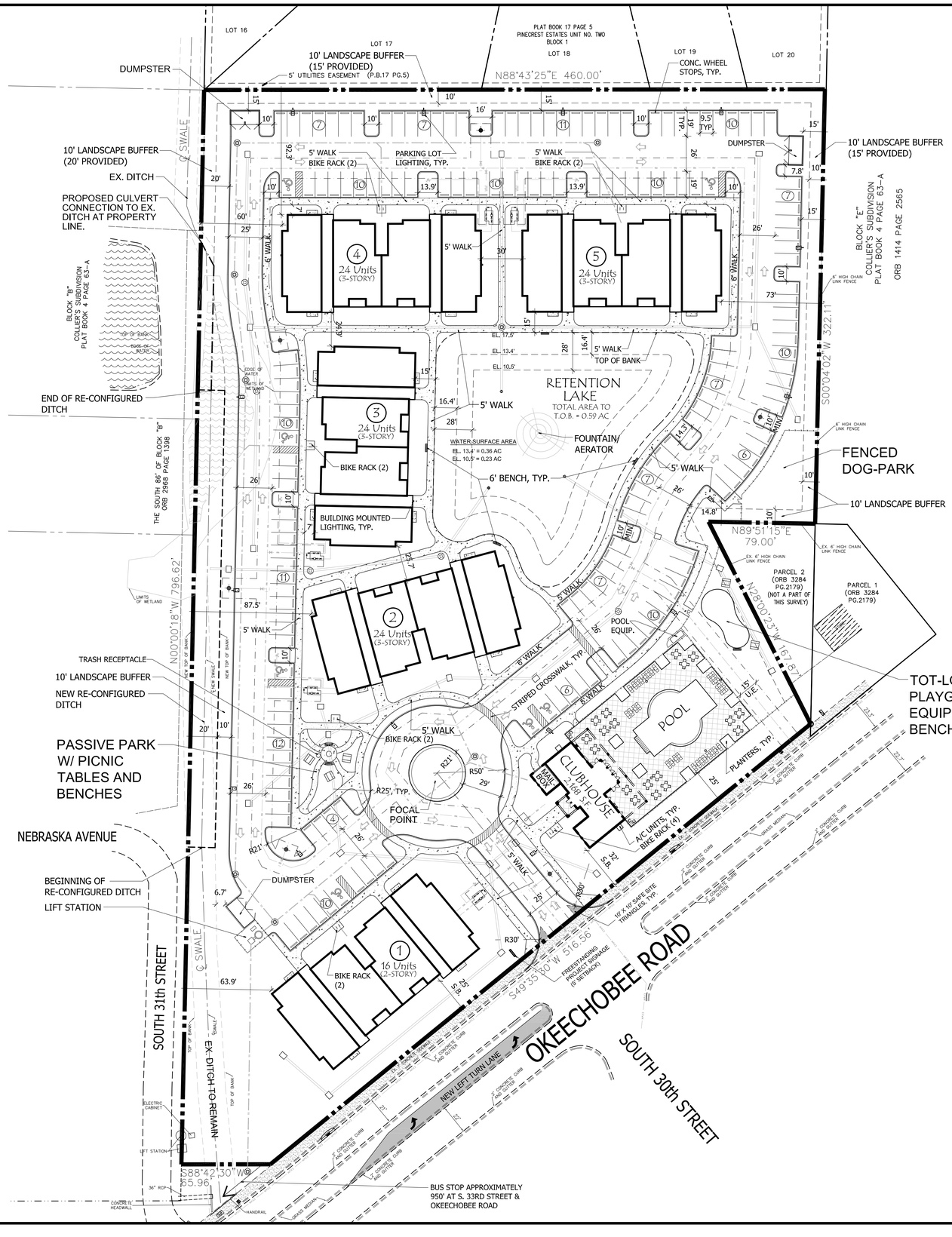
LIGHTING DYNAMICS, INC.
7835 West Commercial Blvd.
Tamarac, FL 33351
(954) 944-0286
www.lightingdynamics.com

Project Name and Address

ARROW FORT PIERCE
Site lighting layout
Fort Pierce, FL

FILE P:\PROJECTS\2020\MARCH
CLIENT Managed Land Entitlements

Project	Arrow Fort Pierce North
Date	06/22/2020
Scale	1/32" = 1'-0"
Sheet	L0
DRAWN BY	E.MONTERO



APPLICATION DATA:

NAME OF APPLICATION:	ARIA AAPARTMENTS
PARCEL ID:	2417-504-0020-001-6
SITE ADDRESS:	TBD
EXISTING FUTURE LAND USE:	GENERAL COMMERCIAL (GC)
PROPOSED FUTURE LAND USE:	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING DESIGNATION:	GENERAL COMMERCIAL (C3)
PROPOSED ZONING DESIGNATION:	MEDIUM DENSITY RESIDENTIAL (R-4)
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL (112 UNITS)
PROPOSED DENSITY:	*16.48 D.U.'S PER ACRE

*PROJECT UTILIZES DENSITY BONUS FOR PROXIMITY TO TRANSIT STOP (+5 D.U.'S/ACRE) AND FOR INNOVATIVE DESIGN (+2 D.U.'S/ACRE)

SITE DATA:

GROSS SITE AREA:	296,012.97 S.F. (6.796 ACRES)
OPEN SPACE REQUIRED:	118,405.19 S.F. (40%)
PERVIOUS AREA PROVIDED:	102,259.94 S.F. (34.5%)
RETENTION AREA PROVIDED:	25,674.63 S.F. (8.7%)
TOTAL OPEN SPACE AREA:	127,934.57 S.F. (43.2%)
MAX. BUILDING COVERAGE:	50% (148,006.5 S.F.)
BUILDING COVERAGE PROVIDED:	18.0% (53,184 S.F.)

SETBACKS

SETBACK	REQUIRED:	PROVIDED:
FRONT	25'	25'
SIDE:	10'	60'
REAR:	20'	92.3'

BUILDING HEIGHT

REQUIRED:	45' (MAX)
PROVIDED:	39'-0"

PARKING DATA:

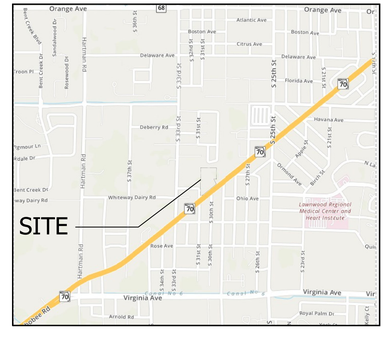
PROPOSED USES (FLEX SPACE)

USE	UNITS	PARKING RATE	REQUIRED PARKING
MULTI-FAMILY RESIDENTIAL	112 UNITS	1.5/UNIT	168 SPACES
	TOTAL PARKING REQUIRED:		168 SPACES
	TOTAL PARKING PROVIDED:		172 SPACES
	HANDICAP SPACES REQ'D.:		6 SPACES
	HANDICAP SPACES PROV.:		7 SPACES

BICYCLE PARKING REQUIRED: 12 SPACES (1 PER 10 UNITS)
BICYCLE PARKING PROVIDED: 14 SPACES

REFER TO SHEET SP-2 FOR SITE PLAN DETAILS

LOCATION MAP



Site Plan

0 20' 40' 80' 120' 160'

NORTH

Scale: 1" = 40'

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

PROJECT TEAM

OWNER
Arrow Investment Group, LLC
4512 North Flagler Drive, Suite 2056
West Palm Beach, Florida 33407

ARCHITECT
Architectural Studios, Inc.
300 Avenue of the Champios, Suite 260
Palm Beach Gardens, Florida 33418
Contact: Scott Disher (561-202-6990)

CIVIL ENGINEER/SURVEYOR
Michael B. Schorah & Associates, Inc.
1850 Forest Hill Blvd., Suite 206
West Palm Beach, Florida 33406
Contact: Michael LaCoursiere (561-968-0080)

DEVELOPMENT MANAGER/AGENT
Managed Land Entitlements, LLC
3710 Buckeye Street, Suite 100
Palm Beach Gardens, Florida 33410
Contact: Michael Sanchez (561-568-8045)

LANDSCAPE ARCHITECT
Litterick Landscape Architecture
2740 SW Martin Downs Blvd., #199
Palm City, Florida 34990
Contact: Jason LItterick (561-719-3876)

SURVEYOR
Brown & Phillips, Inc.
1860 Old Okeechobee Road, Suite 509
West Palm Beach, Florida 33409
Contact: John Phillips (561-615-3988)

Litterick Landscape Architecture
LC26000482
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Aria Apartments

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: 1" = 40'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

SP-1

STANDARD LIGHTING POLE DETAIL

(1) LIGHTING POLE. THE MANUFACTURER IS TO PROVIDE CERTIFICATION BY FLORIDA PE, SHOWING WIND LOAD RATING OF 170 MPH WITH SPECIFIED FIXTURES INSTALLED. THE FINAL POLE SET IS TO BE DETERMINED BY THE PROFESSIONAL ENGINEER.

(2) INTERNAL WIRING. INTERNAL WIRING TO BE IN UL LISTED CONDUITS, INSIDE POLE. SEE NOTE 3.

(3) LIGHT FIXTURE CONNECTIONS. REFER TO LIGHT MANUFACTURER FOR REQUIREMENTS, INCLUDING TEMPERATURE REQUIREMENTS (COMMONLY 150C). CONDUCTORS TO BE UL LISTED "FIXTURE" CONDUCTORS. (UL "RECOGNIZED" APPLIANCE WIRES NOT PERMITTED.) OBTAIN BUILDING DEPARTMENT APPROVAL FOR CONDUCTORS, CONNECTORS, AND ACCESSIBILITY.

(4) CONDUITS. CONDUITS BELOW HAND HOLE IN POLE TO BE UL LISTED WITH "BRANCH CIRCUIT" THWN CONDUCTORS.

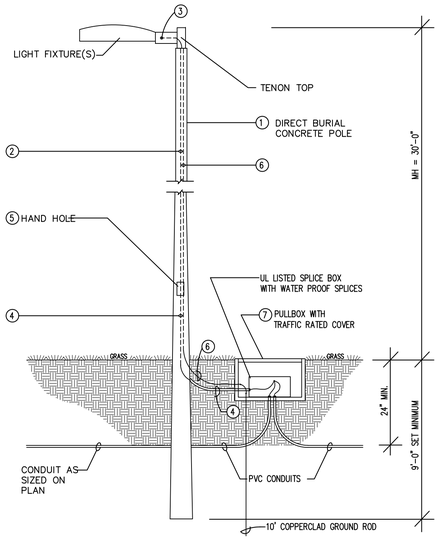
(5) HAND HOLE. HAND HOLE WITH UL LISTED BOX CAST IN POLE WITH WATERPROOF SPLICES.

(6) GROUND WIRE IN POLE. CONNECT BOTTOM TO #4 BARE GROUND CONDUCTOR. CONNECT TOP TO GROUND LUG IN FIXTURES.

(7) TRAFFIC RATED PULL BOX. HIGH STRENGTH COMPOSITE CONSTRUCTION RATED FOR DESIGN LOAD OF 5,000 LBS OVER A 10" SQUARE. COVER LETTERING = "LIGHTING". DO NOT PLACE IN PAVED AREA, KEEP IN GRASSED AREAS. QUAZITE COMPOSOLITE PX STYLE. 1-800-346-3067

(8) MUCK. IF SOFT SOILS ARE FOUND ON THE PROPERTY, THIS POLE DESIGN WILL BE MODIFIED TO ACCOMMODATE. NOTIFY ENGINEER IMMEDIATELY.

(9) SITE CONDITIONS. IF SITE CONDITIONS ARE DISCOVERED WHICH REQUIRE ANY POLE (S) TO BE MOVED OVER 4 FEET, NOTIFY THE ENGINEER IMMEDIATELY.



CONCRETE LIGHT POLE DETAIL

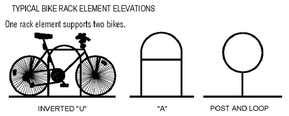
TO BE USED ON ALL PARKING LOT LIGHTING (20' MOUNTING HEIGHT) N.T.S.



"LANDSCAPEFORMS - CHASE PARK LITTER"

TRASH RECEPTACLE DETAIL

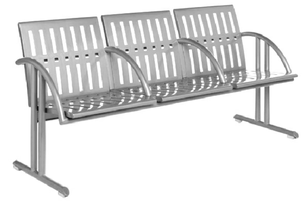
N.T.S.



- ELEMENT STYLE CONSISTENT WITH THE ABOVE TYPICAL ELEVATION TO BE SELECTED BY OWNER AT TIME OF BUILDING PERMIT, SUBJECT TO APPROVAL BY ZONING STAFF.
- A RACK IS ONE OR MORE ELEMENTS JOINED ON A COMMON BASE
- BIKE RACK AND RACK AREA DIMENSIONAL CRITERIA BASED ON RECOMMENDATIONS FROM THE ASSOCIATION OF PEDESTRIAN AND BICYCLE PROFESSIONALS (APBP)

BIKE RACK DETAIL

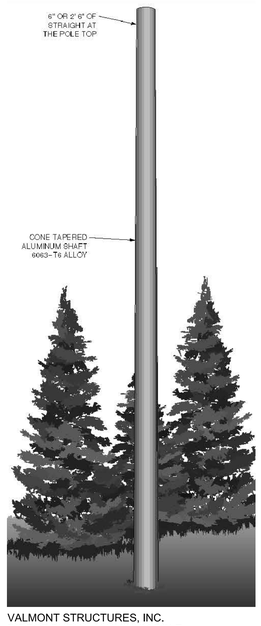
N.T.S.

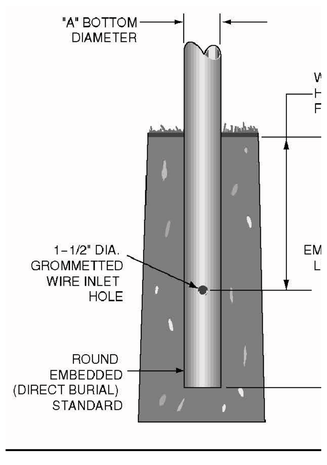


LANDSCAPE FORMS - CHASE PARK BENCH
CAST ALUM. W/ STEEL FRAMES & DIVIDER ARMS

BENCH DETAIL

N.T.S.

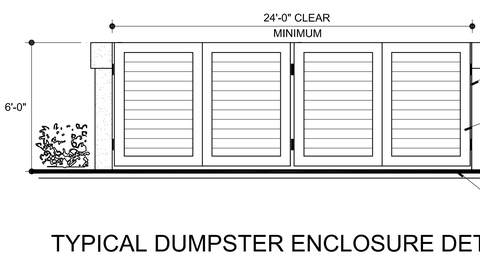




VALMONT STRUCTURES, INC.
DIRECT BURIAL ALUMINUM POLE

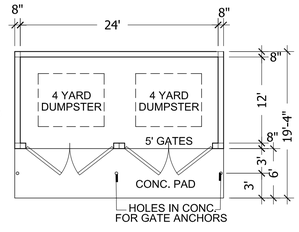
ALUMINUM LIGHT POLE DETAIL

TO BE USED ON ALL POOL LIGHTING (13' MOUNTING HEIGHT) N.T.S.

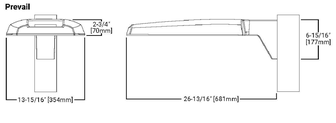


TYPICAL DUMPSTER ENCLOSURE DETAIL

N.T.S.







VALMONT STRUCTURES, INC.
DIRECT BURIAL CONCRETE POLE

PARKING LOT LIGHTING FIXTURE

TO BE USED ON ALL PARKING LOT LIGHTING (20' MOUNTING HEIGHT) N.T.S.



LXS LUXESCAPE COLLECTION

DECORATIVE LUMINAIRE

INVUE LED LIGHT FIXTURE
ON DIRECT BURIAL ALUMINUM POLE

POOL AREA LIGHTING FIXTURE

TO BE USED ON ALL POOL AREA POLE LIGHTING (13' MOUNTING HEIGHT) N.T.S.



ILP 15W LED BOLLARD

BOLLARD LIGHTS

N.T.S.



GWC GALLEON WALL

1-2 Light Squares
Solid State LED

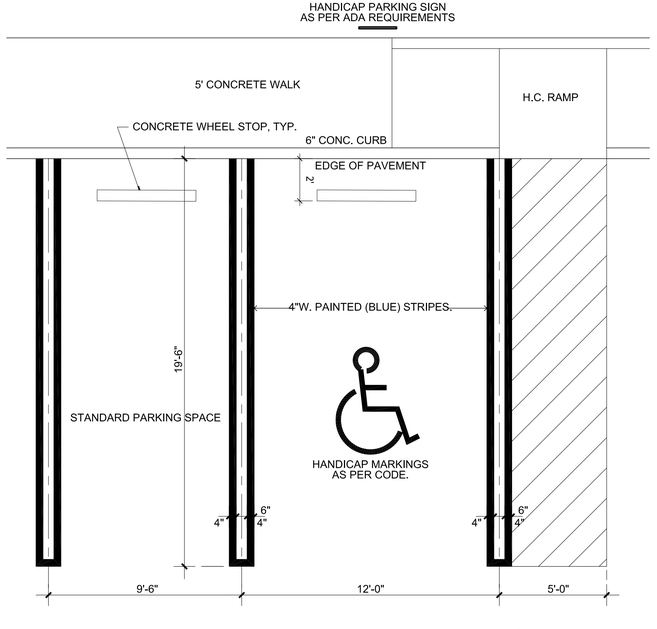
WALL MOUNT LUMINAIRE

WaveLinx

MCGRAW - EDISON WALL MOUNT LED LUMIERE

BUILDING MOUNTED LIGHTING

N.T.S.



STANDARD & HANDICAP PARKING LAYOUT

N.T.S.

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

Site Plan Details

Litterick Landscape Architecture
LC26000482
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Aria Apartments

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

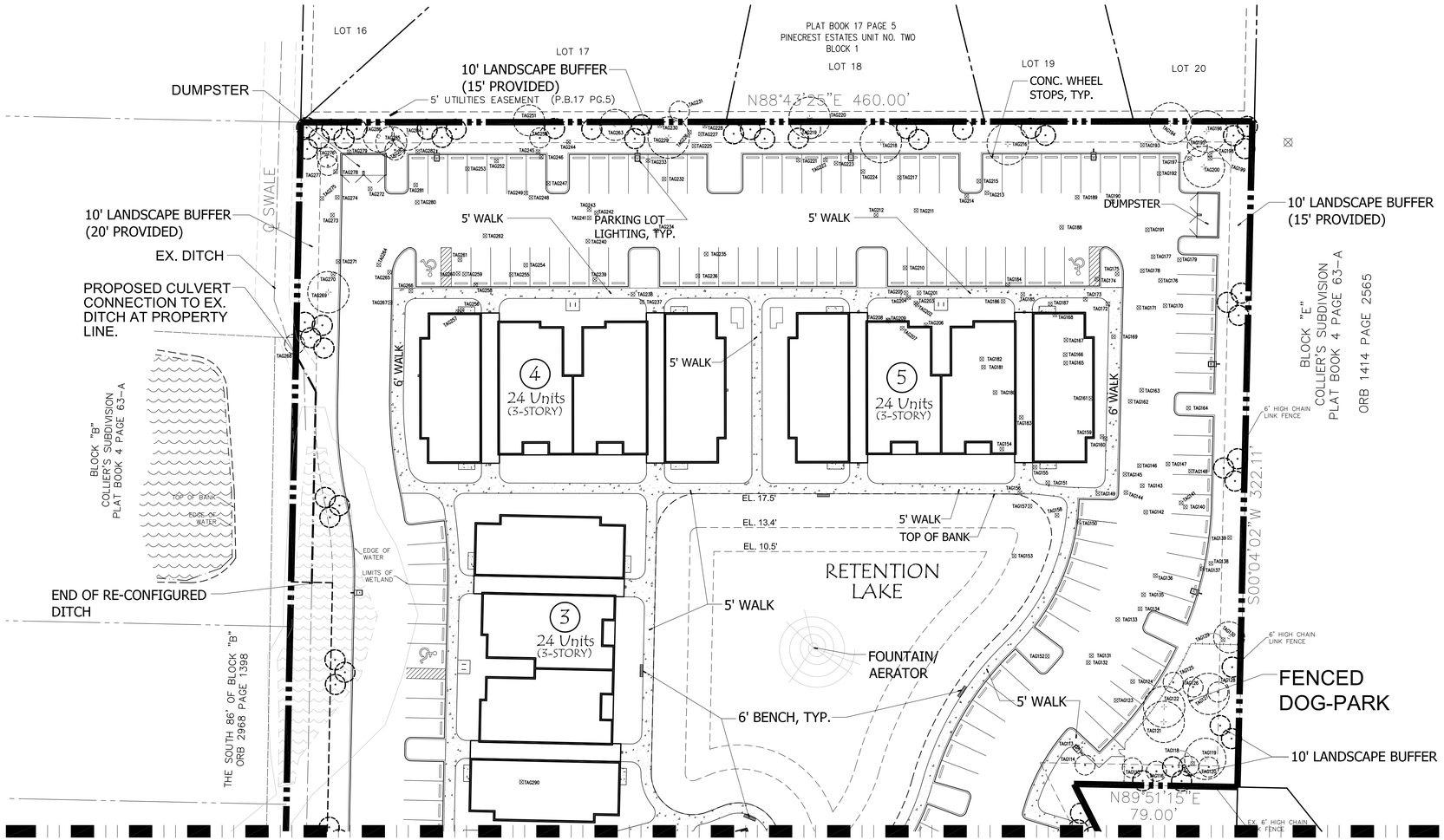
Jason M. Litterick, RLA
(LA0001677)

Scale: As Noted

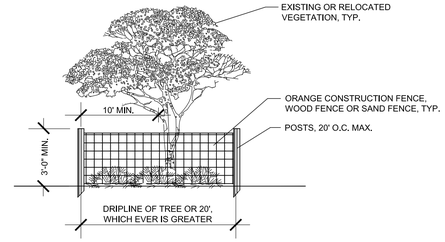
Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

SP-2



MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045



FENCING OF UNDISTURBED AREAS AND/OR EXISTING TREES:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL ENCLOSE THE ENTIRE UNDISTURBED AREA, OR TREE, WITHIN A FENCE OR SIMILAR BARRIER AS SHOWN. THE PLACEMENT OF SUCH BARRIER OR FENCE SHALL BE LOCATED NO CLOSER THAN THE DRIP LINE OF THE PRESERVED OR RELOCATED TREE OR A MIN. OF 10' FROM TRUNK, WHICHEVER IS GREATER. WOODEN (OR EQUIVALENT) POSTS AT LEAST 2 x 2 INCHES SHALL BE IMPLANTED IN THE GROUND DEEP ENOUGH TO BE STABLE AND WITH AT LEAST 3 FEET VISIBLE ABOVE THE GROUND. THE PROTECTIVE POSTS SHALL BE PLACED NOT MORE THAN 20 FEET APART, AND SHALL BE LINKED TOGETHER BY ORANGE NET FENCE FABRIC, OR OTHER. NO HEAVY EQUIPMENT, VEHICLES, STORAGE OF MATERIALS, ETC., SHALL OCCUR WITHIN THE VEG. PROTECTION ZONE. EXTREME CARE SHALL BE TAKEN WHEN WORKING NEAR THE BASE OF TREES. NO FINISH GRADE FILL SHALL BE PLACED WITHIN A ZONE OF 2/3 THE DIAMETER OF THE TREE CANOPY.

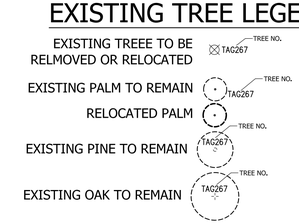
CONSTRUCTION WITHIN CANOPY & TREE BARRICADE SHALL BE BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL.

UTILITY WORK (TRENCHING) WITHIN THE CANOPY & TREE BARRICADE SHALL BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL. THE TREE BARRICADE WILL BE MODIFIED TEMPORARILY TO ALLOW ONLY THE MINIMUM WORK ZONE TRESPASS INTO THE CANOPY AREA, CONTINUING TO PROTECT THE REST OF THE CANOPY AREA WITH BARRICADE. NO FILL, EVEN TEMPORARY, SHALL BE PLACED IN ANY PROTECTED ZONE. AT THE CONCLUSION OF SAID ACTIVITY, THE WORKZONE SHALL BE CLEANED UP & TREE BARRICADES REPLACED TO THEIR ORIGINAL CONFIGURATION.

TREE PROTECTION DETAIL

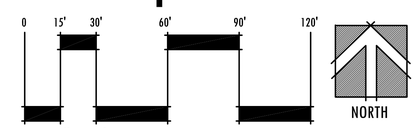
N.T.S.

EXISTING TREE LEGEND



REFER TO SHEET TR-3 FOR TREE DISPOSITION CHART

Tree Dispostion Plan



Scale: 1" = 30'

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: 1" =30'-0"

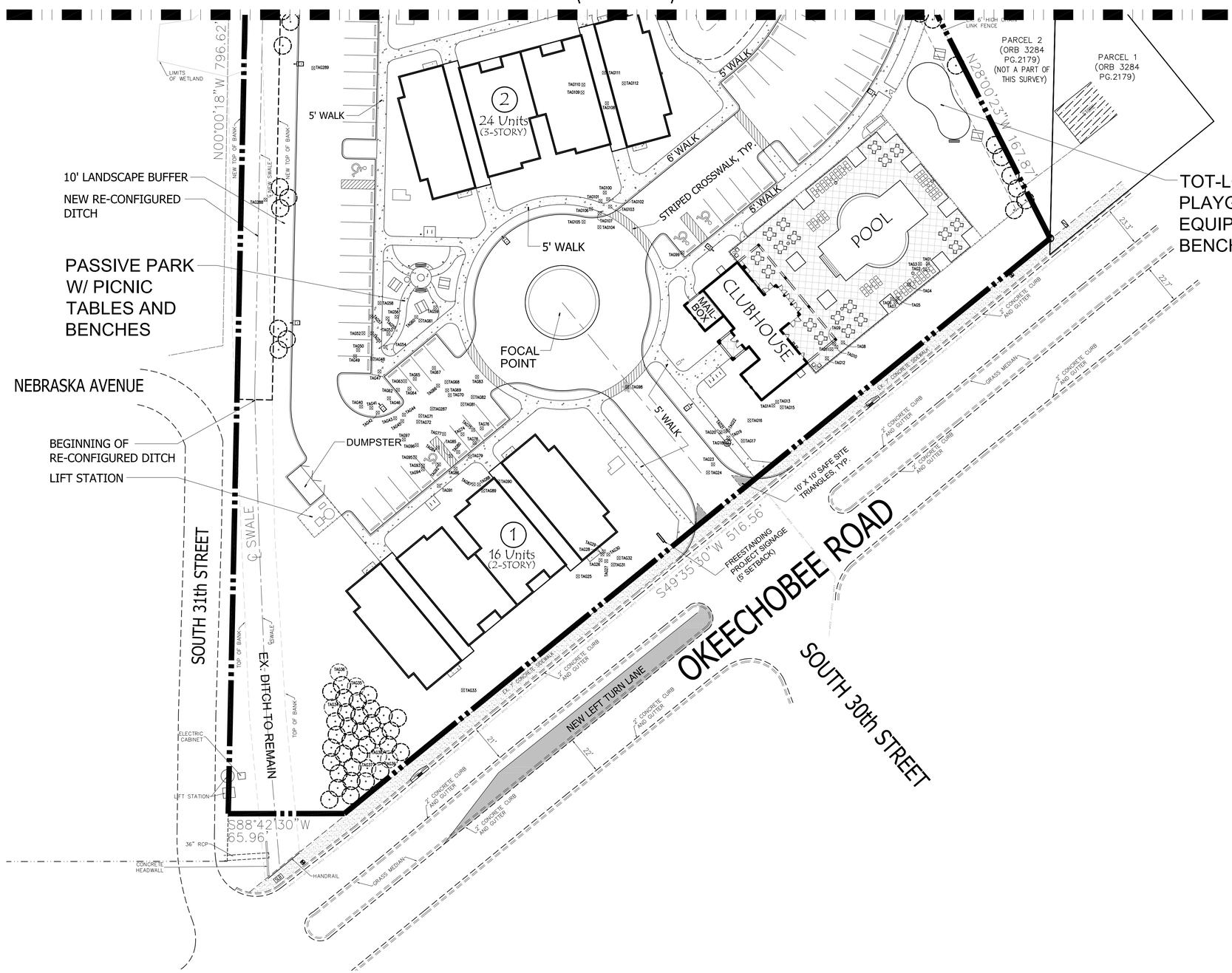
Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.

TR-1

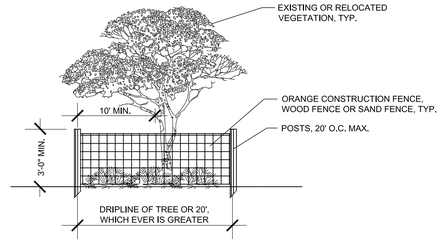
MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

MATCHLINE (SEE SHEET TR-1)



EXISTING TREE LEGEND

EXISTING TREEE TO BE RELMOVED OR RELOCATED — TREE NO. TAG267
EXISTING PALM TO REMAIN — TREE NO. TAG267
RELOCATED PALM — TREE NO. TAG267
EXISTING PINE TO REMAIN — TREE NO. TAG267
EXISTING OAK TO REMAIN — TREE NO. TAG267



FENCING OF UNDISTURBED AREAS AND/OR EXISTING TREES:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL ENCLOSE THE ENTIRE UNDISTURBED AREA, OR TREE, WITHIN A FENCE OR SIMILAR BARRIER AS SHOWN. THE PLACEMENT OF SUCH BARRIER OR FENCE SHALL BE LOCATED NO CLOSER THAN THE DRIP LINE OF THE PRESERVED OR RELOCATED TREE OR A MIN. OF 10' FROM TRUNK, WHICHEVER IS GREATER. WOODEN (OR EQUIVALENT) POSTS AT LEAST 2 x 2 INCHES SHALL BE IMPLANTED IN THE GROUND DEEP ENOUGH TO BE STABLE AND WITH AT LEAST 3 FEET VISIBLE ABOVE THE GROUND. THE PROTECTIVE POSTS SHALL BE PLACED NOT MORE THAN 20 FEET APART, AND SHALL BE LINKED TOGETHER BY ORANGE NET FENCE FABRIC, OR OTHER. NO HEAVY EQUIPMENT, VEHICLES, STORAGE OF MATERIALS, ETC., SHALL OCCUR WITHIN THE VEG. PROTECTION ZONE. EXTREME CARE SHALL BE TAKEN WHEN WORKING NEAR THE BASE OF TREES. NO FINISH GRADE FILL SHALL BE PLACED WITHIN A ZONE OF 2/3 THE DIAMETER OF THE TREE CANOPY.

CONSTRUCTION WITHIN CANOPY & TREE BARRICADE SHALL BE BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL.

UTILITY WORK (TRENCHING) WITHIN THE CANOPY & TREE BARRICADE SHALL BE DONE WITH EXTREME CARE TO MINIMIZE DISTURBANCE TO THE ROOTS BY EXCAVATING, COMPACTING OR ADDING FILL. THE TREE BARRICADE WILL BE MODIFIED TEMPORARILY TO ALLOW ONLY THE MINIMUM WORK ZONE TRESPASS INTO THE CANOPY AREA, CONTINUING TO PROTECT THE REST OF THE CANOPY AREA WITH BARRICADE. NO FILL, EVEN TEMPORARY, SHALL BE PLACED IN ANY PROTECTED ZONE. AT THE CONCLUSION OF SAID ACTIVITY, THE WORKZONE SHALL BE CLEANED UP & TREE BARRICADES REPLACED TO THEIR ORIGINAL CONFIGURATION.

TREE PROTECTION DETAIL

N.T.S.

Tree Dispostion Plan

REFER TO SHEET TR-3 FOR TREE DISPOSITION CHART

0 15' 30' 60' 90' 120'
Scale: 1" = 30'

NORTH

Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential

Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: 1" =30'-0"

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.
TR-2

TREE DISPOSITION CHART

TAG NUMBER	TREE TYPE	NATIVE	DBH (INCHES)	CLEAR TRUNK HEIGHT	DISPOSITION	MITIGATION REQ'D.
1	PALM	YES	20	17'	RELOCATE	
2	PALM	YES	16	17'	RELOCATE	
3	PALM	YES	18	15'	RELOCATE	
4	PALM	YES	14	22'	RELOCATE	
5	PALM	YES	18	18'	RELOCATE	
6	PALM	YES	16	14'	RELOCATE	
7	PALM	YES	18	14'	RELOCATE	
8	PALM	YES	20	18'	RELOCATE	
9	PALM	YES	16	15'	RELOCATE	
10	PALM	YES	24	15'	RELOCATE	
11	PALM	YES	16	18'	RELOCATE	
12	PALM	YES	16	19'	RELOCATE	
13	PALM	YES	22	10'	RELOCATE	
14	PALM	YES	24	15'	RELOCATE	
15	PALM	YES	24	13'	RELOCATE	
16	PALM	YES	16	14'	RELOCATE	
17	PALM	YES	20	17'	RELOCATE	
18	BANYAN	NO	48		REMOVE	
19	PALM	YES	16	18'	RELOCATE	
20	PALM	YES	14	18'	RELOCATE	
21	PALM	YES	16	15'	RELOCATE	
22	PALM	YES	16	10'	RELOCATE	
23	PALM	YES	20	14'	RELOCATE	
24	PALM	YES	18	15'	RELOCATE	
25	PALM	YES	18	18'	RELOCATE	
26	PALM	YES	16	15'	RELOCATE	
27	PALM	YES	20	15'	RELOCATE	
28	PALM	YES	16	17'	RELOCATE	
29	PALM	YES	16	11'	RELOCATE	
30	PALM	YES	18	14'	RELOCATE	
31	PALM	YES	24	16'	RELOCATE	
32	PALM	YES	16	7'	REMOVE	NONE
33	PALM	YES	18	19'	RELOCATE	
34	PALM	YES	16	17'	REMAIN	
35	PALM	YES	18	17'	REMAIN	
36	PALM	YES	18	18'	REMAIN	
37	PALM	YES	18	20'	REMAIN	
38	PALM	YES	16	21'	REMAIN	
39	PALM	YES	14	17'	REMAIN	
40	PALM	YES	20	18'	RELOCATE	
41	PALM	YES	18	20'	RELOCATE	
42	PALM	YES	16	19'	RELOCATE	
43	PALM	YES	16	19'	RELOCATE	
44	PALM	YES	16	21'	RELOCATE	
45	PALM	YES	18	19'	RELOCATE	
46	PALM	YES	20	22'	RELOCATE	
47	PALM	YES	16	19'	RELOCATE	
48	PALM	YES	16	18'	RELOCATE	
49	PALM	YES	18	17'	RELOCATE	
50	PALM	YES	16	20'	RELOCATE	
51	PALM	YES	18	19'	RELOCATE	
52	PALM	YES	10	18'	RELOCATE	
53	PALM	YES	14	18'	RELOCATE	
54	PALM	YES	18	18'	RELOCATE	
55	PALM	YES	20	22'	RELOCATE	
56	PALM	YES	14	19'	RELOCATE	
57	PALM	YES	10	18'	RELOCATE	
58	PALM	YES	14	19'	RELOCATE	
59	PALM	YES	18	16'	RELOCATE	
60	PALM	YES	16	16'	RELOCATE	
61	PALM	YES	18	15'	RELOCATE	
62	PALM	YES	16	23'	RELOCATE	
63	PALM	YES	16	21'	RELOCATE	
64	PALM	YES	20	18'	RELOCATE	
65	PALM	YES	12	19'	RELOCATE	
66	PALM	YES	18	21'	RELOCATE	
67	PALM	YES	18	17'	RELOCATE	
68	OAK	YES	5		REMOVE	NONE
69	PALM	YES	20	18'	RELOCATE	
70	PALM	YES	22	20'	RELOCATE	
71	PALM	YES	20	20'	RELOCATE	
72	PALM	YES	16	18'	RELOCATE	
74	PALM	YES	14	18'	RELOCATE	
75	PALM	YES	14	9'	REMOVE	NONE
76	PALM	YES	24	19'	RELOCATE	
77	PALM	YES	18	18'	RELOCATE	
78	PALM	YES	18	17'	RELOCATE	
79	PALM	YES	14	13'	RELOCATE	
80	PALM	YES	18	18'	RELOCATE	
81	PALM	YES	24	19'	RELOCATE	
82	PALM	YES	18	16'	RELOCATE	
83	PALM	YES	16	15'	RELOCATE	
84	PALM	YES	16	19'	RELOCATE	
85	PALM	YES	16	20'	RELOCATE	
86	PALM	YES	18	17'	RELOCATE	
87	PALM	YES	16	20'	RELOCATE	
88	PALM	YES	16	18'	RELOCATE	
89	PALM	YES	16	16'	RELOCATE	
90	PALM	YES	18	22'	RELOCATE	
91	PALM	YES	18	22'	RELOCATE	
92	PALM	YES	16	19'	RELOCATE	
93	PALM	YES	18	21'	RELOCATE	
94	PALM	YES	14	20'	RELOCATE	
95	PALM	YES	16	20'	RELOCATE	
96	PALM	YES	18	20'	RELOCATE	

OAK – LAUREL OAK (QUERCUS LAURIFOLIA)
PINE – SLASH PINE (PINUS ELLIOTTII)
PALM – CABBAGE PALM (SABAL PALMETTO)
UNKNOWN – NON-NATIVE EXOTIC

TOTAL MITIGATION (COLUMN)	0"
TOTAL PRESERVED TREES (IN)	0"
TOTAL RELOCATED PALMS	86 PALMS

TAG NUMBER	TREE TYPE	NATIVE	DBH (INCHES)	CLEAR TRUNK HEIGHT	DISPOSITION	MITIGATION REQ'D.
97	PALM	YES	18	20'	RELOCATE	
98	PALM	YES	18	19'	RELOCATE	
99	PALM	YES	16	16'	RELOCATE	
100	PALM	YES	18	17'	RELOCATE	
101	PALM	YES	16	17'	RELOCATE	
102	PALM	YES	18	19'	RELOCATE	
103	PALM	YES	16	18'	RELOCATE	
104	PALM	YES	16	18'	RELOCATE	
105	PALM	YES	16	18'	RELOCATE	
106	PALM	YES	14	15'	RELOCATE	
107	PALM	YES	10	8'	REMOVE	NONE
108	PALM	YES	18	19'	RELOCATE	
109	PALM	YES	16	35'	RELOCATE	
110	PALM	YES	14	20'	RELOCATE	
111	PALM	YES	16	20'	RELOCATE	
112	PALM	YES	18	18'	RELOCATE	
113	OAK	YES	6		REMOVE	NONE
114	PALM	YES	14	13'	REMAIN	
115	PALM	YES	22	18'	REMAIN	
116	PALM	YES	20	20'	REMAIN	
117	PALM	YES	10	7'	REMAIN	
118	UNKNOWN	NO	12		REMOVE	NONE
119	OAK	YES	38		REMAIN	
120	PALM	YES	14	18'	REMAIN	
121	OAK	YES	18		REMAIN	
122	OAK	YES	12		REMAIN	
123	PALM	YES	18	21'	RELOCATE	
124	PALM	YES	18	16'	RELOCATE	
125	PALM	YES	16	26'	REMAIN	
126	PALM	YES	18	29'	REMAIN	
127	OAK	YES	24		REMAIN	
128	PALM	YES	16	32'	REMAIN	
129	UNKNOWN	NO	10		REMOVE	NONE
130	PINE	YES	28		REMAIN	
131	PALM	YES	16	24'	RELOCATE	
132	UNKNOWN	NO	24		REMOVE	NONE
133	OAK	YES	10		REMOVE	NONE
134	OAK	YES	28		REMOVE	28"
135	PALM	YES	18	30'	RELOCATE	
136	OAK	YES	40		REMOVE	40"
137	PALM	YES	18	18'	RELOCATE	
138	PINE	YES	10		REMOVE	NONE
139	UNKNOWN	NO	8		REMOVE	NONE
140	OAK	YES	36		REMOVE	36"
141	PALM	YES	16	20'	RELOCATE	
142	PALM	YES	14	25'	RELOCATE	
143	PALM	YES	16	25'	RELOCATE	
144	OAK	YES	20		REMOVE	20"
145	PALM	YES	14	26'	RELOCATE	
146	PALM	YES	16	21'	RELOCATE	
147	PALM	YES	18	23'	RELOCATE	
148	OAK	YES	16		REMOVE	16"
149	UNKNOWN	NO	18		REMOVE	NONE
150	PALM	YES	22	18'	RELOCATE	
151	PALM	YES	14	7'	REMOVE	NONE
152	PALM	YES	22	22'	RELOCATE	
153	PALM	YES	16	20'	RELOCATE	
154	PALM	YES	22	18'	RELOCATE	
155	PALM	YES	18	17'	RELOCATE	
156	PALM	YES	18	16'	RELOCATE	
157	PALM	YES	16	13'	RELOCATE	
158	PALM	YES	12	10'	RELOCATE	
159	OAK	YES	10		REMOVE	NONE
160	OAK	YES	16		REMOVE	16"
161	PALM	YES	12	7'	REMOVE	
162	PALM	YES	18	24'	RELOCATE	
163	PALM	YES	16	21'	RELOCATE	
164	OAK	YES	36		REMOVE	36"
165	OAK	YES	14		REMOVE	14"
166	OAK	YES	10		REMOVE	NONE
167	POINCIANA	NO	8		REMOVE	NONE
168	OAK	YES	12		REMOVE	NONE
169	OAK	YES	22		REMOVE	22"
170	OAK	YES	18		REMOVE	18"
171	PALM	YES	16	17'	RELOCATE	
172	PALM	YES	18	13'	RELOCATE	
173	PALM	YES	12	6'	REMOVE	
174	UNKNOWN	NO	16		REMOVE	NONE
175	OAK	YES	16		REMOVE	16"
176	UNKNOWN	NO	20		REMOVE	NONE
177	PALM	YES	18	28'	RELOCATE	
178	PALM	YES	8	8'	REMOVE	NONE
179	PALM	YES	20	22'	RELOCATE	
180	PALM	YES	12	6'	REMOVE	
181	PALM	YES	18	18'	RELOCATE	
182	PALM	YES	18	16'	RELOCATE	
183	PALM	YES	18	17'	RELOCATE	
184	OAK	YES	26		REMOVE	26"
185	PALM	YES	16	28'	RELOCATE	
186	PALM	YES	14	23'	RELOCATE	
187	PALM	YES	16	14'	RELOCATE	
188	PALM	YES	16	18'	RELOCATE	
189	PALM	YES	16	20'	RELOCATE	
190	UNKNOWN	NO	24		REMOVE	NONE
191	PALM	YES	16	14'	RELOCATE	
192	OAK	YES	36		REMOVE	36"
193	UNKNOWN	NO	10		REMOVE	NONE

OAK – LAUREL OAK (QUERCUS LAURIFOLIA)
PINE – SLASH PINE (PINUS ELLIOTTII)
PALM – CABBAGE PALM (SABAL PALMETTO)
UNKNOWN – NON-NATIVE EXOTIC

TOTAL MITIGATION (COLUMN)	324"
TOTAL PRESERVED TREES (IN)	120"
TOTAL RELOCATED PALMS	49

TAG NUMBER	TREE TYPE	NATIVE	DBH (INCHES)	CLEAR TRUNK HEIGHT	DISPOSITION	MITIGATION REQ'D.
194	OAK	YES	36		REMAIN	
195	PALM	YES	18	26'	REMAIN	
196	OAK	YES	18		REMAIN	
197	UNKNOWN	NO	8		REMOVE	
198	UNKNOWN	NO	8		REMOVE	
199	UNKNOWN	NO	8		REMOVE	
200	OAK	YES	10		REMAIN	
201	OAK	YES	6		REMOVE	NONE
202	OAK	YES	6		REMOVE	NONE
203	OAK	YES	4		REMOVE	NONE
204	OAK	YES	6		REMOVE	NONE
205	OAK	YES	8		REMOVE	NONE
206	OAK	YES	8		REMOVE	NONE
207	OAK	YES	8		REMOVE	NONE
208	OAK	YES	6		REMOVE	NONE
209	OAK	YES	6		REMOVE	NONE
210	UNKNOWN	NO	10		REMOVE	NONE
211	PALM	YES	16	18'	RELOCATE	
212	PALM	YES	18	18'	RELOCATE	
213	PALM	YES	14		RELOCATE	
214	OAK	YES	20		REMOVE	26"
215	OAK	YES	26		REMOVE	26"
216	OAK	YES	30		REMAIN	
217	SILK OAK	NO	10		REMOVE	NONE
218	OAK	YES	14		REMAIN	
219	PALM	YES	20	19'	REMAIN	
220	OAK	YES	30		REMAIN	OFF-SITE
221	UNKNOWN	NO	8		REMOVE	NONE
222	UNKNOWN	NO	12		REMOVE	NONE
223	UNKNOWN	NO	8		REMOVE	NONE
224	PALM	YES	18	20'	RELOCATE	
225	UNKNOWN	NO	6		REMOVE	NONE
226	UNKNOWN	NO	6		REMOVE	NONE
227	UNKNOWN	NO	4		REMOVE	NONE
228	UNKNOWN	NO	6		REMOVE	NONE
229	OAK	YES	6		REMAIN	
230	UNKNOWN	NO	12		REMOVE	NONE
231	PALM	YES	22	18'	REMAIN	OFF-SITE
232	UNKNOWN	NO	30		REMOVE	NONE
233	PALM	YES	22	17'	RELOCATE	
234	OAK	YES	12		REMOVE	NONE
235	OAK	YES	10		REMOVE	NONE
236	UNKNOWN	NO	8		REMOVE	NONE
237	UNKNOWN	NO	6		REMOVE	NONE
238	UNKNOWN	NO	6		REMOVE	NONE
239	OAK	YES	16		REMOVE	16"
240	OAK	YES	10		REMOVE	NONE
241	UNKNOWN	NO	14		REMOVE	NONE
242	UNKNOWN	NO	8		REMOVE	NONE
243	UNKNOWN	NO	8		REMOVE	NONE
244	UNKNOWN	NO	10		REMOVE	NONE
245	PINE	YES	10		REMOVE	NONE
246	PINE	YES	10		REMOVE	NONE
247	OAK	YES	10		REMOVE	NONE
248	OAK	YES	10		REMOVE	NONE
249	PALM	YES	18	23'	RELOCATE	
250	PALM	YES	18	20'	REMAIN	
251	PINE	YES	10		REMAIN	OFF-SITE
252	PALM	YES	16	22'	RELOCATE	
253	OAK	YES	26		REMOVE	26"
254	OAK	YES	16		REMOVE	16"
255	OAK	YES	14		REMOVE	14"
256	OAK	YES	12		REMOVE	NONE
257	OAK	YES	14		REMOVE	14"
258	PALM	YES	22	28'	RELOCATE	
259	UNKNOWN	NO	8		REMOVE	NONE
260	PALM	YES	12	6'	REMOVE	NONE
261	PALM	YES	14	10'	RELOCATE	
262	UNKNOWN	NO	10		REMOVE	NONE
263	PINE	YES	14		REMAIN	
264	OAK	YES	18		REMOVE	18"
265	PALM	YES	16	21'	RELOCATE	
266	PALM	YES	18	20'	RELOCATE	
267	PALM	YES	20	18'	RELOCATE	
268	PALM	YES	20	20'	REMAIN	OFF-SITE
269	OAK	YES	20		REMAIN	
270	OAK	YES	10		REMOVE	NONE
271	PALM	YES	16	13'	RELOCATE	
272	OAK	YES	36		REMOVE	36"
273	PALM	YES	16	14'	RELOCATE	
274	UNKNOWN	NO	6		REMOVE	NONE
275	UNKNOWN	NO	6		REMOVE	NONE
276	PALM	YES	16	25'	REMAIN	
277	PALM	YES	12	11'	REMAIN	
278	PALM	YES	18	18'	RELOCATE	
279	OAK	YES	18		REMOVE	18"
280	OAK	YES	18		REMOVE	18"
281	PALM	YES	18	22'	RELOCATE	
282	PALM	YES	18	18'	RELOCATE	
283	PALM	YES	16	10'	REMAIN	
284	PINE	YES	16		REMAIN	
285	PINE	YES	12		REMAIN	
286	PINE	YES	10		REMAIN	
287	PALM	YES	18	19'	RELOCATE	
288	PALM	YES	16	18'	RELOCATE	
289	PALM	YES	18	19'	RELOCATE	
290	UNKNOWN	NO	30		REMOVE	NONE

OAK – LAUREL OAK (QUERCUS LAURIFOLIA)
PINE – SLASH PINE (PINUS ELLIOTTII)
PALM – CABBAGE PALM (SABAL PALMETTO)
UNKNOWN – NON-NATIVE EXOTIC

TOTAL MITIGATION (COLUMN)	228"
TOTAL PRESERVED TREES (IN)	196"
TOTAL RELOCATED PALMS	20

TOTAL RELOCATED PALMS: 155 PALMS
TOTAL MITIGATION REQUIRED (IN.): 552"
TOTAL PRESERVED TREES (IN.): 316"
TOTAL MITIGATION: 236"

ADDITIONAL TREES PROVIDED ON LANDSCAPE PLANS: 135 TREES OR 337.5" @ 2.5" PER TREE

SINCE THE ADDITIONAL TREES PROVIDED AMOUNT TO MORE DBH INCHES THAN IS REQUIRED TO BE MITIGATED, NO ADDITIONAL MITIGATION IS NEEDED.

Tree Dispostion Plan

MANAGED LAND ENTITLEMENTS
3710 BUCKEYE STREET, SUITE 100, PALM BEACH GARDENS, FL 33410 • P 561.568.8045

LC26000482
Litterick Landscape Architecture
2740 SW Martin Downs Blvd. #199
Palm City, Fl 34990
561-719-3876
JasonLA1677@yahoo.com

Project Name

Arrow Fort Pierce Residential
Ft. Pierce, Florida

Landscape Architect of Record

REGISTERED LANDSCAPE ARCHITECT JASON M. LITTERICK LA 0001677 STATE OF FLORIDA

Jason M. Litterick, RLA
(LA0001677)

Scale: Not to Scale

Designed:	JML
Drawn:	JML
Approved:	JML
Date:	6/25/2020
Job no.	
Revisions:	

Sheet No.
TR-3

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

PUBLIC NOTIFICATION CERTIFICATION

PROJECT NAME: Site Plan & Conditional Use - Aria Apartments - 3000 Okeechobee Road

NOTICES PROVIDED PURSUANT TO: City Code Section 125-37

NOTICE BY NEWSPAPER: September 6th, 2020

NOTICE BY MAIL: September 9th, 2020

NOTICE BY SIGNS: September 10th, 2020

VERIFIED BY: Vennis Gilmore **TITLE:** Planner

SIGNATURE: **DATE:** September 10th, 2020

1
ST LUCIE COUNTY
2300 Virginia AVE
Fort Pierce; FL 34982-5632

2
Church of the Nazarene of the New Jerusalem Inc
407 Florida AVE
Fort Pierce; FL 34950-8360

3
Ana Laura Ramos
1208 S 33rd ST
Fort Pierce; FL 34947-6311

4
Jose P Garcia
117 Hartman RD
Fort Pierce; FL 34947-3401

5
ARJB LLC
6 Forest Hills Ln
Boca Raton; FL 33431-3901

6
Maxiplex LLC
5475 NW Saint James DR; Unit # 407
Port St Lucie; FL 34983-3444

7
Christina M Perez
1210 S 33rd St
Fort Pierce; FL 34947-6311

8
Iglesia de Dios Pentecostal Movimiento Intl
PO Box 1575
Fort Pierce; FL 34954-1575

9
Gerardo Alcebo
6479 Lakemont Cir
Greenacres; FL 33463-2419

10
Arrow Investment Group LLC
4512 N Flagler DR; Unit # 2056
West Palm Beach; FL 33407-3839

11
St Lucie Habitat For Humanity
702 S 6th ST
Fort Pierce; FL 34950-8342

12
Open Door House of Prayer Inc
1312 S 33rd ST
Fort Pierce; FL 34947-6314

13
Open Door House of Prayer Inc
5900 Citrus AVE
Fort Pierce; FL 34982-3309

14
Green Keel Holdings LLC
1503 Boston AVE
Fort Pierce; FL 34950-3927

15
Annie M Widlan
243 23rd ST
Okeechobee; FL 34974-0540

16
Juan G Soto and Azucena Z Soto
7800 W Oakland Park BLVD; Unit Ste 109
Sunrise; FL 33351-1121

17
Andy C Andrei
247 NE Airoso BLVD
Port St Lucie; FL 34983-1675

18
Sanco LLC
901 Bermuda Gardens Rd
Delray Beach; FL 33483-6420

19
Thirrel A Altman Sr and Roberta M Altman
PO Box 360911
Melbourne; FL 32936-0911

20
Zachary P Pfeiffer and Michelle R Pfeiffer
3560 Cypress ST
Palm Beach Gardens; FL 33410-5646

21
Michael B Wilson
1609 S 29th St
Fort Pierce; FL 34947-6948

22
Jillian Alexa Rae Peralta and Chadrick M Britton
1605 S 29th ST
Fort Pierce; FL 34947-6948

23
Adrian Morales and Jorge L Morales
1033 Trinidad AVE
Fort Pierce; FL 34982-4333

24
Pedro Rodriguez and Lucia Rodriguez
1505 S 29th ST; Unit A
Fort Pierce; FL 34947-6946

25
Robert I Hayes and Carol O Hayes
201 Rosewood Dr
Fort Pierce; FL 34949-8327

26
ID 2911 LLC
18651 SW 39th ST
Miramar; FL 33029-2703

27
Richard F Haisley and Jimmie A Haisley
3015 Okeechobee Rd
Fort Pierce; FL 34947

28
Roland P Ruppert (EST)
1610 S 30th St
Fort Pierce; FL 34947

29
Kenneth G Cheatham
1612 S 30th St
Fort Pierce; FL 34947-6911

30
Maricela Z Loredo
1703 S 30th ST
Fort Pierce; FL 34947-6912

31
Oziel Andrade
7002 Deer Park AVE
Fort Pierce; FL 34951-1819

32
Herman Castro and Yolanda M Castro
1706 S 31st ST
Fort Pierce; FL 34947-6922

33
Mary Louise Stephens
8766 E Lost College RD
Pekin; IN 47165-7176

34
Noe Bautista
1501 S 28th St
Fort Pierce; FL 34947

35
Victor M Hernandez
1505 S 28th St
Fort Pierce; FL 34947

36
Dorothy N Guettler
1511 S 28th St
Fort Pierce; FL 34947

37
Rogelio Fernandez and Maria Fernandez
1506 S 29th St
Fort Pierce; FL 34947-6945

38
Virginia Leitner
1546 Pulitzer Rd
Fort Pierce; FL 34945-4425

39
A Pink Jelly Bean Inc
1082 SW Bayshore BLVD
Port St Lucie; FL 34983-2400

40
Caraf Land 2829 LLC
7844 NW 178th ST
Hialeah; FL 33015-3649

41
Crull Services Inc
81 Queens RD
Fort Pierce; FL 34949-8312

42
Juvencio L Rojas and Isabel G Izquierdo
3102 Louisiana AVE; Unit Apt B
Fort Pierce; FL 34947-7281

43
Justin T Dixon
2410 Avenue D
Fort Pierce; FL 34950-2756

44
Juvencio L Rojas and Isabel G Izquierdo
3102 Louisiana AVE; Unit Apt A
Fort Pierce; FL 34947-7281

45
Mildred A Smith
1103 Hemlock Cir
Fort Pierce; FL 34947-7237

46
Ray C Wiley and Francis C Wiley
1105 Hemlock Cir
Fort Pierce; FL 34947-7237

47
Jeremy Green
1107 Hemlock CIR
Fort Pierce; FL 34947-7237

48
Wingfield Dev Co
4716 Joanna Garden Ct
Windermere; FL 34786-8837

49
Mary A West
1118 Hemlock Cir
Fort Pierce; FL 34947-7236

50
Samuel T Andrews and Stephanie L Andrews
1120 Hemlock Cir
Fort Pierce; FL 34947-7236

51
Celia Lexine
1122 Hemlock CIR
Fort Pierce; FL 34947-7236

52
Courtney J Davis
702 N 23rd St
Fort Pierce; FL 34950

53
Arlene Hall
136 SW Saratoga AVE
Port St Lucie; FL 34953-5977

54
Vickey L Walker and Richard Walker Jr
1104 Hemlock CIR
Fort Pierce; FL 34947-7236

55
EDF Inc
8390 Currency Dr
Riviera Beach; FL 33404

56
Ornie L Patterson
1119 Hemlock Cir
Fort Pierce; FL 34947-7237

57
Ruby Dennard
1121 Hemlock Cir
Fort Pierce; FL 34947-7237

58
613 Homes LLC
4577 N Meridian AVE
Miami Beach; FL 33140-2944

59
Anastacio Reyes
1602 S 29th St
Fort Pierce; FL 34947-6947

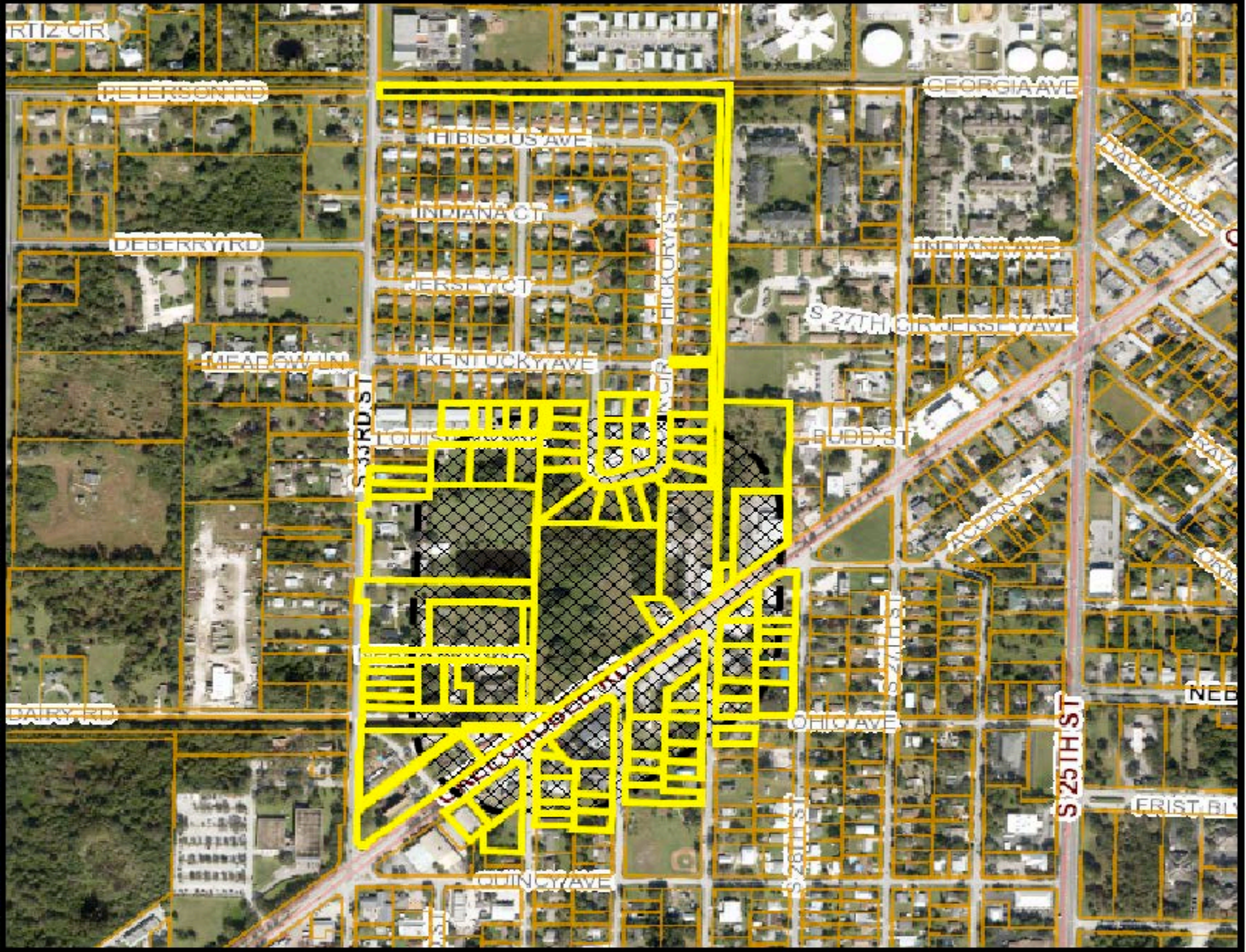
60
Candyland Properties Of St Lucie LLC
442 SE Starflower AVE
Port St Lucie; FL 34983-4516

61
Community United Methodist Church
3114 Okeechobee Rd
Fort Pierce; FL 34947-4619

62
Leobardo Mata and Rosa Barajas
1005 S 8th St
Fort Pierce; FL 34950

63
TRIPLE D VENTURES LLC
3803 Eleven Mile RD
Fort Pierce; FL 34945-2541

64
Malinda R Jordan and Rex M Jordan
1711 S 31st St
Fort Pierce; FL 34950



Location Buffer Map
3000 Okeechobee Road
Aria Apartments

THE SUNRISE CITY
FORT PIERCE
Florida

Treasure Coast Newspapers

PART OF THE USA TODAY NETWORK

St Lucie News Tribune
1801 U.S. 1, Vero Beach, FL 32960

AFFIDAVIT OF PUBLICATION

CITY OF FORT PIERCE
100 N. U.S. 1

FORT PIERCE, FL 34950

STATE OF WISCONSIN
COUNTY OF BROWN

Before the undersigned authority personally appeared, said legal clerk, who on oath says that he/she is a legal clerk of the St Lucie News Tribune, a daily newspaper published at Fort Pierce in St. Lucie County, Florida: that the attached copy of advertisement was published in the St Lucie News Tribune in the following issues below. Affiant further says that the said St Lucie News Tribune is a newspaper published in Fort Pierce in said St. Lucie County, Florida, and that said newspaper has heretofore been continuously published in said St. Lucie County, Florida, daily and distributed in St. Lucie County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid or promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper. The St Lucie News Tribune has been entered as Periodical Matter at the Post Offices in Fort Pierce, St. Lucie County, Florida and has been for a period of one year next preceding the first publication of the attached copy of advertisement.

09/06/2020

Subscribed and sworn to before on September 6, 2020:

Tara Mondloch

Notary, State of WI, County of Brown

TARA MONDLOCH
Notary Public
State of Wisconsin

My commission expires August 6, 2021

Publication Cost: $162.24
Ad No: 0004360602
Customer No: 1330883
PO #: 4360602

# of Affidavits 1

CITY OF FORT PIERCE
NOTICE OF PUBLIC HEARING

The City Commission of the City of Fort Pierce, Florida, pursuant to Section 125-37 of the Code of Ordinances of the City of Fort Pierce, will on Monday, September 21, 2020 hold Public Hearings in the City Hall Commission Chambers, 100 North U.S. #1, Fort Pierce, Florida, at their meeting which begins at 4:30 p.m., to consider review and approval of the following:

1. Application for Site Plan and Design Review submitted by property owner, St. Lucie County and Representative Blue Sky Communities, to construct a 164 unit multi-family development on a property located on the west side of McNeil Road approximately 1,000 feet northwest of Okeechobee Road in Fort Pierce, FL. The property is zoned High Density Residential (R-5). Parcel ID: 2419-211-0004-000-8.

2. Application for Site Plan, Design Review, and Conditional Use submitted by Property Owner, Arrow Investment Group, LLC and Representative, Michael Sanchez of Managed Land Entitlements, to construct a 112 unit Innovative Residential Multi-Family Development on a property located at 3000 Okeechobee Road in Fort Pierce, FL. The property is currently zoned General Commercial (C-3). There is an active rezoning application by the applicant to rezone the property to Medium Density Residential (R-4). Parcel ID: 2417-504-0020-001-6

3. Application for Conditional Use with No New Construction submitted by Property Owner and Applicant, Augustus B. Fort Jr., to operate a Vacation Rental, offering lodging for a minimum rental period identified as two days on a property located at 715 S. Ocean Drive, Unit F in Fort Pierce, FL. The property is zoned Hutchinson Island Medium Density Residential (R-4A).
Parcel ID:
2401-504-0006-000-6

All interested parties may appear at the meeting and be heard with respect to the Applications. Said applications will be available for inspection in the City Clerk's Office, City Hall, 100 North U.S. Hwy 1, Fort Pierce, Florida.

ANY PERSON SEEKING TO APPEAL THE DECISION OF THE CITY COMMISSION AS TO THE FOREGOING IS ADVISED THAT A RECORD OF PROCEEDINGS IS REQUIRED IN ANY SUCH APPEAL AND THAT SUCH PERSON MAY NEED TO INSURE THAT A VERBATIM RECORD OF PROCEEDINGS IS MADE INCLUDING THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED.

In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons with disabilities needing special accommodation to participate in this meeting should contact the City Clerk's Office at (772) 467-3065 at least 48 hours prior to the meeting.
/s/ Linda W. Cox, City Clerk

Pub September 6th, 2020
TCN4360602

City Commission Regular Meeting - 6:00 pm **12. e.**

Meeting Date: 10/05/2020

Re: Demolition Hearing - 1311 Avenue E

Submitted For: Peggy Arraiz, Code Compliance Manager, Code Enforcement

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SUBJECT:

Resolution No. 20-R47 and Quasi-Judicial Hearing – A hearing to allow the owners and/or parties of interest in the property identified as 1311 Avenue E to show cause why the structure located on the premises should not be condemned and demolished.

SUMMARY:

1. Original condemnation of both structures (1311 Ave E & 526 N 14th Street) approved by the City Commission in 2000.
2. In 2002 - Building #2 - AKA "526 N 14th St" was repaired sufficiently for occupancy.
3. In 2012 - Builidng #1 - AKA "1311 Ave E" was demolished by the City of Fort Pierce.
4. In 2019 - Due to complaints from neighbors, Building #2 - AKA "526 N 14th St" was boarded by the City of Fort Pierce.
5. Multiple Lot Clearing cases have been initiated and complied by a City vendor.

RECOMMENDATION:

Staff recommends the City Commission approve Resolution No. 20-R47 declaring that the structure located at 1311 Avenue E be condemned and demolished in accordance with the Rules of Procedure for Condemnation and Demolition as adopted by the City Commission.

ALTERNATIVES:

Amend Resolution No. 20-R47
Deny Resolution No. 20-R47

RESPONSIBLE STAFF:

Margaret M. Arraiz, Code Compliance Manager

COORDINATED WITH:

Ed Smith, Building Department Inspector
Maria Lewicka, Historic Preservation Officer
City Attorney's Office

Fiscal Impact

Budgeted Y/N:	Y
Fiscal Year:	2021
Account:	001-2903-524-52-53
Amount:	$17,406.00

OTHER INFORMATION:

If the City is required to take action on behalf of the owner, the cost of demolition ($17,406.00) will be funded through the CSI program.

Attachments

2016 Photos
2017 Photos
2020 Photos
Resolution No. 20-R47
Property Maintenance Inspection Report
Unsafe Building Affidavit and Letter
Additional Notices
Property Appraiser's ID Card
Presentation

Form Review

Inbox	Reviewed By	Date
City Manager	Peggy Arraiz	09/22/2020 02:29 PM
City Manager	Nick Mimms	09/23/2020 02:46 PM

Form Started By: Peggy Arraiz Started On: 09/22/2020 10:38 AM
Final Approval Date: 09/23/2020


526






526


Jul 5, 2017 1:15:24 PM
Fort Pierce
Altitude:-16.0m
Speed:0.0km/h


Jul 5, 2017 1:15:39 PM
Fort Pierce
Altitude:-16.0m
Speed:0.0km/h


526
Jul 5, 2017 1:15:54 PM
Fort Pierce
Altitude: 19.0m
Speed:0.0km/h


Jul 5, 2017 1:16:05 PM
Fort Pierce
Altitude:-21.0m
Speed:0.0km/h


Jul 5, 2017 1:16:09 PM
Fort Pierce
Altitude:-22.0m
Speed:0.0km/h


23/09/20 11:48 AM

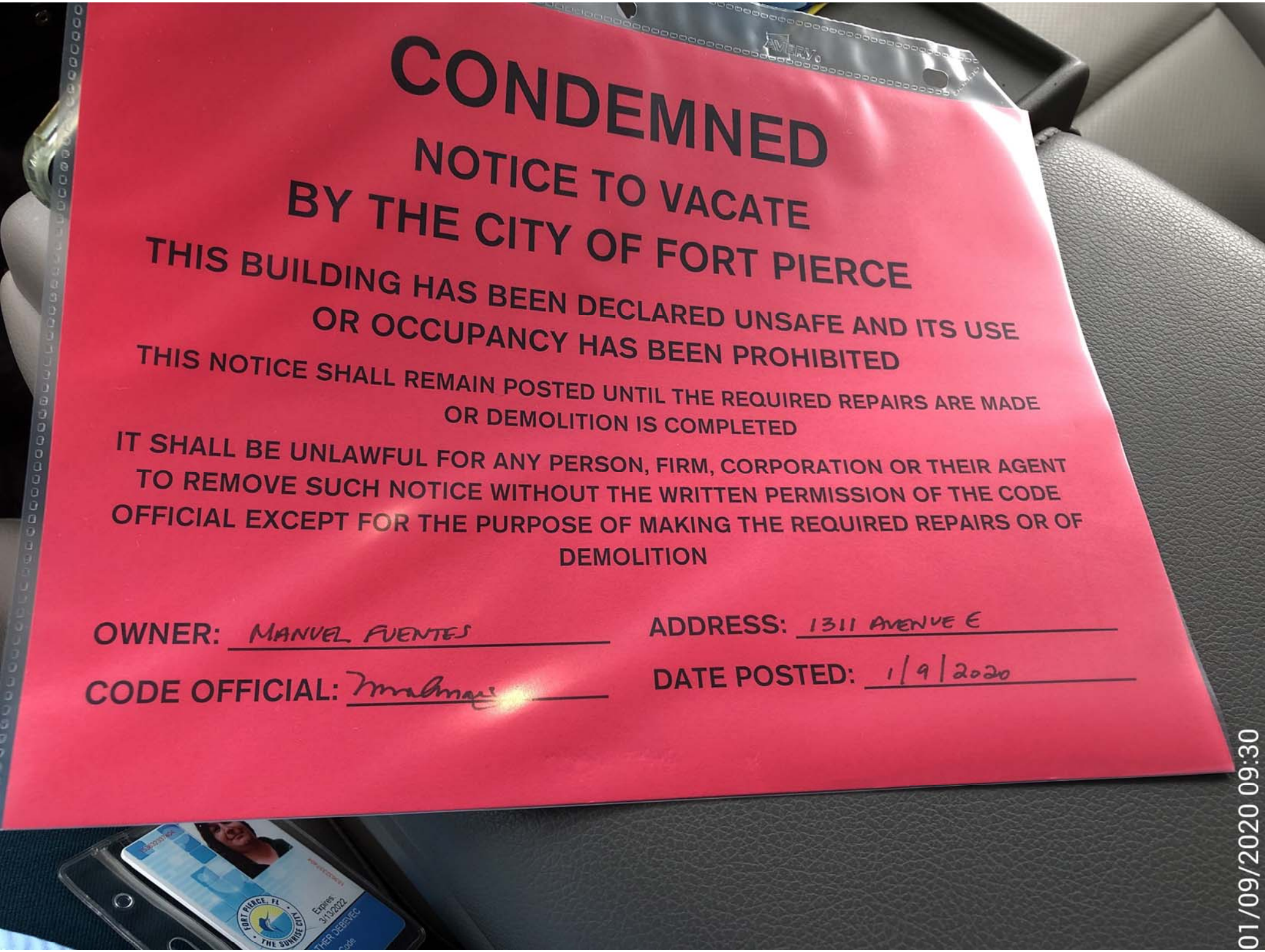

23/09/2011 11:49 AM


23/09/20 11:49 AM

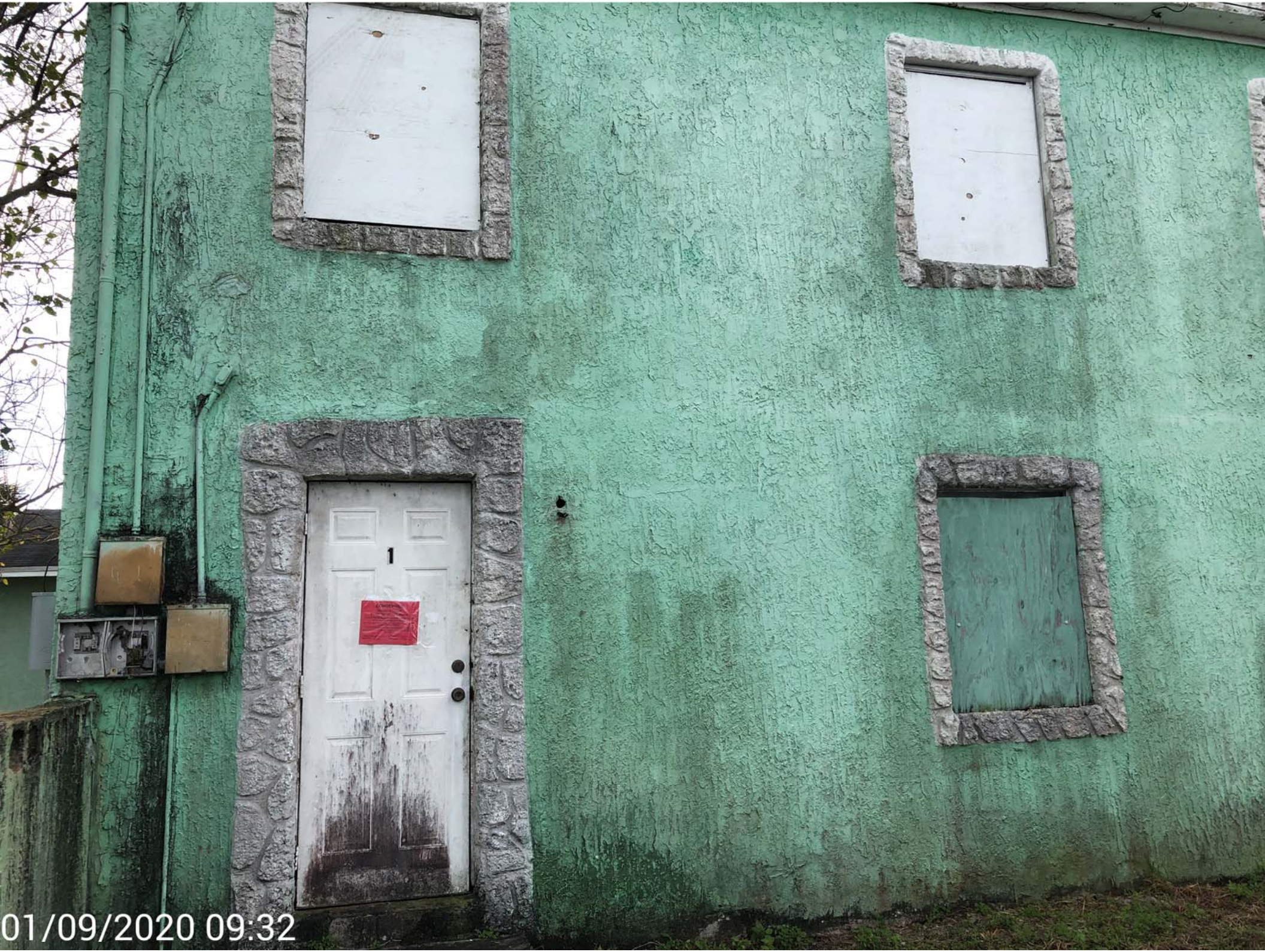
23/09/20 11:49 AM


23/09/20 11:50 AM


23/09/20 11:51 AM


CONDEMNED
NOTICE TO VACATE
BY THE CITY OF FORT PIERCE
THIS BUILDING HAS BEEN DECLARED UNSAFE AND ITS USE OR OCCUPANCY HAS BEEN PROHIBITED
THIS NOTICE SHALL REMAIN POSTED UNTIL THE REQUIRED REPAIRS ARE MADE OR DEMOLITION IS COMPLETED
IT SHALL BE UNLAWFUL FOR ANY PERSON, FIRM, CORPORATION OR THEIR AGENT TO REMOVE SUCH NOTICE WITHOUT THE WRITTEN PERMISSION OF THE CODE OFFICIAL EXCEPT FOR THE PURPOSE OF MAKING THE REQUIRED REPAIRS OR OF DEMOLITION
OWNER: MANUEL FUENTES
ADDRESS: 1311 AVENUE E
CODE OFFICIAL:
DATE POSTED: 1/9/2020
FORT PIERCE, FL
THE SUNRISE CITY
Expires 3/13/2022
01/09/2020 09:30


1
01/09/2020 09:32


1
01/09/2020 09:32


526
23/09/20 11:45 AM


526
23/09/20 11:46 AM


23/09/20 11:46 AM


23/09/20 11:46 AM


526
23/09/20 11:47 AM


23/09/20 11:47 AM


23/09/20 11:48 AM


23/09/20 11:48 AM

RESOLUTION NO. 20-R47

A RESOLUTION DETERMINING THAT A CERTAIN BUILDING OR STRUCTURE LOCATED AT **1311 AVENUE E** IN FORT PIERCE, FLORIDA 34950 IS UNSAFE AND A NUISANCE THAT CONSTITUTES A MENACE TO THE BUSINESS, HEALTH AND SAFETY OF THE COMMUNITY; AND THAT SAID BUILDING OR STRUCTURE **SHALL BE DEMOLISHED**; DECLARING THE PARTIES OF INTEREST WERE PROVIDED THE OPPORTUNITY TO BE HEARD AND ARE RESPONSIBLE FOR THE REMOVAL OF THE BUILDING OR STRUCTURE; AND ORDERING THE CITY OF FORT PIERCE TO PROCEED WITH SUCH REMOVAL AND PLACE A LIEN UPON THE PROPERTY IDENTIFIED IF COMPLETED BY THE CITY OF FORT PIERCE; PROVIDING FOR APPEAL; PROVIDING FOR NOTICE TO ALL PARTIES; AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, The Code of Ordinances for the City of Fort Pierce, Florida provides the City Commission the authority to declare a building or structure unsafe and require its removal or destruction; and

WHEREAS, a public hearing was held before the City Commission on this date, October 5, 2020 to determine if the building or structure located at 1311 Avenue E, Fort Pierce, FL, 34950 is unsafe and a nuisance that constitutes a menace to the business, health and safety of the community; and

WHEREAS, all parties with interest to the property were properly provided notice of the hearing and given the opportunity to show cause why the structure should not be demolished;

NOW, THEREFORE, BE IT RESOLVED by the City Commission of the City of Fort Pierce, Florida;

SECTION 1. That the City Commission determines that the building or structure located on the said lot, tract, or parcel of land within the City of Fort Pierce, St. Lucie County, Florida, described as follows:

1311 AVENUE E

CLYDE KILLER`S A/D BLK 1 W 51.5 FT OF LOTS 15 AND 16 AND N 5 FT OF W 51.5 FT LOT 17

Parcel ID: 2409-502-0018-000/1

is unsafe and a nuisance that constitutes a menace to the business, health and safety of the community and, in accordance with the Charter of the City of Fort Pierce, order its removal by demolition in accordance with the time frames and regulations outlined in the Rules of Procedure for Condemnation and Demolition as adopted by the City Commission.

SECTION 2. The owners, agents, or any person, firm or corporation having a lien on, or interest in, said building or structure, which lien or interest is a matter of record in the public records of St. Lucie County, Florida, were provided the opportunity to be heard and to show cause why said building or structure should not be removed or demolished.

MANUEL FUENTES
5687 E 4TH AVE
HIALEAH, FL, 33013

SECTION 3. The hereinbefore named persons, firms, or corporations are responsible for the removal or demolition of the building or structure and should such parties fail to demolish the building or structure as required by order of the City Commission, the City of Fort Pierce shall provide for its removal or destruction, the cost of which shall constitute a lien upon said property.

SECTION 4. The hereinbefore named persons, firms, or corporations shall have the right to appeal this resolution to the Circuit Court of St. Lucie County, within thirty (30) days of the effective date of this resolution pursuant to the Florida Rules of Appellate Procedure.

SECTION 5. A certified copy of this resolution shall be mailed by registered or certified mail to the hereinbefore named persons, firms, or corporations, by the City Clerk for the City of Fort Pierce, Florida.

SECTION 6. This resolution shall be effective immediately upon final adoption by the Commission.

IN WITNESS HEREWITH, we hereunto set our hands and affix the Official Seal of the City of Fort Pierce, Florida, this _____ day of _____, 20____.

_____
Linda Hudson, Mayor

ATTEST:

_____
Linda Cox, City Clerk

(SEAL)

Approved as to Form
And Correctness:

_____
Peter J. Sweeney, Esq.
City Attorney

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

Property Maintenance Inspection Report

Property Address	526 N 14th St. (1311 Ave E)	Parcel ID #	2409-502-0018-000-1		
House Color	Green	# of Units	4	Historic?	Non-Contributing
Type of Structure	Multi-Family Residence	Building Occupied	No	Time to Comply	30 Days

Action to be taken - Select all that apply

- ○ Unsafe Building - Rehab
- ◉ Unsafe Building - Demo
- ○ Nuisance Abatement - Board up

Posting Type

Inspector	Ed Smith	Date	11/13/2019	Property Posted?	No

Comments

- ○ Active Code Cases ○ NONE
- ○ Active Building Permit ○ NONE
- ○ Lis Pendens check
- ○ Rehab letter sent
- ○ Demo letter sent
- ○ Nuisance letter sent
- ○ Title search done
- ○ Affidavit recorded

Contact Information [Add new contact]

Contact Info

Comments

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

[X] Unsafe structures

[X] 108.1.1 - Unsafe structure

- [ ] Lacks adequate protection from fire
- [ ] Contains unsafe equipment
- [X] All or part of building is likely to collapse

[X] 108.1.2 - Unsafe equipment

- [ ] Unsafe boiler / heating equipment
- [X] Unsafe electrical wiring / device
- [ ] Unsafe elevator / moving stairway
- [ ] Flammable liquid containers within structure
- [ ] Other unsafe equipment

[X] 108.1.3 - Structure unfit for human occupancy

- [ ] Unsafe or unlawful
- [ ] Unsanitary / contains filth / contamination
- [X] vermin or rat infested
- [ ] lacks illumination
- [X] Location of structure constitutes a hazard
- [ ] lacks ventilation
- [ ] lacks heat
- [X] lacks maintenance
- [ ] lacks sanitary facilities

[ ] 108.1.4 - Unlawful structure

- [ ] Occupied by more persons than permitted
- [ ] Erected, altered or occupied contrary to law

[X] 108.1.5 - Dangerous structure or premises

- [ ] (1) Any door, aisle, passageway, stairway, or exit that does not comply to requirements for exiting the building
- [ ] (2) The walking surface of means of egress is so warped, worn, loose, torn or otherwise unsafe to provide means of egress.
- [ ] (3) Any portion of a structure damaged by fire, wind, flood, earthquake, deterioration, neglect, abandonment, vandalism or any other cause that it is likely to partially or completely collapse, or to become detached or dislodged.
- [ ] (4) Any portion of a building, appurtenance or ornamentations that is not of sufficient strength or stability, or is not so anchored or attached to be capable of resisting natural or artificial loads of one and one-half the original designed value.
- [ ] (5) The structure or part of structure because of dilapidation, deterioration, decay, faulty construction, the removal or movement of ground necessary for support or any other reason is likely to collapse or under pining is likely to fail or give way.
- [X] (6) The building or structure, or any portion thereof, is clearly unsafe for its use and occupancy.
- [ ] (7) The structure is neglected, damaged, dilapidated, unsecured or abandoned so as to become an attractive nuisance.
- [ ] (8) Any structure that exists or has been maintained in violation of any specific requirement or prohibition to such an extent as to present either a substantial risk of fire, building collapse or any other threat to life and safety.
- [ ] (9) Any structure intended to be used for dwelling purposes, due to inadequate maintenance, dilapidation ,decay ,damage, faulty construction, inadequate light, ventilation, mechanical or plumbing system is determined to be unsanitary, unfit for human habitation or in such a condition that it is likely to cause sickness or disease.
- [ ] (10) Any structure, due to lack of sufficient fire resistance rated construction, fire protection systems, electrical system, fuel connections, mechanical system, plumbing system or other cause is determined to be a threat to life or health.
- [ ] (11) Any portion of a building remains on a site after the demolition of the structure or whenever any building or structure is abandoned so as to constitute such building or portion thereof as an attractive nuisance or hazard to the public.

Comments

[X] Section 302 - Exterior property areas

- [ ] 302.1 - Sanitation - Premises shall be maintained in a clean, safe and sanitary condition.
- [ ] 302.2 - Grading and Drainage - Premises shall be graded and maintained to prevent erosion of soil and to prevent stagnant water.
- [X] 302.3 - Sidewalks and Driveways - Sidewalks, walkways, stairs, driveways, parking spaces shall be kept in a state of proper repair.
- [X] 302.5 - Rodent Harborage - Structures and exterior property shall be kept free from rodent harborage and infestation.
- [ ] 302.6 - Exhaust vents - Pipes, ducts, conductors, fans or blowers shall not discharge gases, steam, vapor, hot air, grease, smoke, odors or other gaseous or particulate wastes directly upon adjacent public or private property or that of another tenant.
- [ ] 302.7 - Accessory structures - Accessory structures including detached garages, fences and walls shall be maintained in good repair.

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

☐	302.9 - Defacement of property - No person shall willfully damage, mutilate or deface any property by marking, carving or graffiti.

Comments

☐	Section 303 - Swimming Pools, Spas and Hot Tubs
☒	Section 304 - Exterior Structure
☐	304.1 - General - The exterior of a structure shall be maintained in good repair, structurally sound and sanitary so as not to pose a threat to the public health, safety and welfare.
☒	304.1.1 - Unsafe conditions - The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the IBC or the IEBC as required for existing buildings.
☐	1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength.
☐	2. The anchorage of the floor or roof to walls or columns, and of walls and columns to foundations is not capable of resisting all nominal loads or load effects.
☐	3. Structures or components thereof that have reached their limit state.
☐	4. Siding and masonry joints are not maintained, weather resistant or water tight.
☐	5. Structural members that have evidence of deterioration or cannot safety support all nominal loads and load effects.
☐	6. Foundation systems that are not firmly supported by footings, are not plumb without cracks and breaks and are not properly anchored or cannot support all nominal loads and resisting all load effects.
☐	7. Exterior walls that are not anchored to supporting elements or are not plumb or free from holes, cracks, breaks or loose or rotting materials, are not properly anchored and not able of supporting all nominal loads and resisting load effects.
☒	8. Roofing that have defects that admit rain, roof surfaces with inadequate drainage, or any portion that is not in good repair with signs of deterioration, fatigue or without property anchorage and incapable of supporting all nominal loads.
☒	9. Flooring with defects that affect serviceability or that show signs of deterioration or fatigue, are not properly anchored or are incapable of supporting all nominal loads and resisting all load effects.
☐	10. Veneer, cornices, belt courses, corbels, trim , wall facings not properly anchored or that are anchored with connections not capable of supporting all nominal loads and resisting load effects.
☐	11. Overhang extensions or projections including trash chutes, canopies, marquees, signs, awnings, fire escapes, standpipes and exhaust ducts not properly anchored or anchored with connections unable to support all nominal loads.
☒	12. Exterior stairs, decks, porches, balconies and all attachments such as guards and handrails are not structurally sound, not properly anchored or anchored with connections unable to support all nominal loads and resisting all load effects.
☐	13. Chimneys, cooling towers, smokestacks not properly anchored or that are anchored with connections unable to support all nominal loads and resisting all load effects.
☐	304.2 - Protective Treatment - Exterior surfaces, including doors, door and window frames, cornices, porches, trim, balconies, decks and fences shall be maintained in good condition. Exterior surfaces shall be protected from elements and decay by painting or other protective treatment. Peeling, flaking and chipped paint shall be eliminated and surfaces repainted. Siding and masonry joints shall be maintained weather resistant and water tight. Metal surfaces subject to rust or corrosion shall be coated to inhibit such rust and corrosion.
☐	304.3 - Address identification - Buildings shall be provided with approved address identification that are legible and placed to be visible from the street fronting the property. They must contrast with their background, be numerical and a minimum of 4" tall.
☐	304.4 - Structural members - Structural members shall be maintained free from deterioration, and shall be capable of safely supporting the imposed dead and live loads.
☐	304.5 - Foundation walls - Foundation walls shall be maintained plumb and free from cracks and breaks and shall be kept n such condition so as to prevent the entry of rodents and other pests.
☐	304.6 - Exterior walls - Exterior walls shall be free from holes, breaks and loose or rotting materials; and maintained weatherproof and properly surface coated where required to prevent deterioration.
☐	304.7 - Roofs and drainage - The roof and flashing shall be sound, tight and not have defects that admit rain. Drainage must prevent dampness or deterioration in the walls or interior portion of the structure. Drains, gutters and downspouts must be in good repair and free from obstruction. Roof water shall not be discharged in a manner that creates a public nuisance.

- ☐ 304.8 - Decorative features - Cornices, belt courses, corbels, terra cotta trim, wall facing and similar decorative features shall be in good repair with proper anchorage and in safe condition.
- ☐ 304.9 - Overhang extensions - Overhang extensions including canopies, marquees, signs, metal awnings, fire escapes, standpipes and exhaust ducts shall be in good repair and properly anchored and kept in sound condition. All exposed surfaces of metal or wood shall be protected from the elements with weather coating material such as paint or similar surface treatment.
- ☐ 304.10 - Stairways, decks, porches and balconies - Every exterior stairway, deck, porch and balcony shall be structurally sound, in good repair, with proper anchorage and capable of supporting the imposed loads.
- ☐ 304.11 - Chimneys and towers - Chimneys, cooling towers, smoke stacks, shall be structurally safe and sound and in good repair. Exposed surfaces shall be protected by paint or similar surface treatment.
- ☐ 304.12 - Handrails and guards - Every handrail and guard shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.
- ☐ 304.13 - Window, skylight and door frames - Every window, skylight, door and frame shall be kept in sound condition, good repair and weather tight.
  - ☐ 304.13.1 - Glazing - Glazing materials shall be maintained free from cracks or holes.
  - ☐ 304.13.2 - Openable windows - Every window, other than a fixed window, shall be easily openable and capable of being held in position by window hardware.
- ☐ 304.14 - Insect screens - Every door, window and other outside opening required for ventilation or food preparation areas shall have tightly fitting screens of minimum 16 mesh per inch and every screen door must have self closing device is good working condition.
- ☐ 304.15 - Doors - Exterior doors and hardware shall be maintained in good condition. Locks at all entrances to dwelling units and sleeping units shall tightly secure the door.
- ☐ 304.18 - Building security - Doors, windows or hatchways for dwelling units, room units or housekeeping units shall be provided with devices designed to provide security for the occupants and property within.
  - ☐ 304.18.1 - Doors - Doors providing access to a dwelling unit, rooming unit or housekeeping unit that is rented, leased or let shall have a dead bolt designed to open from the inside without a key.
  - ☐ 304.18.2 - Windows - Operable windows located within 6 ft. above the ground that provides access to a dwelling unit, rooming unit or housekeeping unit that is rented, leased or let shall be equipped with a window sash locking device.
- ☐ 304.19 - Gates - Exterior gates, gate assemblies, operator systems and hardware shall be maintained in good condition.

Comments

- ☒ Section 305 - Interior Structure
- ☐ 305.1 - General - The interior of a structure and equipment shall be maintained in good repair, structurally sound and in a sanitary condition.
  - ☐ 305.1.1 - Unsafe conditions - The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the IBC or the IEBD as required for existing buildings.
    - ☐ 1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength.
    - ☐ 2. The anchorage of the floor or roof to walls or columns, and walls and columns to foundations is not capable of resisting all nominal loads or load effects.
    - ☐ 3. Structures or components thereof that have reached their limit state.
    - ☐ 4. Structural members are incapable of supporting nominal loads and load effects.
    - ☐ 5. Stairs, landings, balconies, including guards and handrails, are not structurally sound, not properly anchored or are anchored with connections not capable of supporting all nominal loads and resisting all load effects.
    - ☐ 6. Foundation systems that are not firmly supported by footings are not plumb and free from open cracks and breaks, are not properly anchored or are not capable of supporting all nominal loads and resisting all load effects.

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

- [x] 305.2 - Structural members - Structural members shall be maintained structurally sound, and capable of supporting the imposed loads.
- [x] 305.3 - Interior surfaces - Interior surfaces, including windows and doors,shall be maintained in good, clean and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked plaster, decaying wood and other defective surface conditions shall be corrected.
- [ ] 305.4 - Stairs and walking surfaces - Every stair, ramp, landing, balcony, porch, deck or other waling surface shall be maintained in sound condition and good repair.
- [ ] 305.5 - Handrails and guards - Every handrail and guard shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.
- [ ] 305.6 - Interior doors - Every interior door shall fit reasonably well within its frame and shall be capable of being opened and closed by being properly and securely attached to jambs, headers or tracks as intended by the manufacturer.

Comments

- [x] Section 306 - Component Serviceability
- [ ] 306.1 - General - The components of a structure and equipment therein shall be maintained in good repair, structurally sound and in a sanity condition.
  - [ ] 306.1.1 Unsafe Conditions - Where any of the following conditions cause the component or system to be beyond its limit state, the component or system shall be determined as unsafe and shall be repaired or replaced to comply with the IBC or the IEBC as required for existing buildings.
    - [ ] 1. Soils that have been subjected to any of the following conditions:
      - [ ] 1.1 Collapse of footing or foundation.
      - [ ] 1.2 Damage to footing, foundation, concrete or other structural element due to soil expansion
      - [ ] 1.3 Adverse effects to the design strength of footing, foundation concrete or other structural element due to a chemical reaction from the soil.
      - [ ] 1.4 Inadequate soil as determined by a geotechnical investigation.
      - [ ] 1.5 Where the allowable bearing capacity of the soil is in doubt.
      - [ ] 1.6 Adverse effects to the footing, foundation, concrete or other structural element due to the ground water table.
    - [ ] 2. Concrete that has been subjected to any of the following conditions:
      - [ ] 2.1 Deterioration
      - [ ] 2.2 Ultimate deformation
      - [ ] 2.3 Fractures
      - [ ] 2.4 Fissures
      - [ ] 2.5 Spalling
      - [ ] 2.6 Exposed reinforcement
      - [ ] 2.7 Detached, dislodged or failing connections
    - [ ] 3. Aluminum that has been subjected to any of the following conditions:
      - [ ] 3.1 Deterioration
      - [ ] 3.2 Corrosion
      - [ ] 3.3 Elastic deformation
      - [ ] 3.4 Ultimate deformation
      - [ ] 3.5 Stress or strain cracks
      - [ ] 3.6 Joint fatigue

☐	3.7 Detached, dislodged or failing connections
☐	4. Masonry that has been subjected to any of the following:
☐	4.1 Deterioration
☐	4.2 Ultimate deformation
☐	4.3 Fractures in masonry or mortar joints
☐	4.4 Fissures in masonry or mortar joints
☐	4.5 Spalling
☐	4.6 Exposed reinforcement
☐	4.7 Detached, dislodged or failing connections
☐	5. Steel that has been subjected to any of the following conditions:
☐	5.1 Deterioration
☐	5.2 Elastic deformation
☐	5.3 Ultimate deformation
☐	5.4 Metal fatigue
☐	5.5 Detached, dislodged or failing connections
☒	6. Wood that has been subjected to any of the following conditions:
☐	6.1 Ultimate deformation
☒	6.2 Deterioration
☒	6.3 Damage from insects, rodents and other vermin
☒	6.4 Fire damage beyond charring
☐	6.5 Significant splits and checks
☐	6.6 Horizontal shear cracks
☐	6.7 Vertical shear cracks
☐	6.8 Inadequate support
☐	6.9 Detached, dislodged or failing connections
☐	6.10 Excessive cutting and notching

Comments

☐	Section 307 - Handrails and guardrails
☒	Section 308 - Rubbish and garbage

- [ ] 308.1 - Accumulation of rubbish and garbage - Exterior property and premises, and the interior of every structure, shall be free from any accumulation of rubbish or garbage.
- [ ] 308.2 - Disposal of rubbish - Every occupant of a structure shall dispose of all rubbish in a clean and sanitary manner by placing such rubbish in approved containers.
  - [ ] 308.2.1 - Rubbish storage facilities - The owner of every occupied premises shall supply approved covered containers for rubbish, and the owner of the premises shall be responsible for the removal of rubbish.
  - [ ] 308.2.2 - Refrigerators - Refrigerators and similar equipment not in operation shall not be discarded, abandoned or stored on premises without first removing the doors.
- [x] 308.3 -Disposal of garbage - Every occupant of a structure shall dispose of garbage in a clean and sanitary manner by placing garbage in approved garbage disposal facility or approved garbage containers.
  - [ ] 308.3.1 - Garbage facilities - The owner of every dwelling shall supply one of the following: an approved mechanical food waste grinder in each dwelling unit; an approved incinerator unit or an approved leakproof, covered garbage container.
  - [ ] 308.3.2 - Containers - The operator of every establishment producing garbage shall provide, and at all times cause to be used, approved leakproof containers provide with close fitting covers for storage of such material until removed.

Comments

- [ ] Section 309 - Pest Elimination
- [ ] Section 404 - Occupancy Limits
- [ ] Section 502 - Required facilities
- [ ] Section 503 - Toilet Rooms
- [ ] Section 504 - Plumbing systems and fixtures
- [ ] Section 505 - Water system
- [ ] Section 506 - Sanitary drainage system
- [x] Section 507 - Storm drainage
- [x] 507.1 General - Drainage of roofs and paved areas, yards and courts, and other open areas on the premises shall not be discharged in a manner that creates a public nuisance.

Comments

- [ ] Section 601 - Mechanical - General
- [ ] Section 602 - Heating facilities
- [ ] Section 603 - Mechanical equipment
- [x] Section 604 - Electrical Facilities
- [ ] 604.1 Facilities required - Every occupied building shall be provided with an electrical system in compliance with the requirements of this section and Section 605.
- [ ] 604.2 Service - Dwelling units shall be served by a three-wire, 120/240 volt, single phase service with a minimum of 60 amps.
- [ ] 604.3 Electrical system hazards - Where it found that the electrical system in a structure constitutes a hazard t the occupants or has inadequate service, improper fusing, insufficient receptacle and lighting outlets, improper wiring or installation, deterioration or damage, the code official shall require the defects to be corrected to eliminate the hazard.
  - [x] 604.3.1.1 - Electrical distribution equipment, motor circuits, power equipment, transformers, wire cable, flexible cords, wiring devices, ground fault circuit interrupters, surge protectors, molded case circuit breakers, low voltage fuses, luminaires, ballasts, motors, electronic control, signaling and communication equipment that were exposed to water shall be replaced.
  - [x] 604.3.2.1 - Electric switches, receptacles and fixtures, including furnace, water heating, security system and power distribution circuits that have been exposed to fire shall be replaced.

Comments

☐	Section 605 - Electrical equipment
☐	Section 606 - Elevators, escalators and dumbwaiters
☐	Section 607 - Duct systems
☐	Section 701 - General fire safety requirements
☐	Section 702 - Means of egress
☐	Section 703 - Fire resistance ratings
☐	Section 704 - Fire protection systems

Additional Comments

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

Notice of Unsafe Building
Affidavit

Case#: 20-0028

Property Address: 1311 AVENUE E

Tax ID#: 2409-502-0018-000/1

Legal Description: CLYDE KILLER`S A/D BLK 1 W 51.5 FT OF LOTS 15 AND 16 AND N 5 FT OF W 51.5 FT LOT 17 (OR 2953-2487)

Owner(s): MANUEL FUENTES
5687 E 4TH AVE
HIALEAH, FL 33013

This AFFIDAVIT certifies that the above property, building, structure or premise is unsafe and the owner(s) of record has been properly served.

1/9/2020
Date

Margaret M. Arraiz, City of Fort Pierce, Florida

Attachment: Notice of Unsafe Building Letter

This Affidavit shall remain on file until such time as the condition(s) rendering the building, structure or premise unsafe have been abated.

State of Florida, County of St. Lucie

The foregoing instrument was acknowledged before me this 9th day of January, 2020, by Margaret M. Arraiz who is personally known to me.

Signature of Notary

stamp

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT
SAINT LUCIE COUNTY
FILE # 4660765 01/09/2020 12:00:51 PM
OR BOOK 4368 PAGE 591 - 594 Doc Type: NOT
RECORDING: $35.50

COLLEEN GREER
State of Florida - Notary Public
Commission # GG 013803
My Comm. Expires 11-13-2020
Bonded Through
National Notary Assn

C0091588

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

January 8, 2020

Case #: 20-0028

MANUEL FUENTES
5687 E 4TH AVE
HIALEAH, FL 33013

RE: Address: 1311 AVENUE E
Tax ID #: 2409-502-0018-000/1

Pursuant to the City of Fort Pierce Code of Ordinances and the International Property Maintenance Code (IPMC) s. 108, the property located at the above referenced location has been found to be unsafe and is in violation of the following:

108.1.1 Unsafe structures.

An unsafe structure is one that is found to be dangerous to the life, health, property or safety of the public or the occupants of the structure by not providing minimum safeguards to protect or warn occupants in the event of fire, or because such structure contains unsafe equipment or is so damaged, decayed, dilapidated, structurally unsafe or of such faulty construction or unstable foundation, that partial or complete collapse is possible.

108.1.2 Unsafe equipment.

Unsafe equipment includes any boiler, heating equipment, elevator, moving stairway, electrical wiring or device, flammable liquid containers or other equipment on the premises or within the structure which is in such disrepair or condition that such equipment is a hazard to life, health, property or safety of the public or occupants of the premises or structure.

108.1.3 Structure unfit for human occupancy.

A structure is unfit for human occupancy whenever the code official finds that such structure is unsafe, unlawful or, because of the degree to which the structure is in disrepair or lacks maintenance, is unsanitary, vermin or rat infested, contains filth and contamination, or lacks ventilation, illumination, sanitary or heating facilities or other essential equipment required by this code, or because the location of the structure constitutes a hazard to the occupants of the structure or to the public.

108.1.5 Dangerous structure or premises.

For the purpose of this code, any structure or premises that have any or all of the conditions or defects described below shall be considered dangerous:

6. The building or structure, or any portion thereof, is clearly unsafe for its use and occupancy.

C0091589

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302.3 Sidewalks and driveways.

All sidewalks, walkways, stairs, driveways, parking spaces and similar areas shall be kept in a proper state of repair, and maintained free from hazardous conditions.

302.5 Rodent harborage.

Structures and exterior property shall be kept free from rodent harborage and infestation. Where rodents are found, they shall be promptly exterminated by approved processes that will not be injurious to human health. After pest elimination, proper precautions shall be taken to eliminate rodent harborage and prevent re-infestation.

304.1.1 Unsafe conditions.

The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the International Building Code or the International Existing Building Code as required for existing buildings:

8. Roofing or roofing components that have defects that admit rain, roof surfaces with inadequate drainage, or any portion of the roof framing that is not in good repair with signs of deterioration, fatigue or without proper anchorage and incapable of supporting all nominal loads and resisting all load effects;

9. Flooring and flooring components with defects that affect serviceability or flooring components that show signs of deterioration or fatigue, are not properly anchored or are incapable of supporting all nominal loads and resisting all load effects;

12. Exterior stairs, decks, porches, balconies and all similar appurtenances attached thereto, including guards and handrails, are not structurally sound, not properly anchored or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects; or

305.2 Structural members.

All structural members shall be maintained structurally sound, and be capable of supporting the imposed loads.

305.3 Interior surfaces.

All interior surfaces, including windows and doors, shall be maintained in good, clean and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster, decayed wood and other defective surface conditions shall be corrected.

306.1.1 Unsafe conditions.

Where any of the following conditions cause the component or system to be beyond its limit state, the component or system shall be determined as unsafe and shall be repaired or replaced to comply with the International Building Code or the International Existing Building Code as required for existing buildings:

6. Wood that has been subjected to any of the following conditions:

6.2. Deterioration;

6.3. Damage from insects, rodents and other vermin;

6.4. Fire damage beyond charring;

308.3 Disposal of garbage.

Every occupant of a structure shall dispose of garbage in a clean and sanitary manner by placing such garbage in an approved garbage disposal facility or approved garbage containers.

507.1 General.

Drainage of roofs and paved areas, yards and courts, and other open areas on the premises shall not be discharged in a manner that creates a public nuisance.

604.3.1.1 Electrical equipment.

Electrical distribution equipment, motor circuits, power equipment, transformers, wire, cable, flexible cords, wiring devices, ground fault circuit interrupters, surge protectors, molded case circuit breakers, low-voltage fuses, luminaires, ballasts, motors and electronic control, signaling and communication equipment that have been exposed to water shall be replaced in accordance with the provisions of the International Building Code.

604.3.2.1 Electrical equipment.

Electrical switches, receptacles and fixtures, including furnace, water heating, security system and power distribution circuits, that have been exposed to fire, shall be replaced in accordance with the provisions of the International Building Code.

The building, structure, or premise is condemned and shall be demolished within 30 days. The building or structure has been posted with a Condemned placard and ordered vacated to prevent further occupancy until work is completed and the final inspection has been approved. The demolition of the building or structure must fully comply with all local ordinances and the currently adopted Florida Building Code (FBC). **If no action has been taken by the legal owner to come into compliance within the time specified, the City may initiate demolition proceedings in accordance with the City of Fort Pierce Charter and all applicable codes, with all costs incurred charged against the owner of record and a lien filed upon such real estate.**

Should you have questions regarding this matter, you may contact my office at (772) 467-3720.

Sincerely,

Margaret M. Arraiz
Code Compliance Manager
City of Fort Pierce

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

AFFIDAVIT OF MAILING

CASE NO: 20-0028

RE: 1311 AVENUE E

BEFORE ME, the undersigned authority, personally appeared Margaret M. Arraiz, Code Compliance Manager for the City of Fort Pierce, Florida, who after being duly sworn deposes and says:

That a Notice of Violation and an Affidavit of Unsafe Building was mailed today by first class mail to:

MANUEL FUENTES
5687 E 4TH AVE
HIALEAH, FL 33013

FURTHER AFFIANT SAYETH NOT.

DATED this 13th day of April, 2020.

Margaret M. Arraiz
Margaret M. Arraiz, Code Compliance Manager

STATE OF FLORIDA
COUNTY OF ST. LUCIE

SWORN TO and SUBSCRIBED before me

this 13th day of April, 2020.

Jacqueline Young-Smith
NOTARY PUBLIC – STATE OF FLORIDA

MY COMMISSION EXPIRES:

JACQUELINE YOUNG-SMITH
Notary Public - State of Florida
Commission # GG 959156
My Comm. Expires Feb 17, 2024
Bonded through National Notary Assn.

C0094431

THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

June 23, 2020

Case #: 20-00000028

JPL INVESTMENTS CORP
8724 S W 72 ST, NO 382
MIAMI, FL 33173

RE: Address: 1311 AVENUE E
Tax ID #: 2409-502-0018-000/1

To Whom it May Concern:

It has come to our attention that your and/or your company may have a legal or financial interest in the above referenced property.

The building or structure has been declared unsafe and is scheduled for demolition. If no action is taken to come into compliance within the next thirty (30) days, the City will initiate demolition proceedings in accordance with our City Charter. The City will hire a demolition contractor to remove the building or structure and all costs incurred will be charged against the owner and lien filed upon such real estate.

Any person having a legal interest in the property may appeal this notice by placing such appeal in writing and forwarding to my attention. Failure to appeal within twenty (20) days from the date of this notice will constitute a waiver of all rights to an administrative appeal.

Should you have questions regarding this matter, you may contact my office at (772) 467-3720.

Sincerely,

Margaret M. Arraiz
Code Compliance Manager
City of Fort Pierce

Atención: Documento importante con respecto a sus derechos y responsabilidades. Si usted no comprende ingles consiga traducción inmediatamente.
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THE SUNRISE CITY
FORT PIERCE
CODE ENFORCEMENT
Florida

June 23, 2020

Case #: 20-00000028

LOGAN CONNIE TAYLOR
59 N CO HWY 10A
DE FUNIAK SPRINGS, FL 32433

RE: Address: 1311 AVENUE E
Tax ID #: 2409-502-0018-000/1

To Whom it May Concern:

It has come to our attention that your and/or your company may have a legal or financial interest in the above referenced property.

The building or structure has been declared unsafe and is scheduled for demolition. If no action is taken to come into compliance within the next thirty (30) days, the City will initiate demolition proceedings in accordance with our City Charter. The City will hire a demolition contractor to remove the building or structure and all costs incurred will be charged against the owner and lien filed upon such real estate.

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Should you have questions regarding this matter, you may contact my office at (772) 467-3720.

Sincerely,

Margaret M. Arraiz
Code Compliance Manager
City of Fort Pierce

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Atansyon: Dokuman sa impòtan an rapò avek droi è responsablitè ou. Si ou pa kompran anglè relé nou ou bien chèché ou moun póu nou espliké sa tou suit.

Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address:	1311 Avenue E
Parcel ID:	2409-502-0018-000-1
Account #:	21296
Map ID:	24/09N
Use Type:	0800
Zoning:	Medium Den
City/County:	Fort Pierce

Ownership

Manuel Fuentes
5687 E 4th AVE
Hialeah, FL 33013

Legal Description

CLYDE KILLER`SA/D BLK 1 W 51.5 FT OF LOTS 15 AND 16 AND N 5 FT OF W 51.5 FT LOT 17 (OR 4135-1320)

Current Values

Just/Market Value:	$5,700
Assessed Value:	$3,630
Exemptions:	$0
Taxable Value:	$3,630

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**



Total Areas

Finished/Under Air (SF):	1,782
Gross Sketched Area (SF):	1,782
Land Size (acres):	0.11
Land Size (SF):	4,892

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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CITY OF FORT PIERCE

1311 Avenue E

Condemnation & Demolition

Hearing

History

- Two structures on the property were originally condemned by the City Commission in 2000.
- In 2002, the structure identified as 526 N 14th Street was repaired sufficiently for occupancy.
- In 2012, the structure identified as 1311 Avenue E was demolished by the City.
- There have been multiple lot clearing cases at this location.
- In May 2018, the property was sold at tax auction to the current owner.
- Over the years, including the time since title changed to the new owner, the City has initiated multiple nuisance abatement cases for lot clearings and in 2019, due to complaints from the neighbors, the building "526" was boarded by the City.
- The current owner has been unresponsive to all notices.

Abatement Measure	Total Due
Demolition	$23,613.48
Board up	$1,928.50
Lot Clearings	$1,083.74

Current Status

- A Property Maintenance Inspection Report (PMIR) was completed by Ed Smith, Building Inspector, on November 13, 2019.
- Due to continued deterioration and unsafe conditions, he recommends demolition of the structure.
- The utilities to the structure have been disconnected since 2008.
- The structure is secured to prohibit unlawful entry and activities.
- Tax certificate was issued 6/1/2020 due to unpaid 2019 taxes.

Notice

- The Notice of Unsafe Building was sent certified mail to the owner, Manuel Fuentes. Notice was returned unclaimed.
- The structure was posted with an Unsafe Building placard on 1/9/2020.
- The Notice of Unsafe Building was sent regular USPS to the owner. It has not been returned.
- Upon receipt of the title search, the following additional parties were notified of the hearing:
  - Tax certificate holder – JPL Investments Corp.
  - Lien holder – Logan Connie Taylor

Response from owner

- None

Property Status Statement

Description	Status	Notes:
Homestead Status	Non-homesteaded	Confirmed with Property Appraiser and Tax Collector on 9/30/2020.
Occupancy	Not occupied – vacant	
Prior attempts by owner to remedy violation	None	
Additional code enforcement activity at the property	Active lot clearing	Multiple Nuisance Abatement actions prior.
Historic Property	Yes	Has already been approved by the HPB
Utilities	None	
Building Permits	None active	Confirmed by Shaun Coss on 10/01/2020
Title Search Completed	Yes	Two parties were identified and have been provided notice of this hearing.

November 2016





July 2017



February 2019


526
23/09/20 11:45 AM


23/09/20 11:46 AM


23/09/20 11:49 AM


23/09/20 11:49 AM


Legend
1311 Avenue E
Horizon Trust Co.
Patrick O'Neal
1311 Avenue E
Vera M. Ruth
Neighborhood
Bibleway Revival
Cen Inc

Action by the City Commission

- If sufficient evidence was presented by the City to supports its recommendation to condemn the structure and order its removal, the Commission may adopt Resolution No. 20-R47.

- If evidence was presented that supports staff's request for condemnation, but is not sufficient to support its removal, the Commission may amend Resolution No. 20-R47.

- If the City did not present sufficient evidence to support its recommendation to condemn the structure and order its removal, the Commission may choose not adopt Resolution No. 20-R47.

Next Steps

Notice provided to owner of Commission's decision

- They have THIRTY (30) days to appeal.
- Appeal is heard by the Circuit Court.

If Historic - place before HPB for approval

- Already approved by Historic Preservation

Final Notice

- Sent to all parties providing fifteen (15) days to demolish.
- This is not an opportunity to appeal - just to take action to remedy the situation.

Demolition

- City vendor demolishes structure.
- Lien for costs assessed against the property.

Questions?

City Commission Regular Meeting - 6:00 pm **12. f.**

Meeting Date: 10/05/2020

Re: Text Amendment - Chapter 38 Reduction of No Wake Zone

Submitted For: Mike Reals, Public Works Manager, Public Works

---

SUBJECT:

Legislative Hearing - Ordinance 20-028- Text amendment to Chapter 38, Reducing the distance of the No Wake Zone at Jaycee Park. FIRST READING

SUMMARY:

The proposed Text Amendment seeks to amend Chapter 38, Article III of the Code of Ordinances entitiled "No Wake and Minimum Wake Zones"; amending section 38-99 (c) - areas defined, to modify language to reduce distance of idle speed no wake zone from within 500' of the Jaycee Park boat ramps to within 300' of the boat ramps.

RECOMMENDATION:

Staff will proceed as directed by the Commission.

ALTERNATIVES:

Staff will proceed as directed by the Commission.

RESPONSIBLE STAFF:

Public Works Department

COORDINATED WITH:

City Attorney

Fiscal Impact

Budgeted Y/N:	N
Fiscal Year:	FY2020
Account:	00140065413490
Amount:	15,000

OTHER INFORMATION:

This is not a budgeted request.

Attachments

20-028
F.S. 327.46
300' image
500' image
Proof of Publication

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	09/23/2020 02:44 PM

Form Started By: Mike Reals
Started On: 09/02/2020 10:29 AM
Final Approval Date: 09/23/2020

ORDINANCE NO. 20-028

AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, AMENDING **CHAPTER 38**, ARTICLE III, DIVISION 2 OF THE CODE OF ORDINANCES ENTITLED **"NO WAKE AND MINIMUM WAKE ZONES";** AMENDING SECTION 38-99 – AREAS DEFINED, TO MODIFY LANGUAGE TO ALLOW FOR IDLE SPEED NO WAKE ZONE WITHIN 300' OF THE JAYCEE PARK BOAT RAMPS AS PROVIDED BY THIS CHAPTER OR ADMINISTRATIVE RULE. PROVIDING FOR A SEVERABILITY CLAUSE; REPEALING ALL ORDINANCES OR PARTS THEREOF IN CONFLICT; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City has an objective to have parks that are relaxing, welcoming, recreational, and safe for all citizens to enjoy; and

WHEREAS, Jaycee Park has many competing water-based activities including motorized watercraft such as boats and jet skis, non-motorized watercraft such as kayaks and sailboats, bathing beach, swim area, and Treasure Coast Youth Sailing Foundation (TCYSF); and

WHEREAS, Jaycee Park waterfront and the surrounding waters need protected areas for boat ramps, bathing, swimming, non-motorized watercraft, and TCYSF for the safety and pleasure of all citizens; and

WHEREAS, at the conference agenda on April 8, 2019, the City Commission accepted the Parks Committee recommendation to create an Idle Speed No Wake zone at Jaycee Park.

WHEREAS, Florida Statutes § 327.46(1)(b) authorizes the City of Fort Pierce to establish Idle Speed No Wake boating safety zones within 500 feet of any boat ramp or other launching or landing facility available for use by the general boating public; and

WHEREAS, the City of Fort Pierce officials have identified severe safety issues involving motorized watercraft in and close to the boat ramps, public bathing beach and swim area; and

WHEREAS, Florida Statutes § 327.46(1)(b) and FWC permit # 91-014 authorizes the City of Fort Pierce to establish a vessel-exclusion zone for a public bathing beach or swim area.

NOW, THEREFORE, BE IT ORDAINED by City Commission of the City of Fort Pierce, Florida:

SECTION 1. Chapter 38, Article III, Division 2, Section 38-99, of the Code of Ordinances, is hereby amended to read as follows:

Sec. 38-99. - Areas defined.

(a) The following described areas of the city, as charted on National Ocean Survey Chart 11475, are hereby designated a "no wake zone":

(1) All of the waters within the limits and confines of the city marina and Moore's Creek, in addition to that section of the city marina entrance channel easterly of said waters extending northward through the entrance channel to Channel Marker 11.

(2) That section of the southwest corner of the city harbor, commonly known as the Turning Basin, north of the Peter C. Cobb Bridge which lies south of a line beginning at the shoreline nearest the eastern terminus of Fisherman's Wharf Drive extending easterly into the water approximately

30 yards, all lying north of the Peter C. Cobb Bridge, and westerly to the shoreline of the South Bridge boat ramps located at the northwest terminus of said bridge.

(3) That section of Taylor Creek beginning the east side of the F.E.C. Railroad Bridge Crossing and all waters easterly to Channel Marker 4.

(4) That section of the city cut which lies east of a line beginning at the shoreline nearest the northeast terminus of the Banty Saunders Bridge commencing at Channel Marker 21 and continuing easterly through the city cut to Channel Marker 19.

(5) That section of the city cut which lies east of a line beginning at the shoreline of the city cut northerly to Channel Marker 14 continuing northeasterly in the city cut to a point approximately 30 yards northeast of the Little Jim Bridge, then continuing southeasterly under Little Jim Bridge, through the Little Jim Cut to Channel Marker 11.

(6) All of the waters of the city inlet range which lie east of a line beginning at the shoreline of Causeway Island at a point approximately 250 yards west of the United States Coast Guard Station, bounded on the north by the south edge of the city inlet channel, and then extending easterly along the south edge of the city inlet channel toward the Atlantic Ocean to a point approximately 100 yards east of Channel Marker 7 and extending southerly to the shoreline of Hutchinson Island, including all areas of the Pelican Yacht Club and Faber Point.

(7) That section of Faber Cove from a point in Faber Cove Channel commencing at Channel Marker 12A and continuing easterly into Faber Cove, and all of its shorelines, ending at a point approximately 75 yards easterly of the Colonnades Dock.

(8) The waters of the two canal areas adjacent to Surfside Park Subdivision in the southeast corner of Thumb Point Cove, terminating at the entrance to said canals.

(b) The following described areas of the city, as charted on the National Ocean Survey Chart 11475, are hereby designated a "minimum wake zone":

(1) That section of the city marina entrance channel between Channel Marker 11 and Channel Marker 5.

(2) That section of the city cut between Channel Marker 19 and Channel Marker 14.

(3) All of the waters of the city inlet range which lie east of a line beginning at the shoreline of Causeway Island at a point approximately 250 yards west of the U.S. Coast Guard station, all northward of the south edge of the city inlet channel the entire width of said channel, and then extending easterly through the city inlet channel toward the Atlantic Ocean to a point approximately 100 yards east of Channel Marker 7.

(4) That section of Faber Cove commencing at a point approximately 75 yards easterly of the Colonnades Dock and continuing to the northeast terminus of Faber Cove and all of its shorelines.

(c) The following described areas of the city, as charted on National Ocean Survey Chart 11474, are hereby designated a "no wake zone":

The section within ~~500~~ 300 feet of the Jaycee Park public boat ramps located from the western shoreline at coordinates 27°27'8.04"N, 80°17'22.64"W. The area designated as the restricted area is described as follows: an area lying on the western shore of Hutchinson Island in the city. It is an area located at a point with latitude ~~27°27'12.96"N~~ 27°27'10.82"N and longitude ~~80°17'23.79"W~~ 80°17'23.32"W to the north, latitude ~~27°27'8.25"N~~ 27°27'7.87"N and longitude ~~80°17'28.13"W~~ 80°17'25.97"W to the west, and latitude ~~27°27'3.18"N~~ 27°27'4.88"N and longitude ~~80°17'22.60"W~~ 80°17'22.53"W to the south.

SECTION 2. The provisions of this Ordinance are declared to be severable and if any section, sentence, clause, or phrase of this Ordinance shall, for any reason, be held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining sections, sentences, clauses, and phrases of this Ordinance but shall remain in effect, it being the legislative intent that this Ordinance shall stand notwithstanding the invalidity of any part.

SECTION 3. All ordinances or parts of ordinances in conflict herewith are and the same shall be repealed and shall be of no further course or effect whatsoever.

SECTION 4. This ordinance is and the same shall become effective immediately upon final passage.

APPROVED AS TO
FORM AND CORRECTNESS:

_____
Peter J. Sweeney, Esq.
City Attorney

STATE OF FLORIDA
COUNTY OF ST. LUCIE

WE, THE UNDERSIGNED, Mayor Commissioner and the City Clerk of the City of Fort Pierce, Florida, do hereby certify that the foregoing and above Ordinance No. 20-028 was duly advertised by title only in the St. Lucie News Tribune on September 25, 2020, copy of said Ordinance was made available at the Office of the City Clerk to the public upon request; said Ordinance was duly introduced, read by title only, and passed on first reading by the City Commission of the City of Fort Pierce, Florida, on October 5, 2020, and was duly introduced, read by title only, and passed on second and final reading on October 19, 2020, by the City Commission of the City of Fort Pierce, Florida.

IN WITNESS HEREWITH, we hereunto set our hands and affix the Official Seal of the City of Fort Pierce, Florida, this 19th day of October, 2020.

_____
Linda Hudson
MAYOR COMMISSIONER

ATTEST:

_____
Linda W. Cox
CITY CLERK

(CITY SEAL)

The 2019 Florida Statutes

327.46 Boating-restricted areas.—

(1) Boating-restricted areas, including, but not limited to, restrictions of vessel speeds and vessel traffic, may be established on the waters of this state for any purpose necessary to protect the safety of the public if such restrictions are necessary based on boating accidents, visibility, hazardous currents or water levels, vessel traffic congestion, or other navigational hazards or to protect seagrasses on privately owned submerged lands.

(a) The commission may establish boating-restricted areas by rule pursuant to chapter 120.

(b) Municipalities and counties have the authority to establish the following boating-restricted areas by ordinance:

1. An ordinance establishing an idle speed, no wake boating-restricted area, if the area is:

a. Within 500 feet of any boat ramp, hoist, marine railway, or other launching or landing facility available for use by the general boating public on waterways more than 300 feet in width or within 300 feet of any boat ramp, hoist, marine railway, or other launching or landing facility available for use by the general boating public on waterways not exceeding 300 feet in width.

b. Within 500 feet of fuel pumps or dispensers at any marine fueling facility that sells motor fuel to the general boating public on waterways more than 300 feet in width or within 300 feet of the fuel pumps or dispensers at any licensed terminal facility that sells motor fuel to the general boating public on waterways not exceeding 300 feet in width.

c. Inside or within 300 feet of any lock structure.

2. An ordinance establishing a slow speed, minimum wake boating-restricted area if the area is:

a. Within 300 feet of any bridge fender system.

b. Within 300 feet of any bridge span presenting a vertical clearance of less than 25 feet or a horizontal clearance of less than 100 feet.

c. On a creek, stream, canal, or similar linear waterway if the waterway is less than 75 feet in width from shoreline to shoreline.

d. On a lake or pond of less than 10 acres in total surface area.

3. An ordinance establishing a vessel-exclusion zone if the area is:

a. Designated as a public bathing beach or swim area.

b. Within 300 feet of a dam, spillway, or flood control structure.

(c) Municipalities and counties have the authority to establish by ordinance the following other boating-restricted areas:

1. An ordinance establishing an idle speed, no wake boating-restricted area, if the area is within 300 feet of a confluence of water bodies presenting a blind corner, a bend in a narrow channel or fairway, or such other area if an intervening obstruction to visibility may obscure other vessels or other users of the waterway.

2. An ordinance establishing a slow speed, minimum wake, or numerical speed limit boating-restricted area if the area is:

a. Within 300 feet of a confluence of water bodies presenting a blind corner, a bend in a narrow channel or fairway, or such other area if an intervening obstruction to visibility may obscure other vessels or other users of the waterway.

b. Subject to unsafe levels of vessel traffic congestion.

c. Subject to hazardous water levels or currents, or containing other navigational hazards.

d. An area that accident reports, uniform boating citations, vessel traffic studies, or other creditable data demonstrate to present a significant risk of collision or a significant threat to boating safety.

3. An ordinance establishing a vessel-exclusion zone if the area is reserved exclusively:

a. As a canoe trail or otherwise limited to vessels under oars or under sail.

b. For a particular activity and user group separation must be imposed to protect the safety of those participating in such activity.

Any of the ordinances adopted pursuant to this paragraph shall not take effect until the commission has reviewed the ordinance and determined by substantial competent evidence that the ordinance is necessary to protect public safety pursuant to this paragraph. Any application for approval of an ordinance shall be reviewed and acted upon within 90 days after receipt of a completed application. Within 30 days after a municipality or county submits an application for approval to the commission, the commission shall advise the municipality or county as to what information, if any, is needed to deem the application complete. An application shall be considered complete upon receipt of all requested information and correction of any error or omission for which the applicant was timely notified or when the time for such notification has expired. The commission's action on the application shall be subject to review under chapter 120. The commission shall initiate rulemaking no later than January 1, 2010, to provide criteria and procedures for reviewing applications and procedures for providing for public notice and participation pursuant to this paragraph.

(d) Owners of private submerged lands that are adjacent to Outstanding Florida Waters, as defined in s. 403.061(27), or an aquatic preserve established under ss. 258.39-258.399 may request that the commission establish boating-restricted areas solely to protect any seagrass and contiguous seagrass habitat within their private property boundaries from seagrass scarring due to propeller dredging. Owners making a request pursuant to this paragraph must demonstrate to the commission clear ownership of the submerged lands. The commission shall adopt rules to implement this paragraph, including, but not limited to, establishing an application process and criteria for meeting the requirements of this paragraph. Each approved boating-restricted area shall be established by commission rule. For marking boating-restricted zones established pursuant to this paragraph, owners of privately submerged lands shall apply to the commission for a uniform waterway marker permit in accordance with ss. 327.40 and 327.41, and shall be responsible for marking the boating-restricted zone in accordance with the terms of the permit.

(e) As used in this section, the term "seagrass" has the same meaning as in s. 253.04.

(2) Each such boating-restricted area shall be developed in consultation and coordination with the governing body of the county or municipality in which the boating-restricted area is located and, when the boating-restricted area is to be on the navigable waters of the United States, with the United States Coast Guard and the United States Army Corps of Engineers.

(3) It is unlawful for any person to operate a vessel in a prohibited manner or to carry on any prohibited activity, as defined in this chapter, within a boating-restricted area which has been clearly marked by regulatory markers as authorized under this chapter.

(4) Restrictions in a boating-restricted area established pursuant to this section shall not apply in the case of an emergency or to a law enforcement, firefighting, or rescue vessel owned or operated by a governmental entity.

History.—s. 7, ch. 63-105; s. 1, ch. 65-361; ss. 25, 35, ch. 69-106; s. 23, ch. 78-95; s. 7, ch. 81-100; s. 27, ch. 99-245; s. 16, ch. 2000-362; s. 13, ch. 2009-86; s. 8, ch. 2017-163.

Note.—Former s. 371.522.

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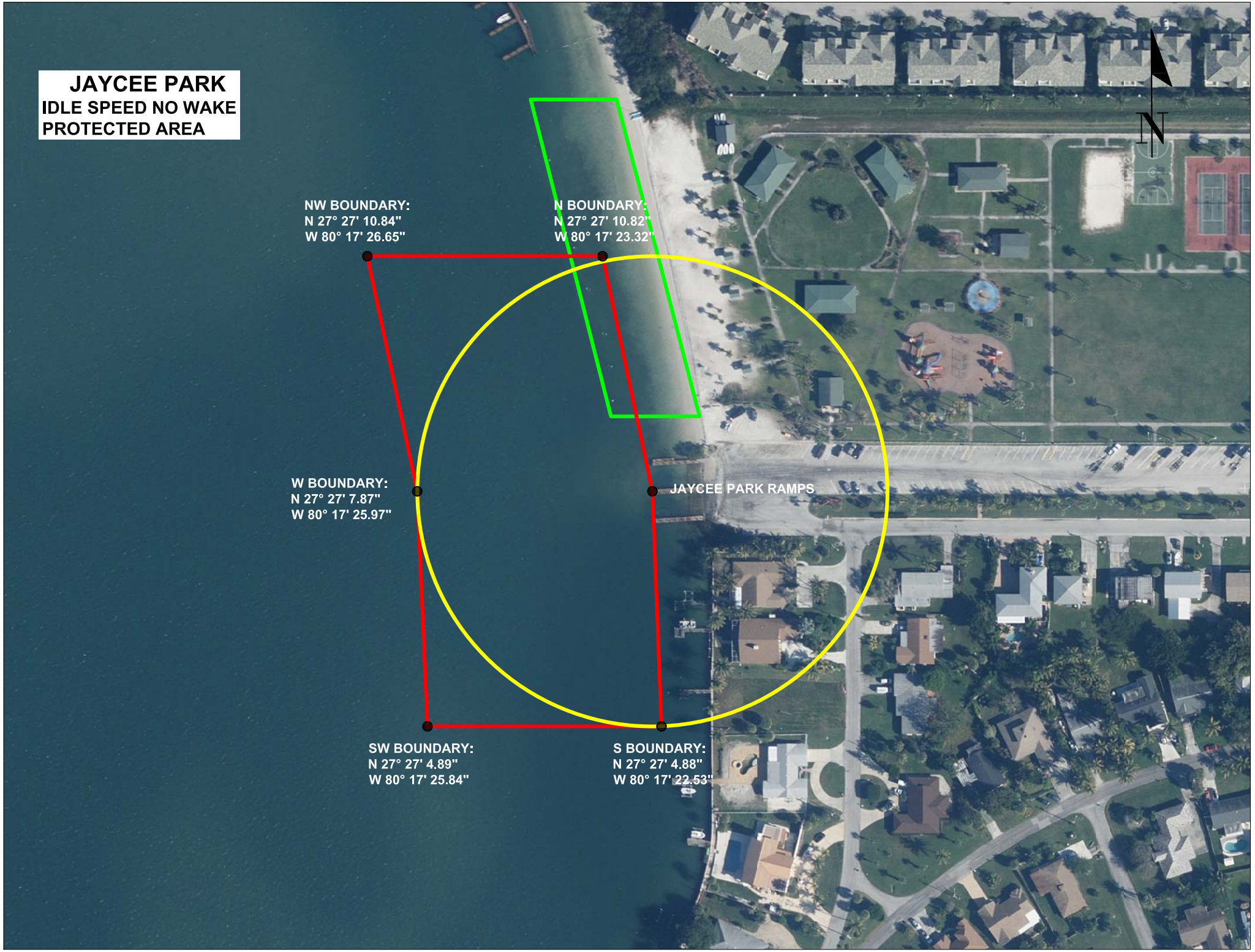
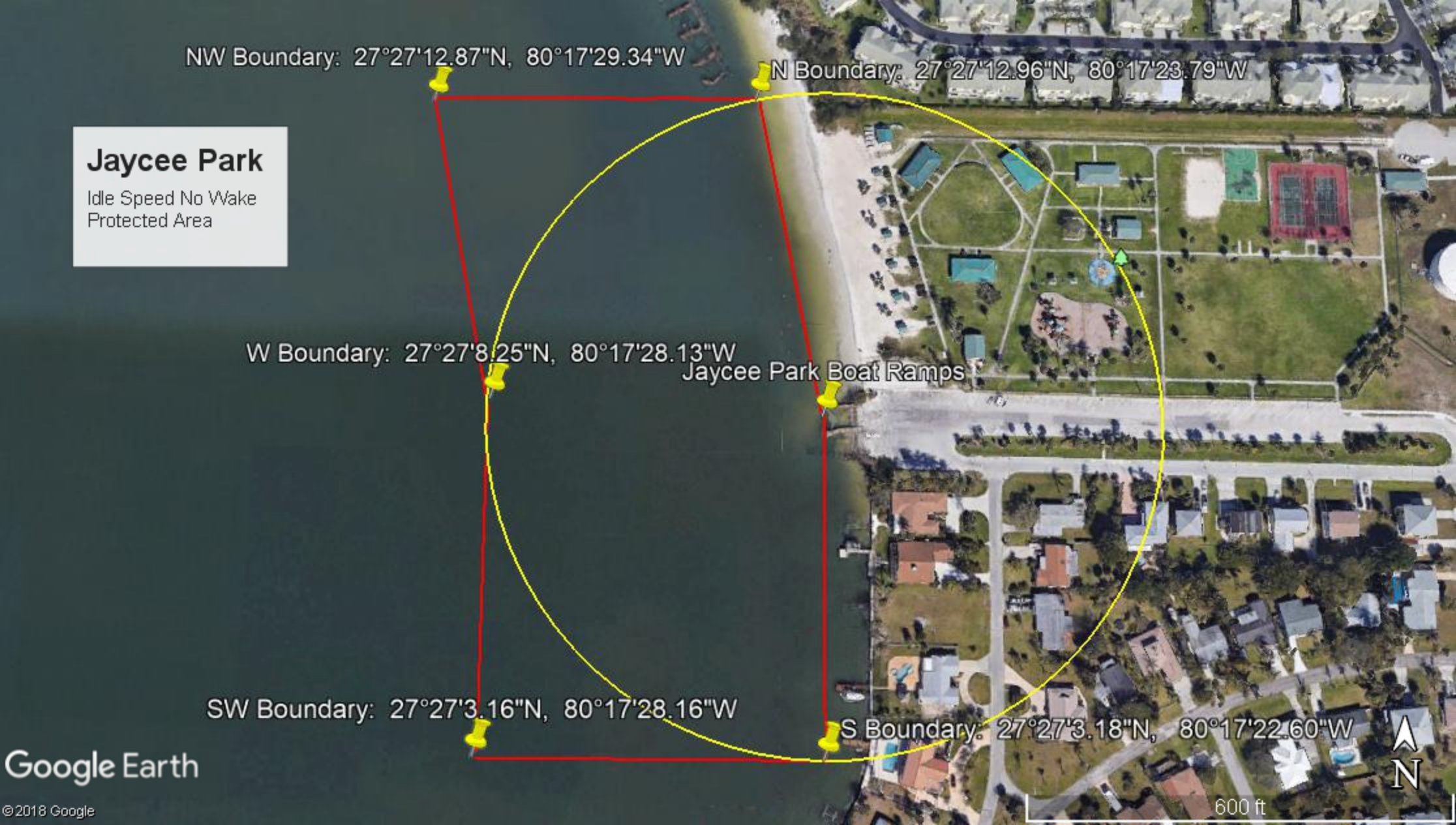

JAYCEE PARK
IDLE SPEED NO WAKE
PROTECTED AREA
N
NW BOUNDARY:
N 27° 27' 10.84"
W 80° 17' 26.65"
N BOUNDARY:
N 27° 27' 10.82"
W 80° 17' 23.32"
W BOUNDARY:
N 27° 27' 7.87"
W 80° 17' 25.97"
JAYCEE PARK RAMPS
SW BOUNDARY:
N 27° 27' 4.89"
W 80° 17' 25.84"
S BOUNDARY:
N 27° 27' 4.88"
W 80° 17' 22.53"


NW Boundary: 27°27'12.87"N, 80°17'29.34"W
N Boundary: 27°27'12.96"N, 80°17'23.79"W
Jaycee Park
Idle Speed No Wake
Protected Area
W Boundary: 27°27'8.25"N, 80°17'28.13"W
Jaycee Park Boat Ramps
SW Boundary: 27°27'3.16"N, 80°17'28.16"W
S Boundary: 27°27'3.18"N, 80°17'22.60"W
Google Earth
©2018 Google
600 ft
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Treasure Coast Newspapers

PART OF THE USA TODAY NETWORK

St Lucie News Tribune
1801 U.S. 1, Vero Beach, FL 32960

AFFIDAVIT OF PUBLICATION

CITY OF FORT PIERCE
100 N. U.S. 1

FORT PIERCE, FL 34950

STATE OF WISCONSIN
COUNTY OF BROWN

Before the undersigned authority personally appeared, said legal clerk, who on oath says that he/she is a legal clerk of the St Lucie News Tribune, a daily newspaper published at Fort Pierce in St. Lucie County, Florida: that the attached copy of advertisement was published in the St Lucie News Tribune in the following issues below. Affiant further says that the said St Lucie News Tribune is a newspaper published in Fort Pierce in said St. Lucie County, Florida, and that said newspaper has heretofore been continuously published in said St. Lucie County, Florida, daily and distributed in St. Lucie County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid or promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper. The St Lucie News Tribune has been entered as Periodical Matter at the Post Offices in Fort Pierce, St. Lucie County, Florida and has been for a period of one year next preceding the first publication of the attached copy of advertisement.

09/25/2020

Subscribed and sworn to before on September 25, 2020:

Tara Mondloch

Notary, State of WI, County of Brown

TARA MONDLOCH
Notary Public
State of Wisconsin

My commission expires August 6, 2021

Publication Cost: $124.80
Ad No: 0004388428
Customer No: 1330883
PO #:

# of Affidavits 1

CITY OF FORT PIERCE
NOTICE OF PUBLIC HEARING

The City Commission of the City of Fort Pierce, Florida, pursuant to City Charter and Florida Statute 166.041, will hold Public Hearings on Monday, October 5, 2020 at 6:00 p.m. and Monday, October 19, 2020 at 4:30 p.m., on first and second readings, respectively in the City Hall Commission Chambers, 100 North U.S. #1, Fort Pierce, Florida, to consider review and approval of the following:

ORDINANCE NO. 20-028 - AN ORDINANCE BY THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA, AMENDING CHAPTER 38, ARTICLE III, DIVISION 2 OF THE CODE OF ORDINANCES ENTITLED "NO WAKE AND MINIMUM WAKE ZONES"; AMENDING SECTION 38-99 – AREAS DEFINED, TO MODIFY LANGUAGE TO ALLOW FOR IDLE SPEED NO WAKE ZONE WITHIN 300' OF THE JAYCEE PARK BOAT RAMPS AS PROVIDED BY THIS CHAPTER OR ADMINISTRATIVE RULE. PROVIDING FOR A SEVERABILITY CLAUSE; REPEALING ALL ORDINANCES OR PARTS THEREOF IN CONFLICT; PROVIDING FOR AN EFFECTIVE DATE.

All interested parties may appear at the meeting and be heard with respect to the Amendment of the Code of Ordinances. Said Ordinance will be available for inspection in the City Clerk's Office, City Hall, 100 North U.S. #1, Fort Pierce, Florida.

ANY PERSON SEEKING TO APPEAL THE DECISION OF THE CITY COMMISSION AS TO THE FOREGOING IS ADVISED THAT A RECORD OF PROCEEDINGS IS REQUIRED IN ANY SUCH APPEAL AND THAT SUCH PERSON MAY NEED TO INSURE THAT A VERBATIM RECORD OF PROCEEDINGS IS MADE INCLUDING THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED.

In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons with disabilities needing special accommodation to participate in this meeting should contact the City Clerk's Office at (772) 467-3065 at least 48 hours prior to the meeting.

/s/ Linda W. Cox, City Clerk
Publish: 9/25/2020
Pub Sept 25, 2020
TCN4388428

City Commission Regular Meeting - 6:00 pm **13. a.**

Meeting Date: 10/05/2020

Re: 2607 Avenue D - Demolition Update

Submitted For: Peggy Arraiz, Code Compliance Manager, Code Enforcement

---

SUBJECT:

Update on the demolition of 2607 Avenue D - Continued from February 18, 2020 as Resolution No. 20-R12

SUMMARY:

At the demolition hearing held on February 18, 2020, the City Commission continued this matter to allow the owner to move forward with plans for rehabilitation of the structure. Staff will present an update regarding the status.

RECOMMENDATION:

Continue the matter for an additional ninety (90) days.

ALTERNATIVES:

Reschedule the hearing for a date less than ninety (90) days.
Reschedule the hearing for a date more than ninety (90) days.

RESPONSIBLE STAFF:

Margaret M. Arraiz, Code Compliance Manager

COORDINATED WITH:

Ms. Norma Eradiri, Property Owner
Shaun Coss, Building Department Coordinator

Fiscal Impact

OTHER INFORMATION:

None

Form Review

Inbox	Reviewed By	Date
City Manager	Nick Mimms	06/16/2020 03:43 PM
City Manager	Nick Mimms	06/29/2020 02:28 PM

Form Started By: Peggy Arraiz Started On: 06/03/2020 04:31 PM

Final Approval Date: 07/08/2020

City Commission Regular Meeting - 6:00 pm **15. a.**

Meeting Date: 10/05/2020

Re:

SUBJECT:

Reports

Attachments

City Manager's Report
Purchase Orders
Coronavirus Report Update 10/5/2020

Form Review

Form Started By: Linda Cox Started On: 09/29/2020 09:03 AM

Final Approval Date: 09/29/2020

OCTOBER 2020

FORT PIERCE INSIDER



KIDFUN TO-GO DRIVE-THRU

St. Lucie County Early Learning Coalition hosts drive-thru event.



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9 CONSTRUCTION SPOTLIGHT

10 BUILDING DEPARTMENT

12 PUBLIC WORKS DEPARTMENT

14 INDIAN HILLS GOLF COURSE

15 FORT PIERCE CITY MARINA

16 NEW BUSINESSES

RECOVER ST. LUCIE

Help is here for St. Lucie County small businesses hardest hit by the COVID-19 pandemic!

Grants of up to

$7,500

to be awarded to eligible small businesses

- ☑ ***Funds do not have to be repaid***
- ☑ ***Grants available to businesses economically injured, mandated to close or curtail operations due to COVID-19***
- ☑ ***Must have 10 or fewer employees***
- ☑ ***Total revenue of less than $1 million***
- ☑ ***Other eligibility requirements apply***

To see if you qualify and to apply
visit **www.recoverstlucie.org**
or call **772.336.6285**

ST. LUCIE COUNTY FLORIDA

St. Lucie County received funds from the federal Coronavirus Aid, Relief and Economic Security (CARES) Act of which about $4 million is being used for these small business assistance grants. The application process is being administered by St. Lucie County in partnership with the Economic Development Council of St. Lucie County.

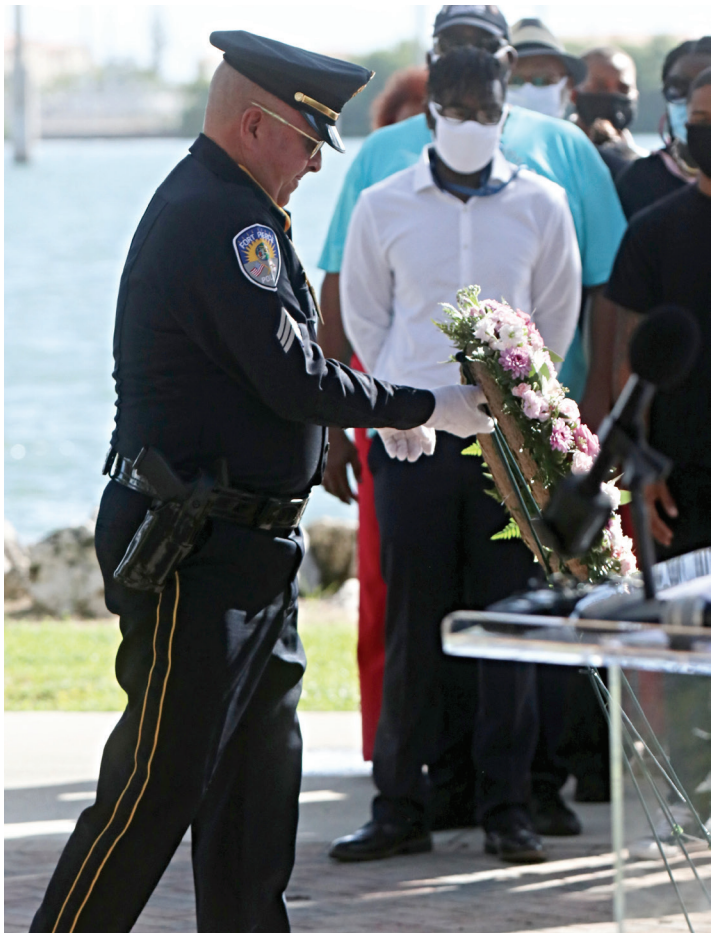
THE HERO ON UNITED FLIGHT 93 FROM FORT PIERCE



MIKE JACHLES, PUBLC AFFAIRS MANAGER

The Police Department Honor Guard presented the colors at the City of Fort Pierce's Annual 9/11 Memorial Ceremony at Veteran's Memorial Park, where the statue of Cee Cee Ross Lyles stands. Mayor Linda Hudson welcomed the family of Cee Cee Ross Lyles and the dignitaries present. Thanks to all who attended in person and virtually. Wreaths were presented by the Police Department Honor Guard, the City of Fort Pierce, and the St. Lucie County Sheriff's Office and St. Lucie County Fire District Honor Guard. Cee Cee Ross Lyles' mother and son were among those who spoke at the ceremony honoring the detective and United Flight 93 Flight Attendant.

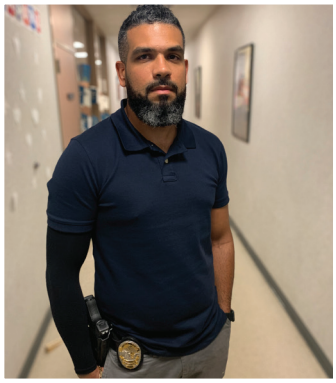




FPPD GIVES HIT-AND-RUN TEEN A SWEET 16

The teen struck by a hit-and-run driver while skating outside her grandmother's house in August got a special Sweet 16 surprise from Fort Pierce police September 25. She was surprised with a patrol car parade led by Mayor Linda Hudson and Chief Diane Hobley-Burney. The Mayor and Chief delivered a cake and presents for Jayda, along with officers from the department. "While the driver that struck Jayda has yet to come forward, we wanted to step up with this small gesture to lighten her special day," Police Chief Diane Hobley-Burney said. On August 29, Jayda was struck by a pickup truck as she roller skated near her grandmother's house on South 17 Street and Emerald Terrace. She was airlifted to Palm Beach Children's Hospital in West Palm Beach with a traumatic brain injury and internal injuries, and remained in critical condition in the Pediatric Intensive Care Unit until September 8. She was discharged from the hospital September 15.













POLICE DEPARTMENT RECOGNIZES HISPANIC HERITAGE MONTH

Hispanic Heritage Month 202 runs through October 15 in the United States and the Fort Pierce Police Department is spotlighting the heritage through social media. A number of department employees have already been featured in the posts on Facebook and Twitter, for their diverse familial heritage. The common denominator is that the employees are all proud of their heritage and their bilingual ability helps them connect with the Hispanic community. You may not know, but Hispanic Heritage Month began in 1968 as Hispanic Heritage Week, signed into law by President Lyndon Johnson. In 1988, President Ronald Reagan signed an amendment expanding it to a month-long observation.

ALERT TODAY, ALIVE TOMORROW TRAINING AIMS TO REDUCE FATALITIES

Florida ranks #1 in the U.S. for fatal bicycle crashes. Alert Today, Alive Tomorrow training sponsored by the Florida Department of Transportation was held in September at the Fort Pierce PD for officers so they can work state-funded details that target high-crash areas for pedestrians and bicyclists. The goal is to reduce crashes through education, awareness and enforcement. Officers will be out on U.S. Highway 1 and on Orange Avenue, near Interstate 95, two of our most common areas for these types of crashes.

PROPOSED PROJECTS

At the September 8, 2020, Planning Board meeting, the Board recommended for approval three short-term rentals and one annexation. These applications are scheduled for the October 19, 2020, City Commission public hearing for approval.

Planning Board September 8, 2020, meeting

Barsotti Short Term Rental – Conditional Use	1040 Windward Drive, #3402
Jetson's Annexation	504 Tumblin Kling Road
Ballantyne Vacation Rental – Conditional Use	715 S. Ocean Drive, Unit B
Danaluk Vacation Rental – Conditional Use	715 S. Ocean Drive, Unit L

Additionally, the Planning Department is taking the opportunity in the coming months to showcase each member of the department's staff in the City Manager's reports to introduce them to the public and showcase their skills and backgrounds in their profession.



The first staff member to be presented is Maria Lewicka, AICP. Maria earned her Bachelor of Architecture and Urban Design from Lodz Polytechnics in Poland and served 10 years as studio manager in these disciplines. In 1989 she came to the United States to attend Iowa State University, achieving her Master's Degrees in Architecture and Community Planning. In 1994, Maria began a 20-year career as Planner and Urban Designer for the City of Vero Beach and the City of St. Cloud, Florida.

Maria earned her American Institute of Certified Planners (AICP) designation in 1997. The AICP title is the only nationwide, independent verification of planners' qualifications, by certifying professionals in the United States in the field of Urban Planning. Certified planners must uphold the standards of the planning practice in the areas of ethics, professional development, and continuing education.

In 2015, Maria joined the City of Ft Pierce Planning Department as its Historic Preservation Planner working with the Historic Preservation Board to preserve community history, character, and beauty in concert with 21st century growth and development. Pursuant to City Code Chapter 111, the City's Historic Preservation Officer (Planner) must be experienced with, and knowledgeable in, architectural history, urban design, local history, landscape materials, site planning, and land use regulations. Maria is charged with the following duties:



(1) Prepare designation reports which establish and define the historic significance and character of the proposed designated historic sites and historic districts and all other items as described in section 111-123 et seq., for designation reports under this chapter, and make recommendations to the board regarding designation status of those properties.

(2) Prepare National Register of Historic Places Nominations.

(3) Provide advice, standards, guidelines, and procedures for the designation of historic sites and historic districts, and to applicants for certificates of appropriateness.

(4) Upon receipt of a complete application for a certificate of appropriateness for a designated historic site and for properties within an historic district, review such application, which may include a field check of the site and referral to other departments or agencies as necessary to determine any adverse effect upon the public welfare, and make approval/denial recommendations to the board.

(5) Maintain and update an official inventory and map delineating historic sites and photographs to document all officially designated historic sites and historic districts.

(6) Prepare summary reports of all decisions on applications for certificates of appropriateness for designated historic sites and historic districts including criteria and conditions for approval or denial.

(7) Schedule meetings of the historic preservation board, prepare agendas for the board meetings, and ensure that proper notice is given to the public for all regular and special historic preservation board meetings and hearings.

(8) Review all final development plans for designated historic sites and historic districts, for compliance with terms and conditions of applicable certificates of appropriateness, prior to issuance of any building permit.

(9) Issue all certificates of recognition for newly designated historic sites, and issue all approved certificates of appropriateness for designated historic sites and for properties within historic districts.

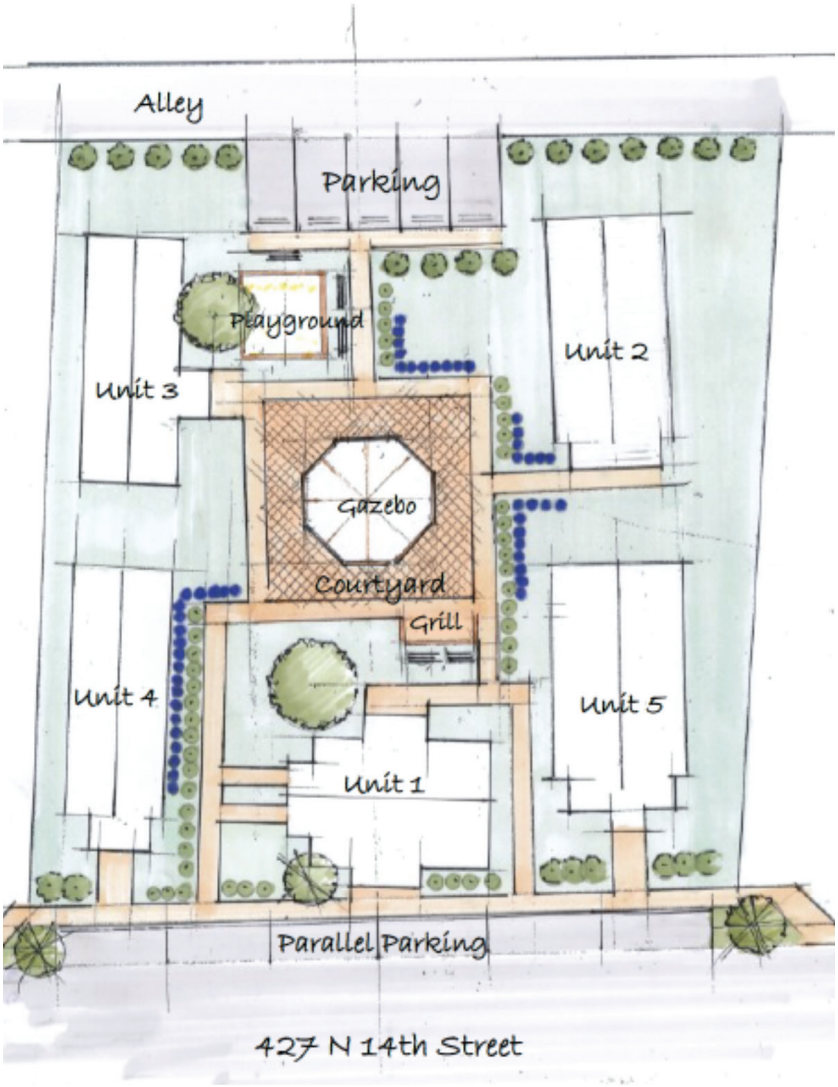
(10) Work with other city departments, public agencies and private groups as required to provide a continuing effort to protect and preserve significant elements of the manmade and the natural environment through public education and encouragement of preservation policies.

(11) Serve as the certified local government coordinator between the Historic Preservation Board and the Florida Division of Historical Resources, Bureau of Historic Preservation.

(12) Promote the awareness of historic preservation and its community benefits to the general public and to school children through promotional materials, guidebooks, tours, informational brochures, educational tools, workshops, lectures, and presentations.

(13) Apply for preservation awards, grants, and actively participate in other preservation programs such as the Floridan Historic Marker Program, administered by the Florida Division of Historical Resources, Bureau of Historic Preservation.

Maria's role with the Department goes beyond her duties as the Historic Preservation Planner. Illustrated are examples of Maria's architectural artistic talent as demonstrated with these hand sketches. Her ability to professionally draw assists the Planning Department in exemplifying the department's vision.



Maria's sketch of a redevelopment concept for Lincoln Park

KIDFUN TO-GO DRIVE-THRU

KAITLYN BALLARD, COMMUNITY RESOURCE SPECIALIST

The KidFun To-Go Drive-Thru Event, hosted by the St. Lucie County Early Learning Coalition was a HUGE success this weekend! Thanks to community partners including Children's Services Council of St. Lucie County, Healthy St. Lucie, St. Lucie County Firefighters, City of Fort Pierce, City of Port St. Lucie, Treasure Coast Food Bank, Treasure Coast Hospice, and sponsors PNC, Renaissance Charter St. Lucie, and Care Now Urgent Care over 500 families were able to receive free books, grab & go bags, and reading & stem activities and more for the children throughout St. Lucie County. The City of Fort Pierce was excited to participate in this event and looks forward to more partnerships in the future. #lovethefort











CONSTRUCTION SPOTLIGHT



Porpoise Avenue Beach Access Parking

Final design plans are currently being prepared and will be submitted to FDEP for permitting. This project will increase beach access parking providing parking for a total of twenty-five vehicles utilizing a pervious paver system similar to the parking areas at Jetty Park and Dreamland Park. Anticipated construction is projected to commence in February/ March 2021.



Citrus Avenue Bridge Repairs:

All FEC approvals have been obtained and the contractor is scheduled to commence construction activities on September 28, 2020 through mid-April 2021. The repair work will require closure of one eastbound and one westbound travel lane for a period of 2-3 months. Construction contract amount totals $1,062,927.80.



North 17th Street (Orange Ave to Ave D) Roadway Improvements:

The new drainage installation began on Monday, August 31st. Phase II (Canal Terrace to Avenue D) sewer installation began on Tuesday, September 15th and estimated complete on Tuesday, September 29th. The gas contractor has completed the new gas main installation from Orange Ave to Avenue D. Mastec began conduit installations on September 8th.

N. 8th Street Roadway Improvements (Avenue D to Avenue E):

Culpepper & Terpening's Specific Authorization No. 3 was executed on Monday, August 31st. The scope of work for this project will include drainage improvements, new curb and gutter, sidewalks, and roadway reconstruction. A survey was completed, and the project design is in progress.

8th Street and Edwards Stormwater Pump Station:

A lift station start-up was conducted August 12, 2020 and the final acceptance of the project has been granted. This project will alleviate the repetitive flooding in the 8th Street neighborhood by pumping flood waters into the Edwards Road storm drainage system.

WHAT'S NEW?



THE BOSTON HOUSE:

Located at 239 S Indian River Drive, The Boston House is undergoing a major renovation to bring a new business venture to historic Fort Pierce. Amongst the renovations is an exterior elevator to bring accessibility to the 2nd floor of the structure. The elevator, the wooden landing at the top, the concrete landing at the base and the concrete ramp will undergo inspections to ensure compliance with the Florida Accessibility Code.



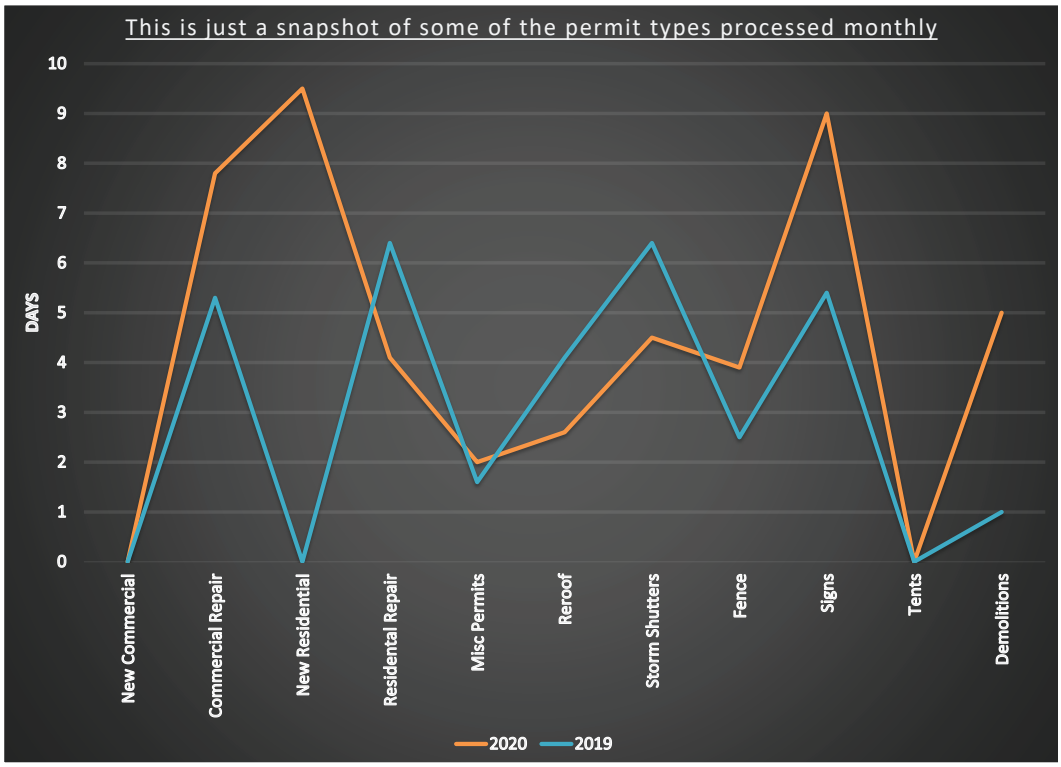
HARBOUR CAY SHOPPES:

Vertical construction has begun for the Harbour Cay Shoppes located at 825 Seaway Dr. just east of the Harbour Isle Condominiums. While still under construction, occupancy has already been secured for Goodfella's Pizza, Foxy Nails & Spa, Harbour Liquors and Paradise Emporium. As required by the Florida Building Code, rebar, short for reinforcing bar can be seen in the concrete block placed by the contractor.

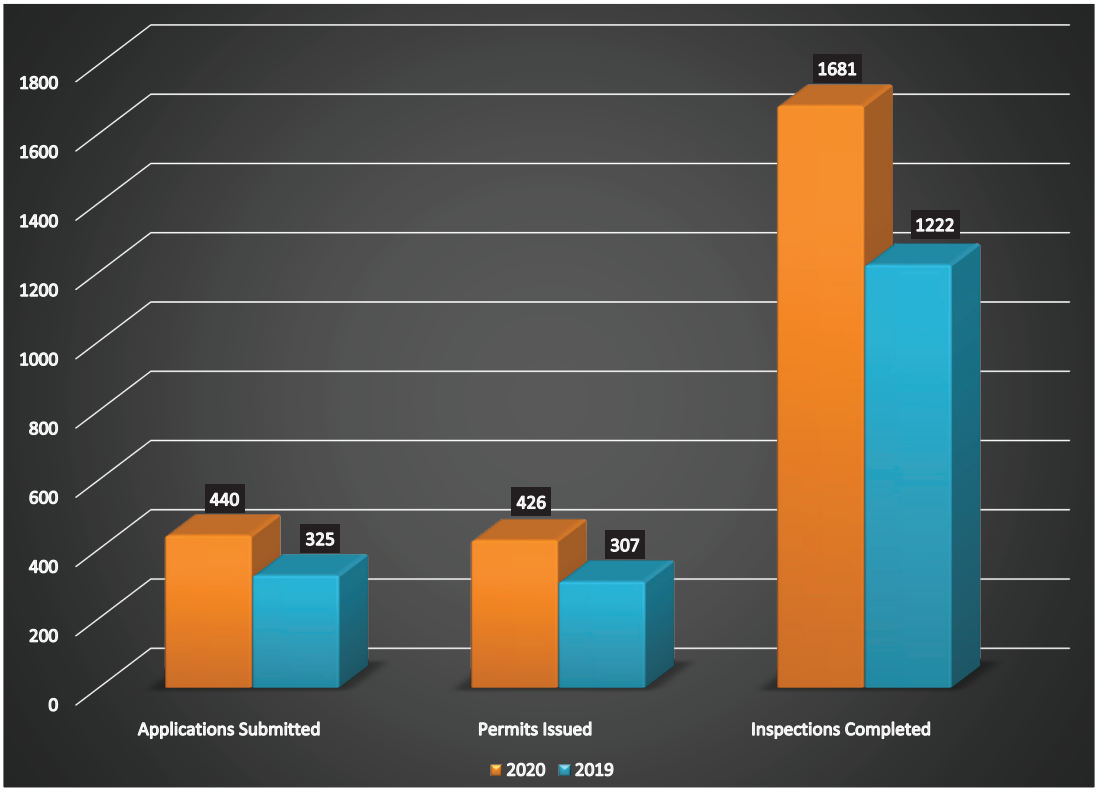
BUILDING CHARTS FOR AUGUST 2020

PLAN REVIEW PROCESSING TIME

For permits with 0 days, either the review was not completed within the month, or there were no reviews for the entire month.



ACTIVITY REPORT



SAFETY FIRST

ANDY AVERY, PUBLIC WORKS INSPECTOR

During this pandemic we encountered in March of this year, the Public Works Department continued conducting our monthly safety training meetings. The monthly safety meetings were conducted in our conference room in the Director's Office prior to this pandemic. Since the conference room was not large enough for social distancing. We have been utilizing other locations for the meetings like The Garden Center.

We have been social distancing and using our sanitizing protocols before during and after our meetings. This has been a challenge, but it was necessary to continue our efforts without comprising safety.

The new procedure has increased the time to prepare for and to breakdown after the meetings. This method has been utilized in Maintenance of Traffic (MOT) Classes, FNGLA, and our Safety Meetings.

With the COVID-19 virus came a lot of uncertainties. This was not like any other we had ever encountered. As first responders, we are here to serve our citizens and take care of our city. We have learned a lot during this pandemic and what it takes to maintain our jobs and keep each other in a safe environment. No one can predict or see the future, but we can take safety seriously and take one day at a time. When we help each other succeed, we all are winners. In our daily lives here at work and at home we can come together. We can help each other and learn from one another. Just being safe in Fort Pierce.







Wednesday - Green Market - Marina Square 12pm - 6:30pm
Saturday - Jazz Market – Marina Square 8am – 1pm
Saturday - Downtown Farmers Market - Marina Square 8am – 12pm
10/31/20 Trunk-a-Fest – Dreamland Park 12pm – 7pm
11/6/20 Friday Fest – Marina Square 5pm – 9pm
11/7/20 Manatee 5K – Manatee Center 5am – 12pm

RIVER WALK CENTER SALES REPORT AUGUST 2020

CLASSES	$ 166.74
PARK PERMITS	$ 1,375.00
SPECIAL EVENTS	$ 5,675.00
FACILITY	$ 4,658.35
TOTAL	**$ 11,875.09**



DANIEL VISCONTI, IHGC MANAGER

It's been a busy summer at the golf course, as we've averaged 104 players per day between May 1st and September 24th. We still have some work to do to be fully self sustaining, but we continue to head in a positive direction. We are approximately 2,900 rounds and $100,000 in Total Gross Revenue better than last year!

We continue to improve the course conditions on an almost daily basis, focusing on the health of the turf on the greens and fairways. This process will help carry us through the dry and cool conditions of the winter months when grass growth is at its slowest. Our third and final large greens project was completed on September 9th and the greens are fully recovered and rolling smoothly!

It has been a productive summer from a project standpoint as well, completing many jobs in house. We installed new flooring and painted the exterior of the Golf Shop to freshen up the look and feel of the facility. We also painted the patio, walkway and steps as well as the covered picnic areas at the Practice Range.
We thank all of our members and guests for their support and we ask that you please "Like" and "Follow Us" on Facebook or Instagram to see almost daily updates on the golf course and our ongoing summer maintenance projects.

INDIAN HILLS SALES REPORT

	7/2020	8/2020
GOLF ROUNDS	2549	2444
GOLF FEES	$45,822.36	$36,293.26
RANGE TOKENS	$1,146.88	$1,094.74
MEMBERSHIP PASS	$892.38	$1,223.69
FOOD & BEVERAGES	$6,280.90	$5,493.37
MERCHANDISE	$5,291.19	$3,815.36
TOTAL	**$59,433.71**	**$47,920.42**



CITY MARINA FINANCIAL REPORT

	JUNE	JULY	AUGUST
Dockage Reservations	109	88	62
Monthly Dockage	$127,859.09	$126,371.48	$127,941.97
Transient Dockage	$42,711.25	$33,080.41	$29,181.04
Electricity	$3,696.09	$2,801.06	$3,167.88
Retail	$13,964.04	$14,305.33	$10,858.08
Gas Sales	$44,734.91	$42,988.03	$31,949.07
Diesel Sales	$46,342.61	$36,314.09	$23,153.45
TOTALS	**$281,854.62**	**$255,860.40**	**$226,251.49**

STAY CONNECTED

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fortpiercefl

@Ft_Pierce

Nextdoor

FOR ALERTS ON COVID, STORMS, AND CITY NEWS, SIGN UP AT:
CITYOFFORTPIERCE.COM/ALERTCENTER.ASPX

WELCOMING NEW BUSINESSES!

DUNKIN DONUTS
EMERALD MEDICAL LLC
ESQUIVEL, BENJAMIN
ET'S OUT OF THIS WORLD WASH, LLC
FOUNTAIN, VERONICA
FULLER - ARMFIELD - WAGNER
GOD WITH ROSE & 2 SONS
GUERRERO, STANLEY J.
ITHINK FINANCIAL CREDIT UNION
KIDZ N MOTION
LEGACY CLOTHING LLC
LUCAS FUEL 2 INC
MALPICA, KALI GARCIA
MEL'S MOBILE MASSAGE
PACHECO'S SWEET DESIGNS
PEREZ, MIRIALYS REGUEIRA
RAMIREZ HANDYMAN INC
RICK'S BAIL BONDS, INC.
THE ISLAND KITCHEN LLC
TRAN, PHU N., M.D.
VILLARREAL LAWNCARE SERVICES
WAYNE, CHERYL MD
WHIRLED INC
YA YONI SPA, LLC



Mission Statement

To provide community leadership, quality public service, and a safe environment for all citizens, by an empowered team of employees motivated by pride in themselves and their work.

WWW.CITYOFFORTPIERCE.COM ▪ FACEBOOK.COM/FTPIERCE

Purchase Order Approvals between $10,000 and $50,000 by the City Manager between September 1, 2020 to September 30, 2020

1. Purchase Orders

a. Approve Change Order Increase of $12,475.00 to the contractor: KIB Construction Corp for SHIP Rehabilitation project 2020-021. The total award to contractor increases from $21,678.00 to $34,53.00, which is within the project's budget of $35,000.00.

b. The Fort Pierce Police Department is requesting to purchase a 2017 Kia Sportage in the amount of $14,454.90 from Arrigo Dodge, Chrysler, Jeep of Fort Pierce, where the department has purchased numerous vehicles previously. Extensive research by staff revealed that the 2017 Kia Sportage meets all the requirements and departmental needs.

c. Approve Police Department purchase of two undercover vehicles: a 2017 Dodge Caravan (including administrative charges) and a 2017 Infiniti QX50 (including administrative charges) in the total amount of $40,198.00.

d. Request approval to purchase from Dell Inc., Round Rock, TX, the replacement of existing systems with mobile systems in the amount not to exceed $12,041.00.

e. Request approval to purchase from Dell Inc., Round Rock, TX, the replacement of existing systems with mobile systems in the amount not to exceed $10,992.00

f. Request approval to purchase from Dell Inc., Round Rock, TX, the replacement of existing systems with mobile systems in the amount not to exceed $25,545.00

g. Approve Award of Bid No 2020-028 to Gentile Corp construction company as the lowest responsive bidder for RFP No 2020-028 for an amount not to exceed $12,500.00 for the rehabilitation of 212 North 30th Street, funded by the State Housing Initiatives Partnership (SHIP).

h. Request approval of payment of invoice in the amount of $24,192 from the Boys and Girls Clubs of St. Lucie County for providing summer jobs with COVID relief activities for 14 income eligible youth from CDBG-CV Public Service funds.

i. Request approval of payment of invoice in the amount of 26,083 from United Against Poverty for the continuation of its STEP Program virtually and providing items such as laptops, which allowed for social distancing and access to assistance and support for various economic factors; and for its grocery expansion during COVID- 19 pandemic to ensure access to healthy fresh food from CDBG-CV Public Service funds.

j. Approval of invoice in the amount of $15,000 from The Lindsay School of the Arts, which represents the cost of the field verification and documentation/schematic design for the historic renovation and restoration of the St. Anastasia School by Don Bergman Architecture, LLC., (ref. RFQ No. 2018-015).

THE SUNRISE CITY
FORT PIERCE
CITY MANAGER'S OFFICE Florida

TO : The Honorable Mayor and Members of the City Commission

FROM : Nicholas C. Mimms, P.E., ICMA-CM, City Manager

RE : CITY MANAGER CORONAVIRUS REPORT UPDATE

DATE : October 5, 2020

The following report is provided to apprise the members of the City Commission of the current actions of the City of Fort Pierce in response to the impact of the coronavirus to our citizens and visitors. Updated information is highlighted in yellow.

1. COVID-19 RECOVERY GRANT PROGRAM

- The City of Fort Pierce approved 36 recipients for mortgage and rental assistance totaling $62,687.96 and 36 recipients for small businesses totaling $108,000.00, overall providing $170,687.96 in assistance
- The United States Department of Housing and Urban Development recently informed the City of Fort Pierce of another special allocation of Community Development Block Grant funds to be used to prevent, prepare for, and respond to the coronavirus. The latest allocation for the third round is $373,187. Our cumulative amount for all allocation rounds is $728,232.
- Fort Pierce businesses can now participate in the St. Lucie Recovers Small Business Assistance Grant. This grant opportunity provides awards up to $10,000 for eligible small businesses. This grant program is designed for small businesses with under $2 million in revenues to provide a rapid infusion of capital, with the amount of money allocated dependent on the number of business employees.
- Funding has recently become available for Non-Profit & Faith Based Organizations. This Saint Lucie County funding program offers emergency financial support through the Non-Profit & Faith Based Organizational Assistance Program ("Non-Profit Grant Program") on a first come first serve basis. This grant program is for the reimbursement of expenditures related to the impact of COVID-19.

2. COVID-19 TESTING FOR COMMUNITY

- $85,000 (CARES Act Program - $60K, Allegany Franciscan Ministries - $25K)
- The City of Fort Pierce has conducted free testing in partnership with Dynix Diagnostix, Allied Health, Allegany Franciscan Ministries, the Department of Health, and Indian River State College.
- The initial testing event was held at Ilous Ellis Park from May 11 through May 15. A total of 1006 tests were administered yielding the following statistics:
  - Number of Swabs tested: 334 - Positive: 4 (1.2%)
  - Number of Antibodies tested: 672 - Number of positive: 13 (2%)
- The second community testing event was held at Ilous Ellis Park on June 6, 2020. A total of 310 tests were administered yielding the following statistics:
  - Number of Swabs tested: 110 - Positive: 12 (10.9%)
  - Number of Antibodies tested: 200 - Number of positive: 4 (2%)
- The third community testing event was held at MLK Jr. Dreamland Park September 4-5, 2020. A total of 297 tests were administered.
- Free and open testing is available at the Publix at Verano parking lot, located at 9335 SW Commerce Centre Drive, Port St. Lucie, FL 34986 from 9am to 5pm daily.

3. COVID-19 FOOD DISTRIBUTION PROGRAM

- $75,000 (General Fund - $25K, CARES Act Program - $50K)
- The City of Fort Pierce embarked on a food distribution program that includes partnerships with several entities throughout our community to include the following:
  - The Boys & Girls Club of Saint Lucie County
  - Grace Way Village
  - Treasure Coast Food Bank
  - Farm Share
  - Saint Matthews Missionary Baptist Church
  - Children's Services Council
  - Fort Pierce Lions Club
- City of Fort Pierce staff initiated the food program in May 2020 and has continued through this date. The aforementioned entities in partnership with the City of Fort Pierce and other community improvement organizations have provided millions of pounds of food to our community.

4. COVID-19 STATEWIDE GOVERNANCE

- On September 25, 2020 Governor Ron DeSantis issued Executive Order 20-244, initiating Phase 3 of the Safe, Smart, Step-by-Step, Plan for Florida's Recovery. Executive Order 20-244 did the following:
- Removes state-level restrictions on businesses, such as restaurants.
- Provides that no COVID-19 emergency ordinance may prevent an individual from working or operating a business, giving Floridians and business owners needed certainty and the ability to provide for themselves and their families.
- Provides that restaurants may not be limited by a COVID-19 emergency order by any local government to less than 50% of their indoor capacity.
- Suspends all outstanding fines and penalties, and the collection of such moving forward, applied against individuals related to COVID-19.The City Commission approved the relaunching of special events and facility rentals at their June 15, 2020 meeting.

5. CITY FACILITY PUBLIC ACCESS

- Internal access to municipal facilities is currently granted for those that have pre-scheduled appointments and must have temperature readings below 100.4 degrees Fahrenheit.
  - City Hall – Open to the public for appointment access only.
  - Sunrise Theatre – Open with limited programming.
  - Police Department Main Station and Substation – Open to the public for appointment access only.
  - City Marina – Open to the public and practicing social distancing.
  - Indian Hills Golf Course – Open to the public and practicing social distancing.
  - Beaches – Open
  - Parks – Open
  - Boat Ramps – Open.

6. CITY COMMISSION MEETINGS

- The City Commission continues to hold its regularly scheduled meetings.
- Public Hearings resumed June 15, 2020.
- Public may attend City Commission meetings in person or submit comments in writing to City Clerk.
- All meetings are broadcast live on TV Channel 27 and streamed online at: www.cityoffortpierce.com.

- City Commission appointed Board & Committee meetings have resumed based on critical need, and all such meetings are held in the Commission Chambers to ensure social distancing and telecommunications provisions.

7. COMMUNICATIONS

- Routine Press Releases
- Community Text Messages to recently expanded list of subscribers
- Visiting businesses to urge them to follow social distancing protocols
- Responding to phone calls and emails from citizens, businesses
- A total of (217) See-Click-Fix requests received from April 1 to October 1, 2020. City staff currently averages 1.62 days for acknowledgement of the See-Click-Fix requests.
- The video conferencing apps have been deployed and made available to employee mobile devices to enhance communications abilities.

8. EMPLOYEE STATUS (as of 10/1/2020)

- Eighteen (18) employees have tested positive for COVID-19. Immediate contact tracing, notification, intensified sanitization, and testing have been completed in response to this situation.
- Currently, three (3) employees are out due to issues related to the Coronavirus.
- Senior and impaired employees have been given option to work from home, if possible.
- Four (4) employees are currently utilizing intermittent FFCRA Leave to care for their children
- Working from home (teleworking) shall be considered and implemented for future departmental schedules.

9. BUDGET

- The proposed operating budget for Fiscal Year 2021 has been drafted and presented to the City Commission utilizing the static 6.9000 millage rate and a 6.1% property valuation increase.
- Refunded Capital Debt to create annual savings
- Hiring Freeze for all positions except Police and Public Works Departments
- General Fund Budget Reduction Strategies
  - Effective April 1, 2020 - (2.5% Spending Plan Reduction)
  - Created $1 Million Contingency Fund for FY 2021.
- Emergency Management personnel have initiated the procedure for reimbursement from Saint Lucie County for eligible COVID-19 related expenditures. To date, labor expenditures have totaled more than $420,000

and capital expenditures are currently being compiled. It is anticipated that the total amount or reimbursable expenditures to date may exceed $500,000.

- Saint Lucie County has informed the City that our application for reimbursement has been approved; however, the initial payment will be $195,941.33 (which represents the allocation for the City of Fort Pierce as part of the 25% initial allocation from the State).

10. ECONOMIC RECOVERY STRATEGY

- The City has concluded a very successful parklet program which launched on May 28, 2020. The program was intended to be a temporary solution to help offset the capacity restrictions set forth by the Governor by allowing businesses to expand their operation into the on-street parking spaces in front of their establishment. Now that the Governor's Executive Order 20-244 eliminates all business capacity restrictions, the parklets shall be removed.
- Development Fees
  - The City Commission approved development fee reductions and waivers for a period of six (6) months beginning June 15, 2020 to include the following:
    - Pre-Application Fee
    - Sidewalk Café Fee
    - Sign Permit Fee
    - Site Plan Fee

Please contact me if you have any questions or need additional information.

NCM:jdr

Attachment

c: City Clerk
City Attorney
Department Heads

CC: City manager

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-7000

ASSISTANT SECRETARY FOR
COMMUNITY PLANNING AND DEVELOPMENT

September 11, 2020

RECEIVED
OCT 01 2020
MAYOR'S OFFICE

The Honorable Linda Hudson
Mayor of Fort Pierce
100 N US Hwy 1
Fort Pierce, FL 34950

Received
OCT 0 1 2020
City of Fort Pierce
City Manager's Office

Dear Mayor Hudson:

I am pleased to inform you of a special allocation to your jurisdiction of Community Development Block Grant funds to be used to prevent, prepare for, and respond to the coronavirus (COVID-19). This allocation was authorized by the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Public Law 116-136, which was signed by President Trump on March 27, 2020, to respond to the growing effects of this historic public health crisis.

The CARES Act made available $5 billion in Community Development Block Grant Coronavirus (CDBG-CV) funds. Of this amount, the Department immediately allocated $2 billion on March 27, 2020, the same day President Trump signed the Act, based on the fiscal year 2020 CDBG formula; this constituted the first round of CDBG-CV funds. Next, $1 billion was required by the Act to be allocated to States and insular areas within 45 days of enactment of the Act; HUD accomplished this on May 11, 2020, and this constituted the second round of CDBG-CV funds. Finally, the remaining $2 billion in CDBG-CV funds was required by the Act to be allocated to states and local governments at the discretion of the Secretary on a rolling basis; HUD accomplished this on September 11, 2020, and this constituted the third round of CDBG-CV funds. Additionally, up to $10 million will be set aside for technical assistance.

Accordingly, this letter informs you that your jurisdiction's allocation for the third round is $373,187. Your cumulative amount for all allocation rounds is $728,232.

The CARES Act adds additional flexibility for both the CDBG-CV grant and, in some cases, for the annual FY2019 and FY2020 CDBG grants in these unprecedented times. The public comment period is reduced to not less than 5 days, grantees may use virtual public hearings when necessary for public health reasons, the public services cap is suspended during the emergency, and States and local governments may reimburse costs of eligible activities incurred for pandemic response regardless of the date.

In addition, the CARES Act authorizes the HUD Secretary to grant waivers and alternative requirements of statutes and regulations the HUD Secretary administers in connection with the use of CDBG-CV funds and fiscal year 2019 and 2020 CDBG funds (except for requirements related to fair housing, nondiscrimination, labor standards, and the environment). Waivers and alternative requirements can be granted when necessary to expedite and facilitate the use of funds to prevent,

prepare for, and respond to coronavirus.

The CDBG CARES Act Federal Register Notice (FR-6218-N-01) was released on August 10, 2020. The notice describes the allocations and grant procedures applicable to the CDBG-CV grants. It also describes the program flexibilities, waivers, and alternative requirements that apply to the CDBG-CV grants as well as the fiscal year 2019 and 2020 CDBG grants. As further such flexibilities become available, they will be posted on HUD's website and distributed to grantees. The Department will also support grantees with technical assistance.

As you develop your plan for the use of these grant funds, we encourage you to consider approaches that prioritize the unique needs of low- and moderate–income persons and the development of partnerships between all levels of government and the private for-profit and non-profit sectors. You should coordinate with state and local health authorities before undertaking any activity to support state or local pandemic response. CDBG-CV grants will be subject to oversight, reporting, and the requirement that each grantee have adequate procedures to prevent the duplication of benefits (DOB). HUD will provide guidance and technical assistance on DOB, the prevention of fraud, waste, and abuse, and on documenting the impact of this program for beneficiaries.

Reminder, all CPD Grantees must ensure they maintain active Dun and Bradstreet Numbering System (DUNS) numbers in the System for Award Management (SAM) system. Entities must have an active and unexpired DUNS before execution of grant agreements to avoid delays in the obligation of funds- which will delay your ability to drawdown funds in the Integrated Disbursement & Information System (IDIS). Grantees are required to maintain an active SAMs registration by re-activating their DUNS number annually in the SAM system for the entire drawdown period of their grants. DUNS numbers can be registered and renewed each year at the following website: https://www.sam.gov/SAM/.

The Office of Community Planning and Development (CPD) is looking forward to working with you to successfully meet the urgent and complex challenges faced by our communities. If you or any member of your staff has questions, please contact your local CPD Field Office Director or CPDQuestionsAnswered@hud.gov.

Sincerely,

John Gibbs
Acting Assistant Secretary
for Community Planning and Development
U.S. Department of Housing and Urban Development