

1 Roofing: Metal Seam Panels / Color: Charcoal Gray

2 Facia & Brackets: Wood / Color: High Reflective White_SW 7757

3 Stucco Bands: Stucco / Color: High Reflective White_SW 7757

4 Bahama Shutters: Aluminum / Color: Honorable Blue_SW 6811

5 Decorative Louvers: Vinyl / Color: Honorable Blue_SW 6811

6 Exterior Walls: Stucco / Color: Crushed Ice_SW 7647

7 Siding: Stucco / Color: Lakeside_SW 9683

General Notes

COLOR BOARD

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
Regatta
2190 S Jenkins Rd
Fort Pierce FL 34947

Project	Sheet
Regatta	04
Date: 8-15-23	
Scale: As Noted	

MICHELLE R. MILLER, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 5344048 OR BOOK 5156 PAGE 2768, Recorded 05/30/2024 03:49:33 PM Doc Tax: $43680.00

This instrument prepared by
JEFFREY ZWICK & ASSOCIATES, P.C.
2329 NOSTRAND AVENUE, 4TH FLOOR
BROOKLYN, NEW YORK 11210

and when recorded return to
QUESADA VALDES PLLC
850 NW 42ND AVENUE, SUITE 205
MIAMI, FLORIDA 33126
Juan C. Valdes, Esq.

Folio Numbers: 2418-333-0001-000/9, 2418-333-0002-000/6, 2418-333-0003-000/3 and 2418-333-0004-000/0

WARRANTY DEED

THIS WARRANTY DEED is made this 24 day of May, 2024 by JENKINS PROPERTY MP LLC, a Florida limited liability company ("Grantor") whose address is 1820 Avenue K, Brooklyn NY 11230, and is delivered to REGATTA LUXURY APARTMENTS DEVELOPMENT LLC, a Florida limited liability company ("Grantee"), whose address is 2055 NE 202nd Street, Miami, Florida 33179.

Grantor, for and in consideration of the sum of TEN & NO/100 DOLLARS ($10.00) and other good and valuable consideration, paid to Grantor by Grantee, the receipt and sufficiency of which are hereby acknowledged, grants, bargains, sells, and conveys to Grantee and Grantee's successors and assigns forever, that certain parcel of land, situate, lying and being in St. Lucie County, Florida, described in Exhibit "A" attached hereto and made a part hereof (the "Property");

The land described herein is not the homestead of grantor(s) and neither they nor their spouse or anyone for whose support they are responsible reside on or adjacent to the land.

Together With all easements, tenements, hereditaments, and appurtenances belonging to the Property; and

To have and to Hold, the same in fee simple forever;

Grantor covenants that at the time of delivery of this deed, except as described above, the Property is free of any encumbrances made by Grantor, and Grantor fully warrants the title to the Property, and will defend it against the lawful claims and demands of all persons claiming by, through or under Grantor, but against none other, and that said land is free of all encumbrances except for real estate taxes for the year 2024 and subsequent years.

[SIGNATURE PAGE FOLLOWS]

Grantor has caused this instrument to be duly executed on May 24, 2024.

Signed, sealed, and delivered
in the presence of:

JENKINS PROPERTY MP LLC, a Florida limited liability company

By: _____
Murray Puderbeutal, Managing Member

_____
Signature of Witness 1
Miles Scamps
Print Name of Witness 1
1331 59th St, Brooklyn NY 11219
Witness 1 Address
E Kornfeld
Signature of Witness 2
Eliana Kornfeld
Print Name of Witness 2
137-14 Jewel Ave, Flushing NY 11367
Witness 2 Address

STATE OF NEW YORK
COUNTY OF KINGS

The foregoing instrument was acknowledged before me by means of ☑ physical presence or ☐ online notarization, this 22 day of May, 2024, by Murray Puderbeutal, as Managing Member of Jenkins Property MP LLC, a Florida limited liability company.

_____
(Signature of Notary Public - State of New York)
Steven Milstein
(Print, Type, or Stamp Commissioned Name of Notary Public)

Personally Known ____ OR Produced Identification ✓
Type of Identification Produced Driver's License

Steven Milstein
Notary Public, State of New York
Reg. No. 02MI6436703
Qualified in Kings County
Commission Expires July 18, 2026

EXHIBIT "A"

The Property

The land referred to herein below is situated in the County of St. Lucie, State of Florida, and described as follows:

Parcel 1:

The North 1/2 of the North 1/2 of the South 1/2 of the Southwest 1/4 of the Southwest 1/4 of Section 18, Township 35
South, Range 40 East, less the West 60 feet for road right of way purposes, all lying in St. Lucie County, Florida.

Parcel 2:

The South 1/2 of the North 1/2 of the South 1/2 of the Southwest 1/4 of the Southwest 1/4 of Section 18, Township 35
South, Range 40 East, St. Lucie County, Florida. Less the West 60 feet thereof.

Parcel 3:

All of the South 1/2 of the South 1/2 of Southwest 1/4 of the Southwest 1/4 of Section 18, Township 35 South, Range 40 East, less and except that portion of land as described in Warranty Deed recorded in Official Records Book 2974, Page 708, and also excepting therefrom all rights of way for public roads and drainage canals, and also, less and excepting that part thereof particularly described as follows: From the Southwest comer of said section, township and range run Northerly along the West line of said Section 104.83 feet to a point of beginning; from said point of beginning continue Northerly along said section line a distance of 132 feet to a point; thence with an angle of 90° run East 25 feet to a pipe; thence continue East 100 feet to a pipe; thence at 90° run South 132 feet to a pipe; thence at 90° run Westerly 100 feet to a stove bolt in Drive; thence continue Westerly 25 feet to a point of beginning.

Parcel 4:

From the Southwest comer of Section 18, Township 35 South, Range 40 East, run Northerly along the West line of said Section 104.83 feet to a point of beginning; from said point of beginning continue Northerly along said section line a distance of 132 feet to a point; thence with an angle of 90°run East 25 feet to a pipe; thence continue East 100 feet to a pipe; thence at 90° run South 132 feet to a pipe; thence at 90° run Westerly 100 feet to a stove bolt in Drive; thence continue Westerly 25 feet to a point of beginning; less and except that portion of land as described in Warranty Deed recorded in Official Records Book 2974, Page 708, and also excepting therefrom all rights of way for public roads. Said land lying in and being a part of St. Lucie County, Florida.

Stormwater Management Report

for

Regatta Apartments

St Lucie County, Florida

July 2024

Prepared By:

KMA Engineering & Surveying LLC
2345 14th Avenue Suite 3; Vero Beach, FL 32960
Ph: (772) 569-5505
http://kmafl.com

Certificate of Authorization No. 33705
Engineer's Project No. 20-1045

Blaine R. Bergstresser, P.E.
Florida Lic. No. 84598
Date: 7/10/2024

Executive Summary

Project Name:	Regatta Apertments
Permittees:	Alva Stone Group 591 Everina Street, #1603 West Palm Beach, FL 33401 St Lucie County Board Of County Commissioners 2300 Virginia Avenue Fort Pierce, FL 34982
Operating Entity:	Alva Stone Group 591 Everina Street, #1603 West Palm Beach, FL 33401 St Lucie County Board Of County Commissioners 2300 Virginia Avenue Fort Pierce, FL 34982
Loaction:	St Lucie County
Permit Acres:	17.42 acres
Project Land Use:	Residential
Special Drainage District:	North St Lucie River Water Control District (NSLRWCD)
Water Body Classification:	CLASS III
FDEP Water Body ID:	3194D
Wetland and Surface Water Impacts:	tbd
Conservation Easement to District:	No
Sovereign Submerged Lands:	No

Project Summary

The project proposes the construction of rental community including Multi-Family residential buildings, a clubhouse, parking, access and the project SWM system. The SWM system consists of site grading, inlets and storm sewer to collect and convey runoff to a Wet Detention pond)with Stormwater Harvesting) with outfall through a control structure to the NSLRWCD Canal #37. The project also proposes off-site improvements to Jenkins Road right-of-way; runoff resulting from an increase in impervious area shall be treated within the right-of-way.

Engineering and Environmental Decsription

Land Use

Please refer to the Land Use Data Table (next page) for complete details. The project includes an 8,700 sqft (0.20 acres) dedication to the county as Right-of-Way. The project does NOT include any area to be peserved.

Water Quality

The project is within a watershed defined by the FDEP as impaired; the design includes a pollution abatement analysis and an additional 50% water quality treatment volume. The project provides 2.18 acre-feet of water quality treatment; please refer to the Water Quality Data Table. The project inlcudes Erosion Control measures (per included Erosion Control Plan) to provide compliance with water quality during construction.

Water Quantity

Discharge

Runoff discharge from the project is limited to (at most) Pre-Development runoff rates; please refer to the Water Quantity Data Table. The site is further restricted to no more than 2-inches over the drainage area in any 24-hour period following the 10yr-72hr storm event; please refer to the Discharge Limitation Data Table.

Parking Lot Design

Minimum Parking Lot elevations have been set at or above the 10yr-24hr strom elevation; please refer to the Water Quantity Data Table.

Road Design

Minimum Road Crown elevations have been set at or above the 10yr-24hr strom elevation; please refer to the Water Quantity Data Table.

Perimeter Berm

Minimum Perimeter Berm elevations have been set at or above the 25yr-72hr strom elevation; please refer to the Water Quantity Data Table.

Fisnished Floors

Minimum Finish Floor elevations have been set at or above the 100yr-72hr strom elevation (with ZERO discharge); please refer to the Water Quantity Data Table.

Environmental

Wetlands & OSW - Description

Initial investigation suggests that the site does not contain wetlands. There are a series of ditches formerly used for irrigation and surface water management. The site also has a small pond on the western boundary. Environmental analysis shall be required to determine potential impacts.

Wetlands & OSW - Impacts

TBD

Fish and Wildlife

The project site does not contain significant habitat for wetland-dependent endangered or threatened wildlife species, or species of special concern. No wetland-dependent endangered or threatened species or species of special concern were observed onsite. Submitted information indicates that potential use of the site by such species is minimal.

Engineering and Environmental Data Tables

Land Use

Basin	Land Type	Area (ac)	% of Total Basin
Site	Impervious	5.55	31.84%
	Building Coverage	3.17	18.19%
	Wet Detention Areas	2.63	15.09%
	Dry Retention Areas	0.00	0.00%
	Pervious	6.08	34.88%
	Total:	17.43	100%

Water Quality

Basin	Treatment Type	Treatment System	Volume Required (ac-ft)	Volume Provided (ac-ft)	Area (ac)
Site	Treatment	WET DETENTION	2.18	> 7.07	2.63

Water Quantity

Basin	Elevation Type	Storm Event (Yr/Day)	Precipitation Depth (in)	Peak Stage (ft NAVD88)	Min. EL (ft NAVD88)	Peak Discharge Rate (cfs)	Allowable Discharge Rate (cfs)
Site	Finished Floor	100Y3D	12.23	15.99	17.00	NA	82.09
	Discharge	10Y3D	8.50	N/A	N/A	2.79	54.80
	Perimeter Berm	25YR3D	10.00	14.95	15.30	7.05	65.79
	Road Crown	10YR1D	6.00	14.20	14.80	0.57	32.02

Bleeder

Basin	Control EL (ft NAVD88)	Structure #	Structure Type	Type	Dia.(in)	Invert EL (ft NAVD88)	Receiving Body
Site	12.10	CS-1	Discharge	Circular Orifice	4.00	12.10	NSLRWCD Canal #37

Inlets

Basin	Control EL (ft NAVD88)	Structure #	Structure Type	Count	Type	Length (in)	Width (in)	Crest EL (ft NAVD88)	Receiving Body
Site	12.10	CS-1	Discharge	1	FDOT MOD C DROP INLET	24.0	37.0	14.80	NSLRWCD Canal #37

Work in Wetlands and OSW

ID	Acres	Action	Community Decsription	Current Score	With Project Score	UMAM Loss
OSW	tbd	tbd	tbd			tbd
Wetlands	0.000	none	Wetlands			0.000
TOTAL:					**TOTAL:**	

Discharge Limitations

Basin	Acres	Limitation	Limiting Authority	Receiving Body	Allowed Discharge	Proposed Discharge
Site	17.420	2" per 24-hr	NSLRWCD	NSLRWCD Canal #9	2.903 AC-ft	2.850 AC-ft

INTRODUCTION

Purpose

The purpose of this report is to provide the City of Fort Pierce, the North St Lucie River Water Control District (NSLRWCD), and the South Florida Water Management District (SFWMD) with calculations and documentation which demonstrates that the proposed surface water management system meets the criteria of the master stormwater management system.

Background (Existing Conditions)

The site is comprised of 17.42 acres of former citrus grove; it appears to have been out of use for some time. The east half and the southwest quarter of the site contain remnants of beds and furrows; likewise in the northwest, withthe addition the foundations of former residential structures, a dirt access driveway, and a pond. The existing grades vary to as low as 12.5 NAVD to as high as 15.9 NAVD; the majority of the site lies between 14.0 NAVD and 13.0 NAVD. The majority of the parcel is in an "AE-16" Flood Zone, with a small portion of the parcel lying in an "X" zone.

The parcel is drained by a series of ditches unning nort-south at the center of the property; this is further supplied by a ditch running east-west through the center of the west half of the parcel. These ditches drain to the NSLRWCD Canal #37, with connection via culvert at the east-west center of the property. There does not appear to be any control associated with the connection. Stormwater runoff from the parcel flows to these ditches and into the district canal without mitigation.

The property is bordered on the south by the NSLRWCD Canal #37; to the east and the north are undeveloped lands which have been earmarked for a future residential development; to the west is the Jenkins Road right-of-way.

Proposed Development & Drainage System

The site will be developed as multi-family residential apartment units, along with a variety of residential amenities. Residential units shall be accessed through a looped vehicle use area (parking lot), with curb-gutter drainage. Stormwater runoff will be collected and treated by small dry retention ponds interconnected with a large central wet detention pond. This will provide all the required water quality treatment onsite prior to discharge. Outfall shall be controlled by a single drop structure; discharge will be from the wet detention pond south to the NSLRWCD Canal #37.

The Wet Detention Pond shall have a portion of a portion of it's collected runoff volume RETAINED for the use of irrigation onsite (Stormwater Harvesting). This feature will lower nutrient discharge to below PRE condition levels. Water Quality requirements per the SFWMD will be met by the Dry Retention system; the Wet Detention/Stormwater Harvesting system is only used for nutrient abatement and attenuation.

Becasue of the use of Stormwater Harvesting within the Wet Detention system, all the routing models detailed in this report shall assume elevated start conditions reflective of a full harvesting basin (start condition at or above the drawdown elevation). This represents a Worst-Case scenario, where irrigation may not be possible (e.g., back-to-back storm events).

Drainage Calculcations - Area Take-Offs

Proposed Site Data

Area	SF	AC	%
Parcel Area	767,592	17.62	101.15
Offsite Tributary	0	0.00	0.00
Conservation Area	0	0.00	0.00
Right-of-Way Dedication	8,702	0.20	1.15
Drainage Area	758,890	17.42	100.00
Impervious Areas:			
Vehicle Use Areas	190,560	4.37	25.11
Structures (Roofs)	138,240	3.17	18.22
Sidewalks & Paths	41,750	0.96	5.50
Other Pavement	8,940	0.21	1.18
Dry Pond Base	0	0.00	0.00
Wet SWM Areas	114,563	2.63	15.10
Total Impervious	494,053	11.34	65.10
Pervious Area:			
Bio-Swale Base	3,670	0.08	0.48
Bio-Swale Banks	13,473	0.31	1.78
Wet Detention Banks	31,050	0.71	4.09
Open Green Space	216,644	4.97	28.55
Total Pervious	264,837	6.08	34.90

Soil Storage

Wet Season
Water Table Elevation = 11.50 NAVD
Avg. Grade Elevation = 14.0 NAVD
Depth to Wet Season W.T. = **2.5 FT**

SOIL BORING LOG			
BORING	DEPTH TO WATER	ELEV. NAVD	WATER TABLE
~~B-1~~	~~3~~	~~15.46~~	~~12.46~~
B-2	3.5	13.12	9.62
B-3	3	13.04	10.04
B-4	2.5	13.42	10.92
		AVERAGE W.T. =	10.19

According to the Engineer's Soil Report, the Normal Water Level (NWL) was measured at 10.2 NAVD We estimate the Wet Season Water Table (WSWT) at beween 1 to 1.5 feet higher...or about 11.5 NAVD.

Soil Storage - Reference SFWMD Permit Manual Vol IV						
Depth to W.T. (ft)	**Coastal (1)**		**Flatwoods (2)**		**Depression (3)**	
	Storage (in)	**CN**	**Storage (in)**	**CN**	**Storage (in)**	**CN**
1.0	0.6	94	0.6	94	0.6	94
1.5	1.6	87	1.6	87	1.4	88
2.0	2.5	80	2.5	80	2.1	83
2.5	4.6	70	4.0	72	3.3	76
3.0	6.6	60	5.4	65	4.4	69
3.5	8.8	54	7.2	59	5.6	65
4.0	10.9	48	**9.0**	53	6.8	60

Soil Storage = 4.0 inches
Soil Moisture Storage, S = (0.75)(% Pervious)(Soil Storage)

S =	1.05 inches

Water Quality Calculations

1.0 Inch Over the Project Area

1.0 inch	*	1ft / 12in	*	17.42 Drainage Area (AC)	=	1.45 Treated Volume	ac-ft	

OR

2.5 Inches Times the Percent Impervious

(Site Area)	17.42 Project Area (AC)	- (	0.00 Lakes (AC)*	+	2.63 Wetlands (AC)*	+	3.17 Roofs	)	=	11.62 Site Area Acres		
(Impervious Area)			11.62 Site Area (AC)	-	6.08 Pervious Area (AC)	=	5.54 Impervious Area	ac				
(% Impervious)	Impervious Area / Site Area (AC)	*	100 %			=	47.7%					
(2.5 in. * % Imp.)			2.50 inches	*	47.7% Percent Impervious	=	1.19 Inches To Be Treated	inches				
(Treated Volume)	1.19 Treated Inches	*	1ft / 12 inches	*	11.62 Site Area (AC)	=	1.15 Treated Volume	ac-ft				

Required Wet Detention	=	**1.45**	**ac-ft**
Required Dry Detention	=	**1.09**	**ac-ft**
Required Retention	=	**0.73**	**ac-ft**
IMPAIRED BASIN Required Dry Retention (@ 150%)	=	**2.18**	**ac-ft** ⇦
Required Retention per BMPTRAINS	=	**1.54**	**ac-ft**

The "IMPAIRED BASIN" value is the required retention volume necessary to meet SFWMD Water Quality requirements. The retention volume required to achieve the necessary pollution removal per the BMPTRAINS model is 1.541 AC-ft. Refer to details on the preceding pages…

Water Quality is Provided at:	**Elev.**	**12.88 NAVD**	(Wet Detention)
Pollution Removal is Achieved at:	**Elev.**	**12.10 NAVD**	(Stormwater Harvest)

(See Stage-Storage Section)

Set DETENTION Overflow ABOVE Elevation 12.90 NAVD
Set DETENTION Drawdown at Elevation 12.10 NAVD

Treatment Stage-Area/Volume Calculations

SITE DATA/GRADING TABLE

DESCRIPTION	AREA (ACRE)	GRADING From	GRADING To	REMARKS
SWH BASE	2.629	11.50	12.10	VERTICAL
SWH BANK	0.105	11.50	12.10	LINEAR
DET BASE	2.734	12.10	15.50	VERTICAL
DET BANK	0.608	12.10	15.50	LINEAR
RET BASE	0.084	12.50	15.50	VERTICAL
RET BANK	0.309	12.50	15.50	LINEAR

STORAGE ITEM	AREA (SQFT)	
SWH BASE	114536	= LAKE AREA AT THE SEASON HIGH WATER TABLE ELEVATION
SWH BANK	4554	= LAKE BANK AREA BETWEEN SEASON HIGH WATER TABLE ELEVATION AND DRAWDOWN ORIFICE
DET BASE	119080	= LAKE AREA AT THE DRAWDOWN ORIFICE ELEVATION
DET BANK	26493	= LAKE BANK AREA BETWEEN THE DRAWDOWN ORIFICE AND THE TOP-OF-BANK
RET BASE	3,670	= DRY RETENTION POND AREA AT POND BOTTOM ELEVATION
RET BANK	13,473	= DRY RETENTION BANK AREA BETWEEN THE BOTTOM AND THE TOP-OF-BANK

STORMWATER HARVEST STAGE-STORAGE TABLE

STAGE (feet)	AREA (AC) SWH BASE	SWH BANK	TOTAL	STORAGE VOLUME (ACFT)	STAGE (feet)
11.50	2.629	0.000	2.629	0.00	11.50
11.75	2.629	0.044	2.673	0.66	11.75
12.00	2.629	0.087	2.717	1.34	12.00
12.25	2.629	0.105	2.734	2.02	12.25
12.50	2.629	0.105	2.734	2.70	12.50
12.75	2.629	0.105	2.734	3.38	12.75
13.00	2.629	0.105	2.734	4.07	13.00
13.25	2.629	0.105	2.734	4.75	13.25
13.50	2.629	0.105	2.734	5.44	13.50
13.75	2.629	0.105	2.734	6.12	13.75
14.00	2.629	0.105	2.734	6.80	14.00

REQUIRED TREATMENT VOLUMES

NUTRIENT ABATEMENT VOLUME = 1.60 ACFT

1.6 ACFT ACHIEVED AT ELEVATION **12.10** 12.00 12.25
1.34 2.02

WATER QUALITY VOLUME = 2.18 ACFT

2.18 ACFT ACHIEVED AT ELEVATION **12.88** 12.75 13.00
1.81 2.53

WET DETENTION STAGE-STORAGE TABLE

STAGE (feet)	AREA (AC) DET BASE	DET BANK	TOTAL	STORAGE VOLUME (ACFT)	STAGE (feet)
12.10	2.734	0.000	2.73	0.00	12.10
12.25	2.734	0.027	2.76	0.41	12.25
12.50	2.734	0.072	2.81	1.11	12.50
12.75	2.734	0.116	2.85	1.81	12.75
13.00	2.734	0.161	2.89	2.53	13.00
13.25	2.734	0.206	2.94	3.26	13.25
13.50	2.734	0.250	2.98	4.00	13.50
13.75	2.734	0.295	3.03	4.75	13.75
14.00	2.734	0.340	3.07	5.52	14.00
14.25	2.734	0.385	3.12	6.29	14.25
14.50	2.734	0.429	3.16	7.08	14.50
14.75	2.734	0.474	3.21	7.87	14.75
15.00	2.734	0.519	3.25	8.68	15.00
15.25	2.734	0.563	3.30	9.50	15.25
15.50	2.734	0.608	3.34	10.33	15.50
15.75	2.734	0.608	3.34	11.16	15.75
16.00	2.734	0.608	3.34	12.00	16.00
16.25	2.734	0.608	3.34	12.83	16.25
16.50	2.734	0.608	3.34	13.67	16.50
16.75	2.734	0.608	3.34	14.51	16.75
17.00	2.734	0.608	3.34	15.34	17.00
17.25	2.734	0.608	3.34	16.18	17.25
17.50	2.734	0.608	3.34	17.01	17.50
17.75	2.734	0.608	3.34	17.85	17.75
18.00	2.734	0.608	3.34	18.68	18.00

DRY RETENTION STAGE-STORAGE TABLE

STAGE (feet)	AREA (AC) RET BASE	RET BANK	TOTAL	STORAGE VOLUME (ACFT)	STAGE (feet)
12.50	0.084	0.000	0.084	0.00	12.50
12.75	0.084	0.026	0.110	0.02	12.75
13.00	0.084	0.052	0.136	0.06	13.00
13.25	0.084	0.077	0.162	0.09	13.25
13.50	0.084	0.103	0.187	0.14	13.50
13.75	0.084	0.129	0.213	0.19	13.75
14.00	0.084	0.155	0.239	0.24	14.00
14.25	0.084	0.180	0.265	0.31	14.25
14.50	0.084	0.206	0.290	0.37	14.50
14.75	0.084	0.232	0.316	0.45	14.75
15.00	0.084	0.258	0.342	0.53	15.00
15.25	0.084	0.284	0.368	0.62	15.25
15.50	0.084	0.309	0.394	0.72	15.50
15.75	0.084	0.309	0.394	0.82	15.75
16.00	0.084	0.309	0.394	0.91	16.00
16.25	0.084	0.309	0.394	1.01	16.25
16.50	0.084	0.309	0.394	1.11	16.50
16.75	0.084	0.309	0.394	1.21	16.75
17.00	0.084	0.309	0.394	1.31	17.00
17.25	0.084	0.309	0.394	1.41	17.25
17.50	0.084	0.309	0.394	1.50	17.50
17.75	0.084	0.309	0.394	1.60	17.75
18.00	0.084	0.309	0.394	1.70	18.00
18.25	0.084	0.309	0.394	1.80	18.25
18.50	0.084	0.309	0.394	1.90	18.50

Stage Storage Calculations - Wet Detention & Stormwater Harvest Pond (Combined)

SITE DATA/GRADING TABLE

DESCRIPTION	AREA (ACRE)	GRADING From	GRADING To	REMARKS
DT BOT	2.630	11.50	15.50	VERTICAL
DT BANK	0.309	11.50	15.50	LINEAR
LME	0.454	15.50	16.00	LINEAR
	0.76			

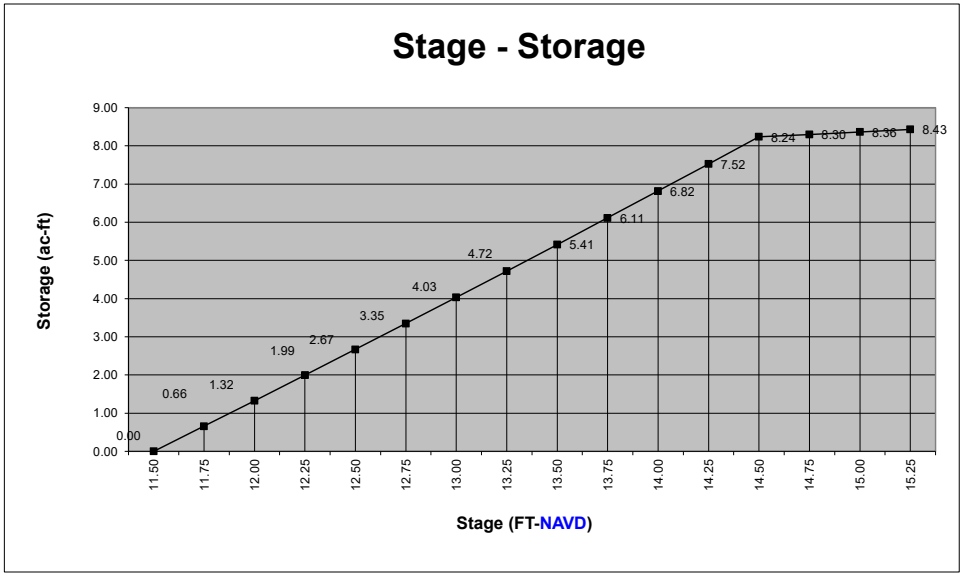
MEAN DEPTH OF PONDS

ELEVATION	AREA (sqft)	AVERAGE	VOLUME	Σ VOLUME
-0.5	65467	0	.	0.000
9.5	100136	82802	828015	19.009
11.5	114563	107350	214699	23.937

AREA OF POND AT PERMANENT POOL ELEVATION = 2.630 AC
PERMANENT POOL VOLUME = 23.937 ACFT
MEAN POND DEPTH = 9.102 FT

DETENTION POND - STAGE-AREA/STORAGE TABLE

STAGE (feet)	AREA DT BOT	AREA DT BANK	AREA LME	AREA TOTAL	STORAGE VOLUME (ACFT)	STAGE (feet)
11.50	2.630	0.000	0.000	2.63	0.00	11.50
11.75	2.630	0.019	0.000	2.65	0.66	11.75
12.00	2.630	0.039	0.000	2.67	1.32	12.00
12.25	2.630	0.058	0.000	2.69	1.99	12.25
12.50	2.630	0.077	0.000	2.71	2.67	12.50
12.75	2.630	0.097	0.000	2.73	3.35	12.75
13.00	2.630	0.116	0.000	2.75	4.03	13.00
13.25	2.630	0.135	0.000	2.77	4.72	13.25
13.50	2.630	0.155	0.000	2.78	5.41	13.50
13.75	2.630	0.174	0.000	2.80	6.11	13.75
14.00	2.630	0.193	0.000	2.82	6.82	14.00
14.25	2.630	0.213	0.000	2.84	7.52	14.25
14.50	2.630	0.232	0.000	2.86	8.24	14.50
14.75	0.000	0.251	0.000	0.25	8.30	14.75
15.00	0.000	0.271	0.000	0.27	8.36	15.00
15.25	0.000	0.290	0.000	0.29	8.43	15.25
15.50	0.000	0.309	0.000	0.31	8.51	15.50
15.75	0.000	0.309	0.227	0.54	8.61	15.75
16.00	0.000	0.309	0.454	0.76	8.78	16.00
16.25	0.000	0.309	0.454	0.76	8.97	16.25
16.50	0.000	0.309	0.454	0.76	9.16	16.50
16.75	0.000	0.309	0.454	0.76	9.35	16.75
17.00	0.000	0.309	0.454	0.76	9.54	17.00
17.25	0.000	0.309	0.454	0.76	9.73	17.25
17.50	0.000	0.309	0.454	0.76	9.92	17.50
17.75	0.000	0.309	0.454	0.76	10.11	17.75
18.00	0.000	0.309	0.454	0.76	10.30	18.00
18.25	0.000	0.309	0.454	0.76	10.49	18.25
18.50	0.000	0.309	0.454	0.76	10.69	18.50



OUTFALL CONSIDERATIONS & RESULTS

Pre-development Discharge

The project shall outfall directly into the NSLRWCD Canal #37. Discharge into the NSLRWCD is limited to 2" of discharge over the drainage area in any 24-hour period resulting from the 10YR-72HR storm event...

17.42 AC @ 2" = 2.903 ACFT. This is the allowed 24hour discharge for the model.

The routing model indicates that we have limited discharge resulting from the 10YR-72HR storm event for any 24-hour period following to a maximum of 2.85 ACFT. This illustrates compliance with the NSLRWCD discharge requirement. Please refer to the attached ICPR "Total Outfall Volume" report for more detailed information.

Tailwater Justification

The tailwater condition for the project is derived from SFWMD Permit 56-00577-S-03, which provides elevations for the NSLRWCD Canal No. 37. The control elevation of the canal is determined to be 5.50 NAVD. The storm event used for the tailwater condition is the 10-year/3-day storm. The following TIME-STAGE relationship has been used in the ICPR simulations...

10YR-24HR

TIME (hr)	STAGE (ft) NAVD
0.00	5.60
4.00	6.00
8.00	7.50
12.00	11.20
24.00	10.50
360.00	5.60

10YR-72HR

TIME (hr)	STAGE (ft) NAVD
0.00	5.60
20.00	10.73
40.00	11.51
60.00	13.34
72.00	10.67
360.00	5.60

Post-Development Stage & Discharge

(See Output From ICPR Software)

Event	Rainfall (in.)	Max Stage (FT-NAVD)	PRE Q (cfs)	POST Q (cfs)
25yr-3 day (Berm)	10.00	14.95 < 15.30 Berm	65.79	7.05
10yr-1 day (Roads)	6.00	14.20 < 14.8 Inlet (Min. Pavement)	32.02	0.57
10yr-3 day (Discharge)	8.50	NA	54.80	2.79
100yr-3 day (FFE)	12.23	15.99 < 17.0 FFE (zero discharge)	82.09	0.00

Conclusion

As demonstrated in this drainage report, all the proposed improvements meet the development criteria for St. Lucie County, the NSLRWCD, and the SFWMD for stormwater management and flood protection. All minimum elevations are met for the proposed site improvements, and the discharge rate meets the minimum requirements for discharge rates. Please refer to the included ICPR Report for complete details.

Furthermore, we have demonstrated adequate pollution abatement through the use of the dry retention systems. Per the BMPTRAINS Report, the proposed development will generate less-than-or-equal-to nitrogen and phosphorus discharge relative to Pre Development conditions. Please refer to the included BMPTRAINS Report for complete details.

NSLRWCD Tailwater Determination

From: Condon, James <james.condon@aecom.com>
Sent: Monday, February 19, 2024 10:17 AM
To: Philip Pepe
Cc: Blaine Bergstresser; Helms, Patrick
Subject: RE: Jenkins Road Apartments - EPR
Attachments: 3 - SWM Report.pdf *excerpt included on page 3...*

Good Morning,

The site is located just to the north of NSLRWCD Canal 37, and east of South Jenkins Road. We recently granted a permit for a site on the east side of South Jenkins Road called Waypoint Residential, and it is adjacent to the proposed Jenkin Road Apartments site. Waypoint Residential also has a direct connection to Canal 37, and the tailwater information is provided on Page 9 and 59 of the attached Drainage Report.

If you have any additional questions, please let me know.
Thank you,

James Condon, P.E.
Engineer II, East Region Water
C 772.485.4812
james.condon@aecom.com

AECOM
2090 SW Palm Beach Lakes Blvd.
Suite 600
West Palm Beach, Florida, 33409, United States of America
aecom.com

From: Philip Pepe <PhilipP@kmafl.com>
Sent: Friday, February 09, 2024 12:13 PM
To: Helms, Patrick <Patrick.Helms@aecom.com>; Condon, James <james.condon@aecom.com>
Cc: Blaine Bergstresser <BlaineB@kmafl.com>
Subject: Jenkins Road Apartments - EPR

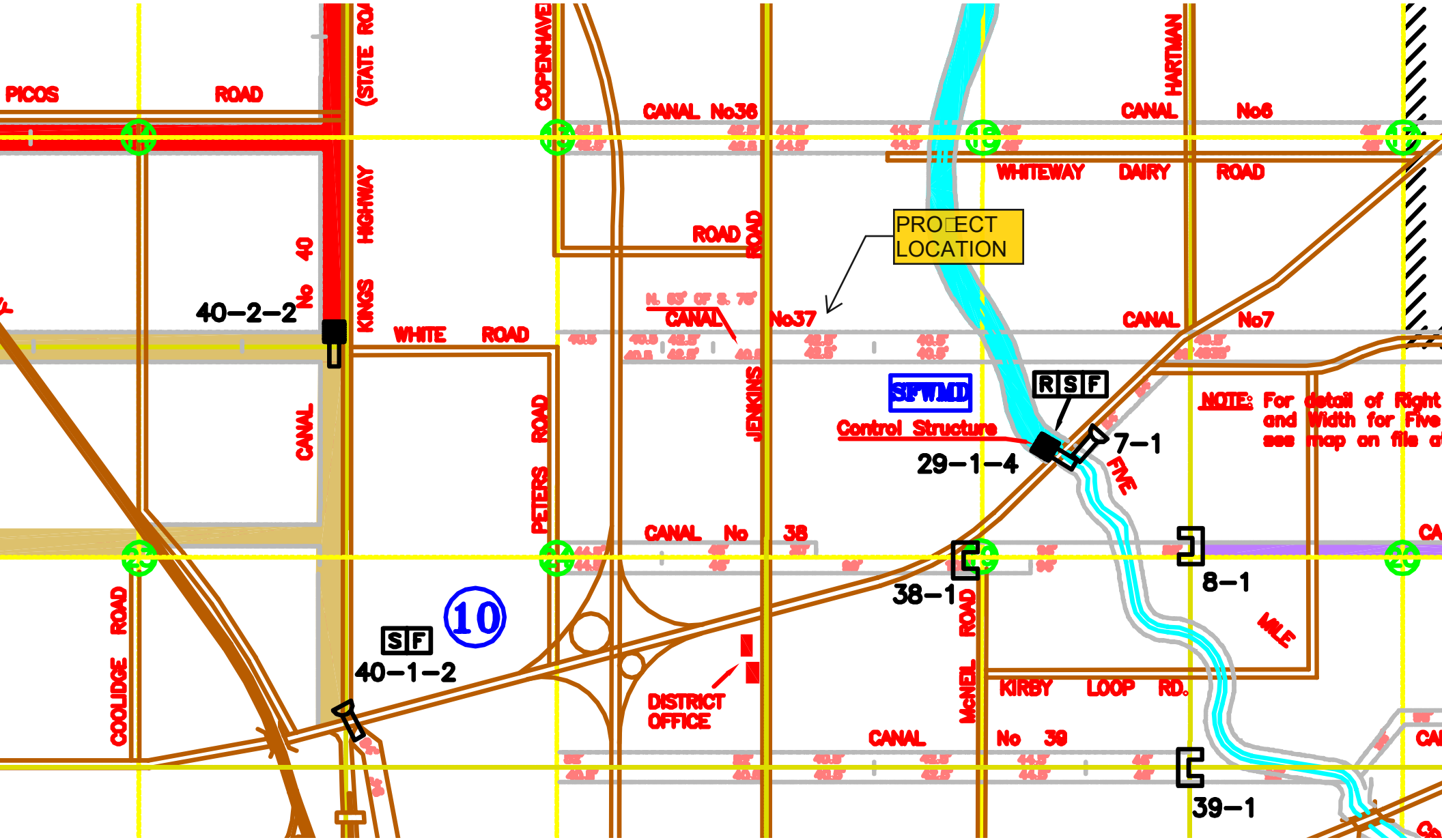
Good Afternoon Patrick & James

We are in the preliminary phases of designing a Multi-Family Residential Development within the NSLRWCD. See the included map... *included on the following page...*

We would like to know what our tailwater conditions are; our connection will be a direct connection to CANAL No. 37 at the south-center of the subject parcel. Could you possible clue us in?

We appreciate your help; any additional information you feel relevant is likewise invited. Hope you have a great day and enjoy the weekend!

Philip M. Pepe
Project Manager
KMA Engineering & Surveying, LLC
3001 Industrial Ave 2, Fort Pierce, FL 34946
Phone (772) 569-5505
Web www.kmafl.com **Email** philipp@kmafl.com


PICOS ROAD
(STATE ROAD
HIGHWAY
KINGS
40
No
40-2-2
CANAL
WHITE ROAD
COPENHAVE
CANAL No36
ROAD
ROAD
PROJECT LOCATION
CANAL No37
JENKINS
PETERS ROAD
SFWMD
Control Structure
29-1-4
RSF
7-1
FIVE
HARTMAN
CANAL No6
WHITEWAY DAIRY ROAD
CANAL No7
NOTE: For detail of Right
and Width for Five
see map on file a
CANAL No 38
38-1
8-1
MILE
COOLIDGE ROAD
10
SF
40-1-2
DISTRICT OFFICE
McNEIL ROAD
KIRBY LOOP RD.
CANAL No 39
39-1

4.5 Tailwater

The tailwater condition for the project is derived from SFWMD Permit 56-00577-S-03, which provides elevations for the NSLRWCD Canal No. 37. The control elevation of the canal is determined to be 5.50 NAVD. The storm event used for the tailwater condition is the 10-year/3-day storm. The following Table 5 outlines the tailwater condition used in the ICPR simulations for the project.

Table 5-Tailwater Condition

Time (hr)	Stage (ft) NAVD
0	5.60
20	10.73
40	11.51
60	13.34
72	10.67
360	5.60

4.6 Net Improvement (BMP Trains)

To achieve the required net improvement a BMP Trains model was used to determine the methods of nutrient removal. The proposed lake is capable of achieving the required nutrient removal (nitrogen and phosphorus) by using the permanent pool volume in the lake. The following Table 6 provides the treatment volumes for nutrient removal. Please see Appendix B for further information on the BMP Trains calculations.

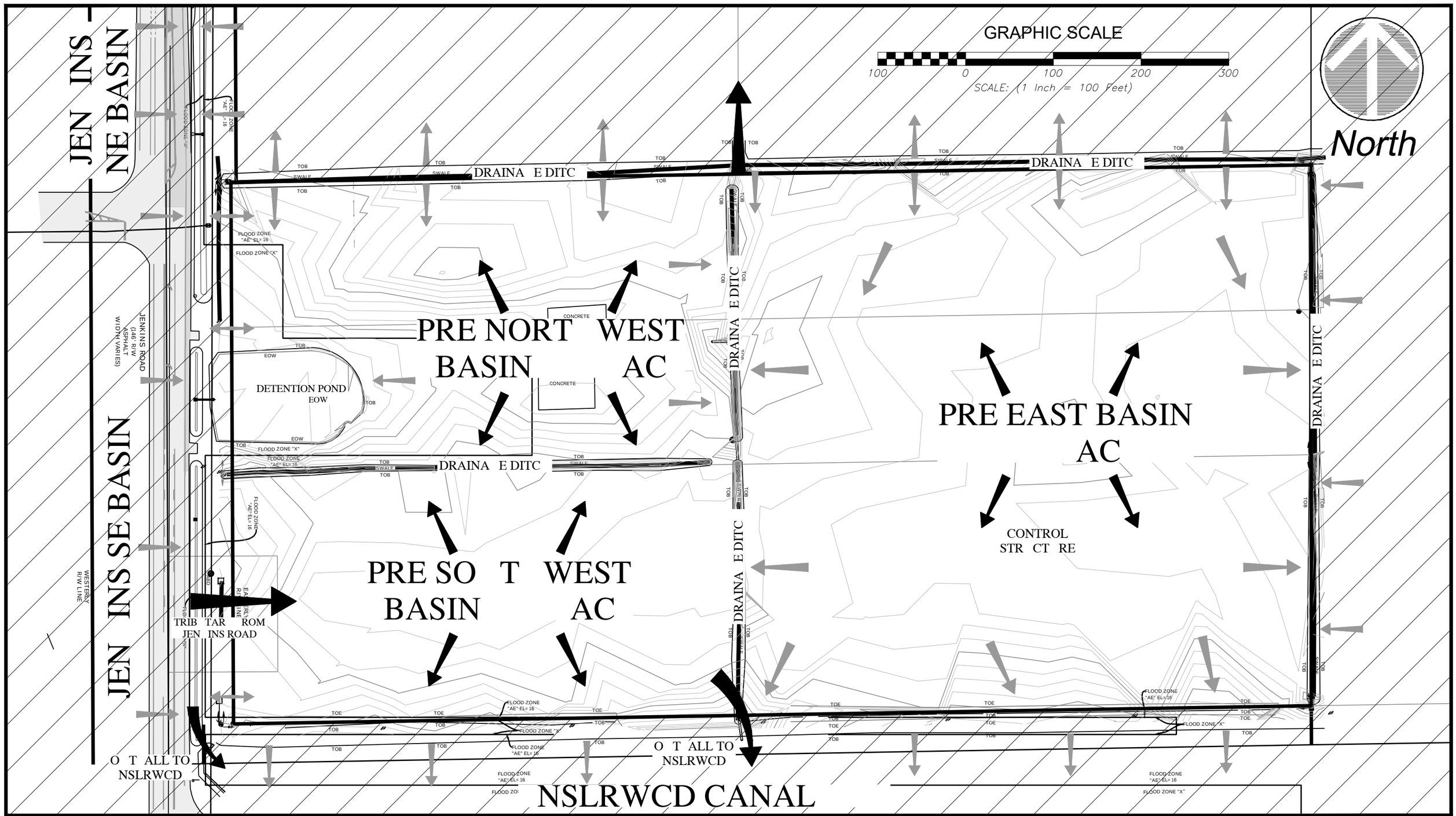
Table 6-BMP Trains Treatment

BMP	Required Volume	Provided Volume	Note
Wet Detention	105.14 ac-ft	105.14 ac-ft	Permanent Pool volume (963 days residence time)

The BMP Trains software provides a calculation for the anoxic depth within the lake. The calculation results in an anoxic depth of 14 feet for the proposed lake.

Appendix A

Basin Data, Calculations and Maps



DRAWING NAME	BASIN MAPS.dwg
DESIGN/DRAWN	BRB/PMP
SCALE	AS NOTED
DATE	07-10-2024
REVISON	.

PRE DE□ELOPMENT DRAINAGE □ASIN MAP

REGATTA APARTMENTS

M□□-□□□ □y Re□de□□□□

S□L□□e C□□□y□ □□r□d□

□MA
ENGINEERING & SURVEYING

KMA E & S LLC
CONSULTING ENGINEERS AND PLANNERS
3001 INDUSTRIAL AVENUE 2 FORT PIERCE FL 34 46
PHONE (2) 56 -5505 E-MAIL .
CERTIFICATE OF AUTHORI ATION NUMBER -00033 05

J:\23-1011 Jenkins Road Apartments\Engineering\Docs\SWM Report\SFWMD\BASIN MAPS.dwg

Basin Routing Model Data & Calculations

"PRE DEV COMBINED" DRAINAGE BASIN CHARACTERISTICS

SITE DATA (CURVE NUMBER) PRE-CONDITION BASIN

GROUND COVER (CONDITION)	SOIL GROUP	AREA (ACRES)	%	CN	AREA × CN
DRAINAGE AREA - NON DCIA		17.42			
BUILDINGS	C/D	0.00	0.0%	98	0
PAVEMENT	C/D	0.00	0.0%	98	0
OTHER IMPERVIOUS	C/D	0.00	0.0%	98	0
WETLANDS	C/D	0.36	2.1%	98	36
PERVIOUS AREA	C/D	16.93	97.2%	74	1253
	TOTAL	17.29	99.2%		75

SITE DATA (AREAS BREAKDOWN)

ONSITE AREA	17.42 AC-ft		758,893 sqft
OFFSITE TRIBUTARY	0.00 AC-ft		0 sqft
CONSERVATION AREAS	0.00 AC-ft		0 sqft
BASIN TOTAL	17.42 AC-ft		758,893 sqft
DCIA	0.00 AC-ft		0 sqft
		% DCIA	
TOTAL IMPERVIOUS AREA	0.49 AC-ft		
BUILDINGS =	0.00 AC-ft	0.00%	0 sqft
PAVEMENT =	0.13 AC-ft	0.00%	5735 sqft
OTHER IMPERVIOUS =	0.00 AC-ft	0.00%	0 sqft
SUBMERGED LANDS =	0.36 AC-ft	0.00%	15815 sqft
TOTAL PERVIOUS AREA	16.93 AC-ft		
LAKE BANK =	0.03 AC-ft		1150 sqft
DRY DITCH BOTTOM=	0.00 AC-ft		0 sqft
DITCH BANK =	0.28 AC-ft		12150 sqft
GREEN SPACE =	16.62 AC-ft		724043 sqft
IMPERVIOUS AREA LESS ROOFS/WETLANDS =	0.00 AC-ft		
IMPERVIOUS AREA LESS WET SWM AREAS =	0.13 AC-ft		
DRAINAGE AREA LESS WET DETENTION =	17.42 AC-ft		
PERCENTAGE IMPERVIOUS =	2.84%		

RUNOFF

FREQUENCY, YR.	**10-YR, 24-HR.**	**10-YR, 72-HR.**	**25-YR, 72-HR.**	**100-YR, 72-HR.**
RAINFALL, P (24-HOUR)	6.00 inches	9.50 inches	10.00 inches	12.00 inches
SOIL STORAGE, S	3.42 inches	3.42 inches	3.42 inches	3.42 inches
RUNOFF, Q (IN)	3.23 inches	6.35 inches	6.81 inches	8.69 inches
RUNOFF VOLUME (ACFT)	4.69 AC-ft	9.22 AC-ft	9.89 AC-ft	12.61 AC-ft

RATIONAL METHOD RUNOFF COEFFICIENT = 0.22
(ASSUMING IMPERVIOUS = 0.9 & PERVIOUS = 0.2 & EXCLUDES LAKE AREA)

TIME OF CONCENTRATION 2YR-24HR RAINFALL = 4.80 inches

Sub-Area	FLOW LEGNTH (ft)	SLOPE (ft/ft)	MANNING'S DESC.	n-VALUE	FLOW AREA (sf)	PW (ft)	HYDRO RADIUS (ft)	TRAVEL VELOCITY (ft/sec)	TIME (hr)
BASIN ONE									
SHEET	100	0.0100	GRASS	0.240					0.2562
SHALLOW	250	0.0100	UNPAVED					1.613	0.0430
CHANNEL	0	0.0100	POOR	0.080	4.000	16.000	0.250	0.736	0.0000
PIPED	0	0.0050	24-inch	0.013	3.142	6.283	1.000	8.105	0.0000

Time of Concentration = 0.299 hours
= 18 minutes

Basin Routing Model Data & Calculations

"PRE EAST" DRAINAGE BASIN CHARACTERISTICS

SITE DATA (CURVE NUMBER) PRE-CONDITION BASIN

GROUND COVER (CONDITION)	SOIL GROUP	AREA (ACRES)	%	CN	AREA × CN
DRAINAGE AREA - NON DCIA		9.28			
BUILDINGS	C/D	0.00	0.0%	98	0
PAVEMENT	C/D	0.00	0.0%	98	0
OTHER IMPERVIOUS	C/D	0.00	0.0%	98	0
WETLANDS	C/D	0.00	0.0%	98	0
PERVIOUS AREA	C/D	9.28	100.0%	74	687
	TOTAL	9.28	100.0%		74

SITE DATA (AREAS BREAKDOWN)

ONSITE AREA	9.28 AC-ft		404,123 sqft
OFFSITE TRIBUTARY	0.00 AC-ft		0 sqft
CONSERVATION AREAS	0.00 AC-ft		0 sqft
BASIN TOTAL	9.28 AC-ft		404,123 sqft
DCIA	0.00 AC-ft		0 sqft
		% DCIA	
TOTAL IMPERVIOUS AREA	0.00 AC-ft		
BUILDINGS =	0.00 AC-ft	0.00%	0 sqft
PAVEMENT =	0.00 AC-ft	0.00%	0 sqft
OTHER IMPERVIOUS =	0.00 AC-ft	0.00%	0 sqft
SUBMERGED LANDS =	0.00 AC-ft	0.00%	0 sqft
TOTAL PERVIOUS AREA	9.28 AC-ft		
LAKE BANK =	0.00 AC-ft		0 sqft
DRY DITCH BOTTOM=	0.00 AC-ft		0 sqft
DITCH BANK =	0.08 AC-ft		3400 sqft
GREEN SPACE =	9.20 AC-ft		400723 sqft
IMPERVIOUS AREA LESS ROOFS/WETLANDS =	0.00 AC-ft		
IMPERVIOUS AREA LESS WET SWM AREAS =	0.00 AC-ft		
DRAINAGE AREA LESS WET DETENTION =	9.28 AC-ft		
PERCENTAGE IMPERVIOUS =	0.00%		

RUNOFF

FREQUENCY, YR.	**10-YR, 24-HR.**	**10-YR, 72-HR.**	**25-YR, 72-HR.**	**100-YR, 72-HR.**
RAINFALL, P (24-HOUR)	6.00 inches	9.50 inches	10.00 inches	12.00 inches
SOIL STORAGE, S	3.51 inches	3.51 inches	3.51 inches	3.51 inches
RUNOFF, Q (IN)	3.18 inches	6.29 inches	6.75 inches	8.62 inches
RUNOFF VOLUME (ACFT)	2.46 AC-ft	4.86 AC-ft	5.22 AC-ft	6.66 AC-ft

RATIONAL METHOD RUNOFF COEFFICIENT = 0.20
(ASSUMING IMPERVIOUS = 0.9 & PERVIOUS = 0.2 & EXCLUDES LAKE AREA)

TIME OF CONCENTRATION 2YR-24HR RAINFALL = 4.80 inches

Sub-Area	FLOW LEGNTH (ft)	SLOPE (ft/ft)	MANNING'S DESC.	n-VALUE	FLOW AREA (sf)	PW (ft)	HYDRO RADIUS (ft)	TRAVEL VELOCITY (ft/sec)	TIME (hr)
BASIN ONE									
SHEET	100	0.0100	GRASS	0.240					0.2562
SHALLOW	250	0.0100	UNPAVED					1.613	0.0430
CHANNEL	0	0.0100	POOR	0.080	4.000	16.000	0.250	0.736	0.0000
PIPED	0	0.0050	24-inch	0.013	3.142	6.283	1.000	8.105	0.0000

Time of Concentration = 0.299 hours
= 18 minutes

Stage Storage Calculations - "PRE EAST" Developed Basin

SITE DATA/GRADING TABLE

DESCRIPTION	AREA (ACRE)	GRADING From	GRADING To	REMARKS
LAKE	0.000	11.50	16.00	VERTICAL
LAKE BANK	0.000	11.50	16.00	LINEAR
DITCH	0.000	11.50	14.00	VERTICAL
DITCH BANK	0.078	11.50	14.00	LINEAR
OPEN	9.199	13.00	14.30	LINEAR
	9.28			

STAGE-AREA/STORAGE TABLE

STAGE (FT)	AREAS						STORAGE VOLUME (ACFT)	STAGE (FT)
	LAKE	LAKE BANK	DITCH	DITCH BANK	OPEN	**TOTAL**		
11.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	11.500
11.75	0.00	0.00	0.00	0.01	0.00	0.008	0.001	11.750
12.00	0.00	0.00	0.00	0.02	0.00	0.016	0.004	12.000
12.25	0.00	0.00	0.00	0.02	0.00	0.023	0.009	12.250
12.50	0.00	0.00	0.00	0.03	0.00	0.031	0.016	12.500
12.75	0.00	0.00	0.00	0.04	0.00	0.039	0.024	12.750
13.00	0.00	0.00	0.00	0.05	0.00	0.047	0.035	13.000
13.25	0.00	0.00	0.00	0.05	1.77	1.824	0.269	13.250
13.50	0.00	0.00	0.00	0.06	3.54	3.601	0.947	13.500
13.75	0.00	0.00	0.00	0.07	5.31	5.378	2.069	13.750
14.00	0.00	0.00	0.00	0.08	7.08	7.154	3.636	14.000
14.25	0.00	0.00	0.00	0.08	8.85	8.924	5.646	14.250
14.50	0.00	0.00	0.00	0.08	9.20	9.277	7.921	14.500
14.75	0.00	0.00	0.00	0.08	9.20	9.277	10.240	14.750
15.00	0.00	0.00	0.00	0.08	9.20	9.277	12.559	15.000
15.25	0.00	0.00	0.00	0.08	9.20	9.277	14.879	15.250
15.50	0.00	0.00	0.00	0.08	9.20	9.277	17.198	15.500
15.75	0.00	0.00	0.00	0.08	9.20	9.277	19.517	15.750
16.00	0.00	0.00	0.00	0.08	9.20	9.277	21.837	16.000
16.25	0.00	0.00	0.00	0.08	9.20	9.277	24.156	16.250
16.50	0.00	0.00	0.00	0.08	9.20	9.277	26.475	16.500
16.75	0.00	0.00	0.00	0.08	9.20	9.277	28.795	16.750
17.00	0.00	0.00	0.00	0.08	9.20	9.277	31.114	17.000
17.25	0.00	0.00	0.00	0.08	9.20	9.277	33.433	17.250
17.50	0.00	0.00	0.00	0.08	9.20	9.277	35.753	17.500
17.75	0.00	0.00	0.00	0.08	9.20	9.277	38.072	17.750
18.00	0.00	0.00	0.00	0.08	9.20	9.277	40.392	18.000

Basin Routing Model Data & Calculations

"PRE NORTHWEST" DRAINAGE BASIN CHARACTERISTICS

SITE DATA (CURVE NUMBER) PRE-CONDITION BASIN

GROUND COVER (CONDITION)	SOIL GROUP	AREA (ACRES)	%	CN	AREA × CN
DRAINAGE AREA - NON DCIA		4.33			
BUILDINGS	C/D	0.00	0.0%	98	0
PAVEMENT	C/D	0.00	0.0%	98	0
OTHER IMPERVIOUS	C/D	0.00	0.0%	98	0
SUBMERGED LANDS	C/D	0.36	8.4%	98	36
PERVIOUS AREA	C/D	3.84	88.6%	74	284
	TOTAL	4.20	97.0%		76

SITE DATA (AREAS BREAKDOWN)

ONSITE AREA	4.33 AC-ft		188,615 sqft
OFFSITE TRIBUTARY	0.00 AC-ft		0 sqft
CONSERVATION AREAS	0.00 AC-ft		0 sqft
BASIN TOTAL	4.33 AC-ft		188,615 sqft
DCIA	0.00 AC-ft		0 sqft
		% DCIA	
TOTAL IMPERVIOUS AREA	0.49 AC-ft		
BUILDINGS =	0.00 AC-ft	0.00%	0 sqft
PAVEMENT =	0.13 AC-ft	0.00%	5735 sqft
OTHER IMPERVIOUS =	0.00 AC-ft	0.00%	0 sqft
SUBMERGED LANDS =	0.36 AC-ft	0.00%	15815 sqft
TOTAL PERVIOUS AREA	3.84 AC-ft		
LAKE BANK =	0.03 AC-ft		1150 sqft
DRY DITCH BOTTOM=	0.00 AC-ft		0 sqft
DITCH BANK =	0.10 AC-ft		4300 sqft
GREEN SPACE =	3.71 AC-ft		161615 sqft
IMPERVIOUS AREA LESS ROOFS/WETLANDS =	0.00 AC-ft		
IMPERVIOUS AREA LESS WET SWM AREAS =	0.13 AC-ft		
DRAINAGE AREA LESS WET DETENTION =	4.33 AC-ft		
PERCENTAGE IMPERVIOUS =	11.43%		

RUNOFF

FREQUENCY, YR.	**10-YR, 24-HR.**	**10-YR, 72-HR.**	**25-YR, 72-HR.**	**100-YR, 72-HR.**
RAINFALL, P (24-HOUR)	6.00 inches	9.50 inches	10.00 inches	12.00 inches
SOIL STORAGE, S	3.14 inches	3.14 inches	3.14 inches	3.14 inches
RUNOFF, Q (IN)	3.39 inches	6.55 inches	7.02 inches	8.91 inches
RUNOFF VOLUME (ACFT)	1.22 AC-ft	2.36 AC-ft	2.53 AC-ft	3.21 AC-ft

RATIONAL METHOD RUNOFF COEFFICIENT = 0.28
(ASSUMING IMPERVIOUS = 0.9 & PERVIOUS = 0.2 & EXCLUDES LAKE AREA)

TIME OF CONCENTRATION 2YR-24HR RAINFALL = 4.80 inches

Sub-Area	FLOW LEGNTH (ft)	SLOPE (ft/ft)	MANNING'S DESC.	n-VALUE	FLOW AREA (sf)	PW (ft)	HYDRO RADIUS (ft)	TRAVEL VELOCITY (ft/sec)	TIME (hr)
BASIN ONE									
SHEET	100	0.0100	GRASS	0.240					0.2562
SHALLOW	250	0.0100	UNPAVED					1.613	0.0430
CHANNEL	0	0.0100	POOR	0.080	4.000	16.000	0.250	0.736	0.0000
PIPED	0	0.0050	24-inch	0.013	3.142	6.283	1.000	8.105	0.0000

Time of Concentration = 0.299 hours
= 18 minutes

Stage Storage Calculations - "PRE NORTHWEST" Developed Basin

SITE DATA/GRADING TABLE

DESCRIPTION	AREA (ACRE)	GRADING From	GRADING To	REMARKS
LAKE	0.363	11.50	16.00	VERTICAL
LAKE BANK	0.026	11.50	16.00	LINEAR
DITCH	0.000	11.50	14.00	VERTICAL
DITCH BANK	0.099	11.50	14.00	LINEAR
OPEN	3.710	13.30	15.00	LINEAR
	4.20			

STAGE-AREA/STORAGE TABLE

STAGE (FT)	AREAS						STORAGE VOLUME (ACFT)	STAGE (FT)
	LAKE	LAKE BANK	DITCH	DITCH BANK	OPEN	**TOTAL**		
11.50	0.36	0.00	0.00	0.00	0.00	0.363	0.000	11.500
11.75	0.36	0.00	0.00	0.01	0.00	0.374	0.092	11.750
12.00	0.36	0.00	0.00	0.02	0.00	0.386	0.187	12.000
12.25	0.36	0.00	0.00	0.03	0.00	0.397	0.285	12.250
12.50	0.36	0.01	0.00	0.04	0.00	0.408	0.386	12.500
12.75	0.36	0.01	0.00	0.05	0.00	0.420	0.489	12.750
13.00	0.36	0.01	0.00	0.06	0.00	0.431	0.596	13.000
13.25	0.36	0.01	0.00	0.07	0.00	0.442	0.705	13.250
13.50	0.36	0.01	0.00	0.08	0.44	0.890	0.871	13.500
13.75	0.36	0.01	0.00	0.09	0.98	1.447	1.164	13.750
14.00	0.36	0.01	0.00	0.10	1.53	2.004	1.595	14.000
14.25	0.36	0.02	0.00	0.10	2.07	2.551	2.164	14.250
14.50	0.36	0.02	0.00	0.10	2.62	3.098	2.871	14.500
14.75	0.36	0.02	0.00	0.10	3.16	3.645	3.714	14.750
15.00	0.36	0.02	0.00	0.10	3.71	4.192	4.693	15.000
15.25	0.36	0.02	0.00	0.10	3.71	4.194	5.742	15.250
15.50	0.36	0.02	0.00	0.10	3.71	4.195	6.790	15.500
15.75	0.36	0.02	0.00	0.10	3.71	4.197	7.839	15.750
16.00	0.36	0.03	0.00	0.10	3.71	4.198	8.889	16.000
16.25	0.36	0.03	0.00	0.10	3.71	4.198	9.938	16.250
16.50	0.36	0.03	0.00	0.10	3.71	4.198	10.988	16.500
16.75	0.36	0.03	0.00	0.10	3.71	4.198	12.037	16.750
17.00	0.36	0.03	0.00	0.10	3.71	4.198	13.087	17.000
17.25	0.36	0.03	0.00	0.10	3.71	4.198	14.137	17.250
17.50	0.36	0.03	0.00	0.10	3.71	4.198	15.186	17.500
17.75	0.36	0.03	0.00	0.10	3.71	4.198	16.236	17.750
18.00	0.36	0.03	0.00	0.10	3.71	4.198	17.285	18.000

Basin Routing Model Data & Calculations

"PRE SOUTHWEST" DRAINAGE BASIN CHARACTERISTICS

SITE DATA (CURVE NUMBER) PRE-CONDITION BASIN

GROUND COVER (CONDITION)	SOIL GROUP	AREA (ACRES)	%	CN	AREA × CN
DRAINAGE AREA - NON DCIA		3.81			
BUILDINGS	C/D	0.00	0.0%	98	0
PAVEMENT	C/D	0.00	0.0%	98	0
OTHER IMPERVIOUS	C/D	0.00	0.0%	98	0
WETLANDS	C/D	0.00	0.0%	98	0
PERVIOUS AREA	C/D	3.81	100.0%	74	282
	TOTAL	3.81	100.0%		74

SITE DATA (AREAS BREAKDOWN)

ONSITE AREA	3.81 AC-ft		166,155 sqft
OFFSITE TRIBUTARY	0.00 AC-ft		0 sqft
CONSERVATION AREAS	0.00 AC-ft		0 sqft
BASIN TOTAL	3.81 AC-ft		166,155 sqft
DCIA	0.00 AC-ft		0 sqft
		% DCIA	
TOTAL IMPERVIOUS AREA	0.00 AC-ft		
BUILDINGS =	0.00 AC-ft	0.00%	0 sqft
PAVEMENT =	0.00 AC-ft	0.00%	0 sqft
OTHER IMPERVIOUS =	0.00 AC-ft	0.00%	0 sqft
SUBMERGED LANDS =	0.00 AC-ft	0.00%	0 sqft
TOTAL PERVIOUS AREA	3.81 AC-ft		
LAKE BANK =	0.00 AC-ft		0 sqft
DRY DITCH BOTTOM=	0.00 AC-ft		0 sqft
DITCH BANK =	0.10 AC-ft		4450 sqft
GREEN SPACE =	3.71 AC-ft		161705 sqft
IMPERVIOUS AREA LESS ROOFS/WETLANDS =	0.00 AC-ft		
IMPERVIOUS AREA LESS WET SWM AREAS =	0.00 AC-ft		
DRAINAGE AREA LESS WET DETENTION =	3.81 AC-ft		
PERCENTAGE IMPERVIOUS =	0.00%		

RUNOFF

FREQUENCY, YR.	**10-YR, 24-HR.**	**10-YR, 72-HR.**	**25-YR, 72-HR.**	**100-YR, 72-HR.**
RAINFALL, P (24-HOUR)	6.00 inches	9.50 inches	10.00 inches	12.00 inches
SOIL STORAGE, S	3.51 inches	3.51 inches	3.51 inches	3.51 inches
RUNOFF, Q (IN)	3.18 inches	6.29 inches	6.75 inches	8.62 inches
RUNOFF VOLUME (ACFT)	1.01 AC-ft	2.00 AC-ft	2.14 AC-ft	2.74 AC-ft

RATIONAL METHOD RUNOFF COEFFICIENT = 0.2
(ASSUMING IMPERVIOUS = 0.9 & PERVIOUS = 0.2 & EXCLUDES LAKE AREA)

TIME OF CONCENTRATION 2YR-24HR RAINFALL = 4.80 inches

Sub-Area	FLOW LEGNTH (ft)	SLOPE (ft/ft)	MANNING'S DESC.	MANNING'S n-VALUE	FLOW AREA (sf)	PW (ft)	HYDRO RADIUS (ft)	TRAVEL VELOCITY (ft/sec)	TIME (hr)
BASIN ONE									
SHEET	100	0.0100	GRASS	0.240					0.2562
SHALLOW	250	0.0100	UNPAVED					1.613	0.0430
CHANNEL	0	0.0100	POOR	0.080	4.000	16.000	0.250	0.736	0.0000
PIPED	0	0.0050	24-inch	0.013	3.142	6.283	1.000	8.105	0.0000

Time of Concentration = 0.299 hours
= 18 minutes

Stage Storage Calculations - "PRE SOUTHWEST" Developed Basin

SITE DATA/GRADING TABLE

DESCRIPTION	AREA (ACRE)	GRADING From	GRADING To	REMARKS
LAKE	0.000	11.50	16.00	VERTICAL
LAKE BANK	0.000	11.50	16.00	LINEAR
DITCH	0.000	11.50	14.00	VERTICAL
DITCH BANK	0.102	11.50	14.00	LINEAR
OPEN	3.712	13.30	14.00	LINEAR
	3.81			

STAGE-AREA/STORAGE TABLE

STAGE (FT)	AREAS						STORAGE VOLUME (ACFT)	STAGE (FT)
	LAKE	LAKE BANK	DITCH	DITCH BANK	OPEN	**TOTAL**		
11.50	0.00	0.00	0.00	0.00	0.00	0.000	0.000	11.500
11.75	0.00	0.00	0.00	0.01	0.00	0.010	0.001	11.750
12.00	0.00	0.00	0.00	0.02	0.00	0.020	0.005	12.000
12.25	0.00	0.00	0.00	0.03	0.00	0.031	0.011	12.250
12.50	0.00	0.00	0.00	0.04	0.00	0.041	0.020	12.500
12.75	0.00	0.00	0.00	0.05	0.00	0.051	0.032	12.750
13.00	0.00	0.00	0.00	0.06	0.00	0.061	0.046	13.000
13.25	0.00	0.00	0.00	0.07	0.00	0.072	0.063	13.250
13.50	0.00	0.00	0.00	0.08	1.06	1.142	0.214	13.500
13.75	0.00	0.00	0.00	0.09	2.39	2.478	0.667	13.750
14.00	0.00	0.00	0.00	0.10	3.71	3.814	1.453	14.000
14.25	0.00	0.00	0.00	0.10	3.71	3.814	2.407	14.250
14.50	0.00	0.00	0.00	0.10	3.71	3.814	3.361	14.500
14.75	0.00	0.00	0.00	0.10	3.71	3.814	4.314	14.750
15.00	0.00	0.00	0.00	0.10	3.71	3.814	5.268	15.000
15.25	0.00	0.00	0.00	0.10	3.71	3.814	6.221	15.250
15.50	0.00	0.00	0.00	0.10	3.71	3.814	7.175	15.500
15.75	0.00	0.00	0.00	0.10	3.71	3.814	8.129	15.750
16.00	0.00	0.00	0.00	0.10	3.71	3.814	9.082	16.000
16.25	0.00	0.00	0.00	0.10	3.71	3.814	10.036	16.250
16.50	0.00	0.00	0.00	0.10	3.71	3.814	10.989	16.500
16.75	0.00	0.00	0.00	0.10	3.71	3.814	11.943	16.750
17.00	0.00	0.00	0.00	0.10	3.71	3.814	12.897	17.000
17.25	0.00	0.00	0.00	0.10	3.71	3.814	13.850	17.250
17.50	0.00	0.00	0.00	0.10	3.71	3.814	14.804	17.500
17.75	0.00	0.00	0.00	0.10	3.71	3.814	15.757	17.750
18.00	0.00	0.00	0.00	0.10	3.71	3.814	16.711	18.000

GRAPHIC SCALE

100 0 100 200 300

SCALE: (1 Inch = 100 Feet)

North

JEN INS NE BASIN

JEN INS SE BASIN

JENKINS ROAD (146' R/W ASPHALT WIDTH VARIES)

WESTERLY R/W LINE

EASTERLY R/W LINE

UNPLATTED LANDS
(VACANT)
PARCEL ID: 2418-322-0002-000-2
ORB 3065, PAGE 2045

UNPLATTED LANDS
(VACANT)
PARCEL ID: 2418-331-0001-000-3
ORB 3065, PAGE 2045

UNPLATTED LANDS
(VACANT)
PARCEL ID: 2418-343-0001-000-0
ORB 3065, PAGE 2045

EXISTIN DITC

TOB

SWALE

TOE

FLOOD ZONE "X"

FLOOD ZONE "AE" EL= 16

LDG 100
CLU HOUSE
1 STORY
17.0

LDG 200
2 UNIT
STORY
17.0

LDG 1200
2 UNIT
STORY
17.0

LDG 1100
2 UNIT
STORY
17.0

LDG 1000
2 UNIT
STORY
17.0

LDG 700
2 UNIT
STORY
17.0

DETENTION POND
BOTTOM
NWL
BAN

RETENTION POND
BOTTOM
BAN

POST DEV
COMBINED
BASIN
AC

CONTROL
STR CT RE

O T ALL TO NSLRWCD

N.S.L.R.W.M.D. CANAL NO 37
(85' R/W)
PARCEL ID: 2418-333-0005-000-7

NSLRWCD CANAL

DRAWING NAME	BASIN MAPS.dwg
DESIGN/DRAWN	BRB/PMP
SCALE	AS NOTED
DATE	07-10-2024
REVISON	.

POST DE ELOPMENT
DRAINAGE ASIN MAP

REGATTA APARTMENTS
M -
S L e C y

KMA
ENGINEERING & SURVEYING

KMA E & S LLC
CONSULTING ENGINEERS AND PLANNERS
3001 INDUSTRIAL AVENUE 2 FORT PIERCE FL 34 46
PHONE (2) 56 -5505 E-MAIL .
CERTIFICATE OF AUTHORI ATION NUMBER -00033 05

J:\23-1011 Jenkins Road Apartments\Engineering\Docs\SWM Report\SFWMD\BASIN MAPS.dwg

Basin Routing Model Data & Calculations

"POST DEV COMBINED" DRAINAGE BASIN CHARACTERISTICS

SITE DATA (CURVE NUMBER) PRE-CONDITION BASIN

GROUND COVER (CONDITION)	SOIL GROUP	AREA (ACRES)	%	CN	AREA × CN
DRAINAGE AREA - NON DCIA		11.10			
PAVEMENT	C/D	0.00	0.0%	98	0
STRUCTURES	C/D	1.90	10.9%	98	187
OTHER IMPERVIOUS	C/D	0.49	2.8%	98	48
WET SWM AREAS	C/D	2.63	15.1%	98	258
DRY RETENTION BOTTOM	C/D	0.00	0.0%	74	0
PERVIOUS AREA	C/D	6.08	34.9%	74	450
	TOTAL	11.10	63.7%		85

SITE DATA (AREAS BREAKDOWN)

ONSITE AREA	17.62 AC-ft		767,592 sqft
OFFSITE TRIBUTARY	0.00 AC-ft		0 sqft
CONSERVATION AREAS	0.00 AC-ft		0 sqft
RIGHT-OF-WAY DEDICATION	0.20 AC-ft		8,702 sqft
BASIN TOTAL	17.42 AC-ft		758,890 sqft
DCIA	6.32 AC-ft		275179 sqft
		% DCIA	
TOTAL IMPERVIOUS AREA	11.35 AC-ft		
VEHICLE USE AREA =	4.37 AC-ft	100.00%	190,560 sqft
STRUCTURES =	3.17 AC-ft	40.00%	138,240 sqft
SIDEWALKS & PATHS =	0.96 AC-ft	70.00%	41,890 sqft
OTHER IMPERVIOUS =	0.21 AC-ft	0.00%	8,940 sqft
DRY RETENTION BOTTOM =	0.00 AC-ft	0.00%	0 sqft
WET SWM AREAS =	2.63 AC-ft	0.00%	114,563 sqft
TOTAL PERVIOUS AREA	6.08 AC-ft		
BIO-SWALE BASE =	0.08 AC-ft		3,670 sqft
BIO-SWALE BANKS =	0.31 AC-ft		13,473 sqft
WET DETENTION BANKS =	0.71 AC-ft		31,050 sqft
GREEN SPACE =	4.97 AC-ft		216,504 sqft
IMPERVIOUS AREA LESS ROOFS/WETLANDS =	4.37 AC-ft		
IMPERVIOUS AREA LESS WET SWM AREAS =	8.72 AC-ft		379630 sqft
DRAINAGE AREA LESS WET DETENTION =	17.62 AC-ft		
PERCENTAGE IMPERVIOUS =	65.12%		
DIRECTLY CONNECTED IMPERVIOUS AREA =	36.26%		

RUNOFF Adjusted for Directlly Connected Impervious Area (DCIA)

FREQUENCY, YR.	**10-YR, 24-HR.**	**10-YR, 72-HR.**	**25-YR, 72-HR.**	**100-YR, 72-HR.**
RAINFALL, P (24-HOUR)	6.00 inches	9.50 inches	10.00 inches	12.00 inches
SOIL STORAGE, S	1.78 inches	1.78 inches	1.78 inches	1.78 inches
RUNOFF, Q (IN)	4.29 inches	7.65 inches	8.14 inches	10.10 inches
RUNOFF VOLUME (ACFT)	7.13 AC-ft	12.08 AC-ft	12.80 AC-ft	15.66 AC-ft

RATIONAL METHOD RUNOFF COEFFICIENT = 0.51
(ASSUMING IMPERVIOUS = 0.9 & PERVIOUS = 0.2 & EXCLUDES LAKE AREA)

TIME OF CONCENTRATION 2YR-24HR RAINFALL = 4.80 inches

Sub-Area	FLOW LEGNTH (ft)	SLOPE (ft/ft)	MANNING'S DESC.	n-VALUE	FLOW AREA (sf)	PW (ft)	HYDRO RADIUS (ft)	TRAVEL VELOCITY (ft/sec)	TIME (hr)
BASIN ONE									
SHEET	100	0.0040	GRASS	0.240					0.1929
SHALLOW	200	0.0040	UNPAVED					1.020	0.0544
CHANNEL	0	0.0100	POOR	0.080	4.000	16.000	0.250	0.736	0.0000
PIPED	150	0.0050	18-inch	0.013	1.767	4.712	0.750	6.684	0.0062

Time of Concentration = 0.254 hours
= 15 minutes

Stage Storage Calculations - "POST DEV COMBINED" Developed Basin

SITE DATA/GRADING TABLE

DESCRIPTION	AREA (ACRE)	GRADING From	GRADING To	REMARKS
DT BOT	2.630	11.50	15.50	VERTICAL
DT BANK	0.713	11.50	15.50	LINEAR
RT BOT	0.084	12.50	15.50	VERTICAL
RT BANK	0.309	12.50	15.50	LINEAR
PARKING	4.375	14.80	16.10	LINEAR
OPEN	4.970	15.50	16.50	LINEAR
OTHER	0.000	17.00	18.00	LINEAR
	13.08			

STAGE-AREA/STORAGE TABLE

STAGE (feet)	AREAS								STORAGE VOLUME (ACFT)	STAGE (feet)
	DT BOT	DT BANK	RT BOT	RT BANK	PARKING	OPEN	OTHER	**TOTAL**		
11.50	2.630	0.000	0.000	0.000	0.000	0.000	0.000	2.63	0.00	11.50
11.75	2.630	0.045	0.000	0.000	0.000	0.000	0.000	2.67	0.66	11.75
12.00	2.630	0.089	0.000	0.000	0.000	0.000	0.000	2.72	1.34	12.00
12.25	2.630	0.134	0.000	0.000	0.000	0.000	0.000	2.76	2.02	12.25
12.50	2.630	0.178	0.084	0.000	0.000	0.000	0.000	2.89	2.73	12.50
12.75	2.630	0.223	0.084	0.026	0.000	0.000	0.000	2.96	3.46	12.75
13.00	2.630	0.267	0.084	0.052	0.000	0.000	0.000	3.03	4.21	13.00
13.25	2.630	0.312	0.084	0.077	0.000	0.000	0.000	3.10	4.98	13.25
13.50	2.630	0.356	0.084	0.103	0.000	0.000	0.000	3.17	5.76	13.50
13.75	2.630	0.401	0.084	0.129	0.000	0.000	0.000	3.24	6.56	13.75
14.00	2.630	0.446	0.084	0.155	0.000	0.000	0.000	3.31	7.38	14.00
14.25	2.630	0.490	0.084	0.180	0.000	0.000	0.000	3.38	8.22	14.25
14.50	2.630	0.535	0.084	0.206	0.000	0.000	0.000	3.46	9.08	14.50
14.75	2.630	0.579	0.084	0.232	0.000	0.000	0.000	3.53	9.95	14.75
15.00	2.630	0.624	0.084	0.258	0.673	0.000	0.000	4.27	10.92	15.00
15.25	2.630	0.668	0.084	0.284	1.514	0.000	0.000	5.18	12.11	15.25
15.50	2.630	0.713	0.084	0.309	2.356	0.000	0.000	6.09	13.51	15.50
15.75	2.630	0.713	0.084	0.309	3.197	1.243	0.000	8.18	15.30	15.75
16.00	2.630	0.713	0.084	0.309	4.038	2.485	0.000	10.26	17.60	16.00
16.25	2.630	0.713	0.084	0.309	4.375	3.728	0.000	11.84	20.36	16.25
16.50	2.630	0.713	0.084	0.309	4.375	4.970	0.000	13.08	23.48	16.50
16.75	2.630	0.713	0.084	0.309	4.375	4.970	0.000	13.08	26.75	16.75
17.00	2.630	0.713	0.084	0.309	4.375	4.970	0.000	13.08	30.02	17.00
17.25	2.630	0.713	0.084	0.309	4.375	4.970	0.000	13.08	33.29	17.25
17.50	2.630	0.713	0.084	0.309	4.375	4.970	0.000	13.08	36.56	17.50
17.75	2.630	0.713	0.084	0.309	4.375	4.970	0.000	13.08	39.83	17.75
18.00	2.630	0.713	0.084	0.309	4.375	4.970	0.000	13.08	43.10	18.00

Appendix B

IRCP Stormwater Routing Model

Simple Basin: POST DEV COMBINED

Scenario:	POST
Node:	POST DEV COMBINED
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	15.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	17.4200 ac
Curve Number:	74.0
% Impervious:	65.12
% DCIA:	36.26
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PRE EAST

Scenario:	PRE
Node:	PRE EAST
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	18.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	9.2800 ac
Curve Number:	74.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PRE NORTHWEST

Scenario:	PRE
Node:	PRE NORTHWEST
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number

Time of Concentration:	18.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	4.3300 ac
Curve Number:	74.0
% Impervious:	11.43
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PRE SOUTHWEST

Scenario:	PRE
Node:	PRE SOUTHWEST
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	18.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	3.8100 ac
Curve Number:	74.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Node: POST DEV COMBINED

Scenario:	POST
Type:	Stage/Area
Base Flow:	0.00 cfs
Initial Stage:	12.10 ft
Warning Stage:	15.50 ft

Stage [ft]	Area [ac]	Area [ft2]
11.50	2.6300	114563
11.75	2.6700	116305

Stage [ft]	Area [ac]	Area [ft2]
12.00	2.7200	118483
12.25	2.7600	120226
12.50	2.8900	125888
12.75	2.9600	128938
13.00	3.0300	131987
13.25	3.1000	135036
13.50	3.1700	138085
13.75	3.2400	141134
14.00	3.3100	144184
14.25	3.3800	147233
14.50	3.4600	150718
14.75	3.5300	153767
15.00	4.2700	186001
15.25	5.1800	225641
15.50	6.0900	265280
15.75	8.1800	356321
16.00	10.2600	446926
16.25	11.8400	515750
16.50	13.0800	569765
16.75	13.0800	569765
17.00	13.0800	569765
17.25	13.0800	569765
17.50	13.0800	569765
17.75	13.0800	569765
18.00	13.0800	569765

Comment:

Node: NSLRWCD #37

Scenario: PRE
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 5.60 ft
Warning Stage: 9999.00 ft
Boundary Stage: NSLRWCD #37

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	5.60
0	0	0	4.0000	6.00
0	0	0	8.0000	7.50
0	0	0	12.0000	11.20
0	0	0	24.0000	10.50
0	0	0	360.0000	5.60

Comment:

Node: PRE EAST

Scenario: PRE
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 11.50 ft
Warning Stage: 14.00 ft

Stage [ft]	Area [ac]	Area [ft2]
11.50	0.0000	0
11.75	0.0080	348
12.00	0.0160	697
12.25	0.0230	1002
12.50	0.0310	1350
12.75	0.0390	1699
13.00	0.0470	2047
13.25	1.8240	79453
13.50	3.6010	156860
13.75	5.3780	234266
14.00	7.1540	311628
14.25	8.9240	388729
14.50	9.2770	404106
14.75	9.2770	404106
15.00	9.2770	404106
15.25	9.2770	404106
15.50	9.2770	404106
15.75	9.2770	404106
16.00	9.2770	404106
16.25	9.2770	404106
16.50	9.2770	404106
16.75	9.2770	404106
17.00	9.2770	404106
17.25	9.2770	404106
17.50	9.2770	404106
17.75	9.2770	404106
18.00	9.2770	404106

Comment:

Node: PRE NORTHWEST

Scenario: PRE
Type: Stage/Area

Base Flow: 0.00 cfs
Initial Stage: 12.50 ft
Warning Stage: 14.00 ft

Stage [ft]	Area [ac]	Area [ft2]
11.50	0.3630	15812
11.75	0.3740	16291
12.00	0.3860	16814
12.25	0.3970	17293
12.50	0.4080	17772
12.75	0.4200	18295
13.00	0.4310	18774
13.25	0.4420	19254
13.50	0.8900	38768
13.75	1.4470	63031
14.00	2.0040	87294
14.25	2.5510	111122
14.50	3.0980	134949
14.75	3.6450	158776
15.00	4.1920	182604
15.25	4.1940	182691
15.50	4.1950	182734
15.75	4.1970	182821
16.00	4.1980	182865
16.25	4.1980	182865
16.50	4.1980	182865
16.75	4.1980	182865
17.00	4.1980	182865
17.25	4.1980	182865
17.50	4.1980	182865
17.75	4.1980	182865
18.00	4.1980	182865

Comment:

Node: PRE SOUTHWEST

Scenario: PRE
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 12.50 ft
Warning Stage: 14.00 ft

Stage [ft]	Area [ac]	Area [ft2]
11.50	0.0000	0
11.75	0.0100	436

Stage [ft]	Area [ac]	Area [ft2]
12.00	0.0200	871
12.25	0.0310	1350
12.50	0.0410	1786
12.75	0.0510	2222
13.00	0.0610	2657
13.25	0.0720	3136
13.50	1.1420	49746
13.75	2.4780	107942
14.00	3.8140	166138
14.25	3.8140	166138
14.50	3.8140	166138
14.75	3.8140	166138
15.00	3.8140	166138
15.25	3.8140	166138
15.50	3.8140	166138
15.75	3.8140	166138
16.00	3.8140	166138
16.25	3.8140	166138
16.50	3.8140	166138
16.75	3.8140	166138
17.00	3.8140	166138
17.25	3.8140	166138
17.50	3.8140	166138
17.75	3.8140	166138
18.00	3.8140	166138

Comment:

Drop Structure Link: CS-1		Upstream Pipe		Downstream Pipe	
Scenario:	POST	Invert:	8.00 ft	Invert:	7.50 ft
From Node:	POST DEV	Manning's N:	0.0110	Manning's N:	0.0110
	COMBINED	Geometry: Circular		Geometry: Circular	
To Node:	NSLRWCD #37	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Solution:	Combine	Op Table:		Op Table:	
Increments:	0	Ref Node:		Ref Node:	
Pipe Count:	1	Manning's N:	0.0000	Manning's N:	0.0000
Damping:	0.0000 ft	Top Clip			
Length:	200.00 ft	Default:	0.00 ft	Default:	0.00 ft
FHWA Code:	1	Op Table:		Op Table:	
Entr Loss Coef:	0.00	Ref Node:		Ref Node:	
Exit Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Circular	Op Table:	
Invert:	12.10 ft	Ref Node:	
Control Elevation:	12.10 ft	Discharge Coefficients	
Max Depth:	0.33 ft	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	14.60 ft	Ref Node:	
Control Elevation:	14.60 ft	Discharge Coefficients	
Max Depth:	2.00 ft	Weir Default:	3.200
Max Width:	3.00 ft	Weir Table:	
Fillet:	0.00 ft		

Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

Weir Link: EAST BERM

Scenario:	PRE
From Node:	PRE EAST
To Node:	NSLRWCD #37
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	12.71 ft
Control Elevation:	12.71 ft
Cross Section:	EAST BERM

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: NORTHWEST BERM

Scenario:	PRE
From Node:	PRE NORTHWEST
To Node:	NSLRWCD #37
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	13.09 ft
Control Elevation:	13.09 ft
Cross Section:	NORTHWEST BERM

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: SOUTHWEST BERM

Scenario:	PRE
From Node:	PRE SOUTHWEST
To Node:	NSLRWCD #37
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	13.25 ft
Control Elevation:	13.25 ft
Cross Section:	SOUTHWEST BERM

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Cross Section: EAST BERM

Scenario: PRE
Lid: No

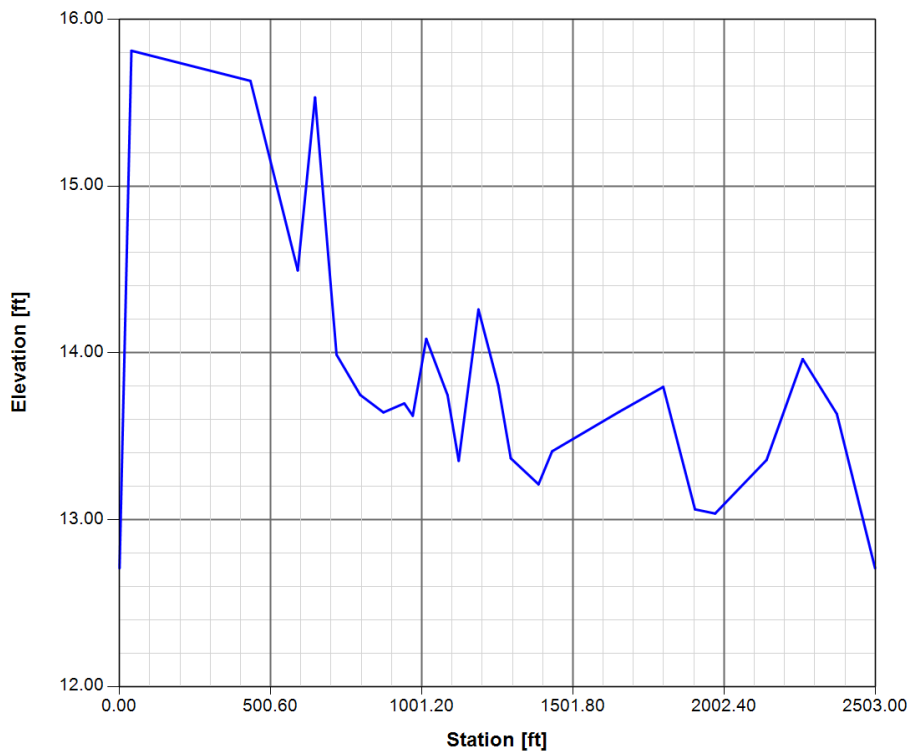
Bottom Point Table

Order	Station [ft]	Elevation [ft]
0	0.00	12.71
1	39.25	15.81
2	433.65	15.63
3	590.24	14.49
4	647.58	15.53
5	718.71	13.99
6	797.11	13.75
7	874.08	13.64
8	943.22	13.70
9	971.21	13.62
10	1015.81	14.08
11	1086.58	13.75
12	1123.32	13.35
13	1188.77	14.26
14	1254.34	13.81
15	1295.83	13.37
16	1387.75	13.21
17	1432.77	13.41
18	1655.26	13.65
19	1800.84	13.80
20	1905.95	13.06
21	1972.73	13.04
22	2143.14	13.36

Order	Station [ft]	Elevation [ft]
23	2262.80	13.96
24	2375.82	13.63
25	2502.44	12.71

Comment:

Weir Cross Section: EAST BERM Scenario: EAST BERM



Weir Cross Section: NORTHWEST BERM

Scenario: PRE
Lid: No

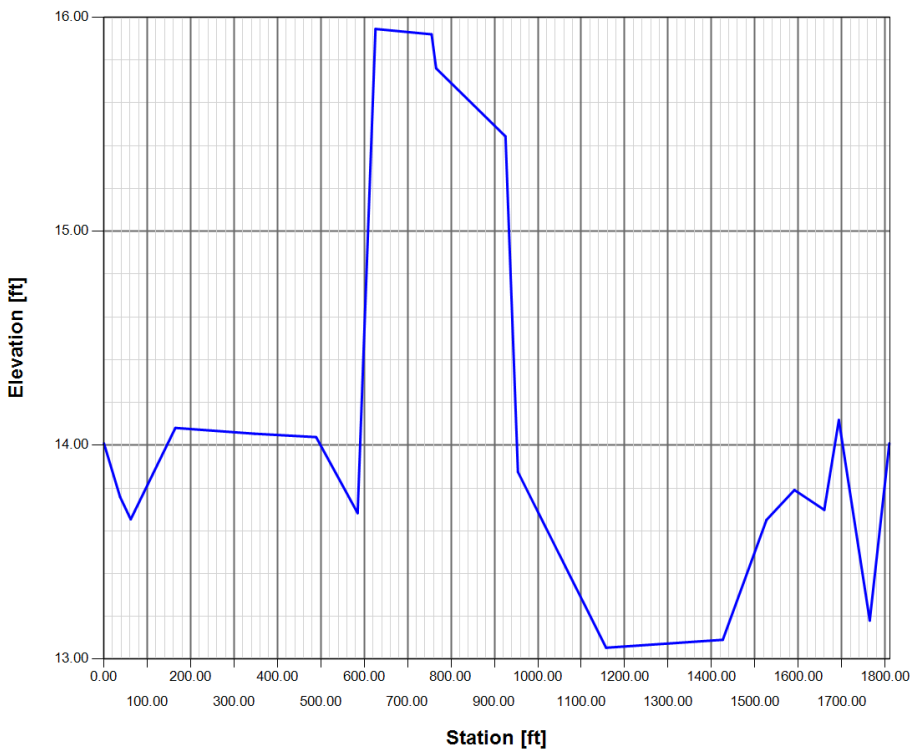
Bottom Point Table

Order	Station [ft]	Elevation [ft]
0	0.00	14.01

Order	Station [ft]	Elevation [ft]
1	37.34	13.76
2	61.73	13.65
3	164.64	14.08
4	347.21	14.05
5	489.06	14.04
6	584.61	13.68
7	625.82	15.95
8	755.09	15.92
9	765.49	15.76
10	925.42	15.44
11	954.05	13.88
12	1157.28	13.05
13	1426.16	13.09
14	1526.82	13.65
15	1591.28	13.79
16	1659.97	13.70
17	1693.57	14.12
18	1764.77	13.18
19	1810.05	14.01

Comment:

Weir Cross Section: NORTHWEST BERM Scenario: NORTHWEST BERM



Weir Cross Section: SOUTHWEST BERM

Scenario: PRE
Lid: No

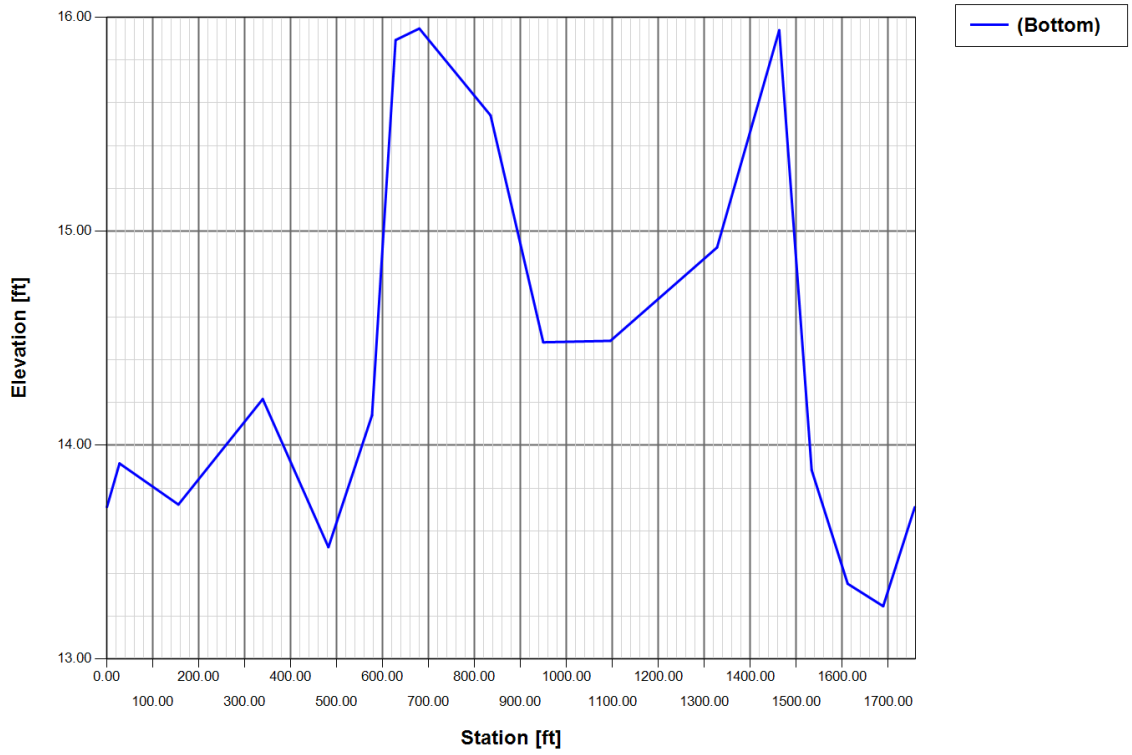
Bottom Point Table

Order	Station [ft]	Elevation [ft]
0	0.00	13.71
1	27.41	13.92
2	155.53	13.72
3	339.14	14.22
4	482.08	13.52
5	576.95	14.14
6	628.27	15.89
7	680.02	15.95
8	835.02	15.54
9	949.65	14.48
10	1095.98	14.49

Order	Station [ft]	Elevation [ft]
11	1327.89	14.92
12	1463.22	15.94
13	1533.78	13.88
14	1612.26	13.35
15	1689.53	13.25
16	1758.32	13.71

Comment:

Weir Cross Section: SOUTHWEST BERM Scenario: SOUTHWEST BERM



Simulation: 100YR-72HR

Scenario: POST
Run Date/Time: 7/10/2024 2:07:46 PM
Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	96.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 10YR-72HR
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight 0.5 dec
IA Recovery Time: 24.0000 hr

Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~SFWMD-72
		Rainfall Amount:	12.23 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 10YR-24HR

Scenario: POST
Run Date/Time: 7/10/2024 2:07:47 PM
Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight 0.5 dec
IA Recovery Time: 24.0000 hr

Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FLMOD
		Rainfall Amount:	6.00 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 10YR-72HR

Scenario: POST
Run Date/Time: 7/10/2024 2:07:47 PM
Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	96.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 10YR-72HR
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight 0.5 dec

IA Recovery Time: 24.0000 hr

Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~SFWMD-72
		Rainfall Amount:	8.50 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 25YR-72HR

Scenario: POST
Run Date/Time: 7/10/2024 2:07:48 PM
Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	96.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 10YR-72HR
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight 0.5 dec
IA Recovery Time: 24.0000 hr

Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	Global
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~SFWMD-72
		Rainfall Amount:	10.00 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

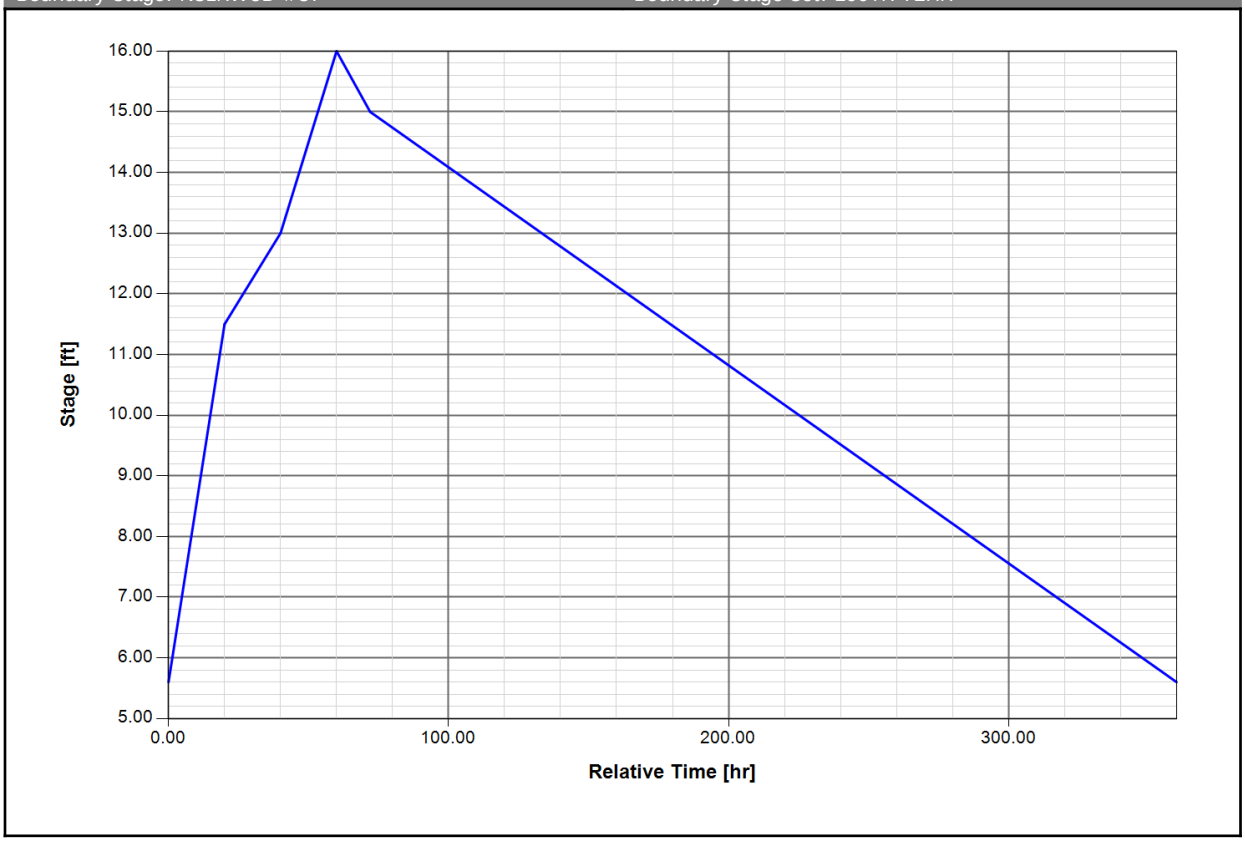
Boundary Stage: NSLRWCD #37

Boundary Stage Set: 100YR-72HR

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	5.60
0	0	0	20.0000	11.50
0	0	0	40.0000	13.00
0	0	0	60.0000	16.00
0	0	0	72.0000	15.00
0	0	0	360.0000	5.60

Comment:

Boundary Stage: NSLRWCD #37 Boundary Stage Set: 100YR-72HR



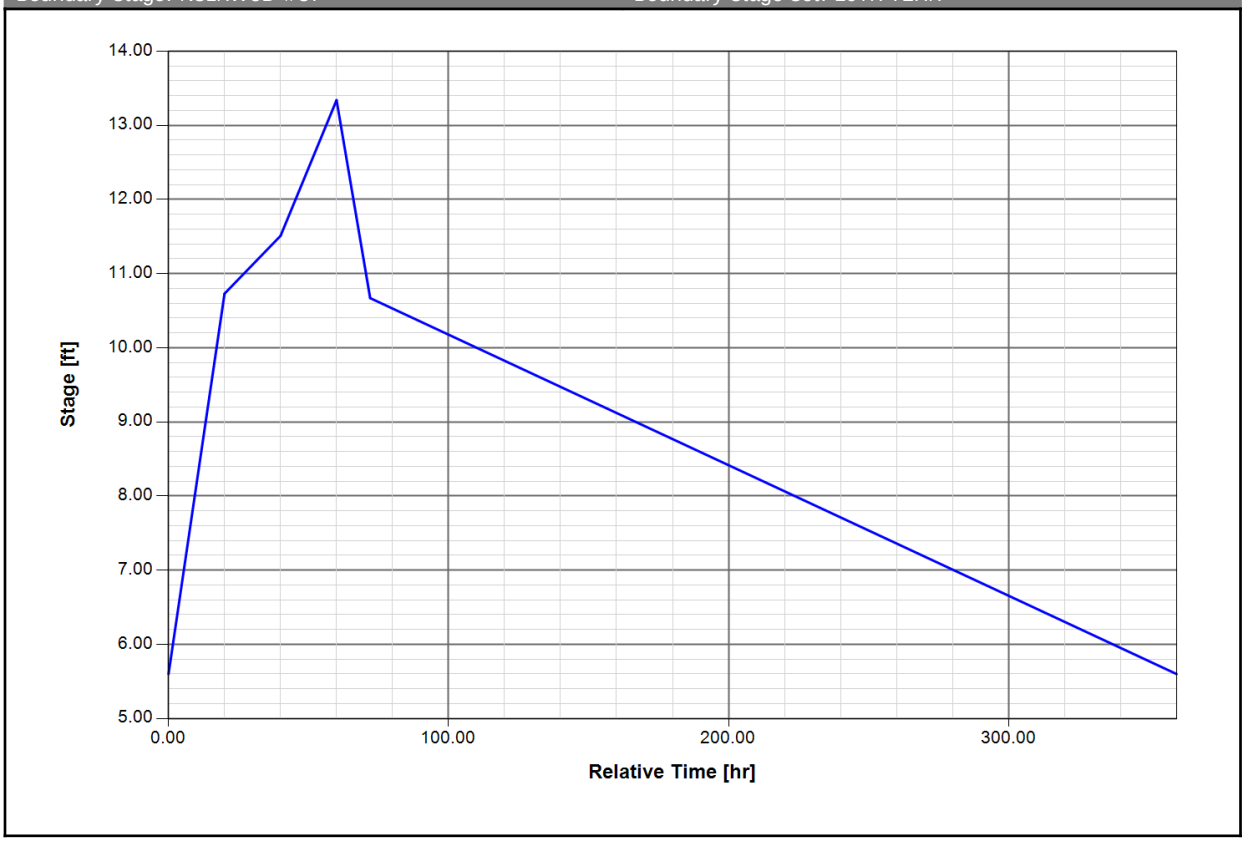
Boundary Stage: NSLRWCD #37

Boundary Stage Set: 10YR-72HR

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	5.60
0	0	0	20.0000	10.73
0	0	0	40.0000	11.51
0	0	0	60.0000	13.34
0	0	0	72.0000	10.67
0	0	0	360.0000	5.60

Comment:

Boundary Stage: NSLRWCD #37 Boundary Stage Set: 10YR-72HR



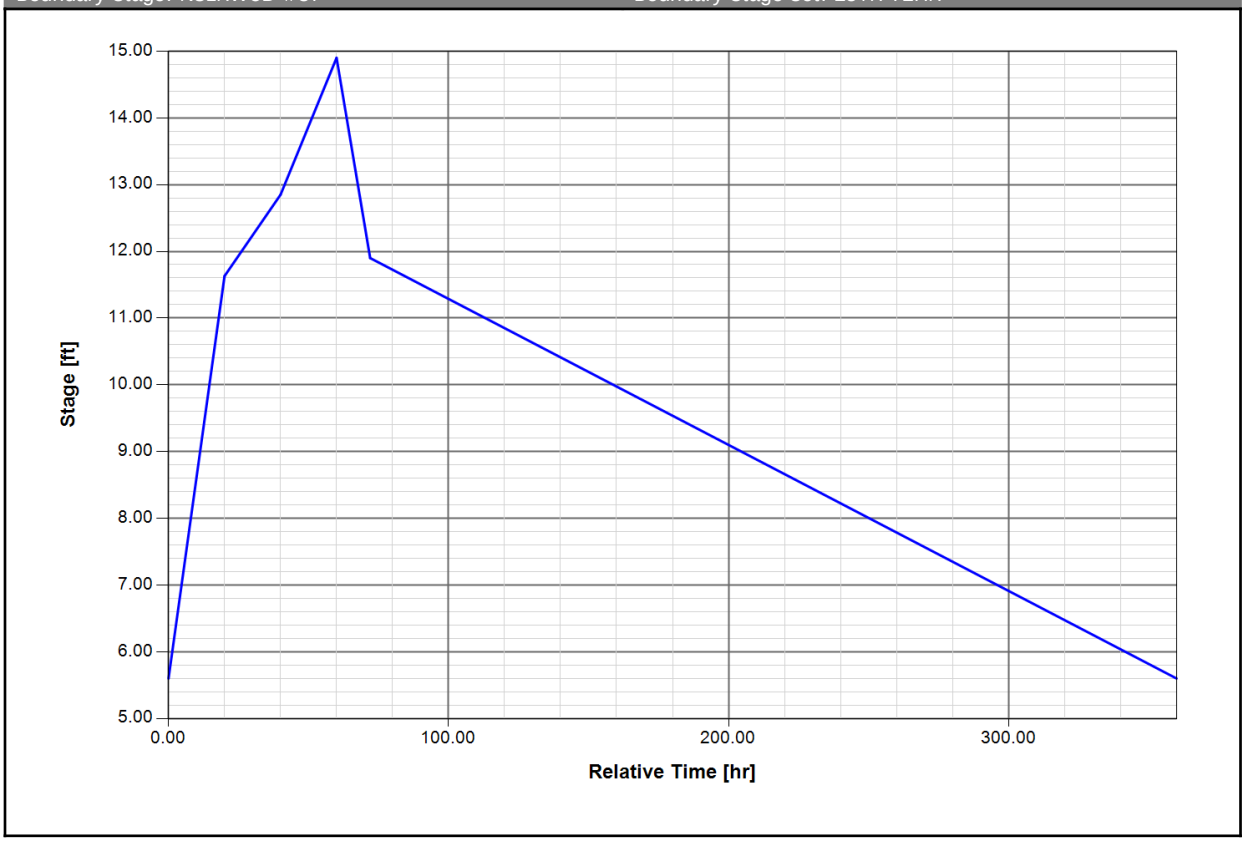
Boundary Stage: NSLRWCD #37

Boundary Stage Set: 25YR-72HR

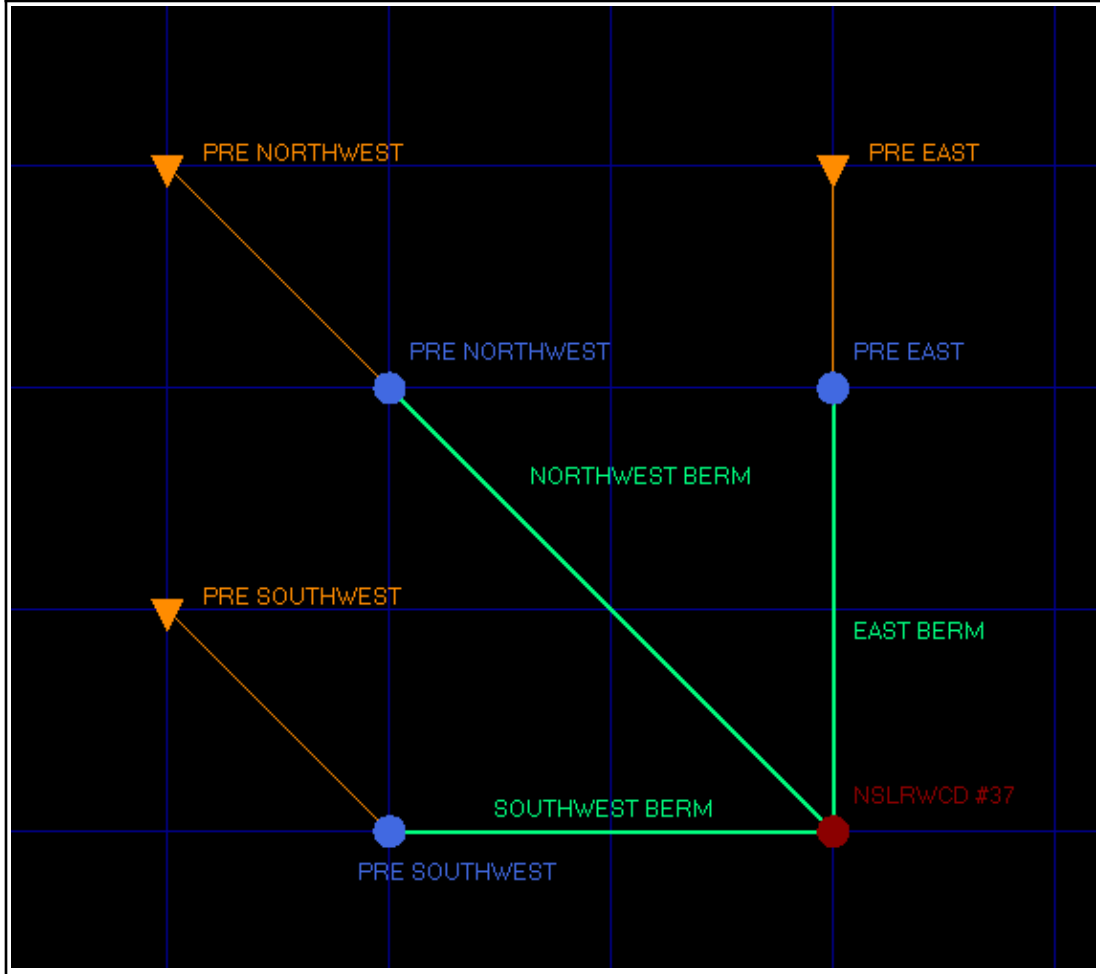
Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	5.60
0	0	0	20.0000	11.63
0	0	0	40.0000	12.85
0	0	0	60.0000	14.90
0	0	0	72.0000	11.90
0	0	0	360.0000	5.60

Comment:

Boundary Stage: NSLRWCD #37 Boundary Stage Set: 25YR-72HR



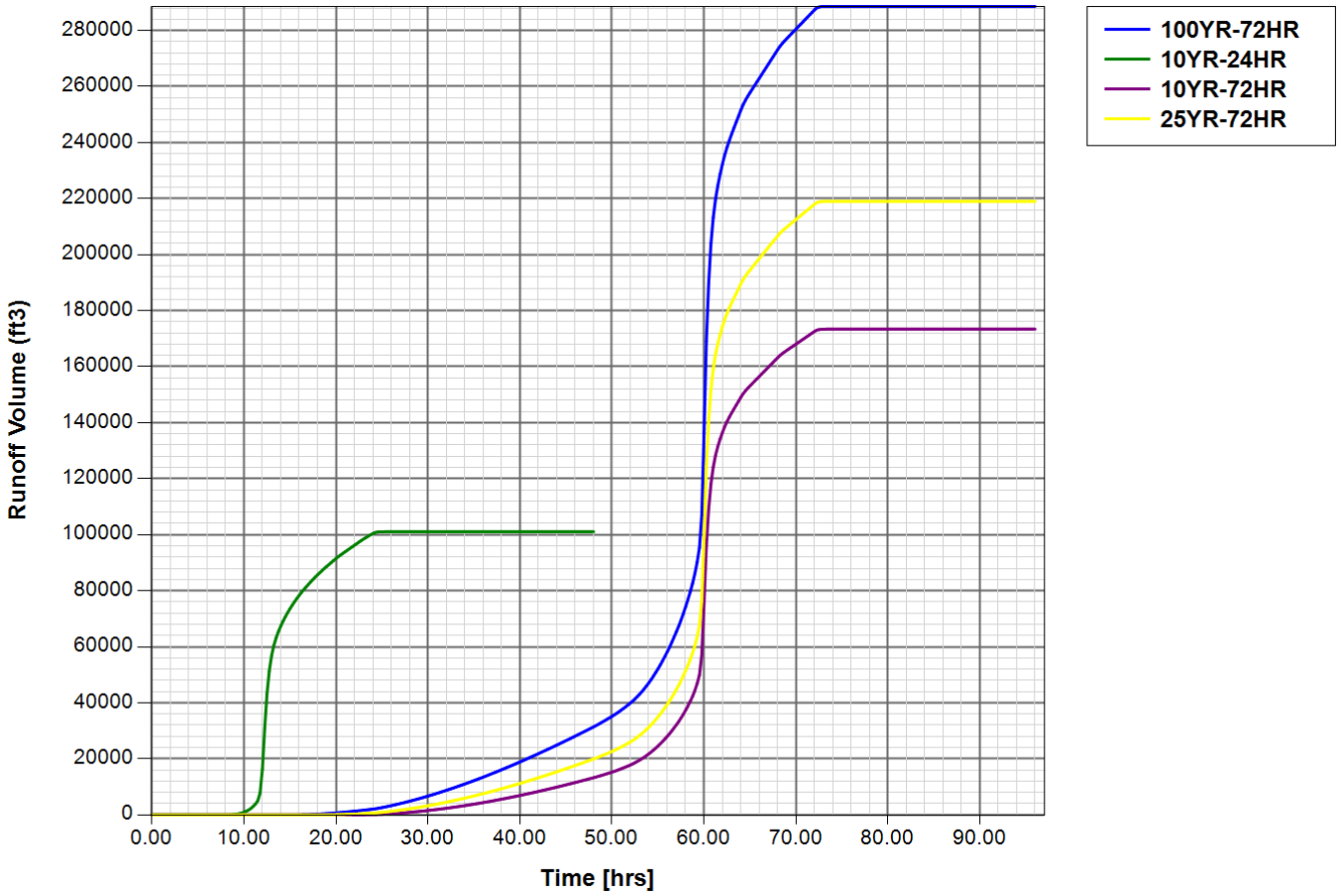
Background Image: PRE



Simple Basin Runoff Summary [PRE]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
PRE EAST	100YR-72HR	39.80	60.0667	12.23	8.57	9.2800	72.0	0.00	0.00
PRE EAST	10YR-24HR	17.24	12.1333	6.00	3.00	9.2800	72.0	0.00	0.00
PRE EAST	10YR-72HR	25.07	60.0667	8.50	5.15	9.2800	72.0	0.00	0.00
PRE EAST	25YR-72HR	31.00	60.0667	10.00	6.50	9.2800	72.0	0.00	0.00

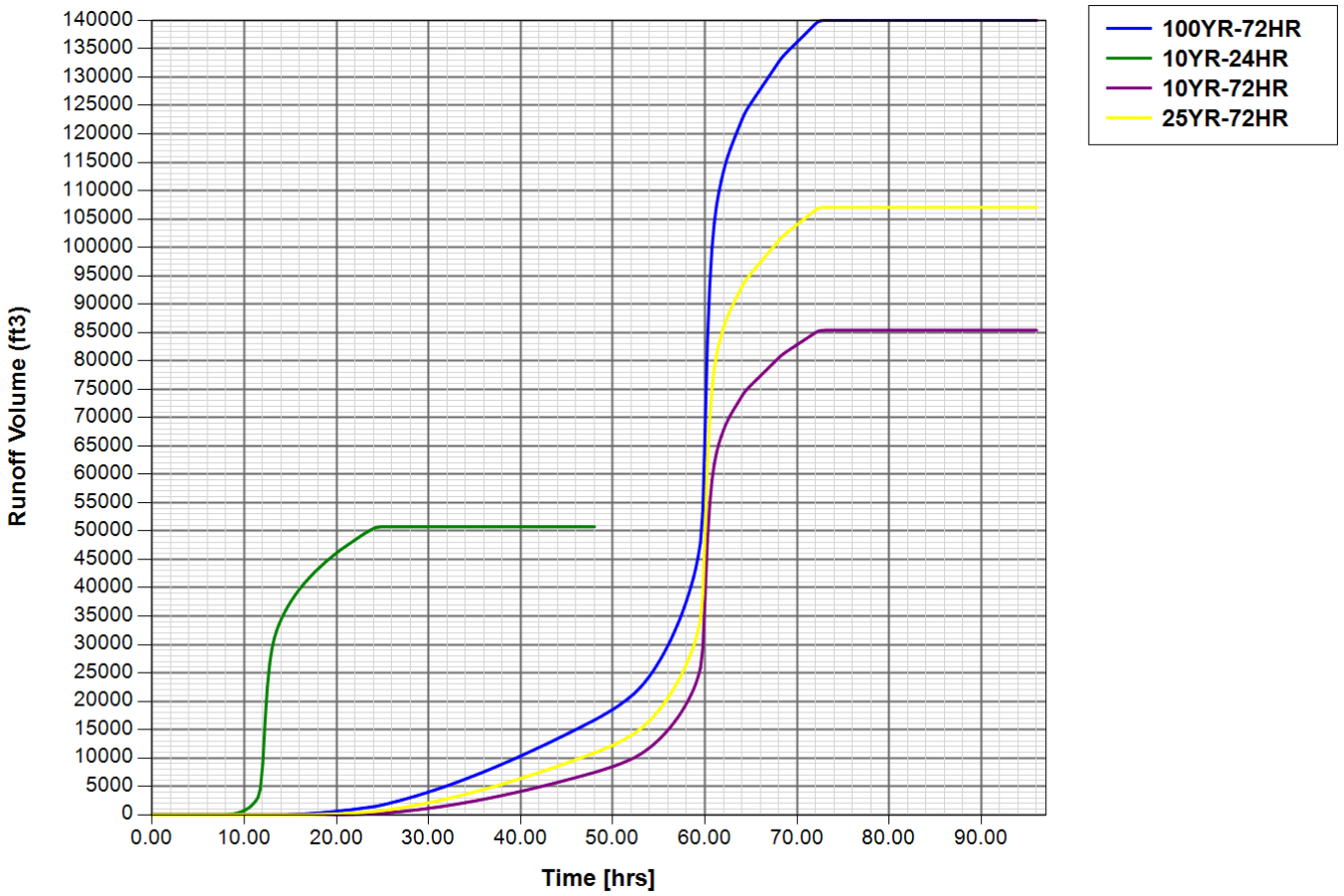
Simple Basin Runoff Volume: PRE EAST



Simple Basin Runoff Summary [PRE]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
PRE NORTHWEST	100YR-72HR	19.02	60.0667	12.23	8.91	4.3300	74.4	11.43	0.00
PRE NORTHWEST	10YR-24HR	8.70	12.1333	6.00	3.23	4.3300	74.4	11.43	0.00
PRE NORTHWEST	10YR-72HR	12.15	60.0667	8.50	5.43	4.3300	74.4	11.43	0.00
PRE NORTHWEST	25YR-72HR	14.92	60.0667	10.00	6.81	4.3300	74.4	11.43	0.00

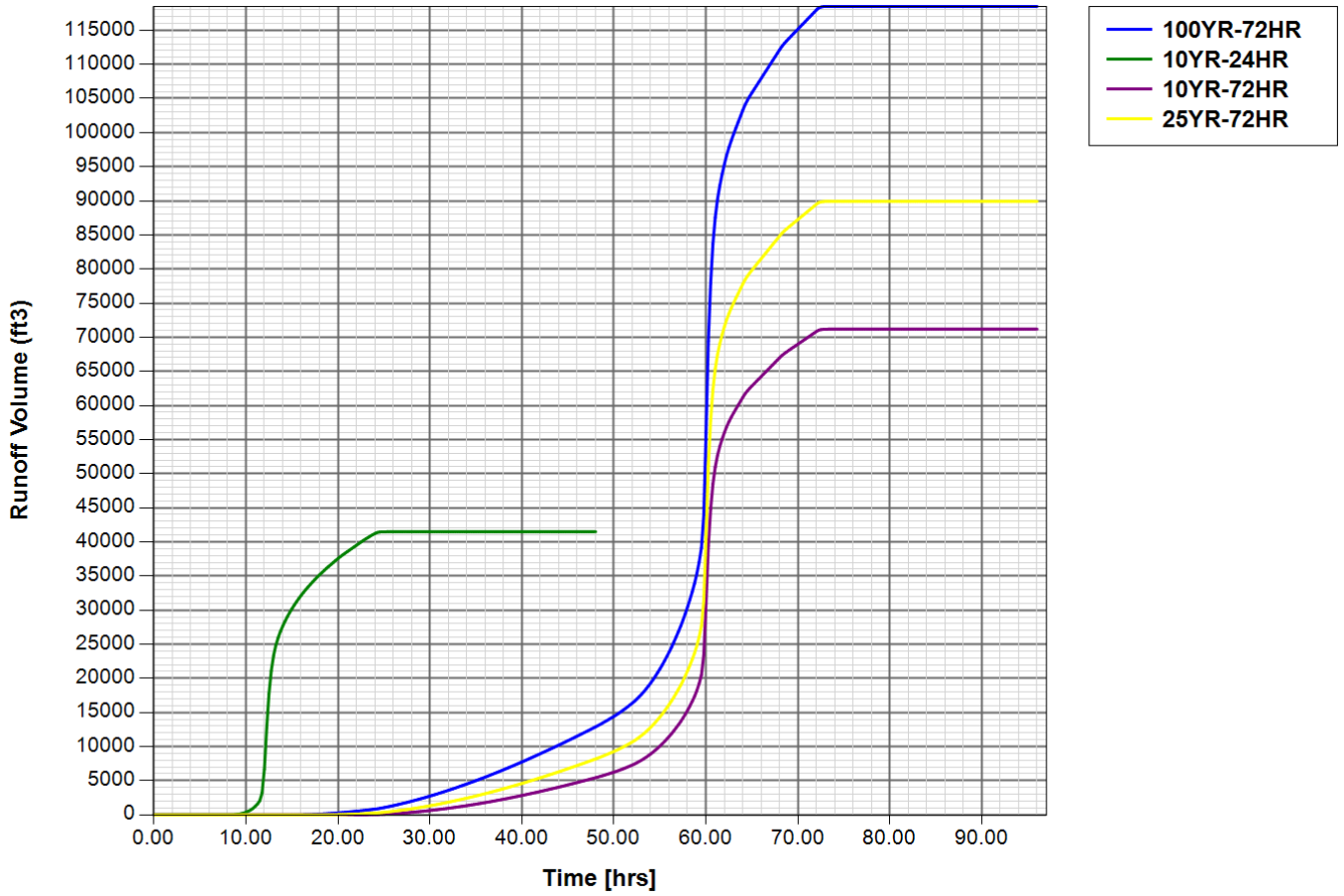
Simple Basin Runoff Volume: PRE NORTHWEST



Simple Basin Runoff Summary [PRE]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
PRE SOUTHWEST	100YR-72HR	16.34	60.0667	12.23	8.57	3.8100	72.0	0.00	0.00
PRE SOUTHWEST	10YR-24HR	7.08	12.1333	6.00	3.00	3.8100	72.0	0.00	0.00
PRE SOUTHWEST	10YR-72HR	10.29	60.0667	8.50	5.15	3.8100	72.0	0.00	0.00
PRE SOUTHWEST	25YR-72HR	12.73	60.0667	10.00	6.50	3.8100	72.0	0.00	0.00

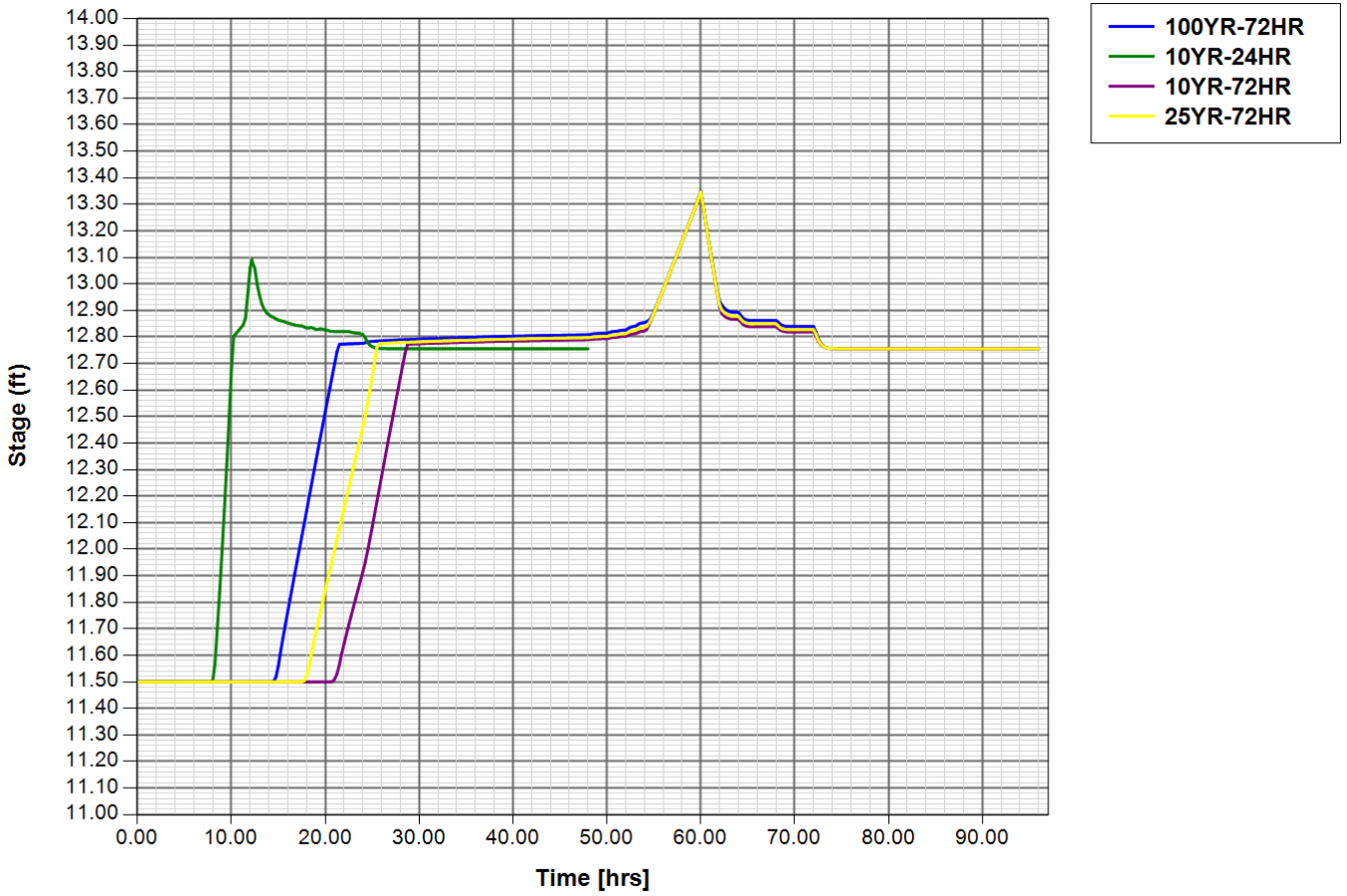
Simple Basin Runoff Volume: PRE SOUTHWEST



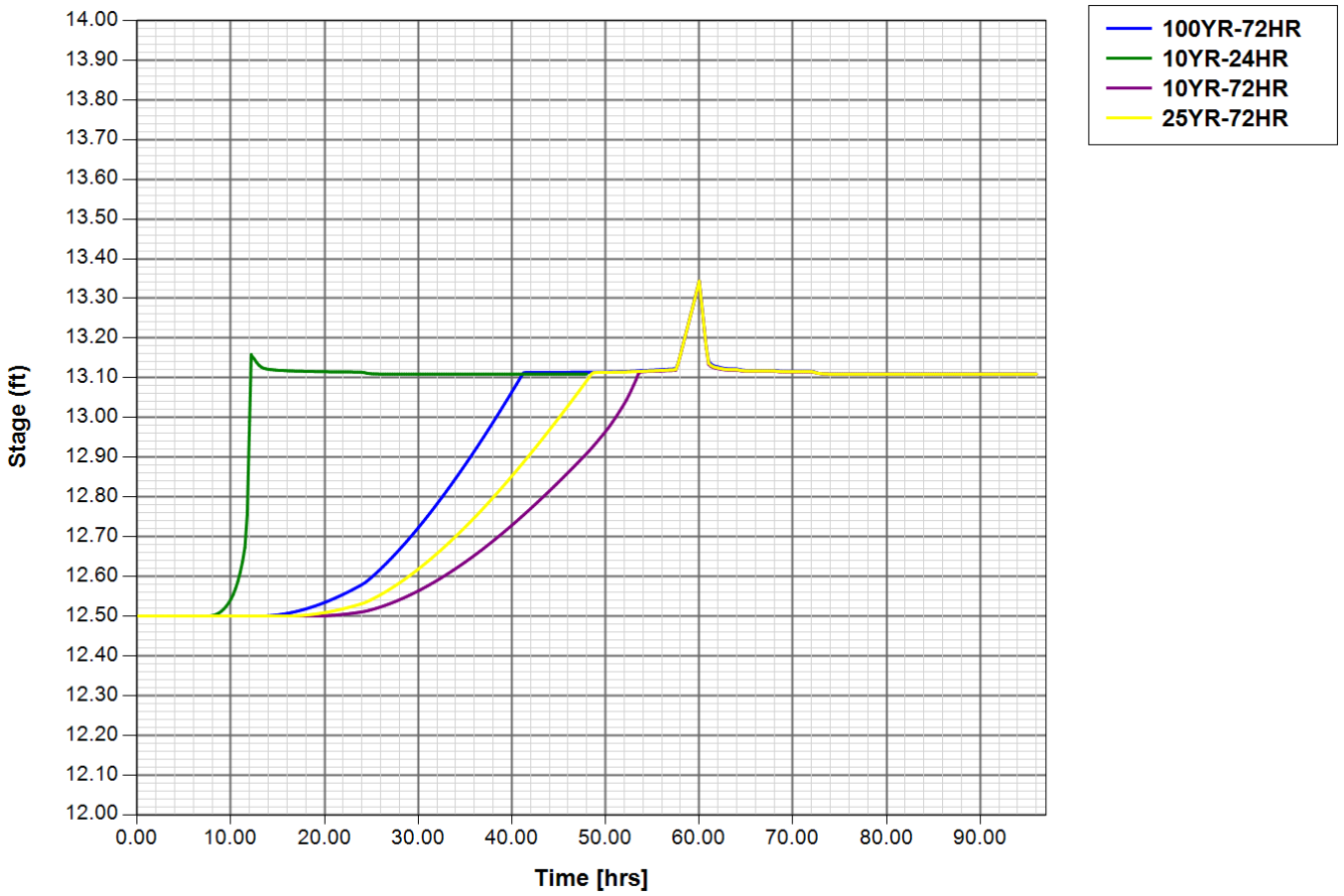
Node Max Conditions [PRE]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSLRWCD #37	100YR-72HR	9999.00	13.34	0.0021	82.09	0.00	0
NSLRWCD #37	10YR-24HR	9999.00	11.20	0.0077	32.02	0.00	0
NSLRWCD #37	10YR-72HR	9999.00	13.34	0.0021	54.80	0.00	0
NSLRWCD #37	25YR-72HR	9999.00	13.34	0.0021	65.79	0.00	0
PRE EAST	100YR-72HR	14.00	13.35	-0.0010	39.80	45.85	110154
PRE EAST	10YR-24HR	14.00	13.09	-0.0010	17.24	16.83	30335
PRE EAST	10YR-72HR	14.00	13.35	0.0010	25.07	31.25	108949
PRE EAST	25YR-72HR	14.00	13.35	0.0010	31.00	37.13	109440
PRE NORTHWEST	100YR-72HR	14.00	13.34	-0.0010	19.01	20.56	26651
PRE NORTHWEST	10YR-24HR	14.00	13.16	0.0010	8.70	8.45	19079
PRE NORTHWEST	10YR-72HR	14.00	13.34	-0.0010	12.15	13.79	26582
PRE NORTHWEST	25YR-72HR	14.00	13.34	-0.0010	14.92	16.76	26598
PRE SOUTHWEST	100YR-72HR	14.00	13.45	0.0010	16.34	15.95	40294
PRE SOUTHWEST	10YR-24HR	14.00	13.39	0.0010	7.08	6.76	28640
PRE SOUTHWEST	10YR-72HR	14.00	13.41	0.0010	10.29	10.03	33383
PRE SOUTHWEST	25YR-72HR	14.00	13.43	0.0010	12.73	12.42	36331

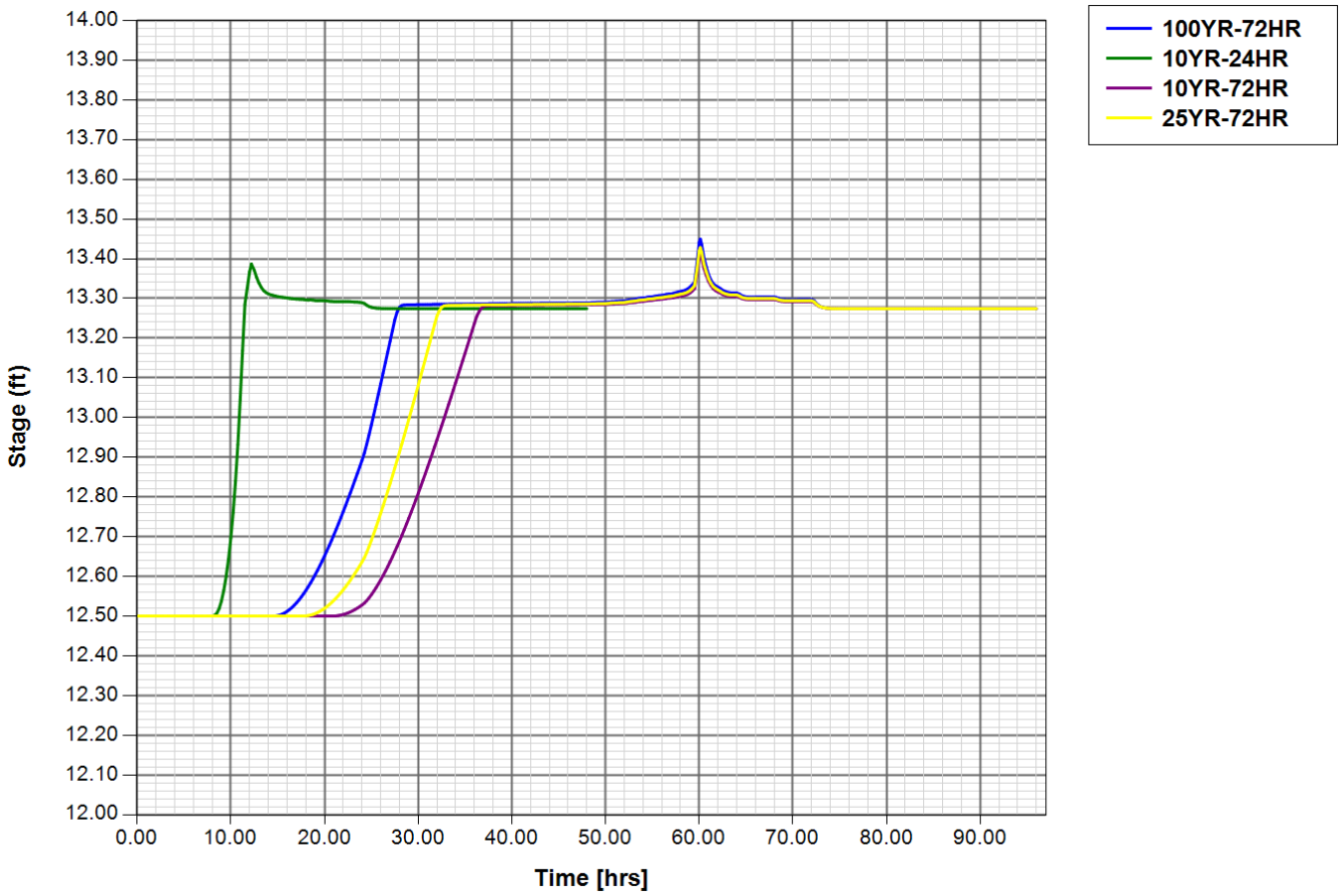
Stage [Node: PRE EAST]



Stage [Node: PRE NORTHWEST]



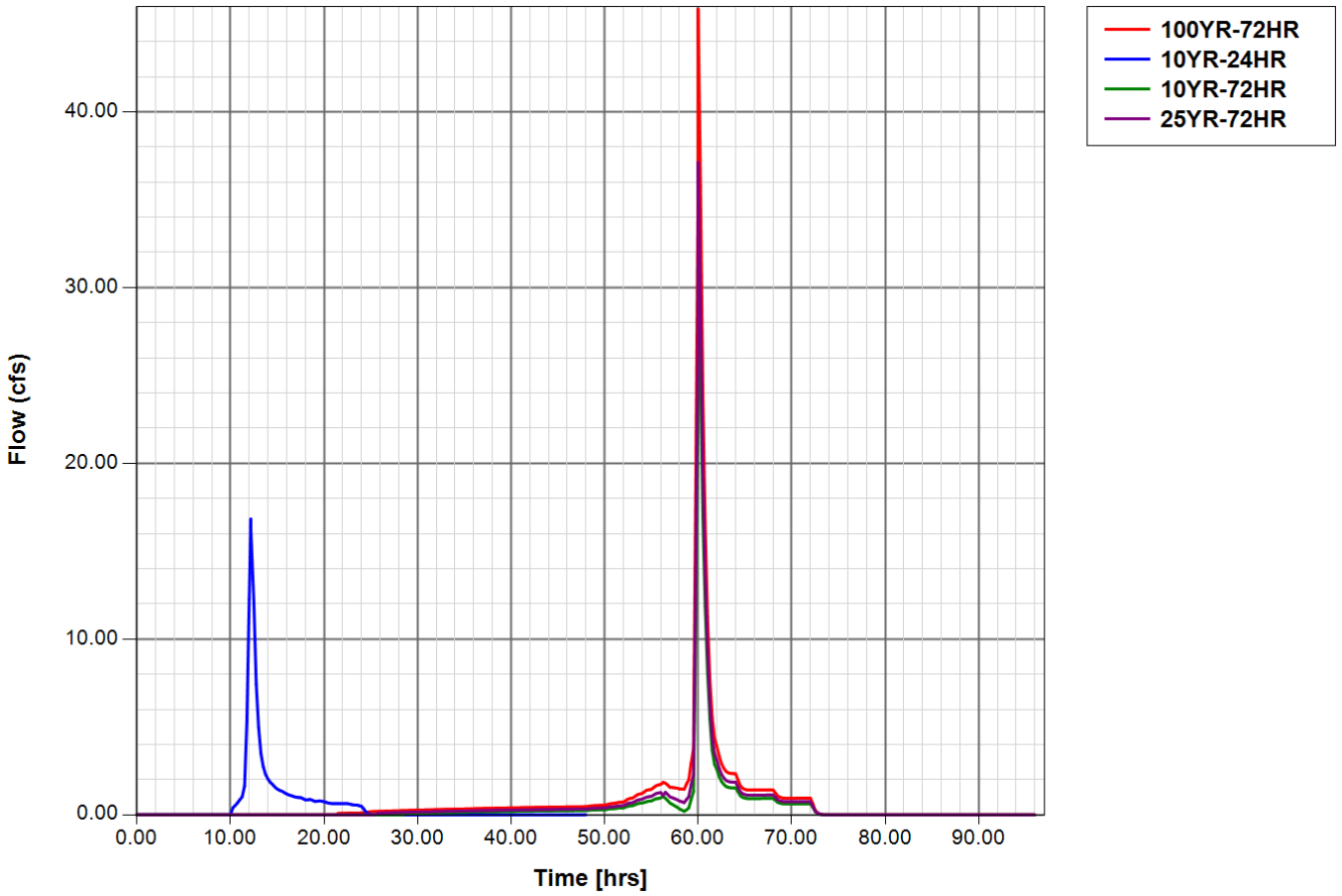
Stage [Node: PRE SOUTHWEST]



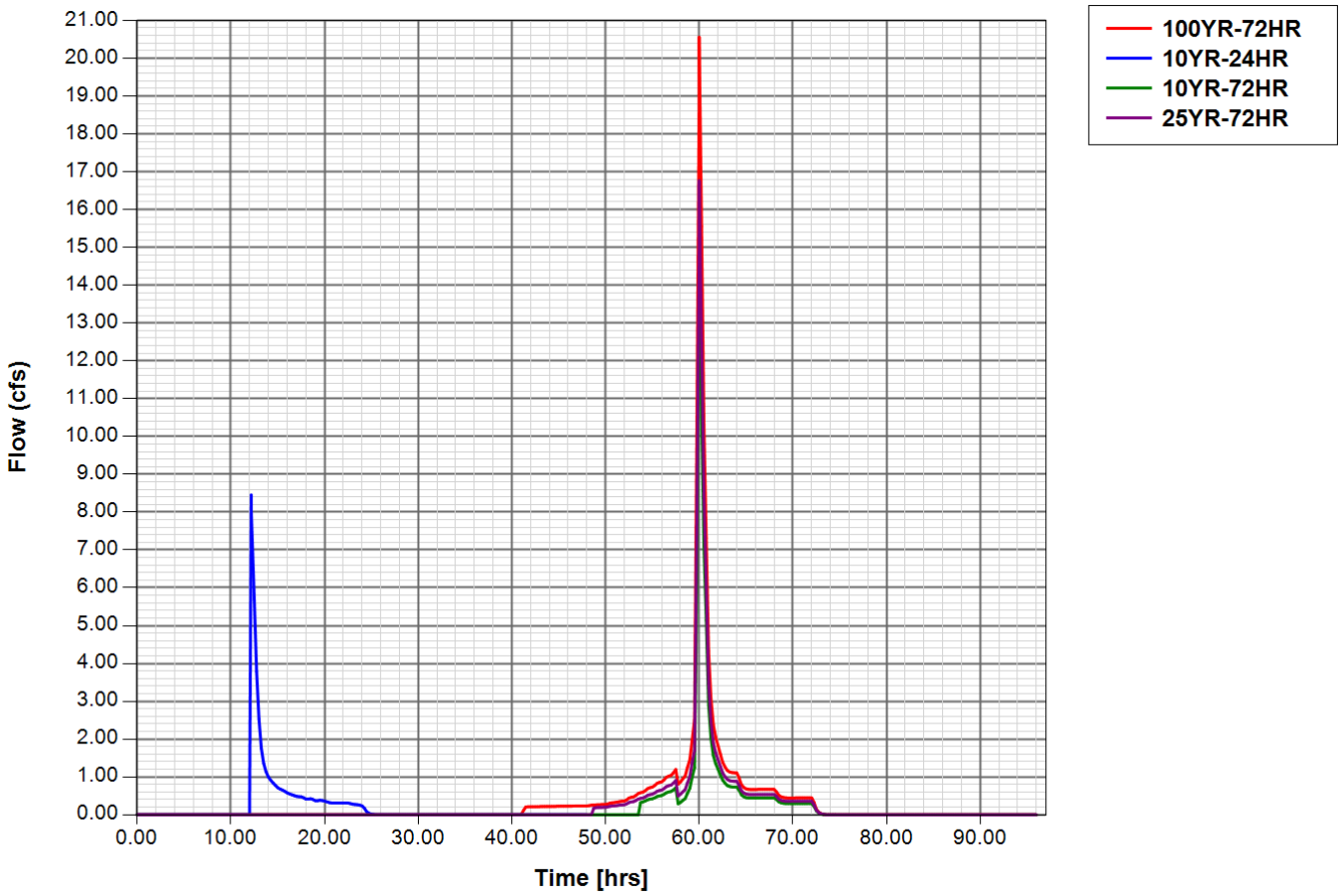
Link Min/Max Conditions [PRE]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
EAST BERM	100YR-72HR	45.85	0.00	3.26	1.03	1.03	1.03
EAST BERM	10YR-24HR	16.83	0.00	-0.11	1.27	1.27	1.27
EAST BERM	10YR-72HR	31.25	0.00	3.07	0.93	0.93	0.93
EAST BERM	25YR-72HR	37.13	0.00	3.54	0.98	0.98	0.98
NORTHWEST BERM	100YR-72HR	20.56	0.00	1.84	0.52	0.52	0.52
NORTHWEST BERM	10YR-24HR	8.45	0.00	0.15	0.61	0.61	0.61
NORTHWEST BERM	10YR-72HR	13.79	0.00	3.91	0.44	0.44	0.44
NORTHWEST BERM	25YR-72HR	16.76	0.00	1.82	0.48	0.48	0.48
SOUTHWEST BERM	100YR-72HR	15.95	0.00	0.12	1.05	1.05	1.05
SOUTHWEST BERM	10YR-24HR	6.76	0.00	-0.04	0.83	0.83	0.83
SOUTHWEST BERM	10YR-72HR	10.03	0.00	0.10	0.92	0.92	0.92
SOUTHWEST BERM	25YR-72HR	12.42	0.00	0.11	0.98	0.98	0.98

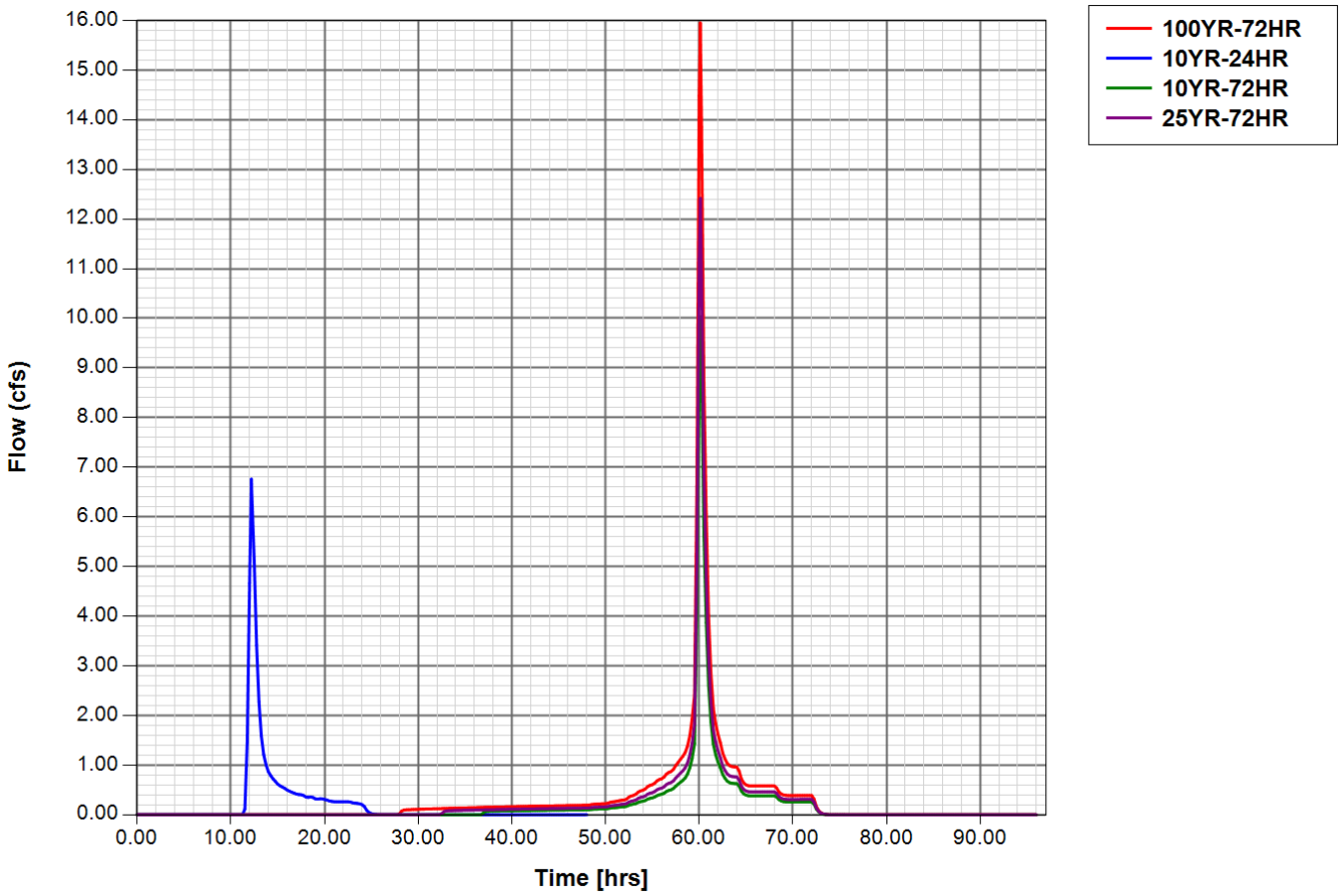
Link Flow: EAST BERM [PRE]



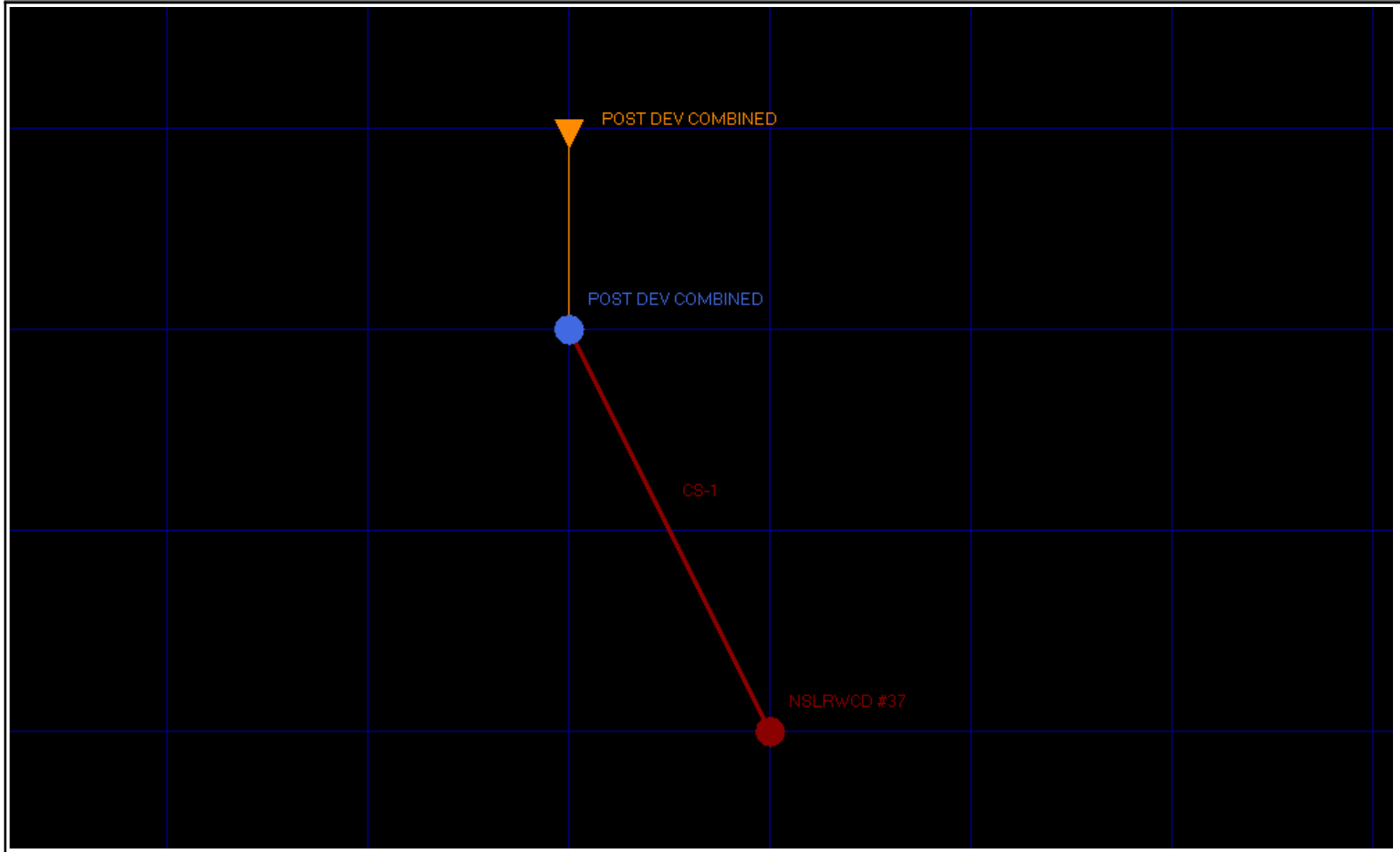
Link Flow: NORTHWEST BERM [PRE]



Link Flow: SOUTHWEST BERM [PRE]



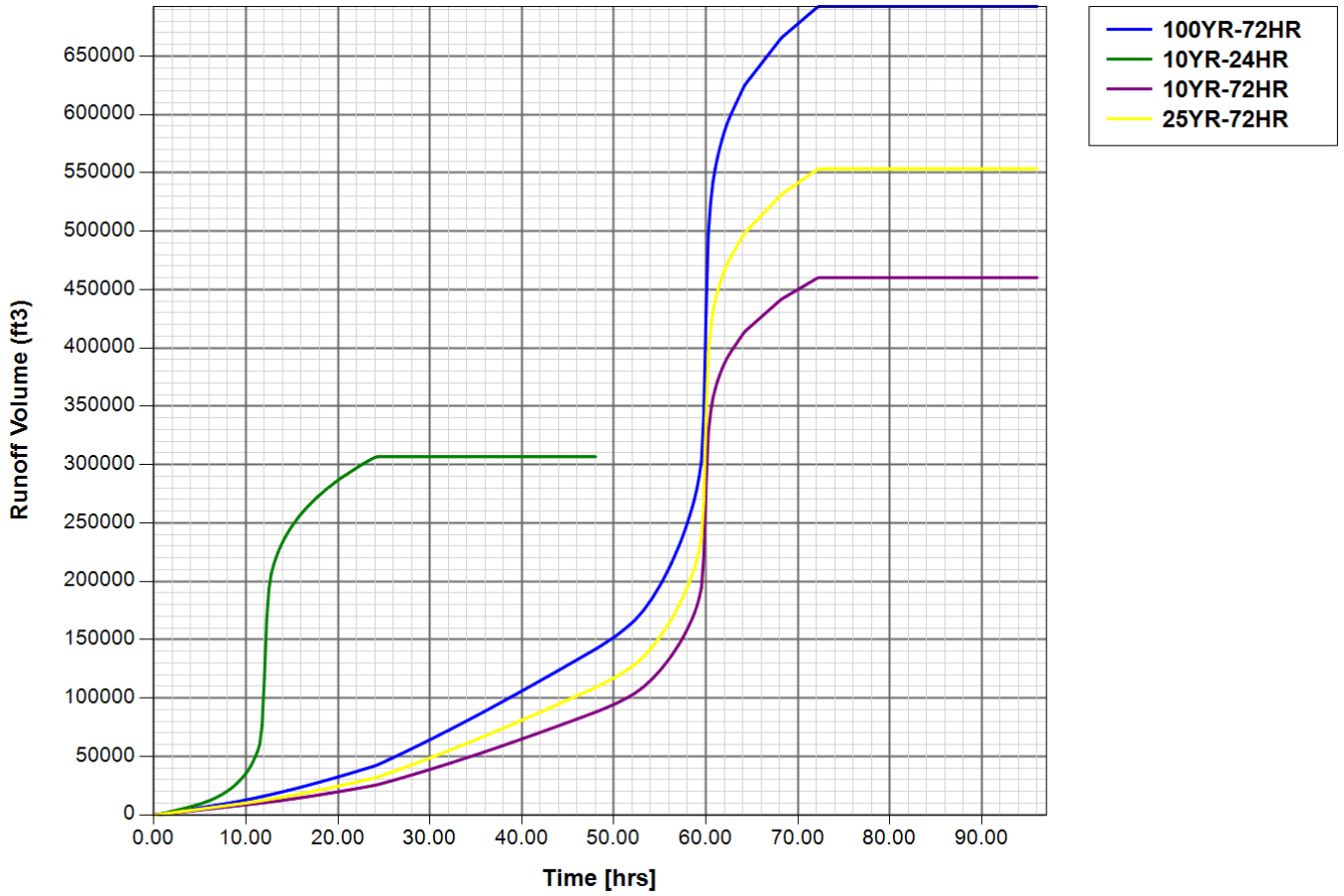
Background Image: POST



Simple Basin Runoff Summary [POST]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
POST DEV COMBINED	100YR-72HR	102.44	60.0167	12.23	10.95	17.4200	89.5	65.12	36.26
POST DEV COMBINED	10YR-24HR	63.83	12.0667	6.00	4.85	17.4200	90.0	65.12	36.26
POST DEV COMBINED	10YR-72HR	69.66	60.0167	8.50	7.28	17.4200	89.7	65.12	36.26
POST DEV COMBINED	25YR-72HR	82.88	60.0167	10.00	8.75	17.4200	89.6	65.12	36.26

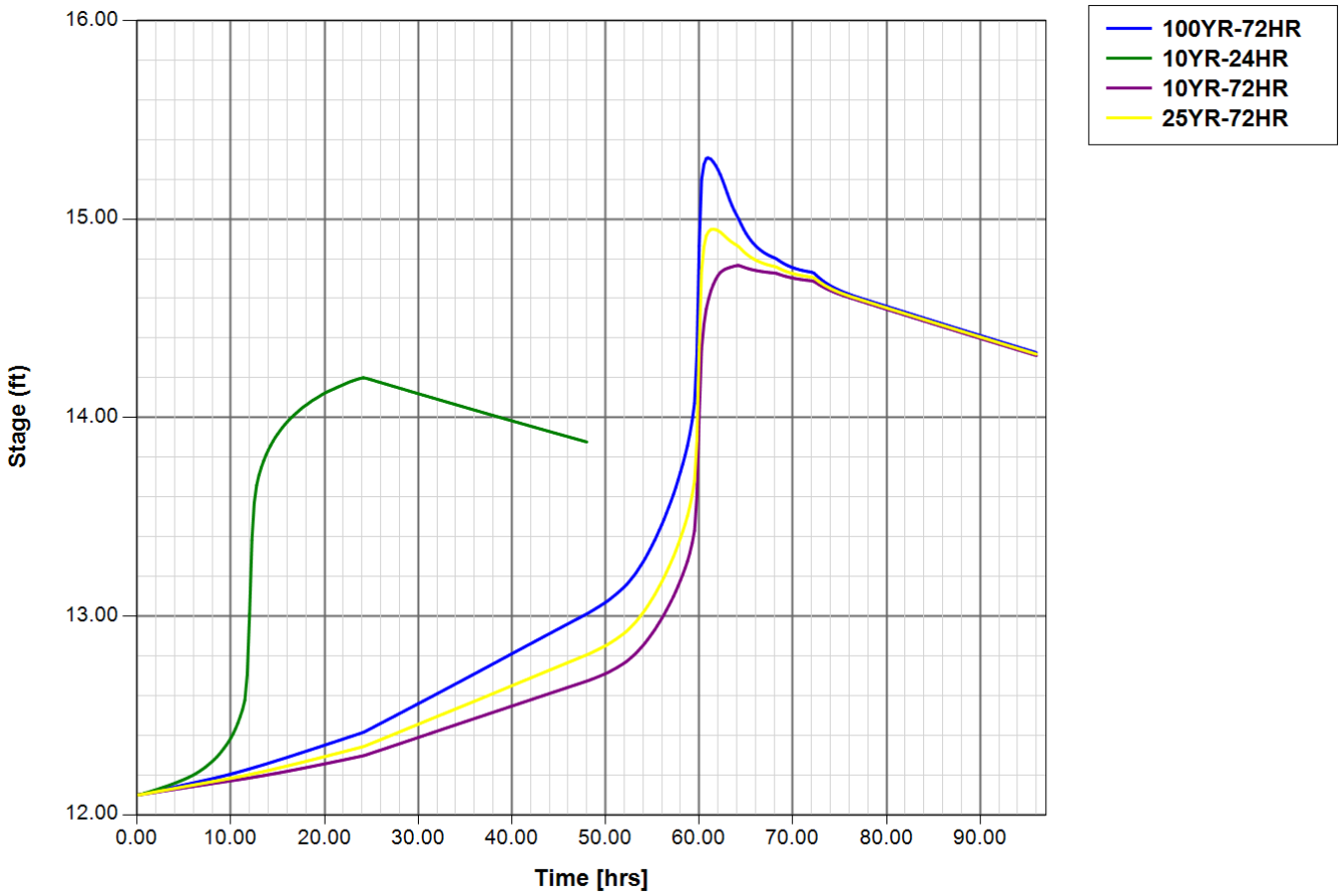
Simple Basin Runoff Volume: POST DEV COMBINED



Node Max Conditions [POST]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSLRWCD #37	100YR-72HR	9999.00	13.34	0.0021	12.78	0.00	0
NSLRWCD #37	10YR-24HR	9999.00	11.20	0.0077	0.57	0.00	0
NSLRWCD #37	10YR-72HR	9999.00	13.34	0.0021	2.79	0.00	0
NSLRWCD #37	25YR-72HR	9999.00	13.34	0.0021	7.05	0.00	0
POST DEV COMBINED	100YR-72HR	15.50	15.31	0.0010	102.43	12.78	234751
POST DEV COMBINED	10YR-24HR	15.50	14.20	0.0010	63.83	0.57	146629
POST DEV COMBINED	10YR-72HR	15.50	14.77	0.0010	69.66	2.79	155870
POST DEV COMBINED	25YR-72HR	15.50	14.95	0.0010	82.87	7.05	179327

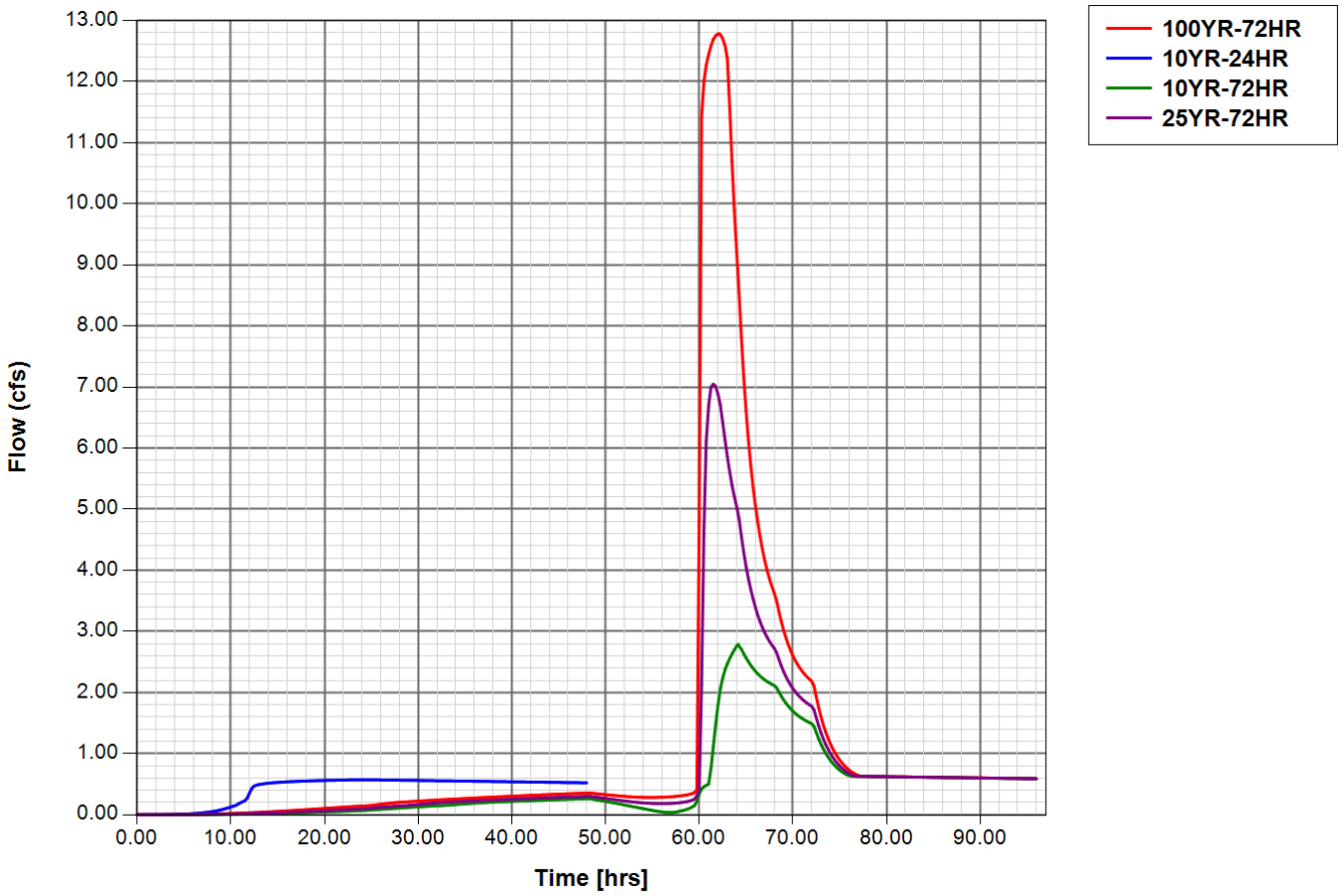
Stage [Node: POST DEV COMBINED]



Link Min/Max Conditions [POST]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
CS-1 - Pipe	100YR-72HR	12.78	0.00	0.04	0.00	0.00	0.00
CS-1 - Weir: 1	100YR-72HR	0.66	0.00	0.00	7.75	7.75	7.75
CS-1 - Weir: 2	100YR-72HR	12.58	0.00	-0.03	2.30	2.30	2.30
CS-1 - Pipe	10YR-24HR	0.57	0.00	0.00	0.00	0.00	0.00
CS-1 - Weir: 1	10YR-24HR	0.57	0.00	0.00	6.69	6.69	6.69
CS-1 - Weir: 2	10YR-24HR	0.00	0.00	0.00	0.00	0.00	0.00
CS-1 - Pipe	10YR-72HR	2.79	0.00	0.01	0.00	0.00	0.00
CS-1 - Weir: 1	10YR-72HR	0.65	0.00	0.00	7.59	7.59	7.59
CS-1 - Weir: 2	10YR-72HR	2.17	0.00	0.01	1.31	1.31	1.31
CS-1 - Pipe	25YR-72HR	7.05	0.00	0.03	0.00	0.00	0.00
CS-1 - Weir: 1	25YR-72HR	0.66	0.00	0.00	7.67	7.67	7.67
CS-1 - Weir: 2	25YR-72HR	6.58	0.00	0.02	1.89	1.89	1.89

Link Flow: CS-1 [POST]



Node Max Conditions [POST]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSLRWCD #37	25YR-72HR	9999.00	13.34	0.0021	7.05	0.00	0

Node Max Conditions [POST]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
POST DEV COMBINED	25YR-72HR	15.50	14.95	0.0010	82.87	7.05	179327

Node Max Conditions [PRE]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSLRWCD #37	25YR-72HR	9999.00	13.34	0.0021	60.34	0.00	0

Node Max Conditions [PRE]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
PRE EAST	25YR-72HR	14.00	13.35	0.0010	28.15	34.24	109150

REGATTA APARTMENTS
STORMWATER ROUTING MODEL
25yr PRE vs POST COMPARISON
JULY 2024

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
PRE NORTHWEST	25YR-72HR	14.00	13.34	-0.0010	13.50	17.80	26566

Node Max Conditions [PRE]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
PRE SOUTHWEST	25YR-72HR	14.00	13.42	0.0010	11.56	11.27	34944

Simulation: 100YR-72HR

Scenario: POST
Run Date/Time: 7/9/2024 1:25:42 PM
Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	96.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:	10YR-72HR
Extern Hydrograph Set:	
Curve Number Set:	
Green-Ampt Set:	
Vertical Layers Set:	
Impervious Set:	

Tolerances & Options

Time Marching:	SAOR
Max Iterations:	6
Over-Relax Weight Fact:	0.5 dec
dZ Tolerance:	0.0010 ft
Max dZ:	1.0000 ft
Link Optimizer Tol:	0.0001 ft
Edge Length Option:	Automatic

IA Recovery Time:	24.0000 hr
Smp/Man Basin Rain Opt:	Global
Rainfall Name:	~SFWMD-72
Rainfall Amount:	12.23 in
Storm Duration:	72.0000 hr
Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (1D):	100 ft2
Energy Switch (1D):	Energy

Comment:

Link: CS-1

Scenario: POST
Type: Drop Structure
From Node: POST DEV COMBINED
To Node: NSLRWCD #37
Link Count: 1
Flow Direction: None

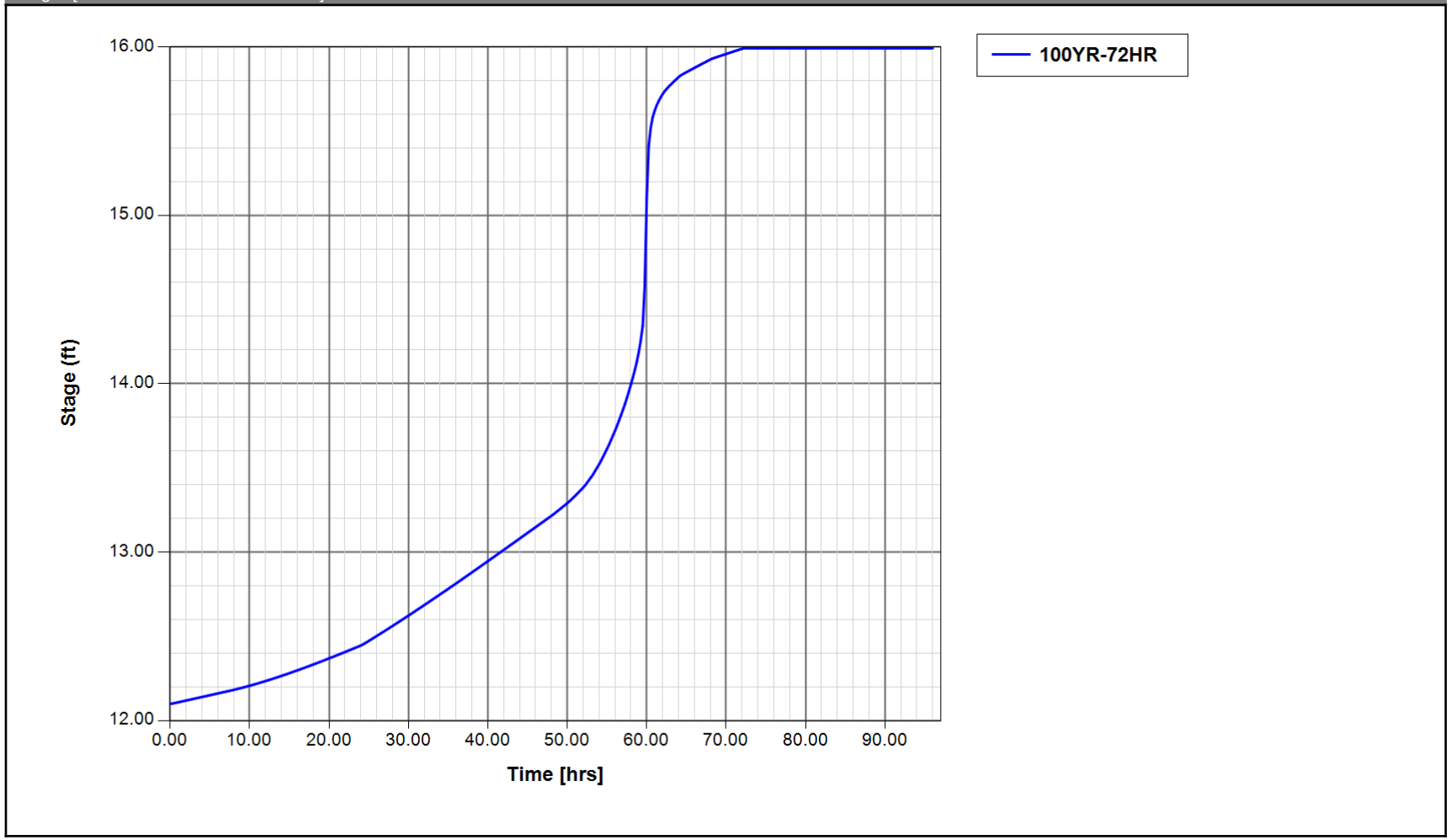
Link Min/Max Conditions [POST]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
CS-1 - Pipe	100YR-72HR	0.00	0.00	0.00	0.00	0.00	0.00
CS-1 - Weir: 1	100YR-72HR	0.00	0.00	0.00	0.00	0.00	0.00
CS-1 - Weir: 2	100YR-72HR	0.00	0.00	0.00	0.00	0.00	0.00

Node Max Conditions [POST]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
POST DEV COMBINED	100YR-72HR	15.50	15.99	0.0010	102.43	0.00	443830

Stage [Node: POST DEV COMBINED]



REGATTA APARTMENTS
STORMWATER ROUTING MODEL
OUTFALL VOLUME TOTALS
JULY 2024

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]
NSLRWCD	NSLRWCD #37	0.0000	0.00
NSLRWCD	NSLRWCD #37	1.0027	0.00
NSLRWCD	NSLRWCD #37	2.0027	0.00
NSLRWCD	NSLRWCD #37	3.0027	0.00
NSLRWCD	NSLRWCD #37	4.0027	0.00
NSLRWCD	NSLRWCD #37	5.0027	0.00
NSLRWCD	NSLRWCD #37	6.0027	0.00
NSLRWCD	NSLRWCD #37	7.0027	0.00
NSLRWCD	NSLRWCD #37	8.0027	0.00
NSLRWCD	NSLRWCD #37	9.0027	0.00
NSLRWCD	NSLRWCD #37	10.0027	0.00
NSLRWCD	NSLRWCD #37	11.0027	0.00
NSLRWCD	NSLRWCD #37	12.0027	0.00
NSLRWCD	NSLRWCD #37	13.0027	0.01
NSLRWCD	NSLRWCD #37	14.0027	0.01
NSLRWCD	NSLRWCD #37	15.0027	0.01
NSLRWCD	NSLRWCD #37	16.0027	0.01
NSLRWCD	NSLRWCD #37	17.0027	0.01
NSLRWCD	NSLRWCD #37	18.0027	0.02
NSLRWCD	NSLRWCD #37	19.0027	0.02
NSLRWCD	NSLRWCD #37	20.0027	0.02
NSLRWCD	NSLRWCD #37	21.0027	0.03
NSLRWCD	NSLRWCD #37	22.0027	0.03
NSLRWCD	NSLRWCD #37	23.0027	0.04
NSLRWCD	NSLRWCD #37	24.0027	0.04
NSLRWCD	NSLRWCD #37	25.0027	0.05
NSLRWCD	NSLRWCD #37	26.0027	0.06
NSLRWCD	NSLRWCD #37	27.0027	0.06
NSLRWCD	NSLRWCD #37	28.0027	0.07
NSLRWCD	NSLRWCD #37	29.0027	0.08
NSLRWCD	NSLRWCD #37	30.0027	0.09
NSLRWCD	NSLRWCD #37	31.0027	0.10
NSLRWCD	NSLRWCD #37	32.0027	0.11
NSLRWCD	NSLRWCD #37	33.0027	0.13
NSLRWCD	NSLRWCD #37	34.0027	0.14
NSLRWCD	NSLRWCD #37	35.0027	0.15
NSLRWCD	NSLRWCD #37	36.0027	0.17
NSLRWCD	NSLRWCD #37	37.0027	0.18
NSLRWCD	NSLRWCD #37	38.0027	0.20
NSLRWCD	NSLRWCD #37	39.0027	0.22
NSLRWCD	NSLRWCD #37	40.0027	0.24

REGATTA APARTMENTS
STORMWATER ROUTING MODEL
OUTFALL VOLUME TOTALS
JULY 2024

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]
NSLRWCD	NSLRWCD #37	41.0027	0.26
NSLRWCD	NSLRWCD #37	42.0027	0.27
NSLRWCD	NSLRWCD #37	43.0027	0.29
NSLRWCD	NSLRWCD #37	44.0027	0.31
NSLRWCD	NSLRWCD #37	45.0027	0.33
NSLRWCD	NSLRWCD #37	46.0027	0.35
NSLRWCD	NSLRWCD #37	47.0027	0.37
NSLRWCD	NSLRWCD #37	48.0027	0.40
NSLRWCD	NSLRWCD #37	49.0027	0.42
NSLRWCD	NSLRWCD #37	50.0027	0.44
NSLRWCD	NSLRWCD #37	51.0027	0.45
NSLRWCD	NSLRWCD #37	52.0027	0.47
NSLRWCD	NSLRWCD #37	53.0027	0.48
NSLRWCD	NSLRWCD #37	54.0027	0.49
NSLRWCD	NSLRWCD #37	55.0027	0.50
NSLRWCD	NSLRWCD #37	56.0027	0.50
NSLRWCD	NSLRWCD #37	57.0027	0.51
NSLRWCD	NSLRWCD #37	58.0027	0.51
NSLRWCD	NSLRWCD #37	59.0017	0.52
NSLRWCD	NSLRWCD #37	60.0003	0.53
NSLRWCD	NSLRWCD #37	61.0017	0.57
NSLRWCD	NSLRWCD #37	62.0077	0.66
NSLRWCD	NSLRWCD #37	63.0077	0.84
NSLRWCD	NSLRWCD #37	64.0077	1.06
NSLRWCD	NSLRWCD #37	65.0077	1.28
NSLRWCD	NSLRWCD #37	66.0077	1.49
NSLRWCD	NSLRWCD #37	67.0077	1.67
NSLRWCD	NSLRWCD #37	68.0077	1.85
NSLRWCD	NSLRWCD #37	69.0077	2.02
NSLRWCD	NSLRWCD #37	70.0077	2.16
NSLRWCD	NSLRWCD #37	71.0077	2.30
NSLRWCD	NSLRWCD #37	72.0077	2.43
NSLRWCD	NSLRWCD #37	73.0077	2.54
NSLRWCD	NSLRWCD #37	74.0077	2.62
NSLRWCD	NSLRWCD #37	75.0077	2.69
NSLRWCD	NSLRWCD #37	76.0077	2.74
NSLRWCD	NSLRWCD #37	77.0077	2.79
NSLRWCD	NSLRWCD #37	78.0077	2.85
NSLRWCD	NSLRWCD #37	79.0077	2.90
NSLRWCD	NSLRWCD #37	80.0077	2.95
NSLRWCD	NSLRWCD #37	81.0077	3.00

REGATTA APARTMENTS
STORMWATER ROUTING MODEL
OUTFALL VOLUME TOTALS
JULY 2024

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]
NSLRWCD	NSLRWCD #37	82.0077	3.05
NSLRWCD	NSLRWCD #37	83.0077	3.10
NSLRWCD	NSLRWCD #37	84.0077	3.15
NSLRWCD	NSLRWCD #37	85.0077	3.20
NSLRWCD	NSLRWCD #37	86.0077	3.25
NSLRWCD	NSLRWCD #37	87.0077	3.30
NSLRWCD	NSLRWCD #37	88.0077	3.35
NSLRWCD	NSLRWCD #37	89.0077	3.40
NSLRWCD	NSLRWCD #37	90.0077	3.45
NSLRWCD	NSLRWCD #37	91.0077	3.50
NSLRWCD	NSLRWCD #37	92.0077	3.55
NSLRWCD	NSLRWCD #37	93.0077	3.60
NSLRWCD	NSLRWCD #37	94.0077	3.65
NSLRWCD	NSLRWCD #37	95.0077	3.70
NSLRWCD	NSLRWCD #37	96.0077	3.75
NSLRWCD	NSLRWCD #37	97.0077	3.80
NSLRWCD	NSLRWCD #37	98.0077	3.85
NSLRWCD	NSLRWCD #37	99.0077	3.89
NSLRWCD	NSLRWCD #37	100.0077	3.94
NSLRWCD	NSLRWCD #37	101.0077	3.99
NSLRWCD	NSLRWCD #37	102.0077	4.04
NSLRWCD	NSLRWCD #37	103.0077	4.09
NSLRWCD	NSLRWCD #37	104.0077	4.13
NSLRWCD	NSLRWCD #37	105.0077	4.18
NSLRWCD	NSLRWCD #37	106.0077	4.23
NSLRWCD	NSLRWCD #37	107.0077	4.27
NSLRWCD	NSLRWCD #37	108.0077	4.32
NSLRWCD	NSLRWCD #37	109.0077	4.37
NSLRWCD	NSLRWCD #37	110.0077	4.41
NSLRWCD	NSLRWCD #37	111.0077	4.46
NSLRWCD	NSLRWCD #37	112.0077	4.51
NSLRWCD	NSLRWCD #37	113.0077	4.55
NSLRWCD	NSLRWCD #37	114.0077	4.60
NSLRWCD	NSLRWCD #37	115.0077	4.64
NSLRWCD	NSLRWCD #37	116.0077	4.69
NSLRWCD	NSLRWCD #37	117.0077	4.73
NSLRWCD	NSLRWCD #37	118.0077	4.78
NSLRWCD	NSLRWCD #37	119.0077	4.82
NSLRWCD	NSLRWCD #37	120.0077	4.87
NSLRWCD	NSLRWCD #37	121.0077	4.91
NSLRWCD	NSLRWCD #37	122.0077	4.96

REGATTA APARTMENTS
STORMWATER ROUTING MODEL
OUTFALL VOLUME TOTALS
JULY 2024

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]
NSLRWCD	NSLRWCD #37	123.0077	5.00
NSLRWCD	NSLRWCD #37	124.0077	5.04
NSLRWCD	NSLRWCD #37	125.0077	5.09
NSLRWCD	NSLRWCD #37	126.0077	5.13
NSLRWCD	NSLRWCD #37	127.0077	5.18
NSLRWCD	NSLRWCD #37	128.0077	5.22
NSLRWCD	NSLRWCD #37	129.0077	5.26
NSLRWCD	NSLRWCD #37	130.0077	5.30
NSLRWCD	NSLRWCD #37	131.0077	5.35
NSLRWCD	NSLRWCD #37	132.0077	5.39
NSLRWCD	NSLRWCD #37	133.0077	5.43
NSLRWCD	NSLRWCD #37	134.0077	5.47
NSLRWCD	NSLRWCD #37	135.0077	5.52
NSLRWCD	NSLRWCD #37	136.0077	5.56
NSLRWCD	NSLRWCD #37	137.0077	5.60
NSLRWCD	NSLRWCD #37	138.0077	5.64
NSLRWCD	NSLRWCD #37	139.0077	5.68
NSLRWCD	NSLRWCD #37	140.0077	5.72
NSLRWCD	NSLRWCD #37	141.0077	5.76
NSLRWCD	NSLRWCD #37	142.0077	5.80
NSLRWCD	NSLRWCD #37	143.0077	5.85
NSLRWCD	NSLRWCD #37	144.0077	5.89
NSLRWCD	NSLRWCD #37	145.0077	5.93
NSLRWCD	NSLRWCD #37	146.0077	5.97
NSLRWCD	NSLRWCD #37	147.0077	6.01
NSLRWCD	NSLRWCD #37	148.0077	6.05
NSLRWCD	NSLRWCD #37	149.0077	6.08
NSLRWCD	NSLRWCD #37	150.0077	6.12
NSLRWCD	NSLRWCD #37	151.0077	6.16
NSLRWCD	NSLRWCD #37	152.0077	6.20
NSLRWCD	NSLRWCD #37	153.0077	6.24
NSLRWCD	NSLRWCD #37	154.0077	6.28
NSLRWCD	NSLRWCD #37	155.0077	6.32
NSLRWCD	NSLRWCD #37	156.0077	6.36
NSLRWCD	NSLRWCD #37	157.0077	6.39
NSLRWCD	NSLRWCD #37	158.0077	6.43
NSLRWCD	NSLRWCD #37	159.0077	6.47
NSLRWCD	NSLRWCD #37	160.0077	6.51
NSLRWCD	NSLRWCD #37	161.0077	6.54
NSLRWCD	NSLRWCD #37	162.0077	6.58
NSLRWCD	NSLRWCD #37	163.0077	6.62

REGATTA APARTMENTS
STORMWATER ROUTING MODEL
OUTFALL VOLUME TOTALS
JULY 2024

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]
NSLRWCD	NSLRWCD #37	164.0077	6.65
NSLRWCD	NSLRWCD #37	165.0077	6.69
NSLRWCD	NSLRWCD #37	166.0077	6.73
NSLRWCD	NSLRWCD #37	167.0077	6.76
NSLRWCD	NSLRWCD #37	168.0077	6.80
NSLRWCD	NSLRWCD #37	169.0077	6.84
NSLRWCD	NSLRWCD #37	170.0077	6.87
NSLRWCD	NSLRWCD #37	171.0077	6.91
NSLRWCD	NSLRWCD #37	172.0077	6.94
NSLRWCD	NSLRWCD #37	173.0077	6.98
NSLRWCD	NSLRWCD #37	174.0077	7.01
NSLRWCD	NSLRWCD #37	175.0077	7.05
NSLRWCD	NSLRWCD #37	176.0077	7.08
NSLRWCD	NSLRWCD #37	177.0077	7.12
NSLRWCD	NSLRWCD #37	178.0077	7.15
NSLRWCD	NSLRWCD #37	179.0077	7.18
NSLRWCD	NSLRWCD #37	180.0077	7.22
NSLRWCD	NSLRWCD #37	181.0077	7.25
NSLRWCD	NSLRWCD #37	182.0077	7.28
NSLRWCD	NSLRWCD #37	183.0077	7.32
NSLRWCD	NSLRWCD #37	184.0077	7.35
NSLRWCD	NSLRWCD #37	185.0077	7.38
NSLRWCD	NSLRWCD #37	186.0077	7.42
NSLRWCD	NSLRWCD #37	187.0077	7.45
NSLRWCD	NSLRWCD #37	188.0077	7.48
NSLRWCD	NSLRWCD #37	189.0077	7.51
NSLRWCD	NSLRWCD #37	190.0077	7.54
NSLRWCD	NSLRWCD #37	191.0077	7.58
NSLRWCD	NSLRWCD #37	192.0077	7.61
NSLRWCD	NSLRWCD #37	193.0077	7.64
NSLRWCD	NSLRWCD #37	194.0077	7.67
NSLRWCD	NSLRWCD #37	195.0077	7.70
NSLRWCD	NSLRWCD #37	196.0077	7.73
NSLRWCD	NSLRWCD #37	197.0077	7.76
NSLRWCD	NSLRWCD #37	198.0077	7.79
NSLRWCD	NSLRWCD #37	199.0077	7.82
NSLRWCD	NSLRWCD #37	200.0077	7.85
NSLRWCD	NSLRWCD #37	201.0077	7.88
NSLRWCD	NSLRWCD #37	202.0077	7.91
NSLRWCD	NSLRWCD #37	203.0077	7.94
NSLRWCD	NSLRWCD #37	204.0077	7.97

REGATTA APARTMENTS
STORMWATER ROUTING MODEL
OUTFALL VOLUME TOTALS
JULY 2024

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]
NSLRWCD	NSLRWCD #37	205.0077	8.00
NSLRWCD	NSLRWCD #37	206.0077	8.03
NSLRWCD	NSLRWCD #37	207.0077	8.06
NSLRWCD	NSLRWCD #37	208.0077	8.09
NSLRWCD	NSLRWCD #37	209.0077	8.11
NSLRWCD	NSLRWCD #37	210.0077	8.14
NSLRWCD	NSLRWCD #37	211.0077	8.17
NSLRWCD	NSLRWCD #37	212.0077	8.20
NSLRWCD	NSLRWCD #37	213.0077	8.23
NSLRWCD	NSLRWCD #37	214.0077	8.25
NSLRWCD	NSLRWCD #37	215.0077	8.28
NSLRWCD	NSLRWCD #37	216.0077	8.31
NSLRWCD	NSLRWCD #37	217.0077	8.33
NSLRWCD	NSLRWCD #37	218.0077	8.36
NSLRWCD	NSLRWCD #37	219.0077	8.39
NSLRWCD	NSLRWCD #37	220.0077	8.41
NSLRWCD	NSLRWCD #37	221.0077	8.44
NSLRWCD	NSLRWCD #37	222.0077	8.46
NSLRWCD	NSLRWCD #37	223.0077	8.49
NSLRWCD	NSLRWCD #37	224.0077	8.52
NSLRWCD	NSLRWCD #37	225.0077	8.54
NSLRWCD	NSLRWCD #37	226.0077	8.57
NSLRWCD	NSLRWCD #37	227.0077	8.59
NSLRWCD	NSLRWCD #37	228.0077	8.62
NSLRWCD	NSLRWCD #37	229.0077	8.64
NSLRWCD	NSLRWCD #37	230.0077	8.66
NSLRWCD	NSLRWCD #37	231.0077	8.69
NSLRWCD	NSLRWCD #37	232.0077	8.71
NSLRWCD	NSLRWCD #37	233.0077	8.74
NSLRWCD	NSLRWCD #37	234.0077	8.76
NSLRWCD	NSLRWCD #37	235.0077	8.78
NSLRWCD	NSLRWCD #37	236.0077	8.81
NSLRWCD	NSLRWCD #37	237.0077	8.83
NSLRWCD	NSLRWCD #37	238.0077	8.85
NSLRWCD	NSLRWCD #37	239.0077	8.87
NSLRWCD	NSLRWCD #37	240.0077	8.90
NSLRWCD	NSLRWCD #37	241.0077	8.92
NSLRWCD	NSLRWCD #37	242.0077	8.94
NSLRWCD	NSLRWCD #37	243.0077	8.96
NSLRWCD	NSLRWCD #37	244.0077	8.98
NSLRWCD	NSLRWCD #37	245.0077	9.00

REGATTA APARTMENTS
STORMWATER ROUTING MODEL
OUTFALL VOLUME TOTALS
JULY 2024

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]
NSLRWCD	NSLRWCD #37	246.0077	9.02
NSLRWCD	NSLRWCD #37	247.0077	9.05
NSLRWCD	NSLRWCD #37	248.0077	9.07
NSLRWCD	NSLRWCD #37	249.0077	9.09
NSLRWCD	NSLRWCD #37	250.0077	9.11
NSLRWCD	NSLRWCD #37	251.0077	9.13
NSLRWCD	NSLRWCD #37	252.0077	9.15
NSLRWCD	NSLRWCD #37	253.0077	9.17
NSLRWCD	NSLRWCD #37	254.0077	9.19
NSLRWCD	NSLRWCD #37	255.0077	9.21
NSLRWCD	NSLRWCD #37	256.0077	9.22
NSLRWCD	NSLRWCD #37	257.0077	9.24
NSLRWCD	NSLRWCD #37	258.0077	9.26
NSLRWCD	NSLRWCD #37	259.0077	9.28
NSLRWCD	NSLRWCD #37	260.0077	9.30
NSLRWCD	NSLRWCD #37	261.0077	9.32
NSLRWCD	NSLRWCD #37	262.0077	9.34
NSLRWCD	NSLRWCD #37	263.0077	9.35
NSLRWCD	NSLRWCD #37	264.0077	9.37
NSLRWCD	NSLRWCD #37	265.0077	9.39
NSLRWCD	NSLRWCD #37	266.0077	9.40
NSLRWCD	NSLRWCD #37	267.0077	9.42
NSLRWCD	NSLRWCD #37	268.0077	9.44
NSLRWCD	NSLRWCD #37	269.0077	9.45
NSLRWCD	NSLRWCD #37	270.0077	9.47
NSLRWCD	NSLRWCD #37	271.0077	9.49
NSLRWCD	NSLRWCD #37	272.0077	9.50
NSLRWCD	NSLRWCD #37	273.0077	9.52
NSLRWCD	NSLRWCD #37	274.0077	9.53
NSLRWCD	NSLRWCD #37	275.0077	9.55
NSLRWCD	NSLRWCD #37	276.0077	9.56
NSLRWCD	NSLRWCD #37	277.0077	9.58
NSLRWCD	NSLRWCD #37	278.0077	9.59
NSLRWCD	NSLRWCD #37	279.0077	9.60
NSLRWCD	NSLRWCD #37	280.0077	9.62
NSLRWCD	NSLRWCD #37	281.0077	9.63
NSLRWCD	NSLRWCD #37	282.0077	9.64
NSLRWCD	NSLRWCD #37	283.0077	9.65
NSLRWCD	NSLRWCD #37	284.0077	9.67
NSLRWCD	NSLRWCD #37	285.0077	9.68
NSLRWCD	NSLRWCD #37	286.0077	9.69

REGATTA APARTMENTS
STORMWATER ROUTING MODEL
OUTFALL VOLUME TOTALS
JULY 2024

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]
NSLRWCD	NSLRWCD #37	287.0077	9.70
NSLRWCD	NSLRWCD #37	288.0077	9.71
NSLRWCD	NSLRWCD #37	289.0077	9.73
NSLRWCD	NSLRWCD #37	290.0077	9.74
NSLRWCD	NSLRWCD #37	291.0077	9.75
NSLRWCD	NSLRWCD #37	292.0077	9.76
NSLRWCD	NSLRWCD #37	293.0077	9.77
NSLRWCD	NSLRWCD #37	294.0077	9.78
NSLRWCD	NSLRWCD #37	295.0077	9.79
NSLRWCD	NSLRWCD #37	296.0077	9.80
NSLRWCD	NSLRWCD #37	297.0077	9.81
NSLRWCD	NSLRWCD #37	298.0077	9.82
NSLRWCD	NSLRWCD #37	299.0077	9.83
NSLRWCD	NSLRWCD #37	300.0077	9.84
NSLRWCD	NSLRWCD #37	301.0077	9.85
NSLRWCD	NSLRWCD #37	302.0077	9.86
NSLRWCD	NSLRWCD #37	303.0077	9.87
NSLRWCD	NSLRWCD #37	304.0077	9.88
NSLRWCD	NSLRWCD #37	305.0077	9.88
NSLRWCD	NSLRWCD #37	306.0077	9.89
NSLRWCD	NSLRWCD #37	307.0077	9.90
NSLRWCD	NSLRWCD #37	308.0077	9.91
NSLRWCD	NSLRWCD #37	309.0077	9.92
NSLRWCD	NSLRWCD #37	310.0077	9.92
NSLRWCD	NSLRWCD #37	311.0077	9.93
NSLRWCD	NSLRWCD #37	312.0077	9.94
NSLRWCD	NSLRWCD #37	313.0077	9.95
NSLRWCD	NSLRWCD #37	314.0077	9.95
NSLRWCD	NSLRWCD #37	315.0077	9.96
NSLRWCD	NSLRWCD #37	316.0077	9.97
NSLRWCD	NSLRWCD #37	317.0077	9.97
NSLRWCD	NSLRWCD #37	318.0077	9.98
NSLRWCD	NSLRWCD #37	319.0077	9.99
NSLRWCD	NSLRWCD #37	320.0077	9.99
NSLRWCD	NSLRWCD #37	321.0077	10.00
NSLRWCD	NSLRWCD #37	322.0077	10.01
NSLRWCD	NSLRWCD #37	323.0077	10.01
NSLRWCD	NSLRWCD #37	324.0077	10.02
NSLRWCD	NSLRWCD #37	325.0077	10.02
NSLRWCD	NSLRWCD #37	326.0077	10.03
NSLRWCD	NSLRWCD #37	327.0077	10.04

REGATTA APARTMENTS
STORMWATER ROUTING MODEL
OUTFALL VOLUME TOTALS
JULY 2024

Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ac_ft]
NSLRWCD	NSLRWCD #37	328.0077	10.04
NSLRWCD	NSLRWCD #37	329.0077	10.05
NSLRWCD	NSLRWCD #37	330.0077	10.05
NSLRWCD	NSLRWCD #37	331.0077	10.06
NSLRWCD	NSLRWCD #37	332.0077	10.06
NSLRWCD	NSLRWCD #37	333.0077	10.07
NSLRWCD	NSLRWCD #37	334.0077	10.07
NSLRWCD	NSLRWCD #37	335.0077	10.08
NSLRWCD	NSLRWCD #37	336.0077	10.08
NSLRWCD	NSLRWCD #37	337.0077	10.09
NSLRWCD	NSLRWCD #37	338.0077	10.09
NSLRWCD	NSLRWCD #37	339.0077	10.10
NSLRWCD	NSLRWCD #37	340.0077	10.10
NSLRWCD	NSLRWCD #37	341.0077	10.10
NSLRWCD	NSLRWCD #37	342.0077	10.11
NSLRWCD	NSLRWCD #37	343.0077	10.11
NSLRWCD	NSLRWCD #37	344.0077	10.12
NSLRWCD	NSLRWCD #37	345.0077	10.12
NSLRWCD	NSLRWCD #37	346.0077	10.12
NSLRWCD	NSLRWCD #37	347.0077	10.13
NSLRWCD	NSLRWCD #37	348.0077	10.13
NSLRWCD	NSLRWCD #37	349.0077	10.14
NSLRWCD	NSLRWCD #37	350.0077	10.14
NSLRWCD	NSLRWCD #37	351.0077	10.14
NSLRWCD	NSLRWCD #37	352.0077	10.15
NSLRWCD	NSLRWCD #37	353.0077	10.15
NSLRWCD	NSLRWCD #37	354.0077	10.15
NSLRWCD	NSLRWCD #37	355.0077	10.16
NSLRWCD	NSLRWCD #37	356.0077	10.16
NSLRWCD	NSLRWCD #37	357.0077	10.16
NSLRWCD	NSLRWCD #37	358.0077	10.17
NSLRWCD	NSLRWCD #37	359.0077	10.17
NSLRWCD	NSLRWCD #37	360.0077	10.17

REGATTA APARTMENTS
STROMWATER ROUTING MODEL
OUTFALL VOLUME ANALYSIS (Elevated Start)
JULY 2024

Sim	ICPR Node Name	Time (hour)	Stage (feet)	Total Inflow Volume (AC-ft)	Cumulative 24hr Discharge
NSLRWCD	NSLRWCD #37	0.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	1.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	2.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	3.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	4.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	5.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	6.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	7.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	8.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	9.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	10.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	11.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	12.00	0.00	0.00	0.00
NSLRWCD	NSLRWCD #37	13.00	0.01	0.01	0.01
NSLRWCD	NSLRWCD #37	14.00	0.01	0.01	0.01
NSLRWCD	NSLRWCD #37	15.00	0.01	0.01	0.01
NSLRWCD	NSLRWCD #37	16.00	0.01	0.01	0.01
NSLRWCD	NSLRWCD #37	17.00	0.01	0.01	0.01
NSLRWCD	NSLRWCD #37	18.00	0.02	0.02	0.02
NSLRWCD	NSLRWCD #37	19.00	0.02	0.02	0.02
NSLRWCD	NSLRWCD #37	20.00	0.02	0.02	0.02
NSLRWCD	NSLRWCD #37	21.00	0.03	0.03	0.03
NSLRWCD	NSLRWCD #37	22.00	0.03	0.03	0.03
NSLRWCD	NSLRWCD #37	23.00	0.04	0.04	0.04
NSLRWCD	NSLRWCD #37	24.00	0.04	0.04	0.04
NSLRWCD	NSLRWCD #37	25.00	0.05	0.05	0.05
NSLRWCD	NSLRWCD #37	26.00	0.06	0.06	0.06
NSLRWCD	NSLRWCD #37	27.00	0.06	0.07	0.07
NSLRWCD	NSLRWCD #37	28.00	0.07	0.07	0.07
NSLRWCD	NSLRWCD #37	29.00	0.08	0.08	0.08
NSLRWCD	NSLRWCD #37	30.00	0.09	0.09	0.09
NSLRWCD	NSLRWCD #37	31.00	0.10	0.11	0.11
NSLRWCD	NSLRWCD #37	32.00	0.11	0.12	0.12
NSLRWCD	NSLRWCD #37	33.00	0.13	0.13	0.13
NSLRWCD	NSLRWCD #37	34.00	0.14	0.14	0.14
NSLRWCD	NSLRWCD #37	35.00	0.15	0.16	0.16
NSLRWCD	NSLRWCD #37	36.00	0.17	0.18	0.18
NSLRWCD	NSLRWCD #37	37.00	0.18	0.19	0.18
NSLRWCD	NSLRWCD #37	38.00	0.20	0.21	0.20

REGATTA APARTMENTS
STROMWATER ROUTING MODEL
OUTFALL VOLUME ANALYSIS (Elevated Start)
JULY 2024

Sim	ICPR Node Name	Time (hour)	Stage (feet)	Total Inflow Volume (AC-ft)	Cumulative 24hr Discharge
NSLRWCD	NSLRWCD #37	39.00	0.22	0.23	0.22
NSLRWCD	NSLRWCD #37	40.00	0.24	0.25	0.24
NSLRWCD	NSLRWCD #37	41.00	0.26	0.26	0.25
NSLRWCD	NSLRWCD #37	42.00	0.27	0.28	0.26
NSLRWCD	NSLRWCD #37	43.00	0.29	0.30	0.28
NSLRWCD	NSLRWCD #37	44.00	0.31	0.32	0.30
NSLRWCD	NSLRWCD #37	45.00	0.33	0.34	0.31
NSLRWCD	NSLRWCD #37	46.00	0.35	0.37	0.34
NSLRWCD	NSLRWCD #37	47.00	0.37	0.39	0.35
NSLRWCD	NSLRWCD #37	48.00	0.40	0.41	0.37
NSLRWCD	NSLRWCD #37	49.00	0.42	0.43	0.38
NSLRWCD	NSLRWCD #37	50.00	0.44	0.45	0.39
NSLRWCD	NSLRWCD #37	51.00	0.45	0.47	0.40
NSLRWCD	NSLRWCD #37	52.00	0.47	0.48	0.41
NSLRWCD	NSLRWCD #37	53.00	0.48	0.50	0.42
NSLRWCD	NSLRWCD #37	54.00	0.49	0.51	0.42
NSLRWCD	NSLRWCD #37	55.00	0.50	0.52	0.41
NSLRWCD	NSLRWCD #37	56.00	0.50	0.53	0.41
NSLRWCD	NSLRWCD #37	57.00	0.51	0.54	0.41
NSLRWCD	NSLRWCD #37	58.00	0.51	0.54	0.40
NSLRWCD	NSLRWCD #37	59.00	0.52	0.56	0.40
NSLRWCD	NSLRWCD #37	60.00	0.53	0.57	0.39
NSLRWCD	NSLRWCD #37	61.00	0.57	0.62	0.43
NSLRWCD	NSLRWCD #37	62.01	0.66	0.77	0.56
NSLRWCD	NSLRWCD #37	63.01	0.84	1.00	0.77
NSLRWCD	NSLRWCD #37	64.01	1.06	1.26	1.01
NSLRWCD	NSLRWCD #37	65.01	1.28	1.50	1.24
NSLRWCD	NSLRWCD #37	66.01	1.49	1.72	1.44
NSLRWCD	NSLRWCD #37	67.01	1.67	1.92	1.62
NSLRWCD	NSLRWCD #37	68.01	1.85	2.10	1.78
NSLRWCD	NSLRWCD #37	69.01	2.02	2.27	1.93
NSLRWCD	NSLRWCD #37	70.01	2.16	2.42	2.05
NSLRWCD	NSLRWCD #37	71.01	2.30	2.55	2.16
NSLRWCD	NSLRWCD #37	72.01	2.43	2.68	2.27
NSLRWCD	NSLRWCD #37	73.01	2.54	2.79	2.36
NSLRWCD	NSLRWCD #37	74.01	2.62	2.87	2.42
NSLRWCD	NSLRWCD #37	75.01	2.69	2.94	2.47
NSLRWCD	NSLRWCD #37	76.01	2.74	2.99	2.51

REGATTA APARTMENTS
STROMWATER ROUTING MODEL
OUTFALL VOLUME ANALYSIS (Elevated Start)
JULY 2024

Sim	ICPR Node Name	Time (hour)	Stage (feet)	Total Inflow Volume (AC-ft)	Cumulative 24hr Discharge
NSLRWCD	NSLRWCD #37	77.01	2.79	3.05	2.55
NSLRWCD	NSLRWCD #37	78.01	2.85	3.10	2.59
NSLRWCD	NSLRWCD #37	79.01	2.90	3.15	2.63
NSLRWCD	NSLRWCD #37	80.01	2.95	3.21	2.68
NSLRWCD	NSLRWCD #37	81.01	3.00	3.26	2.72
NSLRWCD	NSLRWCD #37	82.01	3.05	3.31	2.77
NSLRWCD	NSLRWCD #37	83.01	3.10	3.37	2.81
NSLRWCD	NSLRWCD #37	84.01	3.15	3.42	2.85
NSLRWCD	NSLRWCD #37	85.01	3.20	3.47	2.85
NSLRWCD	NSLRWCD #37	86.01	3.25	3.52	2.75
NSLRWCD	NSLRWCD #37	87.01	3.30	3.58	2.58
NSLRWCD	NSLRWCD #37	88.01	3.35	3.63	2.37
NSLRWCD	NSLRWCD #37	89.01	3.40	3.68	2.18
NSLRWCD	NSLRWCD #37	90.01	3.45	3.73	2.01
NSLRWCD	NSLRWCD #37	91.01	3.50	3.78	1.86
NSLRWCD	NSLRWCD #37	92.01	3.55	3.83	1.73
NSLRWCD	NSLRWCD #37	93.01	3.60	3.88	1.61
NSLRWCD	NSLRWCD #37	94.01	3.65	3.93	1.51
NSLRWCD	NSLRWCD #37	95.01	3.70	3.98	1.43
NSLRWCD	NSLRWCD #37	96.01	3.75	4.03	1.35
NSLRWCD	NSLRWCD #37	97.01	3.80	4.08	1.29
NSLRWCD	NSLRWCD #37	98.01	3.85	4.13	1.26
NSLRWCD	NSLRWCD #37	99.01	3.89	4.18	1.24
NSLRWCD	NSLRWCD #37	100.01	3.94	4.23	1.24
NSLRWCD	NSLRWCD #37	101.01	3.99	4.28	1.23
NSLRWCD	NSLRWCD #37	102.01	4.04	4.33	1.23
NSLRWCD	NSLRWCD #37	103.01	4.09	4.38	1.23
NSLRWCD	NSLRWCD #37	104.01	4.13	4.43	1.22
NSLRWCD	NSLRWCD #37	105.01	4.18	4.48	1.22
NSLRWCD	NSLRWCD #37	106.01	4.23	4.53	1.22
NSLRWCD	NSLRWCD #37	107.01	4.27	4.57	1.20
NSLRWCD	NSLRWCD #37	108.01	4.32	4.62	1.20
NSLRWCD	NSLRWCD #37	109.01	4.37	4.67	1.20
NSLRWCD	NSLRWCD #37	110.01	4.41	4.72	1.20
NSLRWCD	NSLRWCD #37	111.01	4.46	4.77	1.19
NSLRWCD	NSLRWCD #37	112.01	4.51	4.81	1.18
NSLRWCD	NSLRWCD #37	113.01	4.55	4.86	1.18
NSLRWCD	NSLRWCD #37	114.01	4.60	4.91	1.18

REGATTA APARTMENTS
STROMWATER ROUTING MODEL
OUTFALL VOLUME ANALYSIS (Elevated Start)
JULY 2024

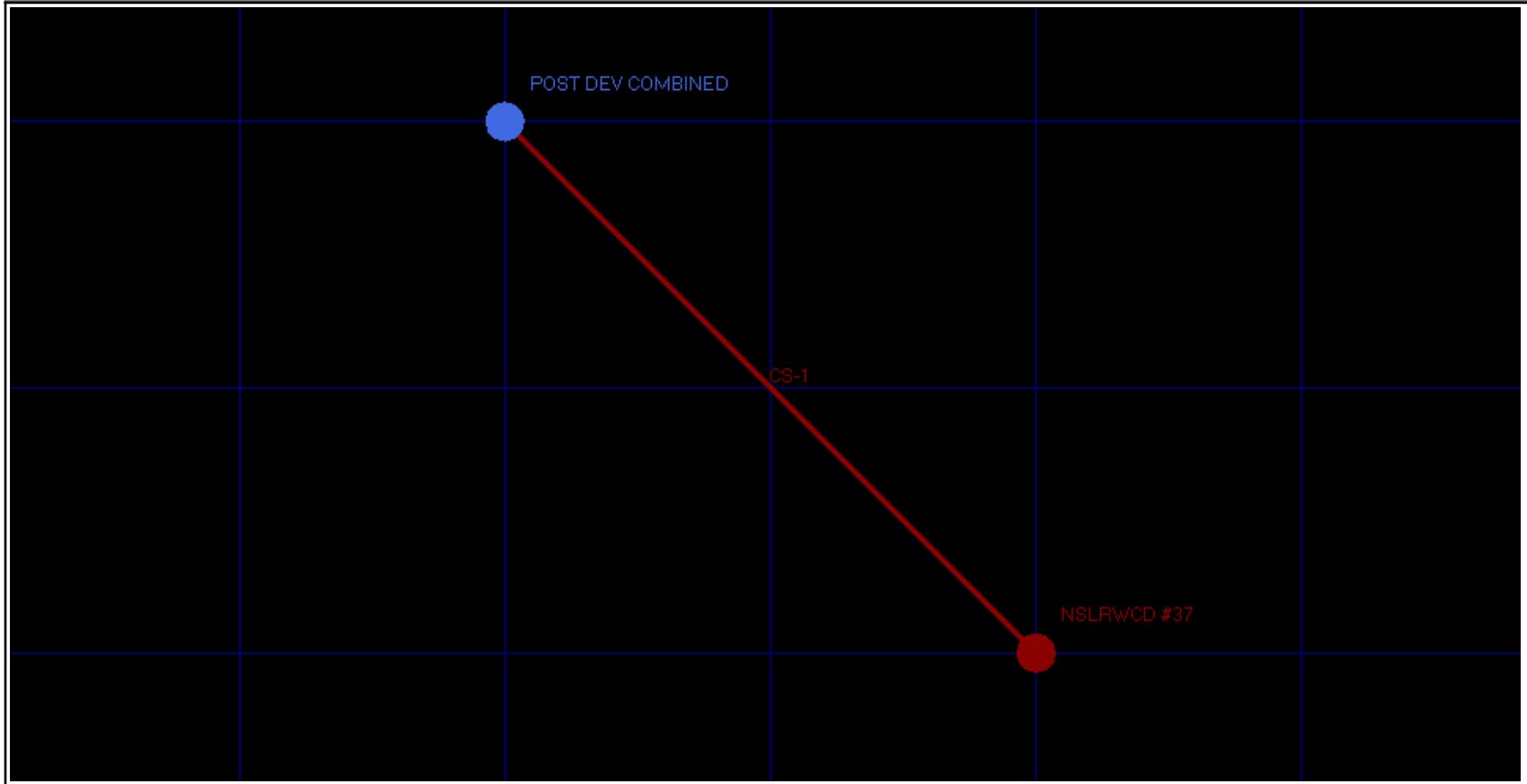
Sim	ICPR Node Name	Time (hour)	Stage (feet)	Total Inflow Volume (AC-ft)	Cumulative 24hr Discharge
NSLRWCD	NSLRWCD #37	115.01	4.64	4.95	1.17
NSLRWCD	NSLRWCD #37	116.01	4.69	5.00	1.17
NSLRWCD	NSLRWCD #37	117.01	4.73	5.04	1.16
NSLRWCD	NSLRWCD #37	118.01	4.78	5.09	1.16
NSLRWCD	NSLRWCD #37	119.01	4.82	5.14	1.16
NSLRWCD	NSLRWCD #37	120.01	4.87	5.18	1.15
NSLRWCD	NSLRWCD #37	121.01	4.91	5.23	1.15
NSLRWCD	NSLRWCD #37	122.01	4.96	5.27	1.14
NSLRWCD	NSLRWCD #37	123.01	5.00	5.32	1.14
NSLRWCD	NSLRWCD #37	124.01	5.04	5.36	1.13
NSLRWCD	NSLRWCD #37	125.01	5.09	5.41	1.13
NSLRWCD	NSLRWCD #37	126.01	5.13	5.45	1.12
NSLRWCD	NSLRWCD #37	127.01	5.18	5.49	1.11
NSLRWCD	NSLRWCD #37	128.01	5.22	5.54	1.11
NSLRWCD	NSLRWCD #37	129.01	5.26	5.58	1.10
NSLRWCD	NSLRWCD #37	130.01	5.30	5.63	1.10
NSLRWCD	NSLRWCD #37	131.01	5.35	5.67	1.10
NSLRWCD	NSLRWCD #37	132.01	5.39	5.71	1.09
NSLRWCD	NSLRWCD #37	133.01	5.43	5.75	1.08
NSLRWCD	NSLRWCD #37	134.01	5.47	5.80	1.08
NSLRWCD	NSLRWCD #37	135.01	5.52	5.84	1.07
NSLRWCD	NSLRWCD #37	136.01	5.56	5.88	1.07
NSLRWCD	NSLRWCD #37	137.01	5.60	5.92	1.06
NSLRWCD	NSLRWCD #37	138.01	5.64	5.97	1.06
NSLRWCD	NSLRWCD #37	139.01	5.68	6.01	1.06
NSLRWCD	NSLRWCD #37	140.01	5.72	6.05	1.05
NSLRWCD	NSLRWCD #37	141.01	5.76	6.09	1.05
NSLRWCD	NSLRWCD #37	142.01	5.80	6.13	1.04
NSLRWCD	NSLRWCD #37	143.01	5.85	6.17	1.03
NSLRWCD	NSLRWCD #37	144.01	5.89	6.21	1.03
NSLRWCD	NSLRWCD #37	145.01	5.93	6.25	1.02
NSLRWCD	NSLRWCD #37	146.01	5.97	6.29	1.02
NSLRWCD	NSLRWCD #37	147.01	6.01	6.33	1.01
NSLRWCD	NSLRWCD #37	148.01	6.05	6.37	1.01
NSLRWCD	NSLRWCD #37	149.01	6.08	6.41	1.00
NSLRWCD	NSLRWCD #37	150.01	6.12	6.45	1.00
NSLRWCD	NSLRWCD #37	151.01	6.16	6.49	1.00
NSLRWCD	NSLRWCD #37	152.01	6.20	6.53	0.99

Appendix C

ICPR Recovery Model

REGATTA APARTMENTS
STORMWATER RECOVERY MODEL
SIMULATION RESULTS
JULY 2024

Background Image: RECOVERY



Simulation: RECOVERY

Scenario: RECOVERY
Run Date/Time: 7/10/2024 12:45:43 PM
Program Version: ICPR4 4.07.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	288.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources		Lookup Tables	
Rainfall Folder:		Boundary Stage Set:	
		Extern Hydrograph Set:	
Unit Hydrograph Folder:		Curve Number Set:	
		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	

Tolerances & Options			
Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain Opt:	No Rainfall
Max dZ:	1.0000 ft		
Link Optimizer Tol:	0.0001 ft		
Edge Length Option:	Automatic		
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Sim	Node Name	Relative Time [hrs]	Stage [ft]
10YR-72HR	POST DEV COMBINED	71.7577	14.69
10YR-72HR	POST DEV COMBINED	72.0077	14.69
10YR-72HR	POST DEV COMBINED	72.2577	14.69
10YR-72HR	POST DEV COMBINED	72.5077	14.68
10YR-72HR	POST DEV COMBINED	72.7577	14.67
10YR-72HR	POST DEV COMBINED	73.0077	14.66
10YR-72HR	POST DEV COMBINED	73.2577	14.66
10YR-72HR	POST DEV COMBINED	73.5077	14.65
10YR-72HR	POST DEV COMBINED	73.7577	14.65
10YR-72HR	POST DEV COMBINED	74.0077	14.64
10YR-72HR	POST DEV COMBINED	74.2577	14.63
10YR-72HR	POST DEV COMBINED	74.5077	14.63
10YR-72HR	POST DEV COMBINED	74.7577	14.63
10YR-72HR	POST DEV COMBINED	75.0077	14.62
10YR-72HR	POST DEV COMBINED	75.2577	14.62
10YR-72HR	POST DEV COMBINED	75.5077	14.61
10YR-72HR	POST DEV COMBINED	75.7577	14.61
10YR-72HR	POST DEV COMBINED	76.0077	14.60
10YR-72HR	POST DEV COMBINED	76.2577	14.60
10YR-72HR	POST DEV COMBINED	76.5077	14.60
10YR-72HR	POST DEV COMBINED	76.7577	14.59
10YR-72HR	POST DEV COMBINED	77.0077	14.59
10YR-72HR	POST DEV COMBINED	77.2577	14.59
10YR-72HR	POST DEV COMBINED	77.5077	14.58
10YR-72HR	POST DEV COMBINED	77.7577	14.58
10YR-72HR	POST DEV COMBINED	78.0077	14.57
10YR-72HR	POST DEV COMBINED	78.2577	14.57
10YR-72HR	POST DEV COMBINED	78.5077	14.57
10YR-72HR	POST DEV COMBINED	78.7577	14.56
10YR-72HR	POST DEV COMBINED	79.0077	14.56
10YR-72HR	POST DEV COMBINED	79.2577	14.56
10YR-72HR	POST DEV COMBINED	79.5077	14.55
10YR-72HR	POST DEV COMBINED	79.7577	14.55
10YR-72HR	POST DEV COMBINED	80.0077	14.55
10YR-72HR	POST DEV COMBINED	80.2577	14.54
10YR-72HR	POST DEV COMBINED	80.5077	14.54
10YR-72HR	POST DEV COMBINED	80.7577	14.53
10YR-72HR	POST DEV COMBINED	81.0077	14.53
10YR-72HR	POST DEV COMBINED	81.2577	14.53
10YR-72HR	POST DEV COMBINED	81.5077	14.52
10YR-72HR	POST DEV COMBINED	81.7577	14.52

Link: CS-1

Scenario: RECOVERY
Type: Drop Structure
From Node: POST DEV COMBINED
To Node: NSLRWCD #37
Link Count: 1
Flow Direction: Both

Link Min/Max Conditions [RECOVERY]

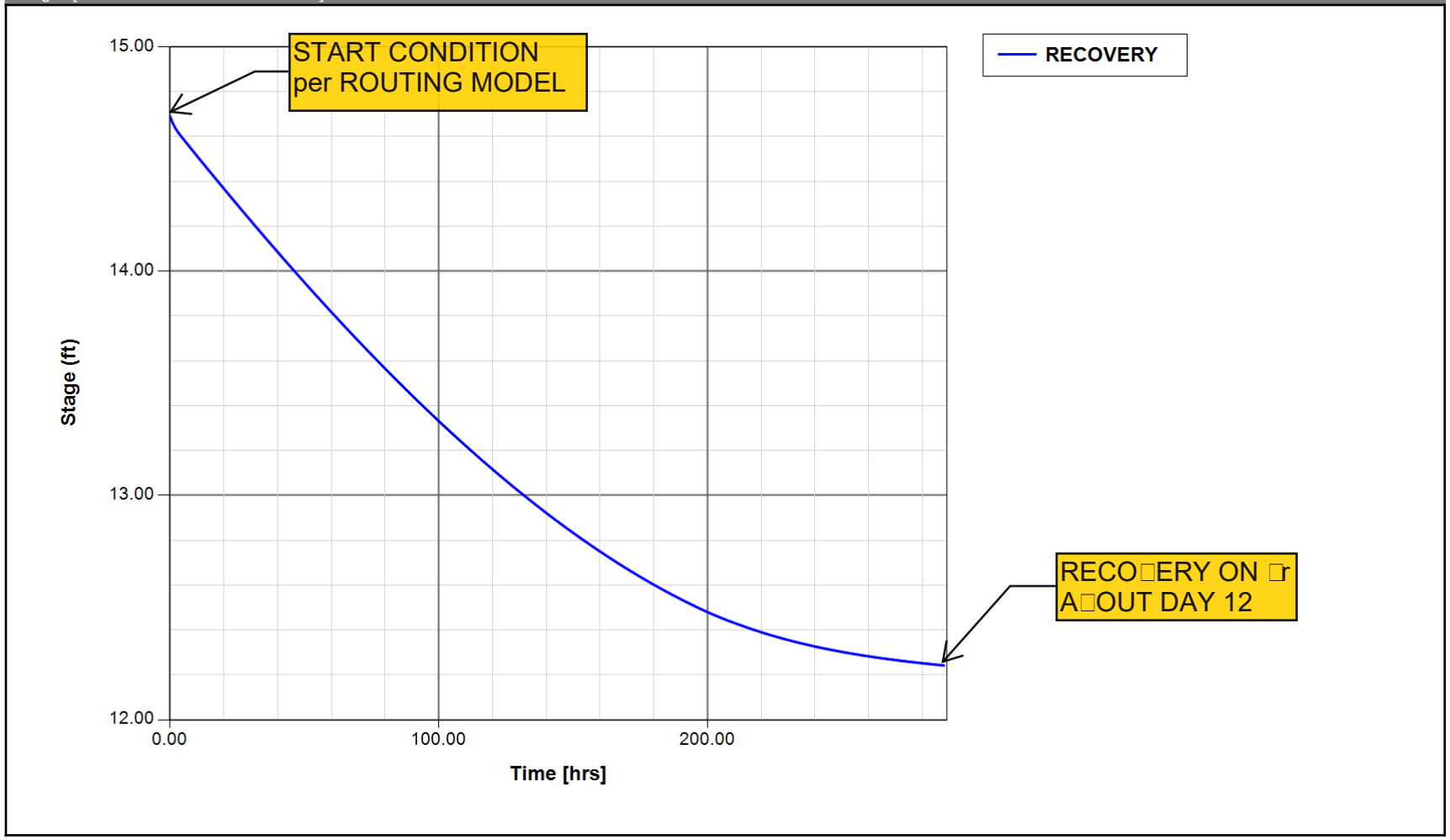
Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
CS-1 - Pipe	RECOVERY	1.50	0.00	1.50	0.00	0.00	0.00
CS-1 - Weir: 1	RECOVERY	0.64	0.00	0.00	7.49	7.49	7.49
CS-1 - Weir: 2	RECOVERY	0.86	0.00	0.00	0.96	0.96	0.96

Node Max Conditions [RECOVERY]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
POST DEV COMBINED	RECOVERY	12.10	14.69	-0.0002	0.00	1.50	153035

START CONDITION per 10yr-72hr ROUTING MODEL

Stage [Node: POST DEV COMBINED]



Appendix D

BMPTRAINS Nutrient Abatement Report

BMPTRAINS Complete Report Ver 4.3.2

Project: REGATTA APARTMENTS Date: 7/9/2024 1:45:24 PM

Site and Catchment Information

Catchment Name	REGATTA APARTMENTS
Rainfall Zone	Florida Zone 2
Annual Mean Rainfall	54.00

Pre-Condition Landuse Information

Landuse	SJRWMD Apopka Forests/Abandoned Tree Crops: TN=1.250 TP=0.080
Area (acres)	17.42
Rational Coefficient (0-1)	0.08
Non DCIA Curve Number	75.00
DCIA Percent (0-100)	0.00
Nitrogen EMC (mg/l)	1.250
Phosphorus EMC (mg/l)	0.080
Runoff Volume (ac-ft/yr)	6.193
Groundwater N (kg/yr)	0.000
Groundwater P (kg/yr)	0.000
Nitrogen Loading (kg/yr)	9.545
Phosphorus Loading (kg/yr)	0.611

Post-Condition Landuse Information

Landuse	Multi-Family: TN=2.320 TP=0.520
Area (acres)	17.42
Rational Coefficient (0-1)	0.40
Non DCIA Curve Number	85.00
DCIA Percent (0-100)	36.27
Wet Pond Area (ac)	2.63
Nitrogen EMC (mg/l)	2.320
Phosphorus EMC (mg/l)	0.520
Runoff Volume (ac-ft/yr)	26.315
Groundwater N (kg/yr)	0.000
Groundwater P (kg/yr)	0.000
Nitrogen Loading (kg/yr)	75.275
Phosphorus Loading (kg/yr)	16.872

Catchment Number: 1 Name: REGATTA APARTMENTS

Project: REGATTA APARTMENTS
Date: 7/9/2024

Multiple BMP in Series Design Parameters

BMP in Series Number: 1
BMP Type: Retention

Retention Depth (in)	1.250
Retention Volume (ac-ft)	1.541

BMP in Series Number: 2
BMP Type: Wet Detention

Permanent Pool Volume (ac-ft)	23.940
Permanent Pool Volume (ac-ft) for 31 days residence	2.235
Annual Residence Time (days)	332
Littoral Zone Efficiency Credit	
Wetland Efficiency Credit	

BMP in Series Number: 3
BMP Type: None

BMP in Series Number: 4
BMP Type: None

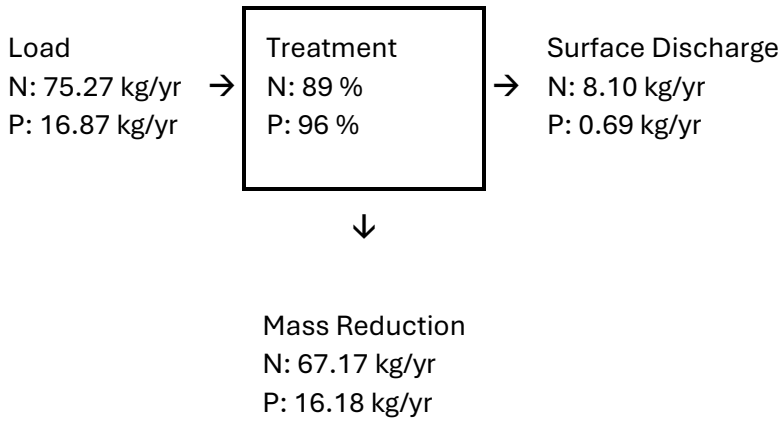
Watershed Characteristics

Catchment Area (acres)	17.42
Contributing Area (acres)	14.790
Non-DCIA Curve Number	85.00
DCIA Percent	36.27
Rainfall Zone	Florida Zone 2
Rainfall (in)	54.00

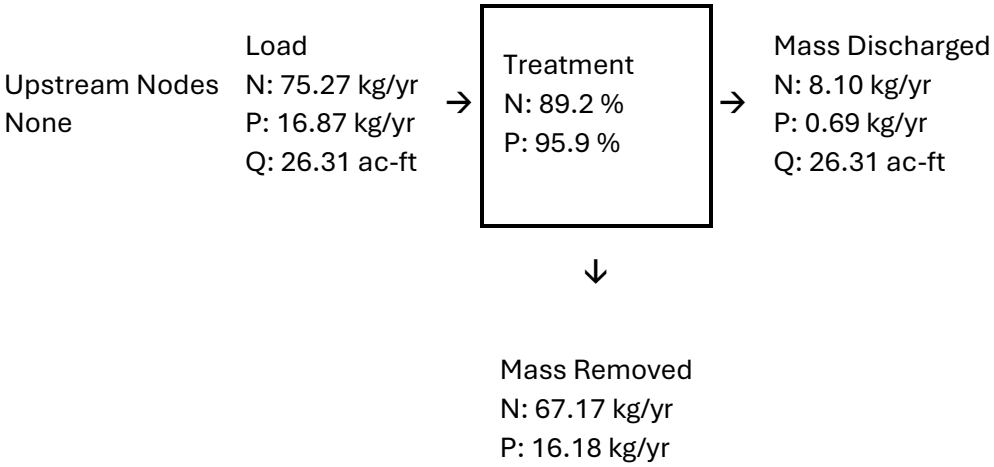
Surface Water Discharge

Required TN Treatment Efficiency (%)	87
Provided TN Treatment Efficiency (%)	89
Required TP Treatment Efficiency (%)	96
Provided TP Treatment Efficiency (%)	96

Load for Multiple BMP in Series



Load Diagram for Multiple BMP (As Used In Routing)



Summary Treatment Report Version: 4.3.2

Project: REGATTA APARTMENTS

Analysis Type: Net Improvement
BMP Types:
Catchment 1 - (REGATTA APARTMENTS) Multiple BMP
Based on % removal values to the nearest percent

Routing Summary
Catchment 1 Routed to Outlet

Total nitrogen target removal met? **Yes**
Total phosphorus target removal met? **Yes**

Summary Report

Nitrogen

Surface Water Discharge

Total N pre load	9.54 kg/yr	
Total N post load	75.27 kg/yr	
Target N load reduction	87 %	
Target N discharge load	9.54 kg/yr	
Percent N load reduction	89 %	
Provided N discharge load	8.1 kg/yr	17.87 lb/yr
Provided N load removed	67.17 kg/yr	148.11 lb/yr

Phosphorus

Surface Water Discharge

Total P pre load	.611 kg/yr	
Total P post load	16.872 kg/yr	
Target P load reduction	96 %	
Target P discharge load	.611 kg/yr	
Percent P load reduction	96 %	
Provided P discharge load	.693 kg/yr	1.53 lb/yr
Provided P load removed	16.179 kg/yr	35.675 lb/yr

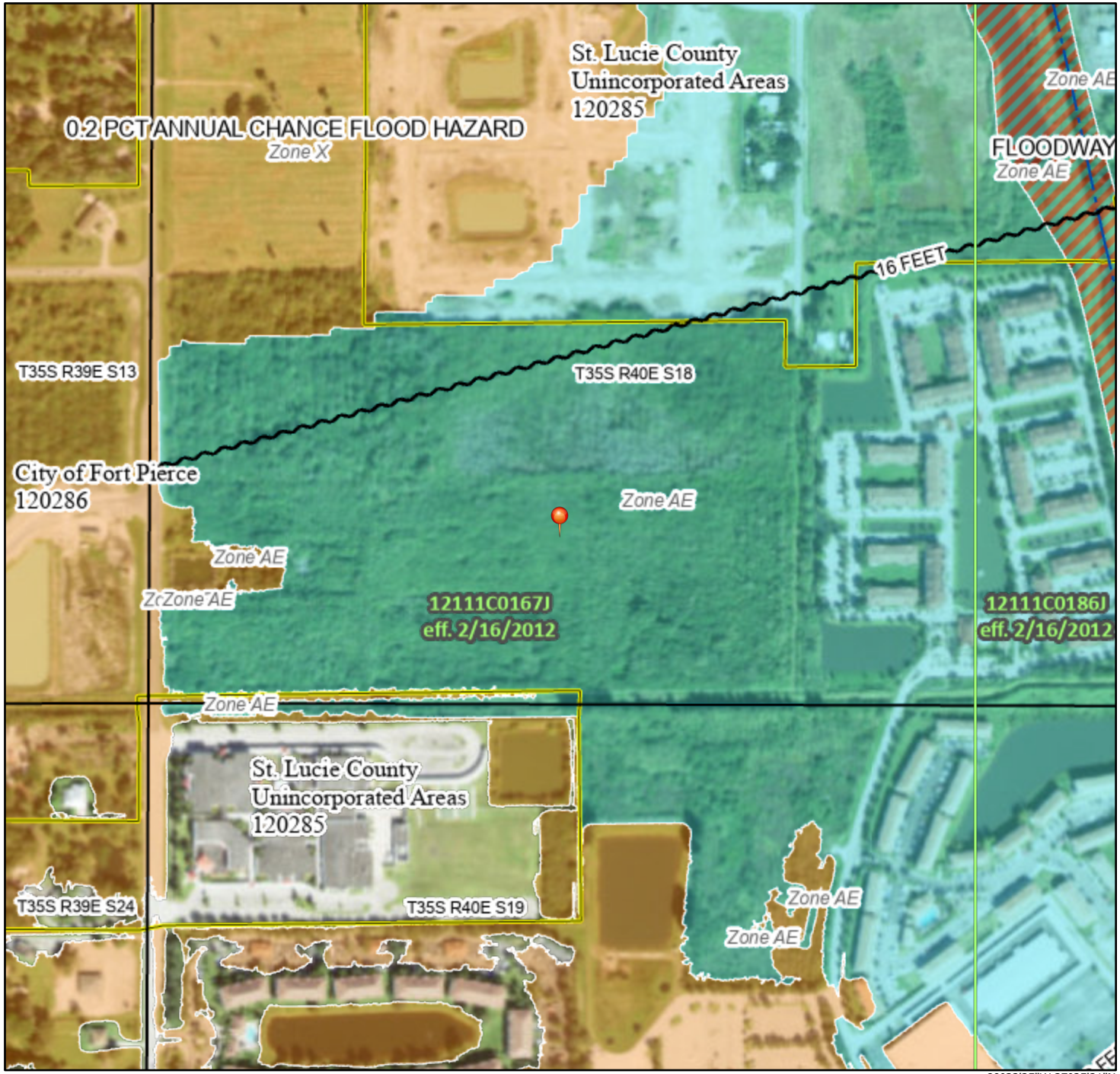
Appendix E

FEMA FIRM

National Flood Hazard Layer FIRMette

FEMA

80°23'3"W 27°25'53"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

80°22'25"W 27°25'21"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/4/2024 at 9:10 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix F

USGS & Engineers Soils Reports

United States Department of Agriculture

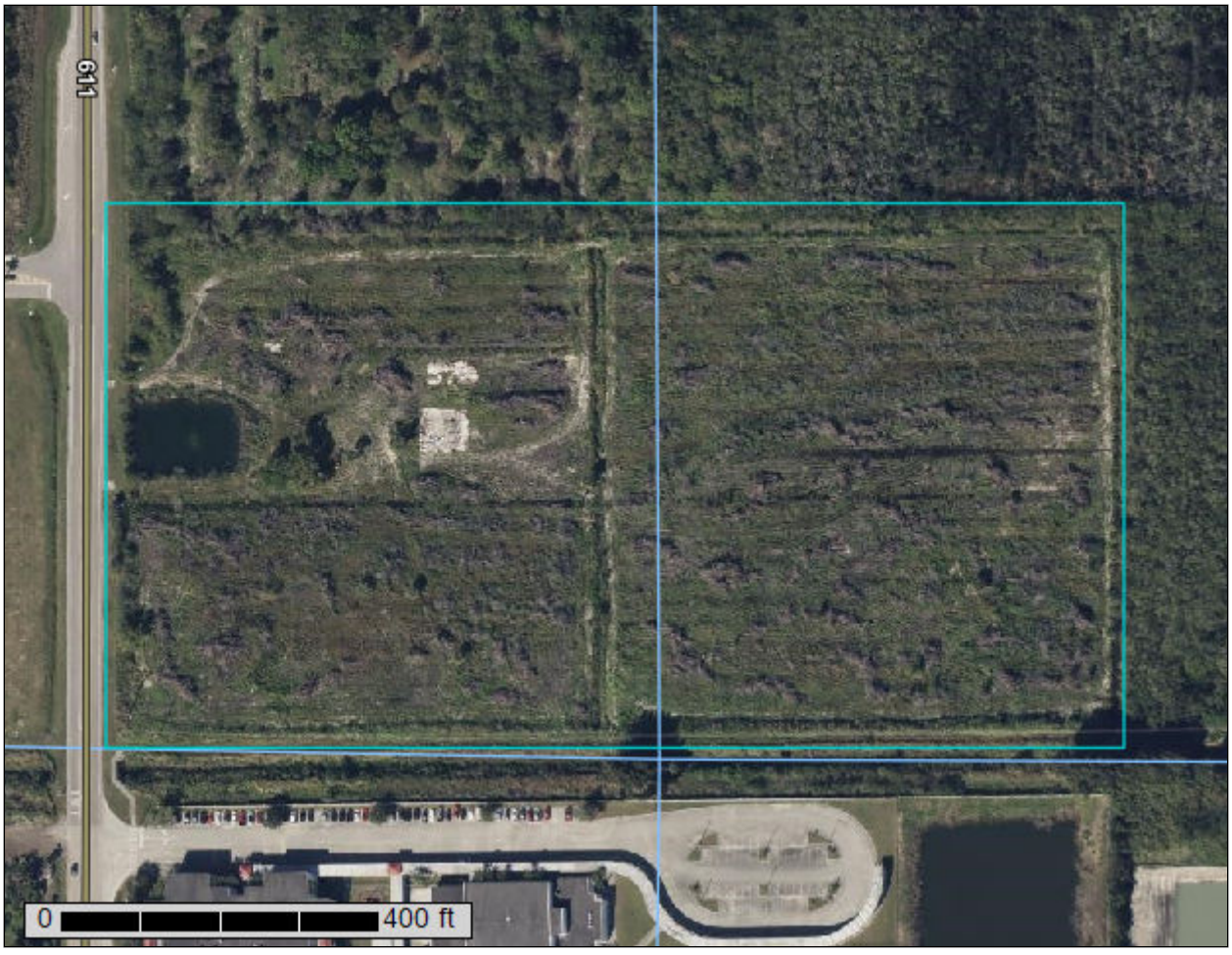
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for St. Lucie County, Florida

Jenkins Road Apartments



February 7, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



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

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 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 17, Sep 6, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 18, 2022—Jan 30, 2022

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
55	Winder loamy sand	20.3	100.0%
Totals for Area of Interest		**20.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

St. Lucie County, Florida

55—Winder loamy sand

Map Unit Setting

National map unit symbol: 1jpwk
Elevation: 0 to 30 feet
Mean annual precipitation: 49 to 58 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Winder, drained and bedded, and similar soils: 67 percent
Winder, hydric, and similar soils: 15 percent
Minor components: 18 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Winder, Drained And Bedded

Setting

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Concave, convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: loamy sand
E - 6 to 12 inches: sand
Btg1 - 12 to 33 inches: sandy clay loam
Btg2 - 33 to 49 inches: sandy loam
Cg1 - 49 to 61 inches: loamy sand
Cg2 - 61 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F155XY140FL - Loamy and Clayey Hardwood Hammocks

Forage suitability group: Loamy and clayey soils on flats of hydric or mesic lowlands (G156BC341FL)
Other vegetative classification: Loamy and clayey soils on flats of hydric or mesic lowlands (G156BC341FL)
Hydric soil rating: No

Description of Winder, Hydric

Setting

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Concave, linear
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: loamy sand
E - 6 to 12 inches: sand
Btg1 - 12 to 33 inches: sandy clay loam
Btg2 - 33 to 49 inches: sandy loam
Cg1 - 49 to 61 inches: loamy sand
Cg2 - 61 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F155XY140FL - Loamy and Clayey Hardwood Hammocks
Forage suitability group: Loamy and clayey soils on flats of hydric or mesic lowlands (G156BC341FL)
Other vegetative classification: Loamy and clayey soils on flats of hydric or mesic lowlands (G156BC341FL)
Hydric soil rating: Yes

Minor Components

Floridana

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave

Ecological site: R155XY080FL - Sandy over Loamy Freshwater Isolated Marshes and Swamps
Other vegetative classification: Sandy over loamy soils on stream terraces, flood plains, or in depressions (G156BC245FL)
Hydric soil rating: Yes

Hallandale

Percent of map unit: 3 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Interfluve, talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F156AY360FL - Subtropical Moist Hammocks of Miami Ridge / Atlantic Coastal Strip
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Pineda

Percent of map unit: 3 percent
Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R155XY080FL - Sandy over Loamy Freshwater Isolated Marshes and Swamps
Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G156BC241FL)
Hydric soil rating: Yes

Riviera

Percent of map unit: 3 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R155XY080FL - Sandy over Loamy Freshwater Isolated Marshes and Swamps
Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G156BC241FL)
Hydric soil rating: Yes

Winder, shell substratum, hydric

Percent of map unit: 2 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Concave, linear
Across-slope shape: Linear
Ecological site: F155XY140FL - Loamy and Clayey Hardwood Hammocks
Other vegetative classification: Loamy and clayey soils on flats of hydric or mesic lowlands (G156BC341FL)
Hydric soil rating: Yes

Wabasso, gravelly substratum

Percent of map unit: 2 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf

Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Wabasso

Percent of map unit: 2 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

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Preliminary Subsurface Soil Exploration
Jenkins Road Apartments Site
Jenkins Road
Fort Pierce, Florida



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Materials Consultants

December 1, 2021
File No. 21-66-5530

Parkstone Properties LLC
1820 Avenue K
Brooklyn, NY 11230

Attention: Mr. Murray Puderbeutel

Subject: Preliminary Subsurface Soil Exploration
Jenkins Road Apartments Site
Jenkins Road
Melbourne, Florida

Dear Mr. Puderbeutel:

As requested, we have completed a preliminary subsurface soil exploration for the subject project. The purposes of this exploration were to preliminarily evaluate the existing soil stratigraphy and help assess the suitability of the site for the proposed development. In addition, we have estimated the normal seasonal high groundwater level at the boring locations. This report documents our findings and presents our engineering recommendations.

SITE LOCATION AND SITE DESCRIPTION

The project site is located on the east side of Jenkins Road and extends approximately 650 to 1,250 feet south of Graham Road in Fort Pierce, St. Lucie County, Florida (Section 18, Township 35 South, Range 40 East). The general site location is shown superimposed on the Fort Pierce NW, Florida USGS quadrangle map presented on Figure 1.

The project site has been recently cleared and is currently undeveloped. A retention pond currently exists on the west side. As per the aerial photographs, a residential building with some sheds used to exist on the west area and were later removed. Some of the areas within the project site were observed to be ponded during the field work.

REVIEW OF SOIL SURVEY MAPS

Based on the 1987 Soil Survey for St. Lucie County, Florida, as prepared by the U.S. Department of Agriculture Soil Conservation Service, the project site is located in an area mapped mostly as the “Winder loamy sand”. A description of this soil type, as obtained from the Soil Survey, is provided in the following page.

Winder loamy sand:

Winder loamy sand is poorly drained, nearly level soil found in hammocks and along drainageways. Slopes are smooth to convex and range from 0 to 2 percent. Typically, the surface layer is 6 inches thick. It is black loamy sand in the upper 3 inches and very dark gray loamy sand in the lower 3 inches. The subsurface layer is sand 6 inches thick. It is grayish brown in the upper 3 inches and light brownish gray in the lower 3 inches. The subsoil extends to a depth of 61 inches. In sequence, it is dark grayish brown sandy clay loam with a few light brownish gray sandy tongues of the subsurface layer in the upper 9 inches; gray sandy clay loam in the next 12 inches; dark gray sandy loam in the next 16 inches; and gray loamy sand in the lower 12 inches. The substratum, to a depth of 80 inches or more, is light gray sand. The water table of Winder loamy sand is at a depth of less than 10 inches for 2 to 4 months and between depths of 10 to 40 inches for most of the rest of the year. Only for short periods in dry seasons is the water table below a depth of 40 inches.

FIELD EXPLORATION PROGRAM

SPT Borings

The field exploration program included performing four Standard Penetration Test (SPT) borings at locations on the project site selected by the client. The borings were advanced to depths of 30 and 40 feet below the ground surface using the methodology outlined in ASTM D-1586. A summary of this field procedure is included in Appendix I.

Soil samples recovered during performance of the borings were visually classified in the field and representative portions of the samples were transported to our laboratory in sealed sample jars.

The groundwater level at the boring locations was measured during drilling. Upon completion, the borings were backfilled with soil cuttings.

Test Locations

The approximate locations of the borings are schematically illustrated on a site plan shown on Figure 2. These locations were determined in the field by estimating distances from existing site features and should be considered accurate only to the degree implied by the method of measurement used.

LABORATORY PROGRAM

Representative soil samples obtained during our field sampling operation were packaged and transferred to our laboratory for further visual examination and classification. The soil samples were visually classified in general accordance with the Unified Soil Classification System (ASTM D-2488). The resulting soil descriptions are shown on the soil boring profiles presented in Appendix II.

GENERAL SUBSURFACE CONDITIONS

General Soil Profile

The results of the field exploration and laboratory programs are graphically summarized on the soil boring profiles presented in Appendix II. The stratification of the boring profiles represents our interpretation of the field boring logs and the results of laboratory examinations of the recovered samples. The stratification lines represent the approximate boundary between soil types. The actual transitions may be more gradual than implied.

The results of the SPT borings conducted on the project site indicate the following soil profile:

Depth (feet)	Soil Description (Unified Soil Classification)
0 to 18	Loose to medium dense fine sand (SP) and slightly silty/clayey fine sand (SP-SM/SP-SC) to clayey fine sand (SC).
18 to 28	Very soft to soft silty clay (CL, CH)
28 to 40	Loose to medium dense fine sand (SP) and slightly clayey fine sand (SP-SC)

These soil profiles are outlined in general terms only. Please refer to Appendix II for soil profile details.

Groundwater Level

The groundwater level was measured in the boreholes on the day drilled. As shown in Appendix II, groundwater was encountered in the borings at depths that ranged from approximately 2.5 to 3.5 feet below the existing ground surface on the date indicated. Fluctuations in groundwater levels should be anticipated throughout the year primarily due to seasonal variations in rainfall and other factors that may vary from the time the borings were conducted.

NORMAL SEASONAL HIGH GROUNDWATER LEVEL

The normal seasonal high groundwater level each year is the level in the August-September period at the end of the rainy season during a year of normal (average) rainfall. The water table elevations associated with a higher than normal rainfall and in the extreme case, flood, would be higher to much higher than the normal seasonal high groundwater level. The normal high water levels would more approximate the normal seasonal high groundwater levels.

The seasonal high groundwater level is affected by a number of factors. The drainage characteristics of the soils, the land surface elevation, relief points such as drainage ditches, lakes, rivers, swamp areas, etc., and distance to relief points are some of the more important factors influencing the seasonal high groundwater level.

Based on our interpretation of the site conditions using our boring logs, we estimate the normal seasonal high groundwater level at the boring locations to be approximately 1½ to 2 feet above the groundwater levels measured at the time of our field exploration.

PRELIMINARY ENGINEERING DISCUSSION

The results of this preliminary exploration indicate the presence of loose to medium dense fine sand (SP) to clayey fine sand (SC) from existing ground surface to the depth of approximately 18 feet; underlain by very soft to soft silty clay (CL,CH) to the depth of approximately 28 feet. Loose to medium dense fine sand and slightly clayey fine sand (SP-SC) were encountered to the termination depth of the deepest borings, 40 feet below existing ground surface. Additionally, various amounts of shell and limestone fragments were encountered in most of the borings at various depths as shown in the boring profiles. The groundwater level was encountered in the borings at depths ranging from approximately 2.5 to 3.5 feet below existing ground surface.

The fine sand and slightly silty/clayey fine sand (without roots, as shown in Appendix II) are typically suitable for use as structural fill soil and, with proper moisture control, should densify using conventional compaction methods. Soils with more than 12 percent passing the No. 200 sieve (clayey fine sand) can be used in some applications, but will be more difficult to compact due to its inherent nature to retain soil moisture.

Based on the findings of this preliminary exploration, the encountered soils, with proper site preparation, appear suitable for support of typical lightly loaded residential structures (maximum column foundation loads of 50 kips) on conventional shallow foundations. Deep foundations or deep soil improvement may be necessary for structures with significant foundation loads. With proper site preparation, the soils encountered on the project site are also suitable for support of new flexible or rigid pavements.

Based on the groundwater levels encountered in the borings, dewatering may be required to achieve stripping, excavation, proof-rolling, filling, compaction, and any other earthwork, sitework, and/or foundation subgrade preparation operations required for the project.

Relative to on-site stormwater retention ponds, the fine sand and slightly silty/clayey fine sand soils are anticipated to be relatively permeable. The clayey fine sand soils are anticipated to have lower permeabilities than the fine sand and slightly silty/clayey fine sand soils, and should be considered aquitards for retention pond evaluation.

CLOSURE

The preliminary conclusions submitted herein are based on the data obtained from the soil borings presented on Figure 2 and in Appendix II, and on the assumed preliminary loading conditions. Additional exploration should be performed at the project site once the development plans are finalized. This report does not reflect any variations which may occur adjacent to or between the boring locations. The nature and extent of the variations between the boring locations may not

become evident until during additional exploration. This study does not include an evaluation of the environmental (ecological or hazardous/toxic material related) condition of the site and subsurface.

This report has been prepared for the exclusive use of Parkstone Properties LLC in accordance with generally accepted geotechnical engineering practices. We are pleased to be of assistance to you on this phase of the project. When we may be of further service to you or should you have any questions, please contact us.

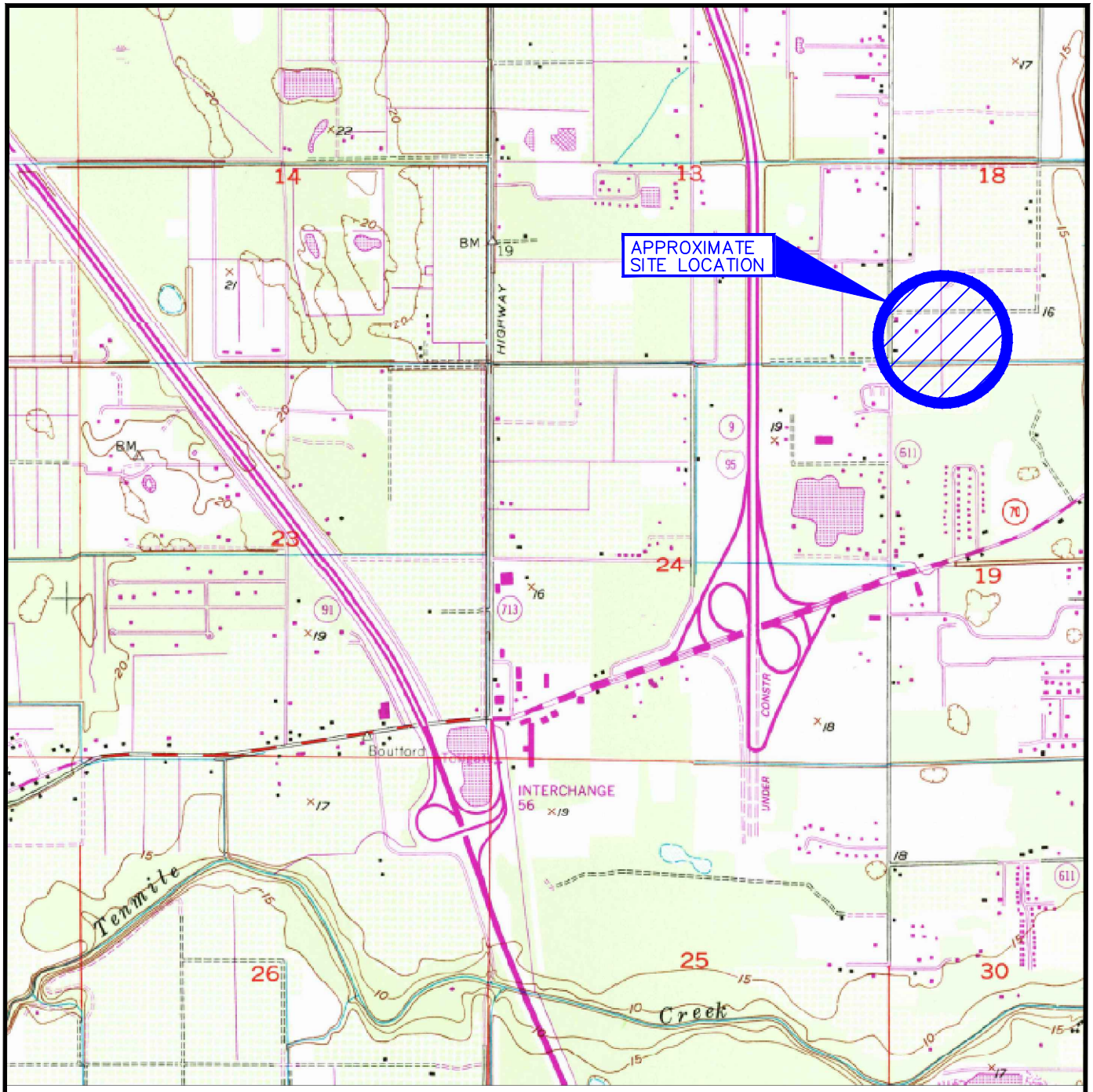
Very truly yours,
ARDAMAN & ASSOCIATES, INC.
Florida Certificate of Authorization No. 5950

12/1/21
Sharmila Pant, E.I.
Assistant Project Engineer

12/1/21
Jason P. Manning, P.E.
Branch Manager
Florida License No. 53265

SP/JPM/dk





SECTION 18
TOWNSHIP 35 SOUTH
RANGE 40 EAST

OBTAINED FROM U.S.G.S. QUAD MAPS: FORT PIERCE NW, FLORIDA 1949
(PHOTOREVISED 1983)

N

NOT TO SCALE



QUADRANGLE LOCATION

SITE LOCATION MAP

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

Preliminary Subsurface Soil Exploration
Jenkins Road Apartments
Jenkins Road
Fort Pierce, Florida

DRAWN BY: SP	CHECKED BY:	DATE: 11/29/21
FILE NO. 21-5530	APPROVED BY:	FIGURE: 1



N

NOT TO SCALE

B STANDARD PENETRATION TEST (SPT) BORING LOCATION

BORING LOCATION MAP

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

Preliminary Subsurface Soil Exploration
Jenkins Road Apartments
Jenkins Road
Fort Pierce, Florida

DRAWN BY: SP	CHECKED BY:	DATE: 11/29/21
FILE NO. 21-5530	APPROVED BY:	FIGURE: 2

APPENDIX I

Standard Penetration Test Boring Procedure

STANDARD PENETRATION TEST

The standard penetration test is a widely accepted test method of *in situ* testing of foundation soils (ASTM D 1586). A 2-foot long, 2-inch O.D. split-barrel sampler attached to the end of a string of drilling rods is driven 18 inches into the ground by successive blows of a 140-pound hammer freely dropping 30 inches. The number of blows needed for each 6 inches of penetration is recorded. The sum of the blows required for penetration of the second and third 6-inch increments of penetration constitutes the test result or N-value. After the test, the sampler is extracted from the ground and opened to allow visual examination and classification of the retained soil sample. The N-value has been empirically correlated with various soil properties allowing a conservative estimate of the behavior of soils under load.

The tests are usually performed at 5-foot intervals. However, more frequent or continuous testing is done by our firm through depths where a more accurate definition of the soils is required. The test holes are advanced to the test elevations by rotary drilling with a cutting bit, using circulating fluid to remove the cuttings and hold the fine grains in suspension. The circulating fluid, which is a bentonitic drilling mud, is also used to keep the hole open below the water table by maintaining an excess hydrostatic pressure inside the hole. In some soil deposits, particularly highly pervious ones, NX-size flush-coupled casing must be driven to just above the testing depth to keep the hole open and/or prevent the loss of circulating fluid.

Representative split-spoon samples from the soils at every 5 feet of drilled depth and from every different stratum are brought to our laboratory in air-tight jars for further evaluation and testing, if necessary. Samples not used in testing are stored for 30 days prior to being discarded. After completion of a test boring, the hole is kept open until a steady state groundwater level is recorded. The hole is then sealed, if necessary, and backfilled.

APPENDIX II

Soil Boring Profiles

Ardaman & Associates, Inc.

STANDARD PENETRATION TEST BORING LOG

BORING B-1

PROJECT: Preliminary Subsurface Soil Exploration
Jenkins Road Apartments, Jenkins Road, Fort Pierce, Florida

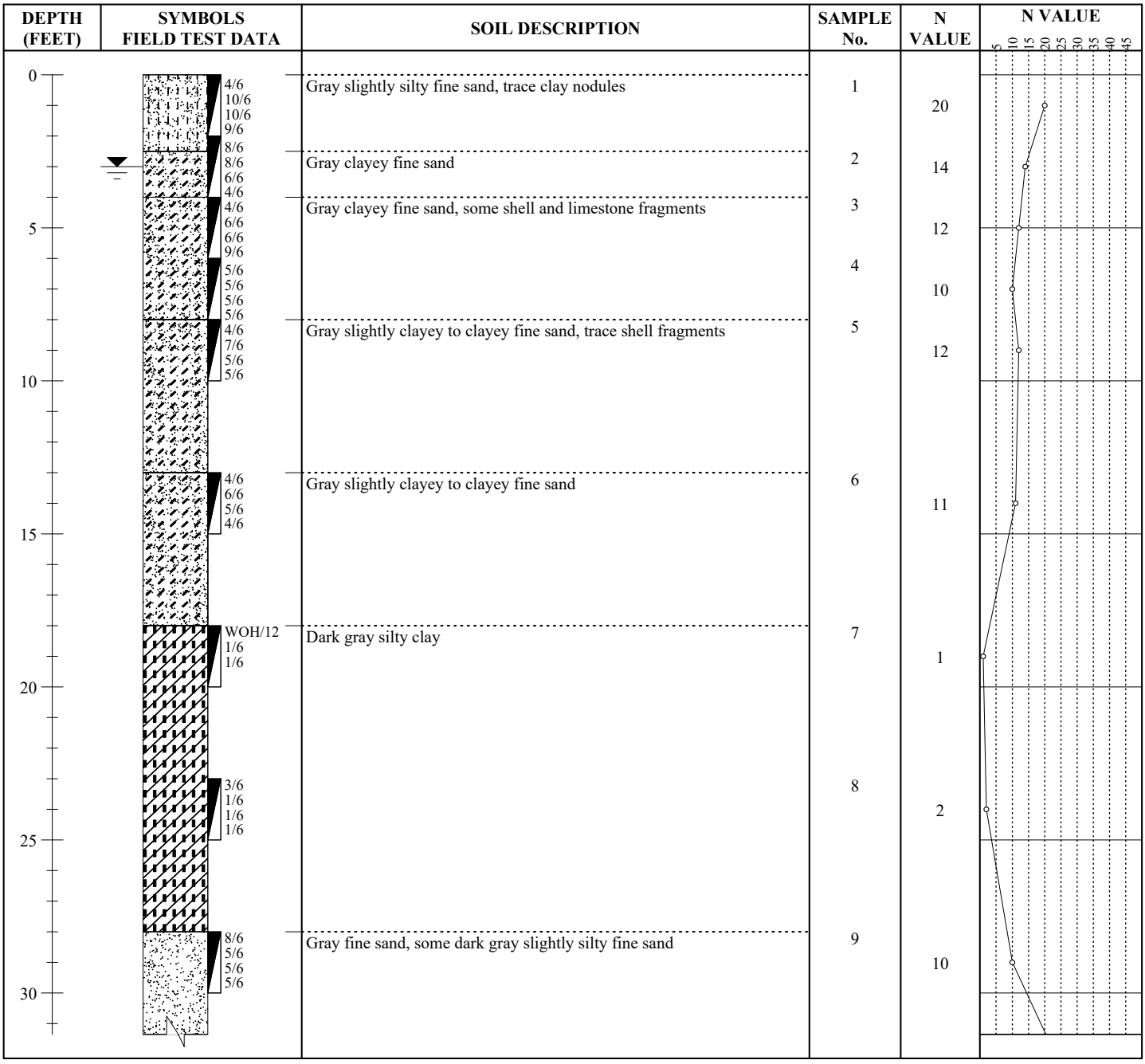
FILE No.: 21-5530

BORING LOCATION: As per Boring Location Plan.

DRILL CREW: Centerline Drilling

WATER OBSERVED AT DEPTH 3 feet

DATE DRILLED: 11/4/2021



NOTES:

FIELD TEST DATA ARE "BLOWS"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALL. (ASTM D-1586)

Ardaman & Associates, Inc.

STANDARD PENETRATION TEST BORING LOG

BORING B-1

PROJECT: Preliminary Subsurface Soil Exploration
Jenkins Road Apartments, Jenkins Road, Fort Pierce, Florida

FILE No.: 21-5530

BORING LOCATION: As per Boring Location Plan.

DRILL CREW: Centerline Drilling

WATER OBSERVED AT DEPTH 3 feet

DATE DRILLED: 11/4/2021

DEPTH (FEET)	SYMBOLS FIELD TEST DATA	SOIL DESCRIPTION	SAMPLE No.	N VALUE	N VALUE
35	9/6 15/6 17/6 16/6	Gray fine sand	10	32	
40	11/6 10/6 15/6 15/6	Boring terminated at 40 feet.	11	25	
45					
50					
55					
60					

N VALUE scale: 5, 10, 15, 20, 25, 30, 35, 40, 45

NOTES:

FIELD TEST DATA ARE "BLOWS"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALL. (ASTM D-1586)

Ardaman & Associates, Inc.

STANDARD PENETRATION TEST BORING LOG

BORING B-2

PROJECT: Preliminary Subsurface Soil Exploration
Jenkins Road Apartments, Jenkins Road, Fort Pierce, Florida

FILE No.: 21-5530

BORING LOCATION: As per Boring Location Plan.

DRILL CREW: Centerline Drilling

WATER OBSERVED AT DEPTH 3.5 feet

DATE DRILLED: 11/4/2021

DEPTH (FEET)	SYMBOLS FIELD TEST DATA	SOIL DESCRIPTION	SAMPLE No.	N VALUE
0	5/6 8/6 8/6 8/6	Brown fine sand and shell fragments	1	16
	7/6 7/6 6/6 8/6	Gray slightly clayey fine sand	2	13
5	5/6 7/6 8/6 9/6	Gray clayey fine sand	3	15
	4/6 6/6 7/6 9/6	Gray clayey fine sand, some shell & limestone fragments	4	13
	3/6 6/6 8/6 7/6	Gray slightly clayey to clayey fine sand, few limestone fragments	5	14
10				
	6/6 6/6 7/6 7/6	Gray slightly clayey fine sand, few shell & limestone fragments	6	13
15				
	1/6 1/6 1/6 1/6	Gray silty clay	7	2
20				
	1/6 2/6 1/6 2/6	Gray silty clay, trace shell	8	3
25				
	7/6 6/6 8/6 8/6	Gray slightly clayey fine sand	9	14
30		Boring terminated at 30 feet.		

N VALUE: 5 10 15 20 25 30 35 40 45

NOTES:

FIELD TEST DATA ARE "BLOWS"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALL. (ASTM D-1586)

Ardaman & Associates, Inc.

STANDARD PENETRATION TEST BORING LOG

BORING B-3

PROJECT: Preliminary Subsurface Soil Exploration
Jenkins Road Apartments, Jenkins Road, Fort Pierce, Florida

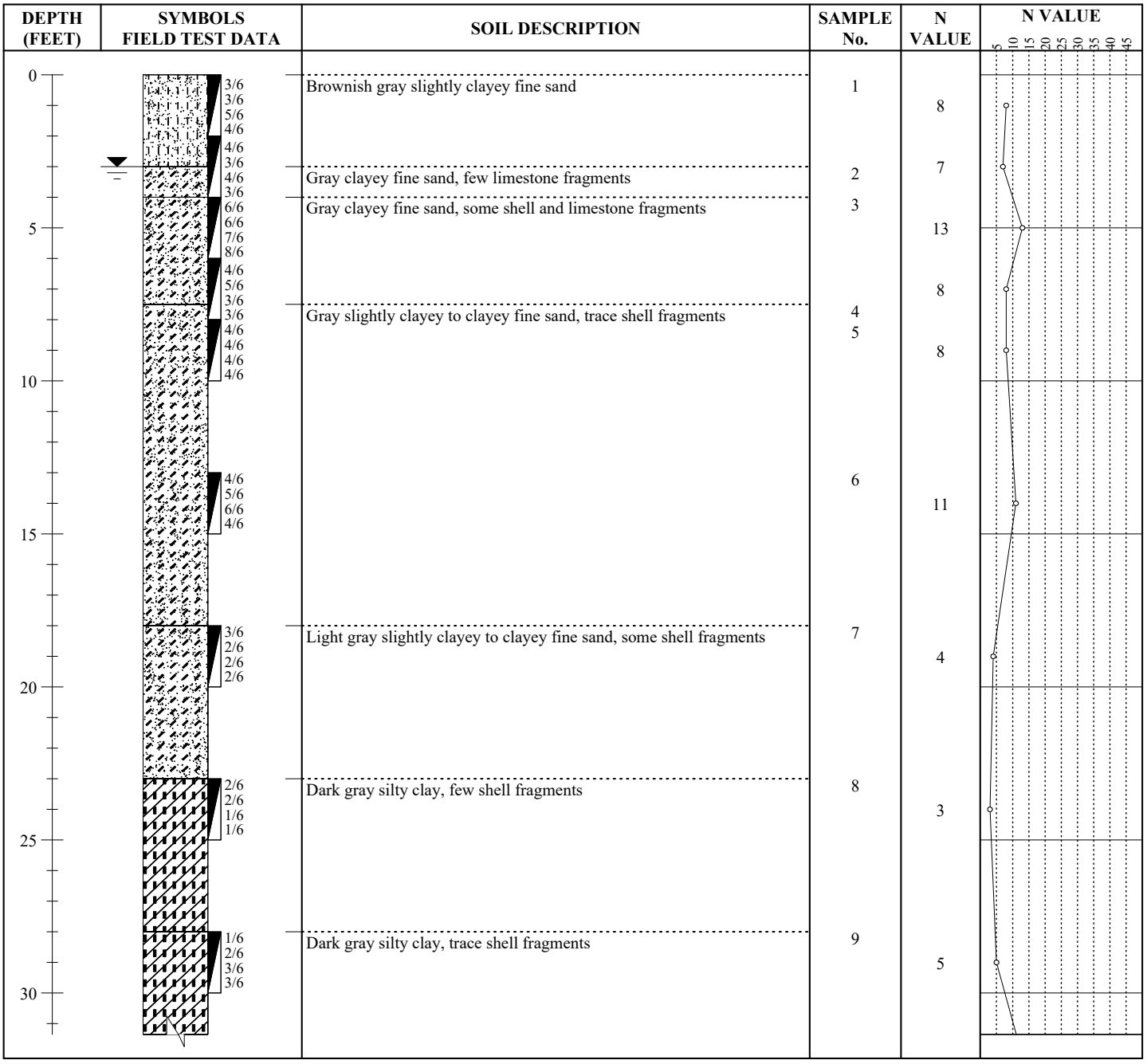
FILE No.: 21-5530

BORING LOCATION: As per Boring Location Plan.

DRILL CREW: Centerline Drilling

WATER OBSERVED AT DEPTH 3 feet

DATE DRILLED: 11/4/2021



NOTES:

FIELD TEST DATA ARE "BLOWS"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALL. (ASTM D-1586)

Ardaman & Associates, Inc.

STANDARD PENETRATION TEST BORING LOG

BORING B-3

PROJECT: Preliminary Subsurface Soil Exploration
Jenkins Road Apartments, Jenkins Road, Fort Pierce, Florida

FILE No.: 21-5530

BORING LOCATION: As per Boring Location Plan.

DRILL CREW: Centerline Drilling

WATER OBSERVED AT DEPTH 3 feet

DATE DRILLED: 11/4/2021

DEPTH (FEET)	SYMBOLS FIELD TEST DATA	SOIL DESCRIPTION	SAMPLE No.	N VALUE	N VALUE
35	8/6 7/6 11/6 11/6	Gray fine sand	10	18	
40	8/6 8/6 8/6 10/6	Gray to dark gray fine sand	11	16	
		Boring terminated at 40 feet.			
45					
50					
55					
60					

N VALUE: 5 10 15 20 25 30 35 40 45

NOTES:

FIELD TEST DATA ARE "BLOWS"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALL. (ASTM D-1586)

Ardaman & Associates, Inc.

STANDARD PENETRATION TEST BORING LOG

BORING B-4

PROJECT: Preliminary Subsurface Soil Exploration
Jenkins Road Apartments, Jenkins Road, Fort Pierce, Florida

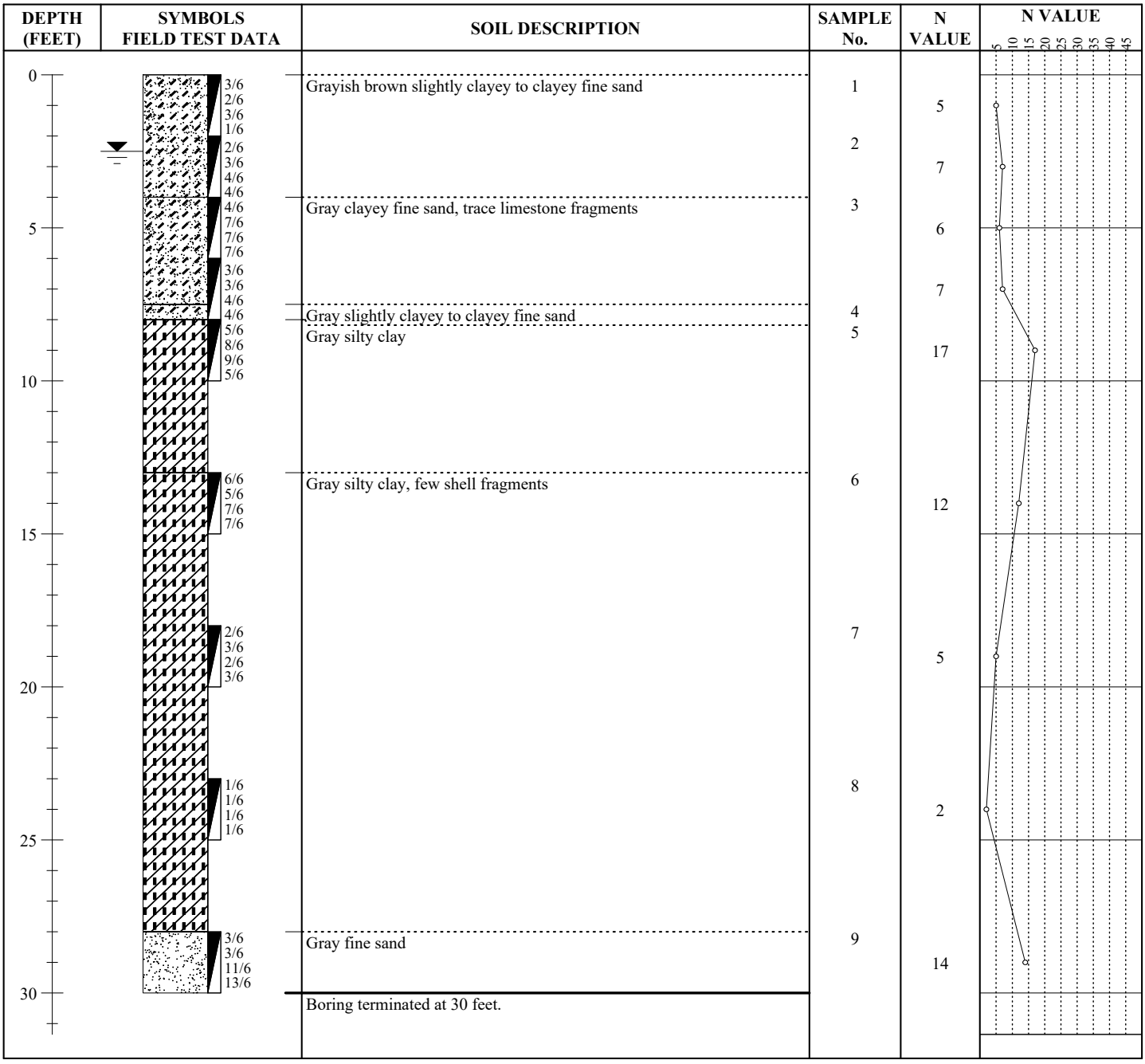
FILE No.: 21-5530

BORING LOCATION: As per Boring Location Plan.

DRILL CREW: Centerline Drilling

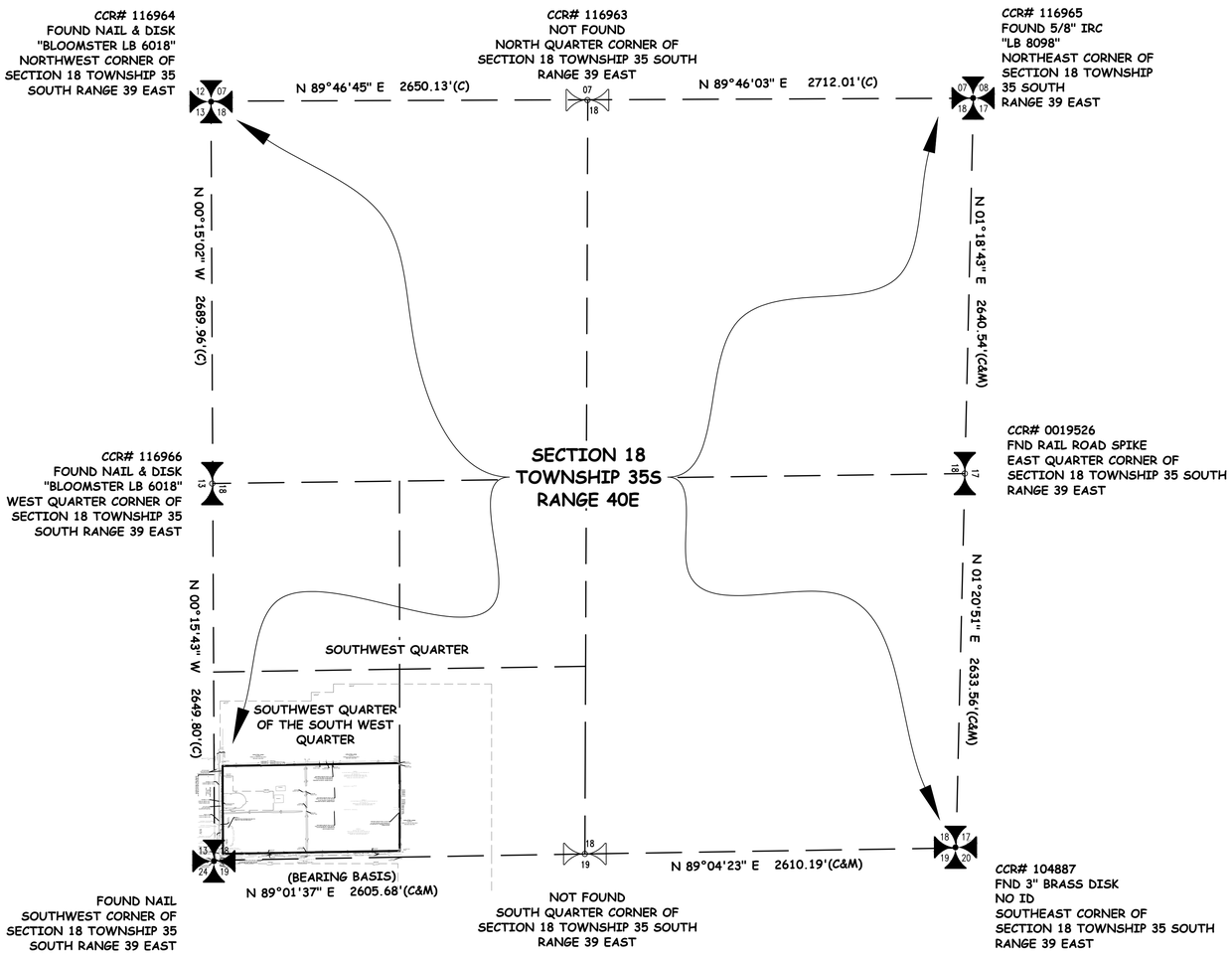
WATER OBSERVED AT DEPTH 2.5 feet

DATE DRILLED: 11/4/2021



NOTES:

FIELD TEST DATA ARE "BLOWS"/"INCHES DRIVEN" 140-LB HAMMER, 30-INCH FALL. (ASTM D-1586)





GRAPHIC SCALE

500 0 250 500 1000

(SCALE IN FEET)
1" = 500

LEGAL DESCRIPTION:
LEGAL DESCRIPTION PER FIDELITY NATIONAL TITLE INSURANCE COMPANY, COMMITMENT FOR TITLE INSURANCE SCHEDULE A, DATED FEBRUARY 21, 2022 AT 8:00AM.

PARCEL 1:
THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, LESS THE WEST 60 FEET THEREOF.

PARCEL 2:
THE SOUTH 1/2 OF THE NORTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, LESS THE WEST 60 FEET THEREOF.

PARCEL 3:
ALL OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS AND EXCEPT THAT PORTION OF LAND AS DESCRIBED IN WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 2974, PAGE 708 AND ALSO EXCEPTING THEREFROM ALL RIGHTS OF WAY FOR PUBLIC ROADS AND DRAINAGE CANALS, AND ALSO, LESS AND EXCEPTING THAT PART THEREOF PARTICULARLY DESCRIBED AS FOLLOWS: FROM THE SOUTHWEST CORNER OF SAID SECTION, TOWNSHIP AND RANGE RUN NORTHERLY ALONG THE WEST LINE OF SAID SECTION 104.83 FEET TO A POINT OF BEGINNING; FROM SAID POINT OF BEGINNING CONTINUE NORTHERLY ALONG SAID SECTION LINE A DISTANCE OF 132 FEET TO A POINT; THENCE WITH AN ANGLE OF 90° RUN EAST 25 FEET TO A PIPE; THENCE CONTINUE EAST 100 FEET TO A PIPE; THENCE AT 90° RUN SOUTH 132 FEET TO A PIPE; THENCE AT 90° RUN WESTERLY 100 FEET TO A STOVE BOLT IN DRIVE; THENCE CONTINUE WESTERLY 25 FEET TO A POINT OF BEGINNING.

PARCEL 4:
FROM THE SOUTHWEST CORNER OF SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST, RUN NORTHERLY ALONG THE WEST LINE OF SAID SECTION 104.83 FEET TO A POINT OF BEGINNING; FROM SAID POINT OF BEGINNING CONTINUE NORTHERLY ALONG SAID SECTION LINE A DISTANCE OF 132 FEET TO A POINT; THENCE WITH AN ANGLE OF 90° RUN EAST 25 FEET TO A PIPE; THENCE CONTINUE EAST 100 FEET TO A PIPE; THENCE AT 90° RUN SOUTH 132 FEET TO A PIPE; THENCE AT 90° RUN WESTERLY 100 FEET TO A STOVE BOLT IN DRIVE; THENCE CONTINUE WESTERLY 25 FEET TO A POINT OF BEGINNING; LESS AND EXCEPT THAT PORTION OF LAND AS DESCRIBED IN WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 2974, PAGE 708, ALSO EXCEPTING THEREFROM ALL RIGHTS OF WAY FOR PUBLIC ROADS. SAID LAND LYING IN AND BEING A PART OF ST. LUCIE COUNTY, FLORIDA.

ADDRESS: 2144 S JENKINS RD
PORT ST. LUCIE, FLORIDA

NOTES:

SUBJECT TO ANY APPLICABLE EASEMENTS, RIGHTS-OF-WAY, OR OTHER RESTRICTIONS OF RECORD.

A SEARCH OF THE PUBLIC RECORDS HAS NOT BEEN MADE BY THIS OFFICE.

BEARINGS SHOWN ARE RELATED TO THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST, SAID BEARING BEING N 89°01'37" E, SHOWN ON FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION 94030-2516, DATED 03/22/12.

ELEVATIONS ARE IN FEET AND RELATED TO THE ST. LUCIE COUNTY BENCHMARK NUMBER "GREG", HAVING A PUBLISHED ELEVATION OF 16.36 FEET NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88). ALL OTHER ELEVATIONS ARE RELATIVE THERETO.

PROPERTY LIES IN F.I.R.M. ZONE "X" AND "AE" WITH AN ELEVATION OF 16, AS SHOWN ON MAP NUMBER 12111C0167J, DATED 02/16/12. FLOOD ZONES ARE APPROXIMATE AS SCALED FROM FLOOD INSURANCE RATE MAPS.

IN ACCORDANCE WITH CHAPTER 5J-17.051, ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY, IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY.

UTILITIES SHOWN HEREON ARE VISIBLE ABOVE GROUND FEATURES.

THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT SHOWN ON THIS SURVEY, THAT MAY BE FOUND IN THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

COORDINATES WERE ESTABLISHED BY GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) REAL TIME KINEMATICS (RTK) USING FLORIDA DEPARTMENT OF TRANSPORTATION - FLORIDA PERMANENT REFERENCE NETWORK (FDOT - FPRN) WITH REDUNDANCY OF MEASUREMENTS PERFORMED. ALL HORIZONTAL ACCURACY IS 0.05 FOOT PLUS OR MINUS.

ELEVATIONS WERE ESTABLISHED BY GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) REAL TIME KINEMATICS (RTK) USING FLORIDA DEPARTMENT OF TRANSPORTATION - FLORIDA PERMANENT REFERENCE NETWORK (FDOT - FPRN) WITH REDUNDANCY OF MEASUREMENTS PERFORMED. ALL VERTICAL ACCURACY IS 0.10 FOOT PLUS OR MINUS.

LOT CONTAINS 767,591 SQUARE FEET OR 17.6± ACRES

THE EXPECTED USE OF THE SURVEY AND MAP IS COMMERCIAL.

ALL DISTANCES AND ELEVATIONS SHOWN ARE IN ACCORD WITH THE UNITED STATES STANDARD USING FEET.

ALL DIRECTIONAL MEASUREMENTS SHOWN ARE IN THE FORMAT OF DEGREES, MINUTES AND SECONDS.

LAST DATE OF FIELD DATA ACQUISITION: 11/06/23.

CERTIFICATIONS:

REGATTA LUXURY APARTMENTS DEVELOPMENT LLC, A FLORIDA LIMITED LIABILITY COMPANY;
OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY; AND QUESADA VALDES, PLLC

SURVEY CERTIFICATION:

I HEREBY CERTIFY THAT THE ATTACHED BOUNDARY & TOPOGRAPHICAL SURVEY OF THE HEREON DESCRIBED PROPERTY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS SURVEYED UNDER MY DIRECTION ON 11/06/23. I FURTHER CERTIFY THAT THIS SURVEY MEETS THE STANDARD OF PRACTICE AS SET FORTH IN CHAPTER 5J-17 ADOPTED BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS, PURSUANT TO FLORIDA STATUTES 472.027.

FRANCIS N. GUETTLER
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA REGISTRATION NO. 7473

VELCON ENGINEERING & SURVEYING, LLC
CERTIFICATE OF AUTHORIZATION NO. LB 8206
1449 NW COMMERCE CENTRE DRIVE
PORT ST. LUCIE, FLORIDA 34986
PHONE (772) 879-0477
Web Site: www.velconfl.com

VELCON
ENGINEERING & SURVEYING

BOUNDARY & TOPOGRAPHIC SURVEY

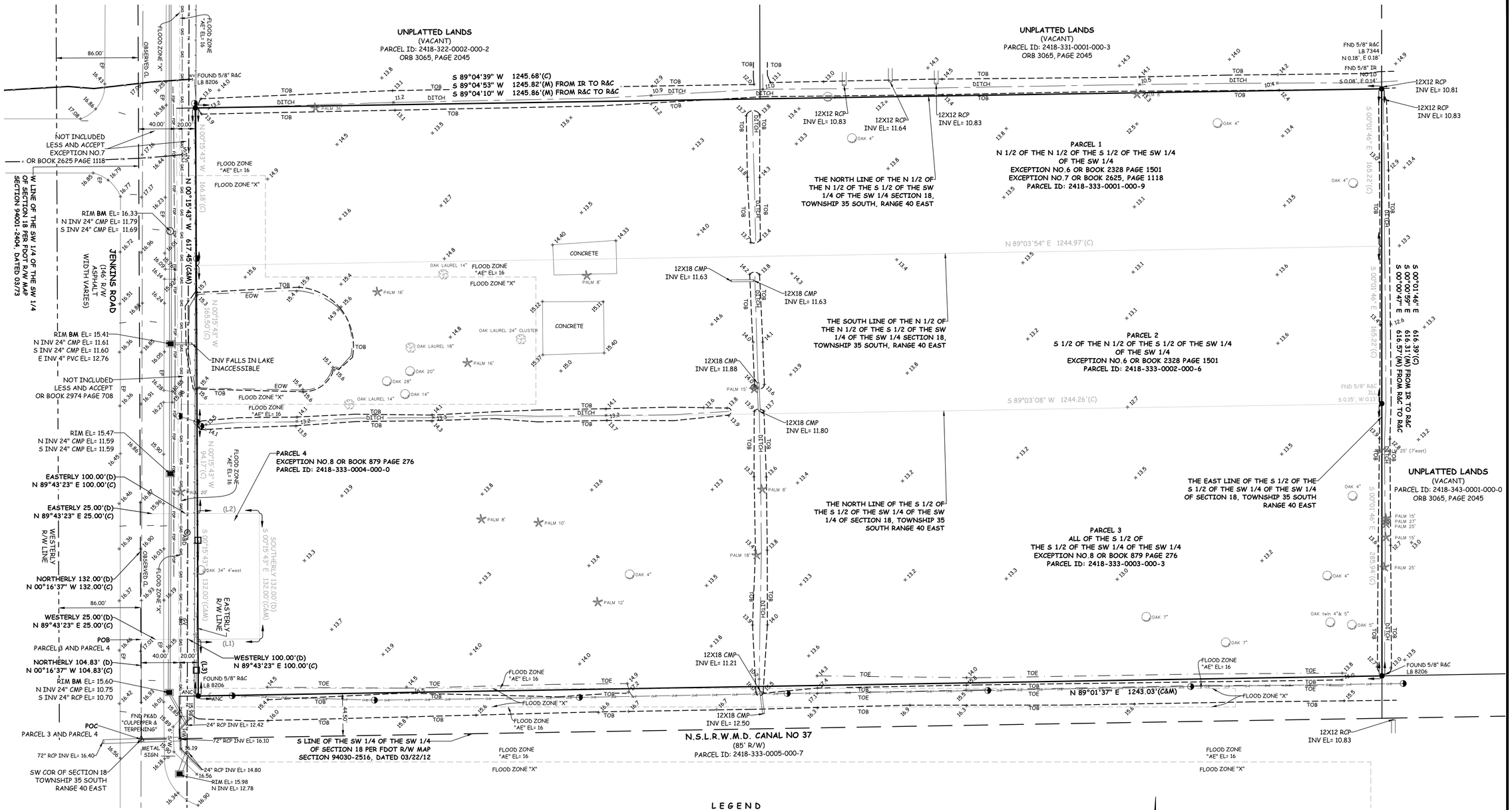
PREPARED FOR
BONAVENTURE

BY:	DATE:	REVISIONS
PCS	8/17/23	UPDATE SURVEY
PCS	11/06/23	TREE LOCATIONS
PCS	1/3/24	SFWMD COMMENTS
PCS	5/6/24	ADDED CERTIFICATIONS

DRAWN BY: HN
APPROVED BY: F. GUETTLER
SCALE: 1" = 500'
DATE: 03/17/22
FIELD BOOK/PAGES: PLANS

JOB NUMBER: 22-2063

SHEET: 1 OF 2


UNPLATTED LANDS
(VACANT)
PARCEL ID: 2418-322-0002-000-2
ORB 3065, PAGE 2045
S 89°04'39" W 1245.68'(C)
S 89°04'53" W 1245.82'(M) FROM IR TO R&C
S 89°04'10" W 1245.86'(M) FROM R&C TO R&C
FOUND 5/8" R&C LB 8206
FND 5/8" R&C LB 7344 N 0.18' E 0.18'
FND 5/8" IR NO.10 S 0.08', E 0.14'
12X12 RCP INV EL= 10.81
12X12 RCP INV EL= 10.83
12X12 RCP INV EL= 10.83
12X12 RCP INV EL= 11.64
12X12 RCP INV EL= 10.83
UNPLATTED LANDS
(VACANT)
PARCEL ID: 2418-331-0001-000-3
ORB 3065, PAGE 2045
PARCEL 1
N 1/2 OF THE N 1/2 OF THE S 1/2 OF THE SW 1/4
OF THE SW 1/4
EXCEPTION NO.6 OR BOOK 2328 PAGE 1501
EXCEPTION NO.7 OR BOOK 2625, PAGE 1118
PARCEL ID: 2418-333-0001-000-9
THE NORTH LINE OF THE N 1/2 OF THE N 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4 SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST
N 89°03'54" E 1244.97'(C)
THE SOUTH LINE OF THE N 1/2 OF THE N 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4 SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST
PARCEL 2
S 1/2 OF THE N 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4
EXCEPTION NO.6 OR BOOK 2328 PAGE 1501
PARCEL ID: 2418-333-0002-000-6
S 89°03'08" W 1244.26'(C)
THE NORTH LINE OF THE S 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4 OF SECTION 18, TOWNSHIP 35 SOUTH RANGE 40 EAST
THE EAST LINE OF THE S 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4 OF SECTION 18, TOWNSHIP 35 SOUTH RANGE 40 EAST
PARCEL 3
ALL OF THE S 1/2 OF
THE S 1/2 OF THE SW 1/4 OF THE SW 1/4
EXCEPTION NO.8 OR BOOK 879 PAGE 276
PARCEL ID: 2418-333-0003-000-3
N 89°01'37" E 1243.03'(C&M)
UNPLATTED LANDS
(VACANT)
PARCEL ID: 2418-343-0001-000-0
ORB 3065, PAGE 2045
S 00°01'46" E 1652.22'(C)
S 00°01'14" E 616.35'(C)
S 00°00'59" E 616.59'(M) FROM IR TO R&C
S 00°00'47" E 616.57'(M) FROM R&C TO R&C
PARCEL 4
EXCEPTION NO.8 OR BOOK 879 PAGE 276
PARCEL ID: 2418-333-0004-000-0
NOT INCLUDED
LESS AND ACCEPT
EXCEPTION NO.7
OR BOOK 2625 PAGE 1118
W LINE OF THE SW 1/4 OF THE SW 1/4 OF SECTION 18 PER FDOT R/W MAP SECTION 94001-2404, DATED 03/73
N 00°15'43" W 617.45'(C&M)
N 00°15'43" W 166.18'(C)
N 00°15'43" W 165.50'(C)
N 00°15'43" W 94.17'(C)
JENKINS ROAD
(66' R/W
ASPHALT
WIDTH VARIES)
RIM BM EL= 16.33
N INV 24" CMP EL= 11.79
S INV 24" CMP EL= 11.69
RIM BM EL= 15.41
N INV 24" CMP EL= 11.61
S INV 24" CMP EL= 11.60
E INV 4" PVC EL= 12.76
INV FALLS IN LAKE INACCESSIBLE
NOT INCLUDED
LESS AND ACCEPT
OR BOOK 2974 PAGE 708
RIM EL= 15.47
N INV 24" CMP EL= 11.59
S INV 24" CMP EL= 11.59
EASTERLY 100.00'(D)
N 89°43'23" E 100.00'(C)
EASTERLY 25.00'(D)
N 89°43'23" E 25.00'(C)
WESTERLY R/W LINE
NORTHERLY 132.00'(D)
N 00°16'37" W 132.00'(C)
WESTERLY 25.00'(D)
N 89°43'23" E 25.00'(C)
POB
PARCEL 3 AND PARCEL 4
NORTHERLY 104.83'(D)
N 00°16'37" W 104.83'(C)
RIM BM EL= 15.60
N INV 24" CMP EL= 10.75
S INV 24" CMP EL= 10.70
POC
PARCEL 3 AND PARCEL 4
72" RCP INV EL= 16.40
SW COR OF SECTION 18
TOWNSHIP 35 SOUTH
RANGE 40 EAST
FND PK&D "CULPEPPER & TERPENING"
METAL SIGN
24" RCP INV EL= 12.42
72" RCP INV EL= 16.10
24" RCP INV EL= 14.80
RIM EL= 15.98
N INV EL= 12.78
EASTERLY R/W LINE
SOUTHERLY 132.00'(D)
S 00°15'43" E 132.00'(C&M)
(L1)
(L2)
(L3)
WESTERLY 100.00'(D)
N 89°43'23" E 100.00'(C)
S LINE OF THE SW 1/4 OF THE SW 1/4 OF SECTION 18 PER FDOT R/W MAP SECTION 94030-2516, DATED 03/22/12
N.S.L.R.W.M.D. CANAL NO 37
(85' R/W)
PARCEL ID: 2418-333-0005-000-7
S 00°01'47" E 165.22'(C)
N 89°01'37" E 1243.03'(C&M)
12X18 CMP INV EL= 11.63
12X18 CMP INV EL= 11.63
12X18 CMP INV EL= 11.88
12X18 CMP INV EL= 11.80
12X18 CMP INV EL= 11.21
12X18 CMP INV EL= 12.50
12X12 RCP INV EL= 10.83
FOUND 5/8" R&C LB 8206
CONCRETE
CONCRETE
OAK LAUREL 24" CLUSTER
OAK LAUREL 18"
OAK LAUREL 14"
OAK LAUREL 14"
OAK 34" 4'west
OAK 4"
OAK 7"
OAK twin 4"& 5"
OAK 5"
PALM 36'
PALM 16'
PALM 16'
PALM 8'
PALM 8'
PALM 10'
PALM 12'
PALM 18'
PALM 15'
PALM 15'
PALM 27'
PALM 25'
PALM 15'
PALM 25'
OAK 20"
OAK 28"
OAK 14"
FLOOD ZONE "AE" EL= 16
FLOOD ZONE "X"
FLOOD ZONE "AE" EL= 16
FLOOD ZONE "X"
FLOOD ZONE "AE" EL= 16
FLOOD ZONE "X"
FLOOD ZONE "AE" EL= 16
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FLOOD ZONE "X"
FLOOD ZONE "AE" EL= 16
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DRAWING INDEX:

LA-1: OVERALL PLAN, LANDSCAPE DATA, & PLANT SCHEDULE

LA-2: DETAIL LANDSCAPE PLAN

LA-3: TYPICAL BUILDING UNIT LANDSCAPE PLAN

LA-4: LANDSCAPE DETAILS & SPECIFICATIONS

LA-5: EXISTING TREE DISPOSITION & MITIGATION PLAN

Landscape Data:

TREE REQUIREMENTS

NORTH PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 1,266 LF x 10' WIDE
12,660 SF DIV. BY 200 = 64 TREES REQUIRED

SOUTH PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 1,264 LF x 10' WIDE
12,640 S.F. DIV. BY 300 = 43 TREES REQUIRED

EAST PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 620 LF x 10' WIDE
6,200 SF DIV. BY 200 = 31 TREES REQUIRED

WEST PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 620 LF x 10' WIDE
6,200 SF DIV. BY 300 = 21 TREES REQUIRED

INTERIOR VEHICULAR USE AREAS = 205,350 S.F
210,728/15 = 14,049 S.F. REQUIRED PLANTING AREA
141 INTERIOR VUA TREES REQUIRED

TOTAL TREES REQUIRED: 300 TREES

PROVIDED TREES

NORTH PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 1,266 LF x 10' WIDE
64 TREES PROVIDED

SOUTH PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 1,264 LF x 10' WIDE
43 TREES PROVIDED

EAST PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 620 LF x 10' WIDE
31 TREES PROVIDED

WEST PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 620 LF x 10' WIDE
21 TREES PROVIDED

INTERIOR VEHICULAR USE AREAS = 205,350 S.F
14,100 S.F. REQUIRED PLANTING AREA
141 INTERIOR VUA TREES PROVIDED

TOTAL TREES PROVIDED: 300 TREES

SHRUB REQUIREMENTS

NORTH PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 1,266 LF x 10' WIDE
CONTINUOUS HEDGE @ 36" OC = 422 SHRUBS REQUIRED

SOUTH PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 1,264 LF x 10' WIDE
CONTINUOUS HEDGE @ 36" OC = 422 SHRUBS REQUIRED

EAST PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 620 LF x 10' WIDE
CONTINUOUS HEDGE @ 36" OC = 207 SHRUBS REQUIRED

WEST PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 620 LF x 10' WIDE
CONTINUOUS HEDGE @ 36" OC = 207 SHRUBS REQUIRED

TOTAL SHRUBS REQUIRED: 1,258 SHRUBS

PROVIDED SHRUBS

NORTH PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 1,266 LF x 10' WIDE
435 SHRUBS PROVIDED

SOUTH PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 1,264 LF x 10' WIDE
442 SHRUBS PROVIDED

EAST PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 620 LF x 10' WIDE
225 SHRUBS PROVIDED

WEST PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 620 LF x 10' WIDE
223 SHRUBS PROVIDED

TOTAL SHRUBS PROVIDED: 1,325 SHRUBS

General Landscape Notes:

1. All plants shall conform to established nursery grades and standards, to be Florida No. 1 or better, and shall be free of disease and insects at the time of installation.
2. Trees shall be a minimum of twelve (12) feet in height and have a caliper of two and one-half (2 1/2) inches at four and one-half (4 1/2) feet above the ground when installed.
3. All required trees, except palms, shall have a minimum of five (5) feet of clear trunk and a minimum five (5) foot canopy spread at the time of planting.
4. All palm trees shall have a minimum clear trunk of ten (10) feet when installed. Three palm trees are equal to one shade tree having a mature canopy spread of fifteen (15) feet.
5. Shrubs shall be a minimum of twenty-four (24) inches in height above grade immediately after planting.
6. Groundcovers, other than grass, shall be planted in a manner as to present a finished appearance and reasonably complete coverage within four (4) months after planting.
7. Turf grass shall be installed using solid sod and shall be either Bahia or St. Augustine sod.
8. All landscape areas other than sod will be provided a mulch cover of at least three (3) inches. Cypress mulch shall not be used.
9. All existing native vegetation found on the site and is not in direct conflict with the proposed buildings or parking areas shall be left undisturbed. A suitable protective barrier, constructed of metal, wood, safety fencing, or other durable material, will be placed around the staked out locations of existing native vegetation.
10. No fill materials, construction materials, concrete, paint, chemicals, or other foreign materials shall be stored, deposited, or disposed of within any areas that have been staked or fenced off as being undisturbed native vegetation areas.
11. Existing understory shall be maintained in areas of undisturbed native vegetation.
12. All Category 1 exotic plant species will be eradicated from the site.
13. Conspicuous, durable barricades will be erected around each individual tree or areas of vegetation that are to be preserved. In the event that any protective barricades are removed or altered and land clearing or construction work is being conducted on the site, all work at the site will be stopped until the barriers are restored and any necessary corrective actions taken to repair or replant any vegetation removed or damaged as a result of these encroachments.
14. Irrigation to conform to all local and State regulations with regard to water consumption.
15. All new landscaping shall be provided with 100% irrigation coverage through the establishment period, not less than 1-year.

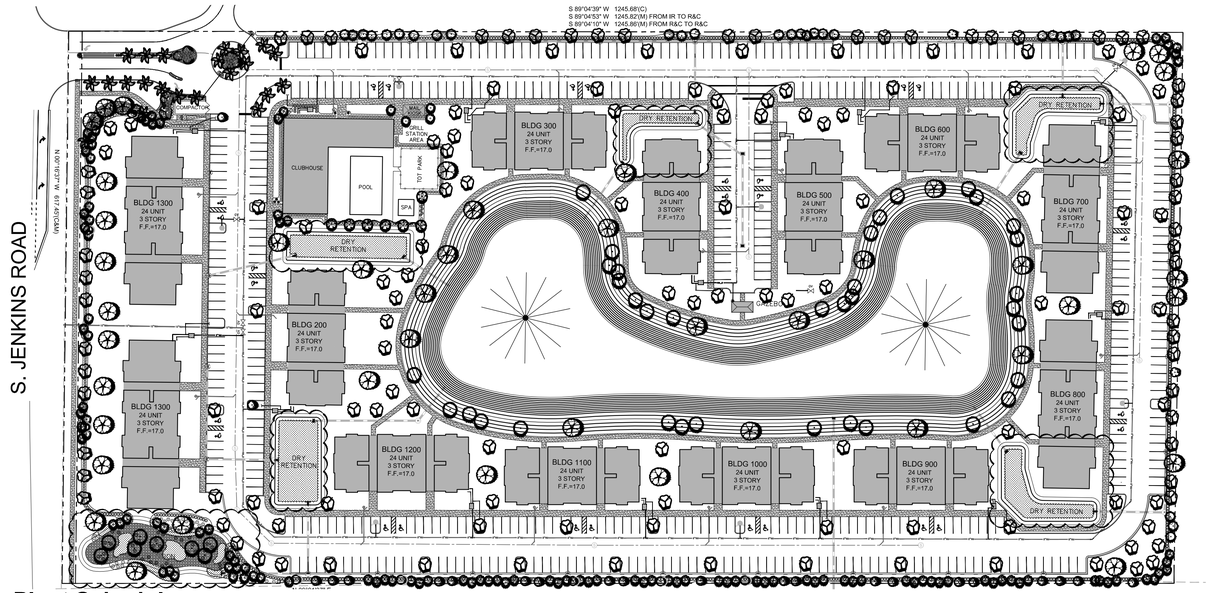
811 Know what's below. Call before you dig.

Digitally signed by Paul A. Goulas
Date: 2023.12.22 09:50:26 -05'00'
Adobe Acrobat version: 2023.006.20380

*NOT INCLUDED IN PROVIDED PLANT CALCULATIONS; QUANTITIES MAY VARY AT OWNER'S DISCRETION

**MAY BE SUBSTITUTED WITH BAHIA SPECIES

***SEE SHEET LA-5 FOR DETAILS
MITIGATION TREE QUANTITIES ARE NOT INCLUDED IN PROVIDED SITE LANDSCAPE DATA AND ARE IN ADDITION TO SITE CODE REQUIRED TREES



Plant Schedule:

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	DBH
TREES									
	28	Elaeocarpus decipiens	Japanese Blueberry Tree	45G	12` HT	5`W	STD, 4`CT, SP	Non-native	2.5" DBH
	27	Pinus elliotti densa	South Florida Slash Pine	FG	12` HT	5`W	SP	Native	2.5" DBH
	151	Quercus virginiana	Southern Live Oak	45G	12` HT	5`W	6`CT, SP	Native	2.5" DBH
	44	Taxodium distichum	Bald Cypress	FG	12` HT	6`W	SP	Native	2.5" DBH
***EXISTING TREES TO REMAIN									
	2	Sabal palmetto	Cabbage Palm	Existing to Remain	10`-18` CT		SP	Native	
***MITIGATION TREES									
	44	Quercus virginiana	Southern Live Oak	FG	14` HT	6`W	SP	Native	6.5" Caliper, 6" DBH
	8	Sabal palmetto	Sabal Palm	FG	10`-18` CT		SLK, HC, SP	Native	
PALM TREES									
	22	Roystonea regia	Florida/Cuban Royal Palm	FG	8` GW, 18` OA		FH, SP, MATCHING	Native	
	121	Sabal palmetto	Sabal Palm	FG	10`-18` CT		SLK, HC, SP	Native	
	7	Wodyetia bifurcata	Single Foxtail Palm	FG	6`GW, 10`CT		SGL, FH, SP	Non-native	

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE
SHRUBS								
	40	Acrostichum danaeifolium	Giant Leather Fern	7G	3` HT	3`W	F	Native
	✱27	Alcantarea imperialis	Imperial Bromeliad	7G	2` HT	2` W	F	Non-native
	285	Chrysobalanus icaco `Redtip`	Red Tip Cocoplum	3G	24" HT	18"W	F	Native
	32	Clusia guttifera	Small-Leaf Clusia	15G	4' HT	3' W	F	Non-native
	964	Clusia guttifera	Small Leaf Clusia	3G	30" HT	24"W	F	Non-native
	29	Codiaeum variegatum `Petra`	Petra Croton	3G	24" HT	24"W	F	Non-native
	131	Hamilia patens	Native Firebush	3G	24" HT	18"W	F	Native
	✱44	Hibiscus rosa-sinensis	Red Chinese Hibiscus	3G	24" HT	18"W	F	Non-native
	13	Myrcianthes fragrans	Simpson`s Stopper	7G	48" HT	36" W	F	Native
	✱8	Pennisetum setaceum	White Fountain Grass	3G	24" HT	18"W	F	Non-native
	✱163	Podocarpus macrophyllus `Pringles`	Dwarf Podocarpus	3G	18" HT	12"W	F	Non-native
	✱82	Rondeletia leucophylla	Panama Rose	3G	24" HT	24"W	F	Non-native
	✱145	Tripsacum dactyloides	Fakahatchee Grass	3G	30" HT	24"W	F	Native

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	SPACING
GRASSES									
	1,715	Spartina bakeri	Sand Cordgrass	1G	24"HT	12" W	F	Native	36" o.c.
**SOD	1,246 sf	Stenotaphrum secundatum `Floratam`	Floratam St. Augustine Sod	SOD			Free of Weeds and Pests		

Project Team

Landscape Architect:

LANDSCAPE ARCHITECTURAL SERVICES, LLC
Brandon White | Owner
772-834-1357 | brandon@las-fl.com
Paul Goulas | Owner
772-631-8400 | paul@las-fl.com
1708 SE Joy Haven Street
Port St. Lucie, Fl. 34983

Client:

ALVA STONE GROUP, LLC

591 EVERNIA STREET
WEST PALM BEACH, FL 33401

Regatta Apartments

City of Fort Pierce, Florida

Landscape Plan

Revisions		
Date	Init.	Description
8.23.23	PG	Submittal
11.08.23	PG	Revised per Site Plan & Comments
12.20.23	PG	Revised per Bioswale & Retention Areas

REGISTERED LANDSCAPE ARCHITECT — PAUL A. GOULAS — LA 6666807 — STATE OF FLORIDA

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

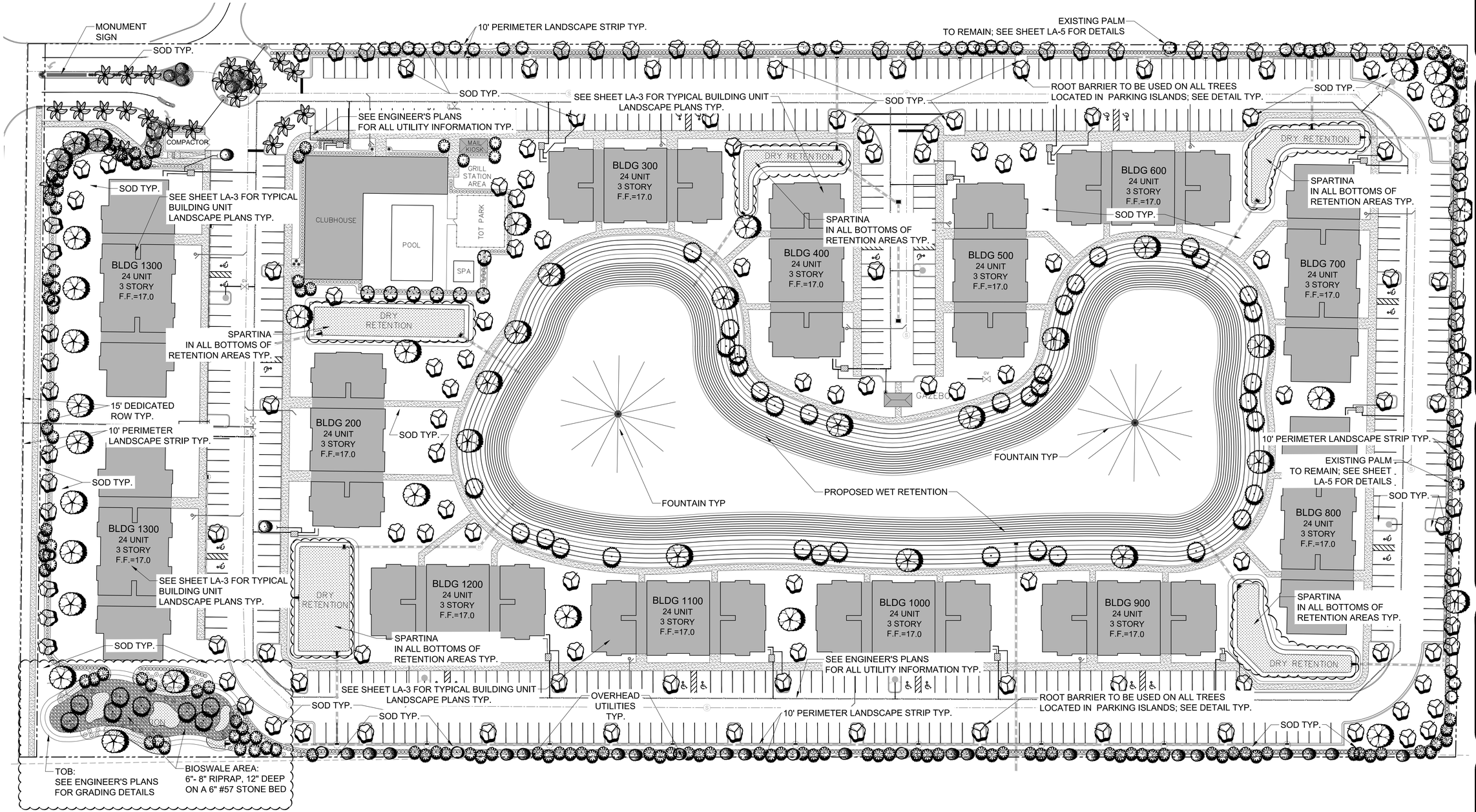
Drawn By: PG
Checked By: PG
Municipal Project:
Scale:

NORTH

SCALE: 1" = 80'

0 40' 80' 160'

LA-1



Project Team

Landscape Architect:

LANDSCAPE ARCHITECTURAL SERVICES, LLC

Brandon White | Owner
772-834-1357 | brandon@las-fl.com
Paul Goulas | Owner
772-631-8400 | paul@las-fl.com
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591 EVERNIA STREET
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Regatta Apartments

City of Fort Pierce, Florida

Detail Landscape Plan

Revisions		
Date	Init.	Description
8.23.23	PG	Submittal
11.08.23	PG	Revised per Site Plan & Comments
12.20.23	PG	Revised per Bioswale & Retention Areas

REGISTERED LANDSCAPE ARCHITECT
PAUL A. GOULAS
LA 6666807
STATE OF FLORIDA

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

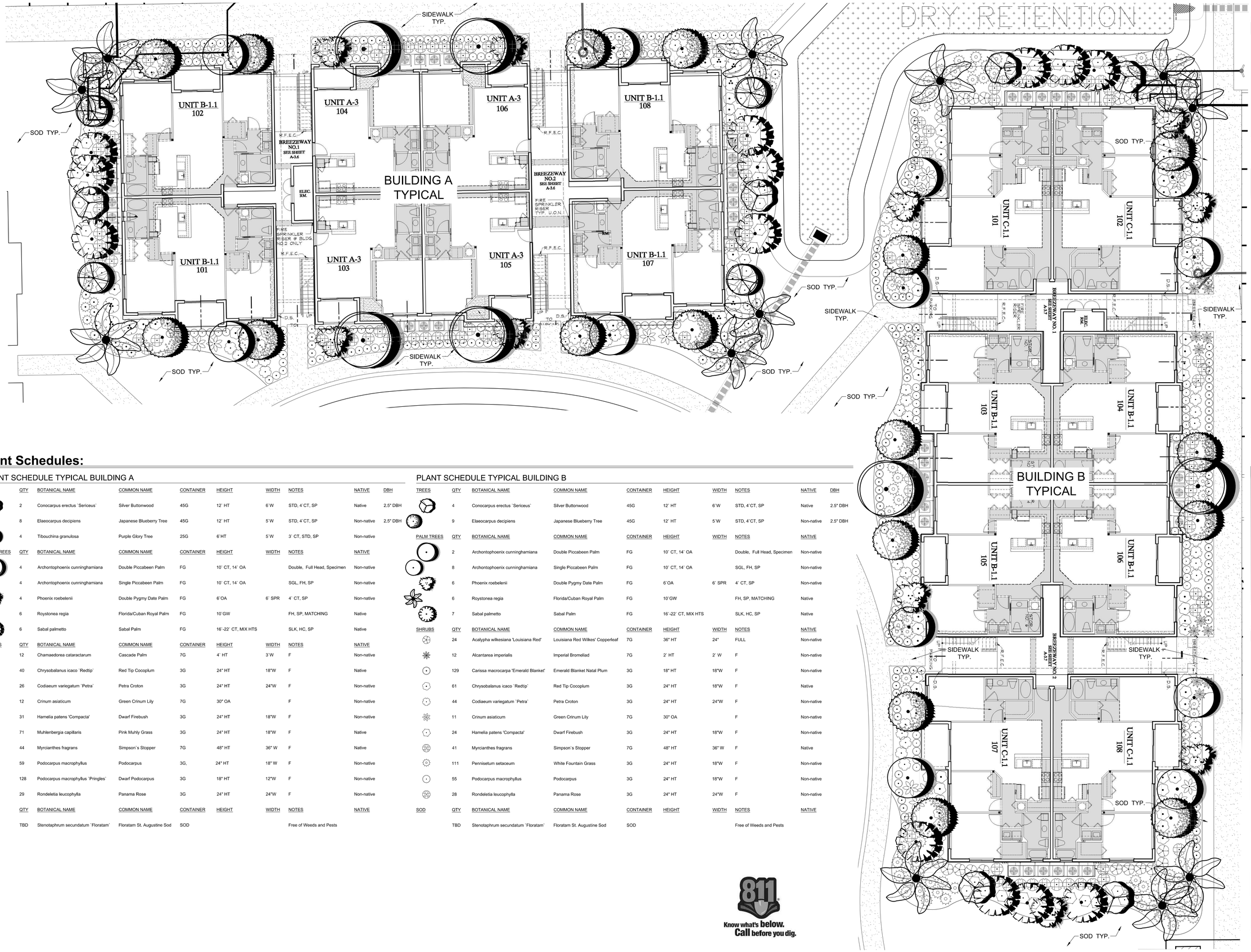
Drawn By:	PG
Checked By:	PG
Municipal Project:	
Scale:	

NORTH

SCALE: 1" = 40'

0 20' 40' 80'

LA-2



Plant Schedules:

PLANT SCHEDULE TYPICAL BUILDING A

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	DBH
	2	Conocarpus erectus `Sericeus`	Silver Buttonwood	45G	12` HT	6`W	STD, 4`CT, SP	Native	2.5" DBH
	8	Elaeocarpus decipiens	Japanese Blueberry Tree	45G	12` HT	5`W	STD, 4`CT, SP	Non-native	2.5" DBH
	4	Tibouchina granulosa	Purple Glory Tree	25G	6`HT	5`W	3` CT, STD, SP	Non-native	
PALM TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	4	Archontophoenix cunninghamiana	Double Piccabeen Palm	FG	10` CT, 14` OA		Double, Full Head, Specimen	Non-native	
	4	Archontophoenix cunninghamiana	Single Piccabeen Palm	FG	10` CT, 14` OA		SGL, FH, SP	Non-native	
	4	Phoenix roebelenii	Double Pygmy Date Palm	FG	6`OA	6` SPR	4` CT, SP	Non-native	
	6	Roystonea regia	Florida/Cuban Royal Palm	FG	10`GW		FH, SP, MATCHING	Native	
	6	Sabal palmetto	Sabal Palm	FG	16`-22` CT, MIX HTS		SLK, HC, SP	Native	
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	12	Chamaedorea cataractarum	Cascade Palm	7G	4` HT	3`W	F	Non-native	
	40	Chrysobalanus icaco `Redtip`	Red Tip Cocoplum	3G	24" HT	18"W	F	Native	
	26	Codiaeum variegatum `Petra`	Petra Croton	3G	24" HT	24"W	F	Non-native	
	12	Crinum asiaticum	Green Crinum Lily	7G	30" OA		F	Non-native	
	31	Hamelia patens 'Compacta'	Dwarf Firebush	3G	24" HT	18"W	F	Non-native	
	71	Muhlenbergia capillaris	Pink Muhly Grass	3G	24" HT	18"W	F	Native	
	44	Myrcianthes fragrans	Simpson`s Stopper	7G	48" HT	36" W	F	Native	
	59	Podocarpus macrophyllus	Podocarpus	3G,	24" HT	18" W	F	Non-native	
	128	Podocarpus macrophyllus `Pringles`	Dwarf Podocarpus	3G	18" HT	12"W	F	Non-native	
	29	Rondeletia leucophylla	Panama Rose	3G	24" HT	24"W	F	Non-native	
SOD	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	TBD	Stenotaphrum secundatum `Floratam`	Floratam St. Augustine Sod	SOD			Free of Weeds and Pests		

PLANT SCHEDULE TYPICAL BUILDING B

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	DBH
	4	Conocarpus erectus `Sericeus`	Silver Buttonwood	45G	12` HT	6`W	STD, 4`CT, SP	Native	2.5" DBH
	9	Elaeocarpus decipiens	Japanese Blueberry Tree	45G	12` HT	5`W	STD, 4`CT, SP	Non-native	2.5" DBH
PALM TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	2	Archontophoenix cunninghamiana	Double Piccabeen Palm	FG	10` CT, 14` OA		Double, Full Head, Specimen	Non-native	
	8	Archontophoenix cunninghamiana	Single Piccabeen Palm	FG	10` CT, 14` OA		SGL, FH, SP	Non-native	
	6	Phoenix roebelenii	Double Pygmy Date Palm	FG	6`OA	6` SPR	4` CT, SP	Non-native	
	6	Roystonea regia	Florida/Cuban Royal Palm	FG	10`GW		FH, SP, MATCHING	Native	
	7	Sabal palmetto	Sabal Palm	FG	16`-22` CT, MIX HTS		SLK, HC, SP	Native	
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	24	Acalypha wilkesiana 'Louisiana Red'	Louisiana Red Wilkes' Copperleaf	7G	36" HT	24"	FULL	Non-native	
	12	Alcantarea imperialis	Imperial Bromeliad	7G	2` HT	2` W	F	Non-native	
	129	Carissa macrocarpa 'Emerald Blanket'	Emerald Blanket Natal Plum	3G	18" HT	18"W	F	Non-native	
	61	Chrysobalanus icaco `Redtip`	Red Tip Cocoplum	3G	24" HT	18"W	F	Native	
	44	Codiaeum variegatum `Petra`	Petra Croton	3G	24" HT	24"W	F	Non-native	
	11	Crinum asiaticum	Green Crinum Lily	7G	30" OA		F	Non-native	
	24	Hamelia patens 'Compacta'	Dwarf Firebush	3G	24" HT	18"W	F	Non-native	
	41	Myrcianthes fragrans	Simpson`s Stopper	7G	48" HT	36" W	F	Native	
	111	Pennisetum setaceum	White Fountain Grass	3G	24" HT	18"W	F	Non-native	
	55	Podocarpus macrophyllus	Podocarpus	3G	24" HT	18"W	F	Non-native	
	28	Rondeletia leucophylla	Panama Rose	3G	24" HT	24"W	F	Non-native	
SOD	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	TBD	Stenotaphrum secundatum `Floratam`	Floratam St. Augustine Sod	SOD			Free of Weeds and Pests		

811 Know what's below. Call before you dig.

Project Team

Landscape Architect:

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City of Fort Pierce, Florida

Typical Unit Landscape Plan

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REGISTERED LANDSCAPE ARCHITECT PAUL A. GOULAS LA 6666807 STATE OF FLORIDA

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

Drawn By: PG
Checked By: PG
Municipal Project:
Scale:

NORTH

SCALE: 1" = 10'

0 5' 10' 20'

LA-3

LANDSCAPE SPECIFICATIONS:

PART 1: GENERAL CONDITIONS

1.01 SCOPE:
A. The landscape contract includes the supplying and planting of all trees, shrubs, vines, and ground cover together with all necessary labor, equipment, tools and materials needed for the successful completion, execution and maintenance of the landscape plans.

1.02 AGENCY STANDARDS:
A. Grades and standards of plant materials to be used shall be true to name, size, condition and graded Florida #1 or better as stated in: Grades and Standards of Florida Plant Materials published by the State of Florida Department of Agriculture, Tallahassee, Florida.

1.03 SITE EXAMINATION:
A. The Landscape Contractor shall personally examine the site and fully acquaint him/herself with all of the existing conditions in order that no mis-understanding may afterwards arise as to the character or extent of the work to be performed, and additionally, in order to acquaint him/herself with all precautions to be taken in order to avoid injury to property or persons. No additional compensation will be granted because of any unusual difficulties which may be encountered in the execution or maintenance of any portion of the work.

1.04 ERRORS AND OMISSIONS:
A. The plant list is a part of the drawings and is furnished as a convenience. The plant list indicates the name, size and quantities of specific plant materials as called for and is located on the drawings. The Landscape Contractor is responsible for his/her own quantity count, and any discrepancy between drawings and plant list shall be considered as correct on the drawings.

B. The Landscape Contractor shall not take advantage of errors or omissions in the specifications or contract drawings. Full instruction will be given if such errors are discovered. Upon the discovery of any discrepancies in, or omissions from the drawings or documents, or should the Landscape Contractor be in doubt as to their meaning, the Landscape Architect shall be notified and will determine the actions necessary to each query.

C. If plans and specifications are found to disagree after the contract is awarded, the Landscape Architect shall be the judge as to which was intended.

1.05 EXECUTION OF THE WORK:
A. The Landscape Contractor shall have his labor crews controlled and directed by a Foreman well versed in plant materials, planting methods, reading blueprints, and coordination between job and nursery in order to execute installation correctly and in a timely manner.

B. The Landscape Contractor shall provide a competent English-speaking Foreman on the project at all times, who shall be fully authorized as the Contractor's agent on the work. The Superintendent shall be capable of reading and thoroughly understanding the Plans, Specifications and other Contract Documents. If the Superintendent is deemed incompetent by the Landscape Architect, he (the superintendent) shall be immediately replaced.

C. The Landscape Contractor shall be available for any meetings with the Owner and/or Landscape Architect during implementation of the job. Any additional work or changes required as a result of failure to communicate with the Owner or Landscape Architect during implementation will be the responsibility of the Landscape Contractor.

1.06 PROTECTION OF PUBLIC AND PROPERTY:
A. The Landscape Contractor shall protect all materials and work against injury from any cause and shall provide and maintain all necessary safeguards for the protection of the public. He shall be held responsible for any damage or injury to persons or property which may occur as a result of his fault or negligence in the execution of the work, i.e. damage to underground pipes or cables.

1.07 CHANGES AND EXTRAS:
A. The Contractor shall not start work on any changes or "extras" in the project until a written agreement setting forth the adjusted prices has been executed by the Owner and the Contractor. Any work performed on changes or "extras" prior to execution of a written agreement may or may not be compensated for by the Owner at his discretion.

1.08 GUARANTEE:
A. The Landscape Contractor shall furnish a written guarantee warranting all materials, workmanship and plant materials, except sod, for a period of ONE (1) YEAR from the time of completion and acceptance by the Landscape Architect and Owner. Sod shall be guaranteed to 90 calendar days after acceptance by the Landscape Architect and Owner. All plant material shall be alive and in satisfactory condition and growth for each specific kind of plant at the end of the guarantee period. The guranteeing of plant material shall be construed to mean complete and immediate replacement with plant material of the same variety, type, size, quality and grade as that of the originally specified material. During the guarantee period it shall be the Landscape Contractor's responsibility to immediately replace any dead or unhealthy material as determined by the Landscape Architect. The guarantee will be null and void if plant material is damaged by lightning, hurricane force winds, or any other acts of God, as well as vandalism or lack of proper maintenance.

B. At the end of the specified guarantee period, any plant required under this contract that is dead or not in satisfactory condition, as determined by the Landscape Architect, shall be replaced. The Landscape Contractor shall be responsible for the full replacement cost of plant materials for the first replacement and share subsequent replacement (s) costs equally with the Owner, should the replacement plant fail to survive.

1.09 CARE AND MAINTENANCE:
A. The Landscape Contractor shall be responsible for the care and maintenance of all plant materials and irrigation when applicable until final acceptance by the Owner or Landscape Architect.

B. The Owner agrees to execute the instructions for such care and maintenance.

1.10 SAFETY:
A. It shall be the responsibility of the Landscape Contractor to protect all persons from injury and to avoid property damage. Adequate warning devices shall be placed and maintained during the progress of the work.

B. It shall be the contractor's responsibility to conform to all local, state, and federal safety laws and codes including the Federal Occupational Safety And Health Act (O.S.H.A.) .

1.11 CONTRACTOR QUALIFICATION:
A. The Owner may require the apparent contractor (s) to qualify him/herself to be a responsible entity by furnishing any or all of the following documentary data:
1. A financial statement showing assets and liabilities of the company current to date.
2. A listing of not less than (3) completed projects of similar scope and nature.
3. Permanent name and address of place of business.
4. The number of regular employees of the organization and length of time the organization has been in business under the present name.

1.12 INSURANCE AND BONDING:
A. The contractor (s) shall submit proof of insurance for this job for the time period that the work is done. The minimum amount of insurance shall be $300,000.00 per person and $300,000.00 per aggregate or as required by owner and agreed to in the contract. The successful bidder shall be required to have this coverage in effect before beginning work on the site.

B. The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

1.13 PERMITS AND CERTIFICATES:
A. All contractors shall secure and pay for all permits and certificates required for his/her class of work.

PART 2: MATERIALS

2.01 PLANT MATERIALS:
A. A complete list of plants is shown on the drawings, including a schedule of quantities, sizes, and such other requirements deemed necessary. In the event discrepancies occur, the specifications on the drawings shall govern.

B. Substitutions: Substitutions of plant materials or changes in size or spacing of materials will be permitted ONLY upon written authorization by the Owner or the Landscape Architect. If plant material is not of sufficient size to meet applicable codes, a letter of variance from the appropriate agency must be obtained by the Contractor prior to issuance of any change order. If material of smaller size is to be accepted, the quantity of material shall be increased, at no additional cost to the Owner, to meet the intent of the drawings.

C. All plant materials shall have a habit of growth that is normal for the species and shall be healthy, vigorous and equal to or exceed the measurements specified in the plant list, which are the minimum acceptable sizes. Plants shall be measured before pruning with branches in normal position. Any necessary pruning shall be done at the time of planting.

D. All plant materials shall be nursery grown, unless otherwise noted, Florida #1 or better and shall comply with all required inspections, grading standards and plant regulations as set forth by the Florida Department of Agriculture's Grades and Standards for Nursery Plants, most current addition and Grades and Standards for Nursery Plants, most current addition.

E. Plants that do not have the normal balance of height and spread typical for the respective plant shall not be acceptable.

F. The Landscape Contractor shall install each plant to display its best side. Adjustments may be required if plants are not installed properly and/or approved by the Landscape Architect at no additional cost to owner.

2.02 INSPECTION
A. The Landscape Architect and Owner may inspect trees and shrubs at place of growth or at site before planting, for compliance with requirements for genus, species, variety, size and quality. The Landscape Architect and Owner retain the right to further inspect trees and shrubs for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. Rejected plant materials shall be immediately removed from project site.

2.03 PROTECTION OF PLANT MATERIALS:
A. Balled and burlapped plants (B & B) shall be dug with firm natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Balls shall be firmly wrapped with burlap similar materials and bound with cord, rope, or wire mesh. All collected plants shall be balled and burlapped.

B. Plants with broken, damaged or insufficient rootballs will be rejected.

C. All plant material shall be protected from possible bark injury or breakage of branches. All plants transported by open trucks shall be adequately covered to prevent windburn, drying or damage to plants.

D. Plants which cannot be planted immediately on delivery to the site shall be covered with moist soil, mulch or other protection from the drying of wind and sun. All plants shall be watered as necessary by the Landscape Contractor until planted.

2.04 STORAGE:
A. All plant materials shall be stored on the site in designated areas, specified by the Landscape Architect or Owner's agent.

B. No plant material shall be stored longer than seventy-two (72) hours unless approved by by Landscape Architect and/or owner.

C. The Landscape Architect reserves the right to reject any plant materials not in conformance with these specifications.

D. All rejected material shall be immediately removed from the site and replaced with acceptable material at no cost to the Owner.

2.05 PROTECTION DURING PLANTING:
A. Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling or bark slippage by means of burlap, wood battens or other approved methods. Battens shall NOT be attached to the tree with nails.

2.06 PLANTING SOIL:
A. Planting soil for all plantings shall consist of existing native soil and shall be free of debris, roots, clay, stones, plants or other foreign materials which might be a hindrance to planting operations or be detrimental to good growth.

2.07 FERTILIZER:
A. Commercial fertilizer shall comply with the state fertilizer laws. Nitrogen shall not be less than 40% from organic source. Inorganic chemical nitrogen shall not be derived from the sodium form of nitrate. Fertilizers shall be delivered to the site in unopened original containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer that becomes caked or otherwise damaged shall be rejected.

B. Thoroughly mixed 3 lbs. of commercial fertilizer to each cubic yard of planting soil.

C. Tabletized fertilizer shall be Agriform planting tablets 20-10-5 formula, 21 gram or equal. All trees and shrubs shall be fertilized with tabletized fertilizer as follows. While backfilling plant holes, fertilizer tablets shall be equally spaced and placed adjacent to the ball mid-way in depth in accordance with the following rates:

1 gallon container	1 tablet
3 gallon container	2 tablets
5 gallon container	3 tablets
7 gallon	5 tablets

Large tubs, wire baskets, grow bags, and balled and burlapped material shall have 1 tablet for each 1/2 inch of trunk diameter (measured 3 feet from ground) or for each foot of height or spread of larger shrub material.
The Landscape Architect reserves the right to inspect and review the application of fertilizer.

2.08 MULCH:
A. Mulch material shall be clean, dry, free of weeds, seeds and pests, moistened at the time of application to prevent wind displacement. Cypress &/or Red mulch is prohibited.

B. All trees and shrub beds shall receive 3" mulch immediately after planting and thoroughly watered. Apply 2" max on tree & palm rootballs, keep away from tree & palm trunks or as required by local jusidiction.

PART 3: EXECUTION
3.01 DIGGING:
A. The Landscape Contractor shall exercise care in digging and other work so as not to damage existing work, including overhead wires, underground pipes and cables and the pipes and hydrants of watering systems. Should such overhead or underground obstructions be encountered which interfere with planting, the Owner shall be consulted and contractor will adjust the location of plants to clear such obstruction. The Contractor shall be responsible for the immediate repair of any damage caused by his work.

3.02 GRADING:
A. Grading for drainage, swales, etc. to within 4 inches of the finished grade to be provided by others.

B. It shall be the responsibility of the Landscape Contractor to provide the final grading during the course of landscape installation so as to bring sod and planting areas to their proper elevations in relation to walks, paving, drain structures, and other site conditions. The site grading plan must be checked prior to installation of sod to insure that drainage and other conditions will NOT be modified.

3.03 PLANTING:
A. Planting shall take place during favorable weather conditions.

B. The Contractor shall call for utility locates and ascertain the location of all utilities and easements so proper precautions can be taken not to damage or encroach on them.

C. Tree Planting shall be located where it is shown on the plan. No planting holes shall be dug until the proposed locations have been staked on the ground by the Contractor.

D. Excavation of holes shall extend to the required subgrades as specified on the planting diagrams located in the planting plans. Plant pits shall be circular in outline and shall have a profile which conforms to the aforementioned "Tree and Shrub Planting Diagrams".

E. A representative number of planting pits (a minimum of one in every 25 feet throughout the entire site) shall be tested for proper drainage. See Landscape Plan for complete testing methods and requirements.

F. Planting pits shall be excavated to the following dimensions and refilled with a mixture of (1/2) planting soil (1/2) existing native soil];
1 Gallon material (1 gal.): 12" x 12" x 12" min.
3 Gallon material (3 gal.): 20" x 20" x 18" min.
Lerio material (7 gal.): 30" x 30" x 24" min.
Field grown material and trees: 1-1/2 times width of ball and depth of ball plus 12" min.

G. No planting or laying of sod shall be initiated until the area has been cleaned of existing sod or other plant materials, rough grass, weeds, debris, stones etc. and the ground has been brought to an even grade, with positive drainage away from buildings and towards drain inlets and swales and approved by Landscape Architect or owner's rep.

H. Each plant shall be planted in an individual hole as specified for trees, shrubs, and vines.

I. All plants shall be set to ultimate finished grade. No filling will be permitted around trunks or stems. All ropes, wire, stakes, etc., shall be removed from sides and top of the ball and removed from hole before filling in.

J. All flagging ribbon shall be removed from trees and shrubs before planting.

K. Excess excavation (fill) from all holes shall be removed from the site, at no additional expense to Owner.

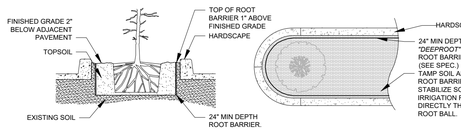
L. All palms shall be backfilled with sand, thoroughly washed in during planting operations and with a shallow saucer depression left at the soil line for future waterings. Saucer areas shall be top-dressed two (2") inches deep with topsoil raked and left in a neat, clean manner.

3.04 PRUNING:
A. Remove dead and broken branches from all plant material. Prune to retain typical growth habit of individual plants with as much height and spread as possible in a manner which will preserve the plant's natural character.

B. Make all cuts with sharp instruments flush with trunk or adjacent branch, in such a manner as to insure elimination of stubs. Cuts made at right angles to line of growth will not be permitted.

C. Trees shall not be poled or topped.

D. Remove all trimmings from site.



SPECIAL APPLICATIONS ROOT BARRIER DETAIL
NOT TO SCALE

NOTES:
1- ROOT BARRIER SHALL BE "DEEPROOT" 24" DEPTH OR APPROVED EQUAL.
2- ROOT BARRIER SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

3.05 GUYING:
A. All trees over six (6') feet in height shall, immediately after setting to proper grade, be guyed with three sets of two strands, No. 12 gauge malleable galvanized iron, in tripod fashion. See Detail.

B. Wires shall not come in direct contact with the tree but shall be covered with an approved protection device at all contact points. Wires shall be fastened in such a manner as to avoid pulling crotches apart.

D. Stake & Brace all treess larger than 12' oa. See detail.
Stakes shall be 2" x 2" lumber of sufficient length to satisfactorily support each tree.

E. Turnbuckles for guying trees shall be galvanized or cadmium plated and shall be of adequate size and strength to properly maintain tight guy wires.

3.06 WATER:
A. Each plant or tree shall be thoroughly watered in after planting. Watering of all newly installed plant materials shall be the responsibility of the Landscape Contractor until final acceptance by the Landscape Architect.

B. See General Notes of Landscape Plan for water source.

3.07 SOD:

A. The Landscape Contractor shall sod all areas indicated on the drawings.

B. It shall be the responsibility of the Landscape Contractor to fine grade all landscape areas, eliminating all bumps, depressions, sticks, stones, and other debris.

C. The sod shall be firm, tough texture, having a compacted growth of grass with good root development. It shall contain no noxious weeds, or any other objectionable vegetation, fungus, insects, or disease. The soil embedded in the sod shall be good clean earth, free from stones and debris.

D. Before being cut and lifted, the sod shall have been mowed at least three times with a lawn mower, with the final mowing not more than seven days before the sod is cut. The sod shall be carefully cut into uniform dimensions.

E. 6-6-6 fertilizer with all trace elements is to be applied at the rate of 40 lbs. per 1,000 sq. ft. prior to laying sod.

F. Solid sod shall be laid with closely abutting, staggered joints with a tamped or rolled, even surface.

G. The finished level of all sod areas after settlement shall be one (1") inch below the top of abutting curbs, walks, paving and wood borders to allow for building turf.

H. If in the opinion of the Landscape Architect, top dressing is necessary after rolling, clean yellow sand will be evenly applied over the entire surface and thoroughly washed in.

3.08 SEEDING:
A. The Landscape Contractor shall remove all vegetation and rocks larger than (1") in diameter from areas to be seeded, scarify the area, then apply fertilizer at a rate of 500 lbs. per acre.

B. Application: Argentine Bahia Grass seed - 200 Pounds per acre mixed with common hulled Bermuda seed - 30 lbs. per acre. All other seed mixtures shall be applied per the manufacturer's instructions.

C. Roll immediately after seeding with a minimum 500 pound roller, then apply straw mulch at the rate of 2,500 pounds per acre.

D. Apply fertilizer at the rate of 150 lbs. per acre 45-60 days after seeding.

3.09 CLEANING UP:
A. The contractor shall at all times keep the premises free from accumulations of waste materials or rubbish caused by his employees or work. He shall leave all paved areas "broom clean" when completed with his work.

3.10 MAINTENANCE:
A. Maintenance shall begin immediately after each plant is installed and shall continue until all planting has been accepted by the Owner or Landscape Architect. Maintenance shall include watering, weeding, removal of dead materials, resetting plants to proper grades or upright positions, spraying, restoration of planting saucer and/or any other necessary operations.

B. Proper protection to lawn areas shall be provided and any damage resulting from planting operations shall be repaired promptly.

C. Replacement of plants during the maintenance period shall be the responsibility of the Contractor, excluding vandalism or damage on the part of others, lighting, or hurricane force winds, until final acceptance.

D. In the event that weeds or other undesirable vegetation become prevalent, it shall be the Contractor's responsibility to remove them.

E. Trees or other plant material which fall or are blown over during the maintenance period will be reset by the Contractor at no additional expense to the Owner, the only exception being hurricane force winds.

3.11 COMPLETION, INSPECTION AND ACCEPTANCE:
A. Completion of the work shall mean the full and exact compliance and conformity with the provisions expressed or implied in the Drawings and in the Specifications, including the complete removal of all trash, debris, soil or other waste created by the Landscape Contractor.

B. Inspection of work to determine completion of contract, exclusive of the possible replacement of plants, will be made by the Owner and/or Landscape Architect at the conclusion of all planting and at the request of the Landscape Contractor.

C. All plant material shall be alive and in good growing condition for each specified kind of plant at the time of acceptance. The rating of each plant according to Florida Grades and Standards shall be equal to or better than that called for on the plans and in these Specifications at the time of final inspection and acceptance.

D. After inspection, the Landscape Contractor will be notified by the Owner of the acceptance of all plant material and workmanship, exclusive of the possible replacement of plants subject to guarantee.

DRAINAGE TESTING/DRAINAGE CHANNEL REQUIREMENTS

PRIOR TO PLANTING ALL PLANTING PITS SELECTED FOR TESTING SHALL BE TESTED IN THE FOLLOWING MANNER

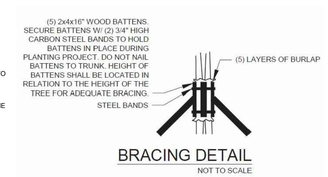
A. DIG EACH PLANTING PIT TO THE MINIMUM SPECIFIED SIZE.

B. FILL PLANTING PIT WITH TWELVE INCHES (12") OF WATER. IF THE WATER LEVEL DROPS FOUR (4") OR MORE WITHIN FOUR (4) HOURS, THE DRAINAGE IS SUFFICIENT AND A DRAINAGE CHANNEL IS NOT REQUIRED IF THE WATER LEVEL DROPS LESS THAN FOUR INCHES (4") WITHIN THE FOUR (4) HOUR PERIOD, A DRAINAGE CHANNEL IS REQUIRED.

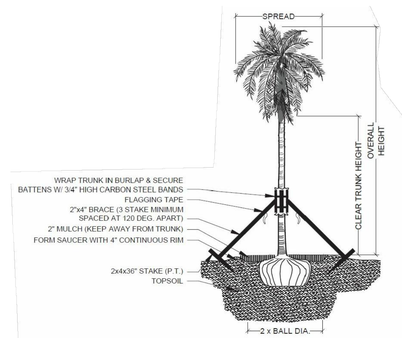
C. WHERE REQUIRED, THE DRAINAGE CHANNEL MUST EXTEND DOWN THROUGH THE NON POROUS SOIL AND INTO POROUS SOIL. (SEE DETAIL)

D. ALL MATERIAL REMOVED FROM THE DRAINAGE CHANNEL SHALL BE DISCARDED.

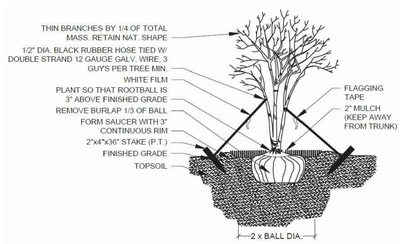
E. WHEN BACKFILLING PLANTING PITS WITH PLANTING MIXTURE, CARE MUST BE TAKEN TO KEEP THE CONSISTENCY OF THE SOIL MIX THE SAME THROUGHOUT THE PLANTING PIT AND DRAINAGE CHANNEL.



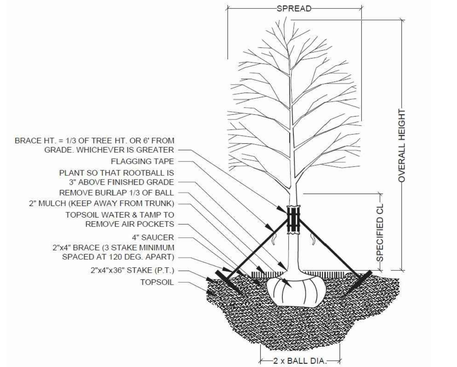
BRACING DETAIL
NOT TO SCALE



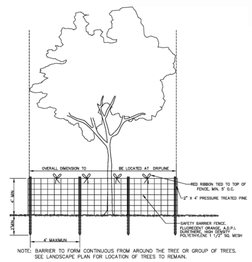
PALM PLANTING - ANGLE STAKE
NOT TO SCALE



MULTI-TRUNK PLANTING & GUYING
NOT TO SCALE

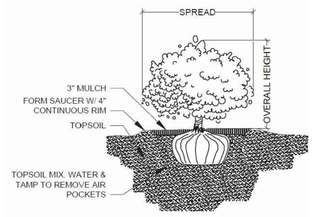


TREE PLANTING & STAKING
NOT TO SCALE



NOTE: BARRIER TO FORM CONTINUOUS FROM AROUND THE TREE OR GROUP OF TREES. SEE LANDSCAPE PLAN FOR LOCATION OF TREES TO REMAIN.

TREE PROTECTION DETAIL
NOT TO SCALE



SHRUB PLANTING
NOT TO SCALE

Project Team

Landscape Architect:
LANDSCAPE ARCHITECTURAL SERVICES, LLC
Brandon White | Owner
772-834-1357 | brandon@las-fl.com
Paul Goulas | Owner
772-631-8400 | paul@las-fl.com
1708 SE Joy Haven Street
Port St. Lucie, Fl. 34983

Client:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

Regatta Apartments
City of Fort Pierce, Florida
Details & Specifications

Revisions

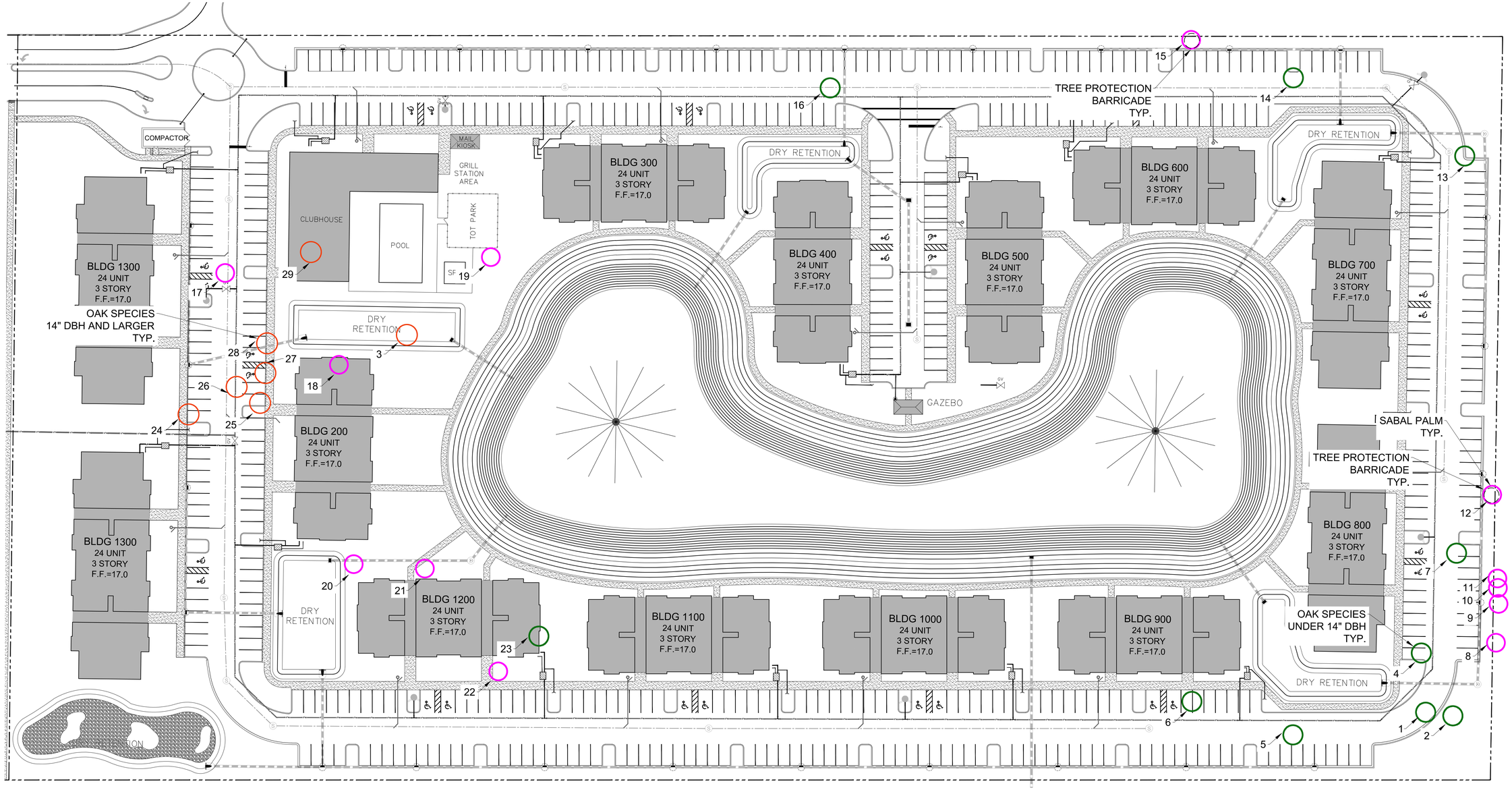
Date	Init.	Description
8.23.23	PG	Submittal

REGISTERED LANDSCAPE ARCHITECT
PAUL A. GOULAS
LA 6666807
STATE OF FLORIDA

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

Drawn By:	PG
Checked By:	PG
Municipal Project:	
Scale:	

LA-4

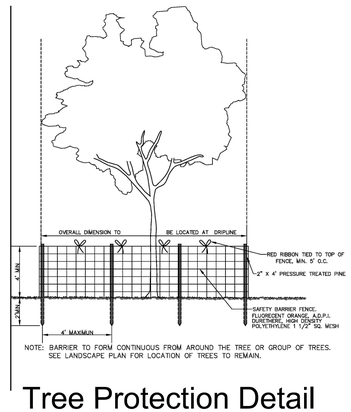


EXISTING TREE INFORMATION		Disposition / Replacement Required / Preserved Credits
1	*Quercus virginiana*, Live Oak, 5" DBH	To be Removed; No Mitigation Required
2	*Quercus virginiana*, Live Oak, 5" DBH	To be Removed; No Mitigation Required
3	*Quercus laurifolia*, Laurel Oak, 24" DBH	To be Removed / 24" Mitigation Required
4	*Quercus virginiana*, Live Oak, 4" DBH	To be Removed; No Mitigation Required
5	*Quercus virginiana*, Live Oak, 7" DBH	To be Removed; No Mitigation Required
6	*Quercus virginiana*, Live Oak, 7" DBH	To be Removed; No Mitigation Required
7	*Quercus virginiana*, Live Oak, 4" DBH	To be Removed; No Mitigation Required
8	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Preserved; Offsite
9	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Preserved; Offsite
10	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Preserved; Offsite
11	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Preserved; Offsite
12	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Preserved; 1 Palm Credit
13	*Quercus virginiana*, Live Oak, 4" DBH	To be Removed; No Mitigation Required
14	*Quercus virginiana*, Live Oak, 4" DBH	To be Removed; No Mitigation Required
15	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Preserved; 1 Palm Credit
16	*Quercus virginiana*, Live Oak, 4" DBH	To be Removed; No Mitigation Required
17	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Removed; 1 Palm Mitigation Required
18	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Removed; 1 Palm Mitigation Required
19	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Removed; 1 Palm Mitigation Required
20	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Removed; 1 Palm Mitigation Required
21	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Removed; 1 Palm Mitigation Required
22	*Sabal palmetto*, Sabal Palm, 12' -30' CT	To be Removed; 1 Palm Mitigation Required
23	*Quercus virginiana*, Live Oak, 4" DBH	To be Removed; No Mitigation Required
24	*Quercus laurifolia*, Laurel Oak, 14" DBH	To be Removed / 14" Mitigation Required
25	*Quercus virginiana*, Live Oak, 14" DBH	To be Removed / 14" Mitigation Required
26	*Quercus virginiana*, Live Oak, 28" DBH	To be Removed / 28" Mitigation Required
27	*Quercus virginiana*, Live Oak, 20" DBH	To be Removed / 20" Mitigation Required
28	*Quercus laurifolia*, Laurel Oak, 18" DBH	To be Removed / 18" Mitigation Required
29	*Quercus laurifolia*, Laurel Oak, 14" DBH	To be Removed / 14" Mitigation Required

TOTAL HARDWOOD INCHES REQUIRING MITIGATION REMOVED = 132"
MITIGATION TO BE PROVIDED WITH THE PLANTING OF (44) 6" DBH LIVE OAK TREES = 264"/2 = 132"
TOTAL SABAL PALMS REMOVED = 6 REQUIRING 6 PALMS OF MITIGATION
TOTAL SABAL PALMS PRESERVED = 2
PALM MITIGATION TO BE PROVIDED WITH THE PLANTING OF 8 PALMS = 8/2= 4
NO CREDITS PROVIDED FOR TREES LOCATED OFFSITE

Existing tree information provided by:

VELCON ENGINEERING & SURVEYING, LLC
CERTIFICATE OF AUTHORIZATION NO. LB 8006
1449 NW COMMERCE CENTRE DRIVE
PORT ST. LUCIE, FLORIDA 34986
PHONE (772) 879-0477
Web Site: www.velconfl.com



NOTE: BARRIER TO FORM CONTINUOUS FROM AROUND THE TREE OR GROUP OF TREES. SEE LANDSCAPE PLAN FOR LOCATION OF TREES TO REMAIN.

Tree Protection Detail

Project Team

Landscape Architect:

LANDSCAPE ARCHITECTURAL SERVICES, LLC
Brandon White | Owner
772-834-1357 | brandon@las-fl.com
Paul Goulas | Owner
772-631-8400 | paul@las-fl.com
1708 SE Joy Haven Street
Port St. Lucie, Fl. 34983

Client:

ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

Regatta Apartments

City of Fort Pierce, Florida

Existing Tree Disposition & Mitigation Plan

Revisions

Date	Init.	Description
8.23.23	PG	Submittal
11.08.23	PG	Revised per Site Plan & Comments
12.20.23	PG	Revised per Bioswale & Retention Areas

REGISTERED LANDSCAPE ARCHITECT
PAUL A. GOULAS
LA 6666807
STATE OF FLORIDA

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

Drawn By: PG
Checked By: PG
Municipal Project:
Scale:

NORTH

SCALE: 1" = 40'

0 20' 40' 80'

LA-5

KMA Engineering & Surveying

3001 Industrial Ave 2
Fort Pierce, Fl. 34946
772-569-5505

July 25, 2024

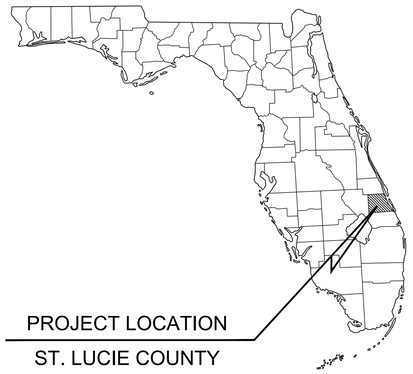
Subject: Regatta Luxury Apartments Minor Site Plan Amendment
Location: 2144, 2152, & 2190 Jenkins Road
RE: Concurrency Review

Regatta Apartments is not changing density from the previously approved Site Plan. Concurrency is not changing from the previous approval

We hope we have sufficiently addressed all your concerns. If you have any questions, please do not hesitate to contact us. Thank You for your time in reviewing this submittal.

Cordially,

Blaine Bergstresser, P.E.



CONSTRUCTION PLANS
FOR
REGATTA APARTMENTS

LOCATED AT

2152 SOUTH JENKINS ROAD
FORT PIERCE, FL 34947
SECTION 18, TOWNSHIP 35S, RANGE 40E

LEGAL DESCRIPTION

BEING THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS THE WEST 60 FEET FOR THE ROAD RIGHT OF WAY ALL LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA

TOGETHER WITH:

THE SOUTH 1/2 OF THE NORTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE 1/4 SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS THE WEST 60 FEET FOR ROAD RIGHT OF WAY ALL LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA

TOGETHER WITH:

ALL OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST, EXCEPTING THEREFROM ALL RIGHTS OF WAY FOR PUBLIC ROADS AND DRAINAGE CANALS.

TOGETHER WITH:

18 35 40 FROM SW COR OF SD SEC RUN NLY ALG W LI OF SD SEC 104.68 FT TO POB,TH CONT NLY ALG SD W LI 132 FT,TH E 125 FT,TH S 132 FT,TH WLY 125 FT-LESS 60 FT FOR RD R/W (0.20 AC)(OR 3295-459: 3320-2396)

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LOCATION MAP
1"=1000'
NORTH

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BLAINE BERGSTRESSER, P.E.
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09/16/2022

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DATE: 08/23/2023

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
COVER

GENERAL

1. THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION) AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK, AND, UNLESS OTHERWISE NOTED, ALL WORK SHALL CONFORM AS APPLICABLE TO THESE STANDARDS AND SPECIFICATIONS. FURTHERMORE, CONTRACTOR SHALL COMPLY WITH THE CITY OF OF FORT PIERCE STANDARD DETAILS AND SPECIFICATIONS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.

3. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. A LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.

6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.

7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.

8. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.

11. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.

12. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.

EROSION CONTROL

1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THE EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

3. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.

5. EROSION CONTROL PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.

6. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

7. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.

8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

13. STABILIZATION PRACTICES SHOULD BE INITIATED AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS WHERE CONSTRUCTION HAS TEMPORARILY CEASED.

14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRED IN THESE AREAS. REFER TO SECTION 981 OF THE STANDARD SPECIFICATIONS FOR SEEDING AND MAINTENANCE REQUIREMENTS.

15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.

16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

18. ON-SITE & OFF SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE EROSION CONTROL PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

20. DUE TO GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION.

21. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACK FILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

POTABLE WATER AND SANITARY SEWER SYSTEM

1. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, MANHOLES GRAVITY SEWER LINES AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

2. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET.

3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.

4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.

5. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

6. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.

7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

8. UNDERGROUND LINES SHALL BE SURVEYED BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR PRIOR TO BACK FILLING.

9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANDREL TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.

MAINTENANCE

ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.

2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED. FOR MAINTENANCE REQUIREMENTS REFER TO SECTION 981 OF THE OF THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION).

3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.

4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.

5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED TO 55 CUBIC YARDS / ACRE.

7. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN 2 CALENDAR DAYS FOLLOWING THE INSPECTION.

STORM DRAINAGE SYSTEM

1. STANDARD INDEXES REFER TO THE 2021/2022 EDITION OF F.D.O.T. "STANDARD PLANS FOR ROADWAY CONSTRUCTION" AND THE CITY OF FORT PIERCE SECTION 119 AND THE CITY'S STANDARD DETAILS AND SPECIFICATIONS.

2. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS III (ASTM C-76) UNLESS OTHERWISE NOTED ON PLANS. ALL DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS UNLESS OTHERWISE NOTED ON PLANS.

3. PIPE LENGTHS SHOWN ARE APPROXIMATE AND TO CENTER OF DRAINAGE STRUCTURES, WITH THE EXCEPTION OF MITERED END AND FLARED END SECTIONS, WHICH ARE NOT INCLUDED IN LENGTHS.

4. ALL DRAINAGE STRUCTURE GRATES AND COVERS, EITHER EXISTING OR PROPOSED SHALL BE TRAFFIC RATED FOR H-20 LOADINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY UPGRADES TO EXISTING DRAINAGE STRUCTURES.

5. CONSTRUCTION OF THE ENTIRE STORMWATER MANAGEMENT SYSTEM SHOWN ON THE PLANS MUST BE COMPLETE AND ALL DISTURBED AREAS STABILIZED IN ACCORDANCE WITH THE PERMITTED PLANS AND CONDITIONS PRIOR TO ANY OF THE FOLLOWING: ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY FOR ANY LOT; INITIATION OF INTENDED USE OF THE INFRASTRUCTURE; OR TRANSFER OF RESPONSIBILITY FOR MAINTENANCE OF THE SYSTEM TO A LOCAL GOVERNMENT OR OTHER RESPONSIBLE ENTITY.

6. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER JURISDICTION REGULATIONS (MANUFACTURER'S RECOMMENDATIONS SHALL BE UTILITIZED IF MORE STRINGENT).

7. STORM WATER PIPES, STRUCTURES, MINIMUM COVER AND INSTALLATION PROCEDURES TO BE IN ACCORDANCE WITH SOUTH FLORIDA WATER MANAGEMENT DISTRICT STANDARDS AND THE CITY OF FORT PIERCE SECTION 119 AND THE CITY'S STANDARD DETAILS AND SPECIFICATIONS.

PAVING/GRADING TESTING AND INSPECTION

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE SOILS REPORT. UPON COMPLETION OF WORK THE SOILS ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

2. A QUALIFIED TESTING LABORATORY SHALL PERFORM ALL TESTING NECESSARY TO ASSURE COMPLIANCE OF THE IN-PLACE MATERIALS AS REQUIRED BY THESE PLANS AND GEOTECHNICAL REPORT, THE VARIOUS AGENCIES AND PERMIT CONDITIONS. SHOULD ANY RETESTING BE REQUIRED DUE TO THE FAILURE OF ANY TESTS TO MEET THESE REQUIREMENTS, THE CONTRACTOR WILL BEAR ALL COSTS OF SAID RETESTING.

DRAINAGE SYSTEM TESTING AND INSPECTION

1. THE STORM DRAINAGE PIPING SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. CONTRACTOR TO NOTIFY THE ENGINEER 2 FULL BUSINESS DAYS IN ADVANCE TO SCHEDULE INSPECTION.

2. THE CONTRACTOR SHALL MAINTAIN AND PROTECT FROM MUD, DIRT, DEBRIS, ETC. THE STORM DRAINAGE SYSTEM UNTIL FINAL ACCEPTANCE OF THE PROJECT. THE STORM SYSTEM WILL BE REINSPECTED BY THE OWNER'S ENGINEER PRIOR TO APPROVAL FOR CERTIFICATE OF OCCUPANCY PURPOSES. THE CONTRACTOR MAY BE REQUIRED TO RECLEAN PIPES AND INLETS AT THE CONTRACTORS EXPENSE AND PRIOR TO FINAL ACCEPTANCE.

PAVING, GRADING AND DRAINAGE

1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN THE COUNTY'S RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR FDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.

2. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.

3. TRAFFIC CONTROL ON ALL FDOT, LOCAL AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.

5. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SODDED UNLESS INDICATED OTHERWISE ON THE LANDSCAPE PLAN.

6. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.

7. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.

8. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.

9. THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.

10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.

11. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.

12. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO FDOT STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

13. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED OR SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN.

14. ALL CUT OR FILL SLOPES SHALL BE 4 (HORIZONTAL) :1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

16. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS IN CHAPTER 17-302, FLORIDA ADMINISTRATIVE CODE.

17. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.

18. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE ENVIRONMENTAL RESOURCE PERMIT COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY WATER MANAGEMENT DISTRICT REPRESENTATIVES.

19. THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.

20. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.

DEMOLITION

1. CONTRACTOR SHALL SUBMIT DEMOLITION SCHEDULE TO OWNER PRIOR TO PROCEEDING WITH DEMOLITION ACTIVITIES.

2. EXTENT OF SITE CLEARING IS SHOWN ON DRAWINGS.

3. CONTRACTOR SHALL CONDUCT SITE DEMOLITION OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.

4. CONTRACTOR SHALL PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN "EXISTING TO REMAIN".

5. CONTRACTOR SHALL RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.

6. CONTRACTOR SHALL REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF-SITE IN A LEGAL MANNER.

7. CONTRACTOR SHALL DEMOLISH AND COMPLETELY REMOVE FROM SITE MATERIAL INDICATED ON PLAN OR NOTES "TO BE REMOVED".

8. CONTRACTOR SHALL PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION

9. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.

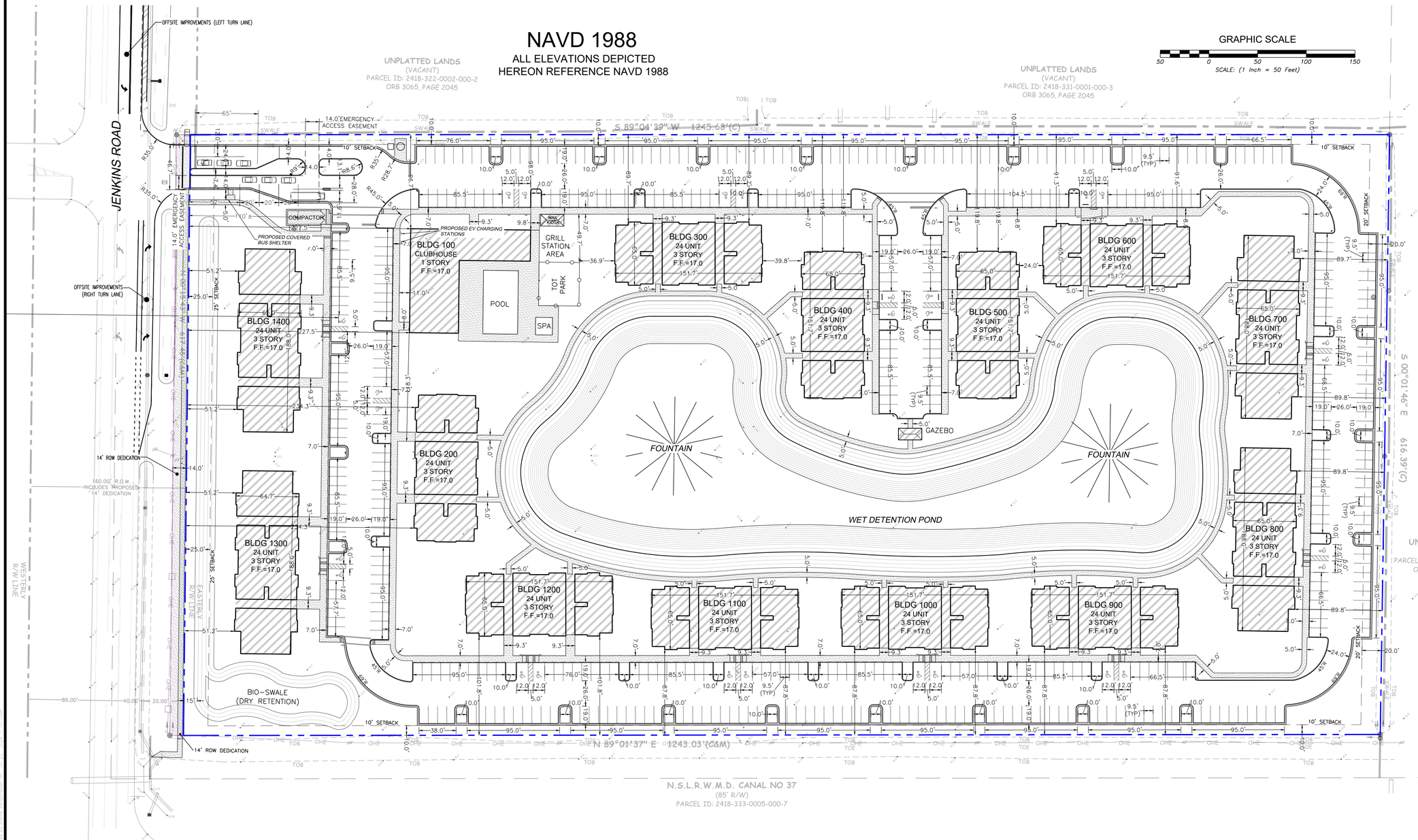
10. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NO

NAVD 1988

ALL ELEVATIONS DEPICTED
HEREON REFERENCE NAVD 1988

GRAPHIC SCALE
50 0 50 100 150
SCALE: (1 Inch = 50 Feet)

North



LINEWORK & SYMBOL LEGEND

- DENOTES PROPERTY BOUNDARY
- DENOTES ROW DEDICATION
- DENOTES RIGHT-OF-WAY
- DENOTES CENTERLINE
- DENOTES EASEMENT
- DENOTES SWALE FLOWLINE
- W — DENOTES WATER MAIN
- OHE — DENOTES GRAVITY SEWER
- FM — DENOTES FORCE MAIN
- GAS — DENOTES GAS MAIN
- DENOTES DRAINAGE PIPE
- DENOTES DITCH BOTTOM INLET
- D — DENOTES DRAINAGE STRUCTURE
- 20.50 / × 20.50 — DENOTES PROPOSED GRADE / DENOTES EXISTING GRADE
- S — DENOTES SEWER MANHOLE
- DENOTES GATE VALVE
- DENOTES FIRE HYDRANT
- DENOTES POWER POLE
- TM — DENOTES TRANSITION MANHOLE

HATCH LEGEND

- PROPOSED STRUCTURES
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED RIGHT-OF-WAY DEDICATION

SITE DATA & DEVELOPMENT CRITERIA

OWNER — BGDN LLC
1820 AVENUE K
BROOKLYN, NY 11230

ENGINEER — BLAINE BERGSTRESSER P.E.
KMA ENGINEERING & SURVEYING LLC
3001 INDUSTRIAL AVENUE 2
FT. PIERCE FL. 34946

SURVEYOR — WILLIAM HAYHURST P.S.M.
KMA ENGINEERING & SURVEYING LLC
3001 INDUSTRIAL AVENUE 2
FT. PIERCE FL. 34946

312 UNIT MULTI-FAMILY APARTMENTS
W/ 4,300 SF CLUBHOUSE

SITE ADDRESS — 2152 SOUTH JENKINS ROAD
FT. PIERCE, FL. 34947

PARCEL ID(S) — 2418-333-0001-000-9
2418-333-0002-000-6
2418-333-0003-000-3
2418-333-0004-000-0

ZONING — R-5 HIGH DENSITY RESIDENTIAL

DENSITY
ALLOWED — MAX. 18 UNITS/AC.
PROPOSED — 312 UNITS / 17.96 AC = 17.4 UNITS/AC

SIDE YARDS:	REQUIRED	PROPOSED
FRONT	25'	25'
SIDE	10'	10'
CORNER LOT SIDE	15'	15'
REAR	20'	20'

SITE AREAS:			
GROSS SITE	767,592 SF	(17.96 AC)	
less ROW DEDICATION	8,702 SF		
DEVELOPMENT AREA	758,890 SF	(17.42 AC)	100%
BUILDING FOOTPRINTS	138,240 SF	(3.17 AC)	
PAVEMENT & CURBING	190,660 SF	(4.38 AC)	
SIDEWALKS & OTHER	51,700 SF	(1.19 AC)	
WET DETENTION @ C.E.	114,708 SF	(2.63 AC)	
TOTAL IMPERVIOUS AREA	468,310 SF	(10.75 AC)	61.7%
OPEN GREEN SPACE	290,580 SF	(6.67 AC)	38.3%

PARKING:
REQUIRED: MULTI-FAMILY
1.5 SPACES PER UNIT
312 UNITS x 1.5 = 468 REQUIRED SPACES

CLUBHOUSE
1 SPACE PER 200 SF
4300 SF / 200 = 22 REQUIRED SPACES

TOTAL REQUIRED = 490 PARKING SPACES
ADA PARKING REQUIRED = 9 of 490 SPACES

PROPOSED 28 ADA PARKING SPACES PROVIDED
462 STANDARD PARKING SPACES PROVIDED

490 TOTAL SPACES PROVIDED

KMA
ENGINEERING & SURVEYING, LLC
3001 INDUSTRIAL 2 AVE
FT. PIERCE, FL 34946
PHONE: (772) 569-5505
FBPE C.O.A. # 33705

REVISIONS:
BY: DATE: COMMENT:

PROJECT:
REGATTA APARTMENTS
2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

LICENSE
BLAINE ROBERT BERGSTRESSER
NO. 84598
STATE OF FLORIDA
PROFESSIONAL ENGINEER

BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE No. 84598
09/16/2022

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PROJECT No.: 23-1011
DRAWN BY: CRW
CHECKED BY: BRB
DATE: 08/23/2023

SHEET TITLE:
SITE PLAN

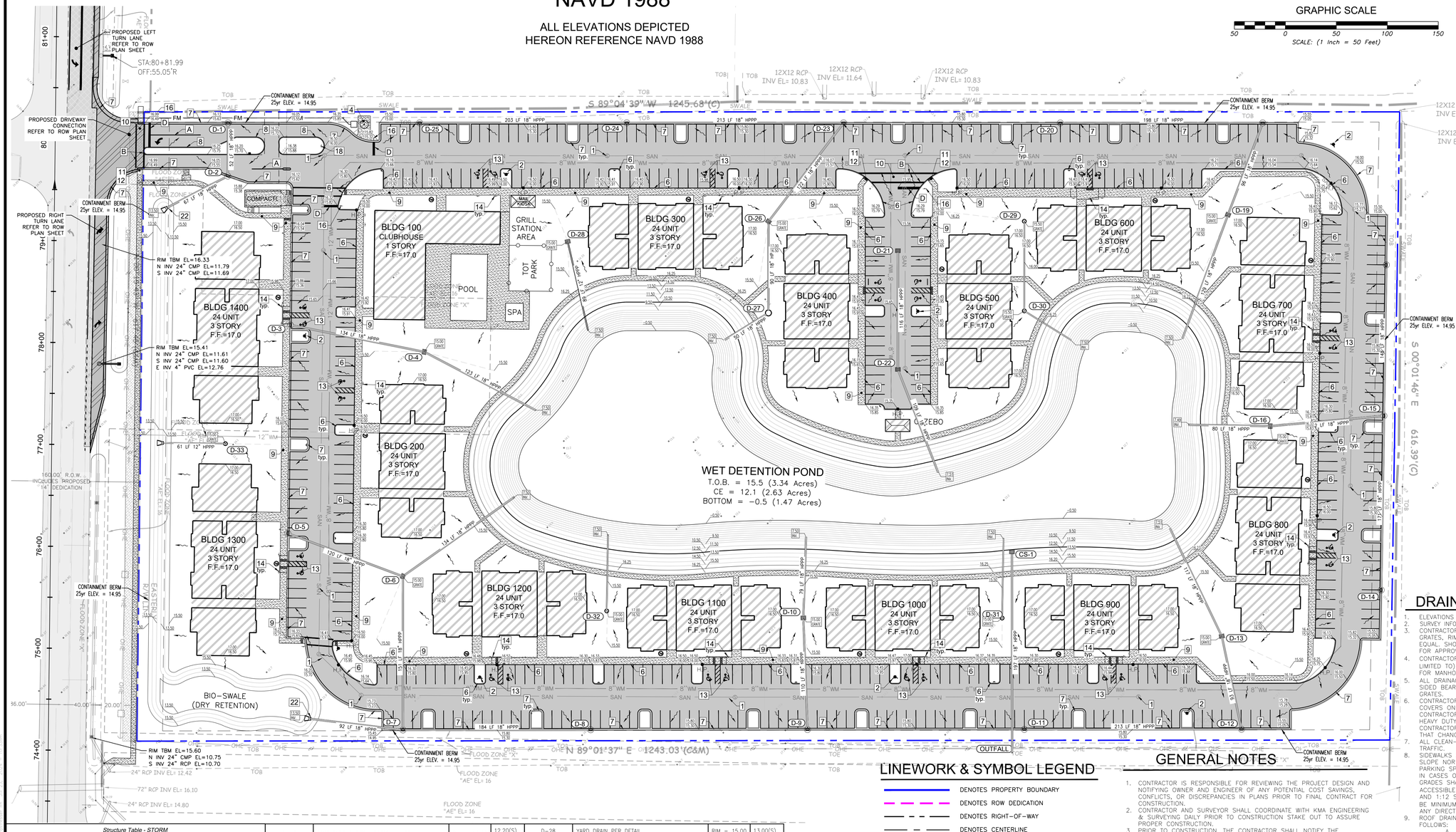
SHEET NUMBER:
C-200

NAVD 1988

ALL ELEVATIONS DEPICTED
HEREON REFERENCE NAVD 1988

GRAPHIC SCALE
50 0 50 100 150
SCALE: (1 Inch = 50 Feet)

North



CONSTRUCTION NOTES

1	SEWER MANHOLE
2	FIRE HYDRANT
3	GATE VALVE
4	LIFT STATION
5	STREET LIGHT
6	FDOT TYPE 'D' CURB
7	FDOT TYPE 'F' CURB
8	FDOT TYPE 'A' CURB
9	CONCRETE SIDEWALK per DETAIL
10	CROSSWALK per DETAILS
11	CURB RAMP per DETAILS
12	2' TACTILE SURFACE (BRICK RED)
13	HANDICAP SPACE per DETAIL
14	FTP-25 HANDICAP SIGN
15	SCHOOL BUS LOADING ZONE SIGN
16	R1-1 STOP SIGN
17	W11-2 PEDISTRIAN SIGN w/ W16-7PL
18	R4-7 KEEP RIGHT SIGN
19	FIRE LANE SIGN
20	DRAINAGE STRUCTURE
21	MITERED END SECTION
22	FLARED END SECTION
23	YARD DRAIN per DETAIL

STRIPING NOTES

A	6" SOLID WHITE
B	12" SOLID WHITE
C	18" SOLID WHITE
D	24" SOLID WHITE
E	6" WHITE (6'-10' SKIP)
F	6" WHITE (10'-30' SKIP)
G	6" WHITE (2'-4' SKIP)
H	6" DOUBLE YELLOW
J	12" SOLID YELLOW
K	18" SOLID YELLOW
L	R.P.M.'s per FDOT INDEX 706-001
M	TURN ARROW per FDOT INDEX 711-001
N	BIKE LANE per FDOT INDEX 711-001

DRAINAGE NOTES

1. ELEVATIONS SHOWN HERON ARE REFERENCED TO NAVD 1988.
2. SURVEY INFORMATION SHOWN HERON WAS PROVIDED BY VELCON.
3. CONTRACTOR TO CONSTRUCT DRAINAGE STRUCTURES WITH USF GRATES, RIMS AND COVERS AS CALLED OUT OR APPROVED EQUAL. SHOP DRAWINGS ARE TO BE PROVIDED TO ENGINEER FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
4. CONTRACTOR TO REFER TO FDOT DESIGN STANDARD (AND NOT LIMITED TO) INDEX'S 200, 201, 210, 211, 214, 232 & 233 FOR MANHOLE, INLET AND GRATE SPECIFICATIONS.
5. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED WITH (4) SIDED BEARING HEAVY DUTY H-20 RATED TRAFFIC RIMS AND GRATES.
6. CONTRACTOR TO VERIFY ALL EXISTING UTILITY RINGS AND COVERS ON SITE ARE HEAVY DUTY TRAFFIC RATED. CONTRACTOR TO REPLACE DEFICIENT RINGS AND COVERS WITH HEAVY DUTY TRAFFIC RATED RINGS AND COVERS. CONTRACTOR TO ADJUST RIM ELEVATIONS OF ANY UTILITIES THAT CHANGE IN ELEVATION DURING CONSTRUCTION.
7. ALL CLEAN-OUT COVERS SHOULD BE RATED FOR HEAVY DUTY TRAFFIC.
8. SIDEWALKS AND CROSSWALKS SHALL NOT EXCEED 2% CROSS SLOPE NOR 5% LONGITUDINALLY. GRADES IN ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION. IN CASES OF SIDEWALK LANDINGS AT BUILDING ENTRANCES, GRADES SHALL NOT EXCEED 2% IN ANY DIRECTION. ACCESSIBLE CURB RAMPS SHALL NOT EXCEED 6' IN LENGTH AND 1:12 SLOPE. LANDINGS AT CHANGES IN DIRECTION SHALL BE MINIMUM 60"x60" AND SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
9. ROOF DRAIN CONNECTIONS TO DRAINAGE PIPE SHALL BE AS FOLLOWS:
   A. FOR ADS N-12 CORRUGATED POLYETHYLENE DRAINAGE PIPE USE ADS DUAL WALL FABRICATED REDUCING SADDLE TEE 4"-24" DIAMETER.
   B. FOR RCP DRAINAGE PIPE MAKE CONNECTION PER FDOT INDEX 280,CONCRETE COLLAR FOR JOINING MAINLINE PIPE AND STUB PIPE DETAIL.
   C. NOTIFY CONSULTANT FOR CONNECTION METHOD TO STEEL PIPE.
10. ALL DRAINAGE PIPE JOINTS SHALL BE FILTER FABRIC WRAPPED PER FDOT INDEX #280. ALL DRAINAGE PIPE JOINTS NEED TO BE FILTER FABRIC WRAPPED REGARDLESS OF MATERIAL.
11. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
12. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE.
13. EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
14. PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
15. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
16. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
17. ALL CATCH BASINS WITHIN PROPOSED TRAFFIC AREAS SHALL HAVE BICYCLE PROOF GRATES.
18. CONTRACTOR TO FLUSH AND VACUUM ENTIRE ON-SITE STORM WATER SYSTEM UPON COMPLETION OF PROPOSED WORK.
19. MINIMUM DRAINAGE PIPE SHALL BE 15 INCHES PER CITY OF FORT PIERCE LAND DEVELOPMENT ORDINANCE SEC 119-3 DESIGN STANDARDS; STORMWATER MANAGEMENT; APPROVALS.

Structure Table - STORM

Structure Name	Description	RIM Elev.	Inverts
CS-1	CONTROL STRUCTURE PER DETAILS	RIM = 11.84	8.00(S)
D-1	FDOT TYPE 9 CURB INLET	RIM = 15.20	12.60(S)
D-2	FDOT TYPE 9 CURB INLET	RIM = 15.20	12.50(N) 12.00(SW)
D-2a	18 INCH FLARED END SECTION	RIM = 11.62	10.00(NE)
D-3	FDOT TYPE 9 CURB INLET	RIM = 15.25	12.50(E)
D-4	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.00	11.50(W) 11.50(SE)
D-5	DITCH BOTTOM INLET	RIM = 15.25	12.50(E)
D-6	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.00	12.40(W) 12.40(S) 12.40(NE)
D-7	FDOT TYPE 9 CURB INLET	RIM = 14.80	12.50(N) 13.50(W) 12.30(E)
D-7a	18 INCH FLARED END SECTION	RIM = 14.12	12.50(E)
D-8	FDOT TYPE 9 CURB INLET	RIM = 14.80	12.30(W)
D-9	FDOT TYPE 9 CURB INLET	RIM = 14.80	12.30(N)
D-10	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.00	12.20(S) 12.20(N)
D-11	FDOT TYPE 9 CURB INLET	RIM = 14.80	12.30(E)
D-12	FDOT TYPE 9 CURB INLET	RIM = 14.80	12.30(W) 12.30(N)
D-13	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.00	12.20(S) 12.20(NW)
D-14	FDOT TYPE 9 CURB INLET	RIM = 14.80	11.80(N)
D-15	FDOT TYPE 9 CURB INLET	RIM = 14.80	12.40(W) 11.80(N) 11.70(S)
D-16	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.00	12.30(E) 12.20(W)
D-17	FDOT TYPE 9 CURB INLET	RIM = 14.80	11.70(S)
D-18	FDOT TYPE 9 CURB INLET	RIM = 14.80	11.70(W) 11.70(S)
D-19	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.00	11.60(N) 11.60(S)
D-20	FDOT TYPE 9 CURB INLET	RIM = 14.80	11.80(E)
D-21	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.15	12.40(S)
D-22	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.15	12.40(N) 12.40(S)
D-23	FDOT TYPE 9 CURB INLET	RIM = 14.80	11.80(W) 12.25(SW)
D-24	FDOT TYPE 9 CURB INLET	RIM = 14.80	11.80(W) 11.80(E)
D-25	FDOT TYPE 9 CURB INLET	RIM = 14.80	11.80(E)
D-26	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.00	12.25(NE) 11.20(S)
D-27	48 INCH CYLINDRICAL STRUCTURE	RIM = 16.38	11.20(N) 11.10(SW)
D-28	YARD DRAIN PER DETAIL	RIM = 15.00	13.00(S)
D-29	YARD DRAIN PER DETAIL	RIM = 15.50	13.00(S)
D-30	YARD DRAIN PER DETAIL	RIM = 15.50	12.90(N) 12.90(SE)
D-31	YARD DRAIN PER DETAIL	RIM = 15.01	7.50(N)
D-32	YARD DRAIN PER DETAIL	RIM = 15.04	13.00(N)
D-33	FDOT TYPE C DITCH BOTTOM INLET	RIM = 15.50	14.48(W)
D-33a	12 INCH FLARED END SECTION	RIM = 12.58	11.48(E)
OUTFALL	END OF PIPE	RIM = 8.61	7.00(N)

NOTE: SUMP ELEVATIONS ARE 1' BELOW LOWEST PIPE INV.

LINEWORK & SYMBOL LEGEND

- DENOTES PROPERTY BOUNDARY
- DENOTES ROW DEDICATION
- DENOTES RIGHT-OF-WAY
- DENOTES CENTERLINE
- DENOTES EASEMENT
- DENOTES SWALE FLOWLINE
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- DENOTES DITCH BOTTOM INLET
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- S — DENOTES SEWER MANHOLE
- DENOTES GATE VALVE
- DENOTES FIRE HYDRANT
- DENOTES POWER POLE

HATCH LEGEND

- PROPOSED STRUCTURES
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE PROJECT DESIGN AND NOTIFYING OWNER AND ENGINEER OF ANY POTENTIAL COST SAVINGS, CONFLICTS, OR DISCREPANCIES IN PLANS PRIOR TO FINAL CONTRACT FOR CONSTRUCTION.
2. CONTRACTOR AND SURVEYOR SHALL COORDINATE WITH KMA ENGINEERING & SURVEYING DAILY PRIOR TO CONSTRUCTION STAKE OUT TO ASSURE PROPER CONSTRUCTION.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UNDERGROUND UTILITY NOTIFICATION CENTER AT 811 AND ANY OTHER POTENTIALLY AFFECTED UTILITY PROVIDERS FOR INSTALLATION OF NECESSARY CONDUIT AND CONFLICT AVOIDANCE, ANY NECESSARY UTILITY ADJUSTMENTS/RELOCATIONS, AND FOR GENERAL COORDINATION WITH THESE UTILITY PROVIDERS: FLORIDA POWER AND LIGHT, CITY OF FELLSMERE UTILITY DEPARTMENT, INDIAN RIVER COUNTY UTILITY DEPARTMENT, COMCAST CABLE, AT&T & FLORIDA GAS.
4. CONTRACTOR IS TO EXERCISE CAUTION WHEN WORKING NEAR OVERHEAD OR UNDERGROUND UTILITY LINES. THE LOCATIONS OF THE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE THE RESPONSIBILITY OF THE CONTRACTOR AND UTILITY PROVIDER TO FIELD LOCATE PRIOR TO WORKING IN THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGED UTILITIES RESULTING FROM THE CONTRACTOR'S WORK.
5. THE CONTRACTOR SHALL VERIFY ALL EXISTING TIE-INS FOR DRAINAGE, WATER, SEWER, PAVING AND ELEVATIONS, AS NECESSARY, PRIOR TO CONSTRUCTION COMMENCEMENT. THE CONTRACTOR SHALL VERIFY THE ACCURACY AND SUITABILITY OF ALL CONSTRUCTION STAKE-OUTS PRIOR TO COMMENCEMENT OF CONSTRUCTION TO ASSURE COMPLIANCE WITH PLANS, CROSS SECTIONS, DETAILS, AND PERMITS.
6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT ALL CONSTRUCTION PERMITS AND BONDS HAVE BEEN ACQUIRED PRIOR TO COMMENCING CONSTRUCTION. A COPY OF THE APPROVED CONSTRUCTION PLAN AND ALL PERMITS AND BONDS SHALL BE LOCATED ON THE JOB SITE AT ALL TIMES.
7. THE CONTRACTOR SHALL ENSURE ADEQUATE HORIZONTAL AND VERTICAL SEPARATION AS NECESSARY FOR FDEP AND LOCAL UTILITY PROVIDER SPECIFICATIONS (INCLUDING SERVICES). THESE SEPARATION DISTANCES SHALL BE MEASURED BY THE SURVEYOR AND SUPPLIED TO THE PROJECT ENGINEER ON AS-BUILT PLANS. CONTRACTOR SHALL RECORD ALL SEPARATION DISTANCES ON FIELD SET OF CONSTRUCTION DOCUMENTS.
8. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS AND LABOR TO COMPLETELY CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS AND IN CONFORMANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
9. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT AN AS-BUILT SURVEY CERTIFIED BY A REGISTERED, LICENSED SURVEYOR OF ALL CONSTRUCTED IMPROVEMENTS AT PROJECT COMPLETION.
10. NO DESIGN CHANGES ARE TO OCCUR TO THE APPROVED CONSTRUCTION PLANS WITHOUT PRIOR APPROVAL OF THE PROJECT ENGINEER.

KMA
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3001 INDUSTRIAL 2 AVE
FT. PIERCE, FL 34946
PHONE: (772) 569-5505
FBPE C.O.A. # 33705

REVISIONS: BY: DATE: COMMENT:

PROJECT:
REGATTA APARTMENTS
2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

BLAINE ROBERT BERGSTRESSER LICENSE NO. 84598 STATE OF FLORIDA PROFESSIONAL ENGINEER

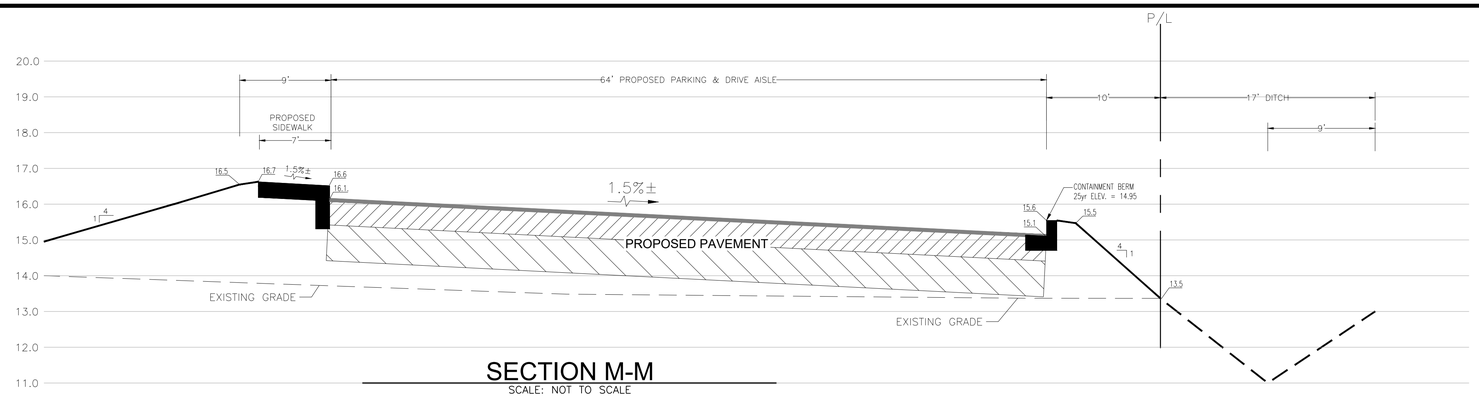
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FLORIDA LICENSE No. 84598
09/16/2022

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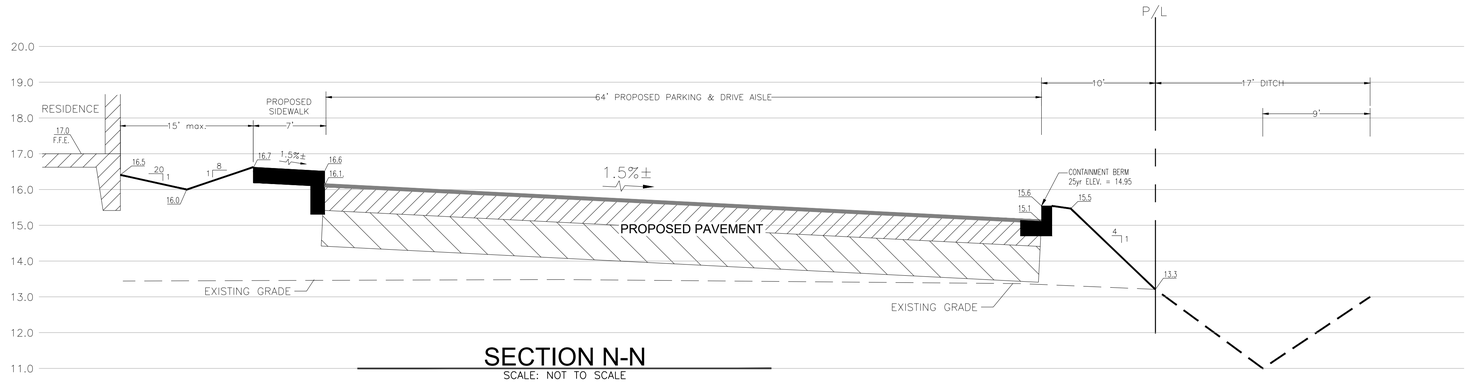
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DRAWN BY: CRW
CHECKED BY: BRB
DATE: 08/23/2023

SHEET TITLE:
MASTER PGD PLAN

SHEET NUMBER:
C-300



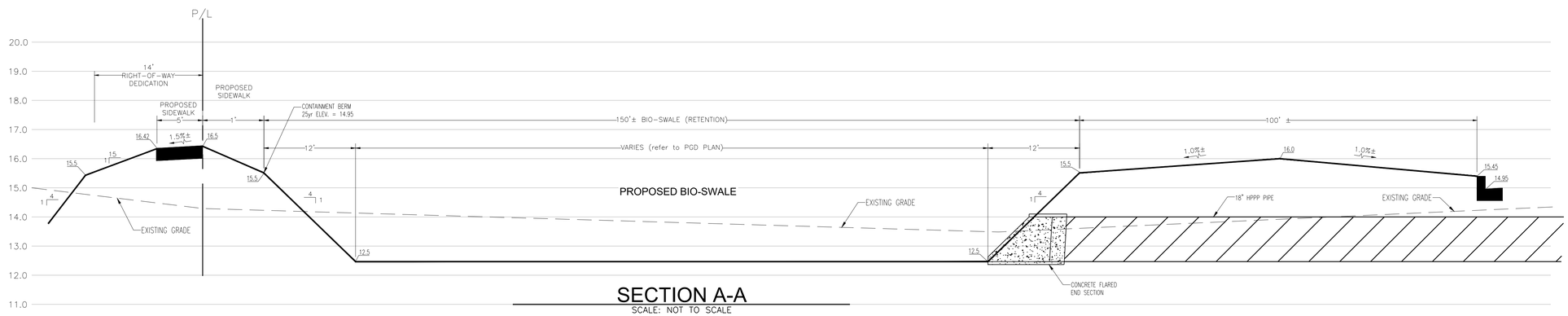
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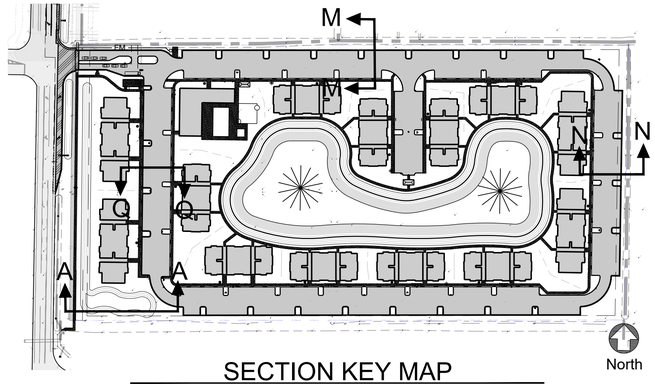
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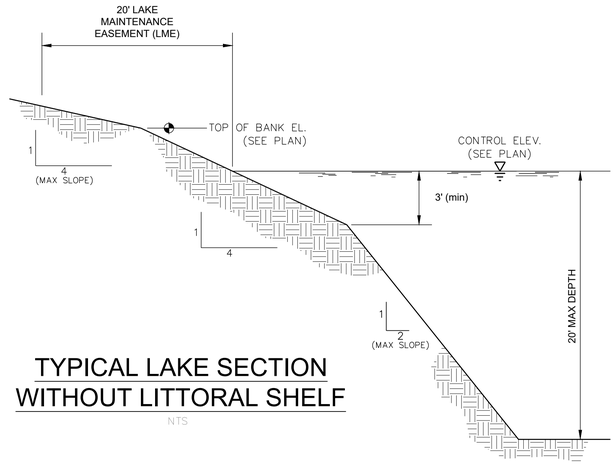
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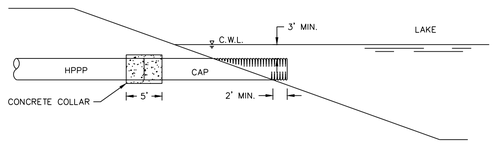
SECTION A-A
SCALE: NOT TO SCALE



SECTION KEY MAP
SCALE: NOT TO SCALE



TYPICAL LAKE SECTION WITHOUT LITTORAL SHELF
NTS



STORM CULVERT AT LAKE OUTFALL DETAIL
N.T.S

NAVD 1988

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KMA
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PHONE: (772) 569-5505
FBPE C.O.A. # 33705

REVISIONS:
BY: DATE: COMMENT:

PROJECT:
REGATTA APARTMENTS
2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

BLAINE ROBERT BERGSTRESSER LICENSE NO. 84598 STATE OF FLORIDA PROFESSIONAL ENGINEER

BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE No. 84598
09/16/2022

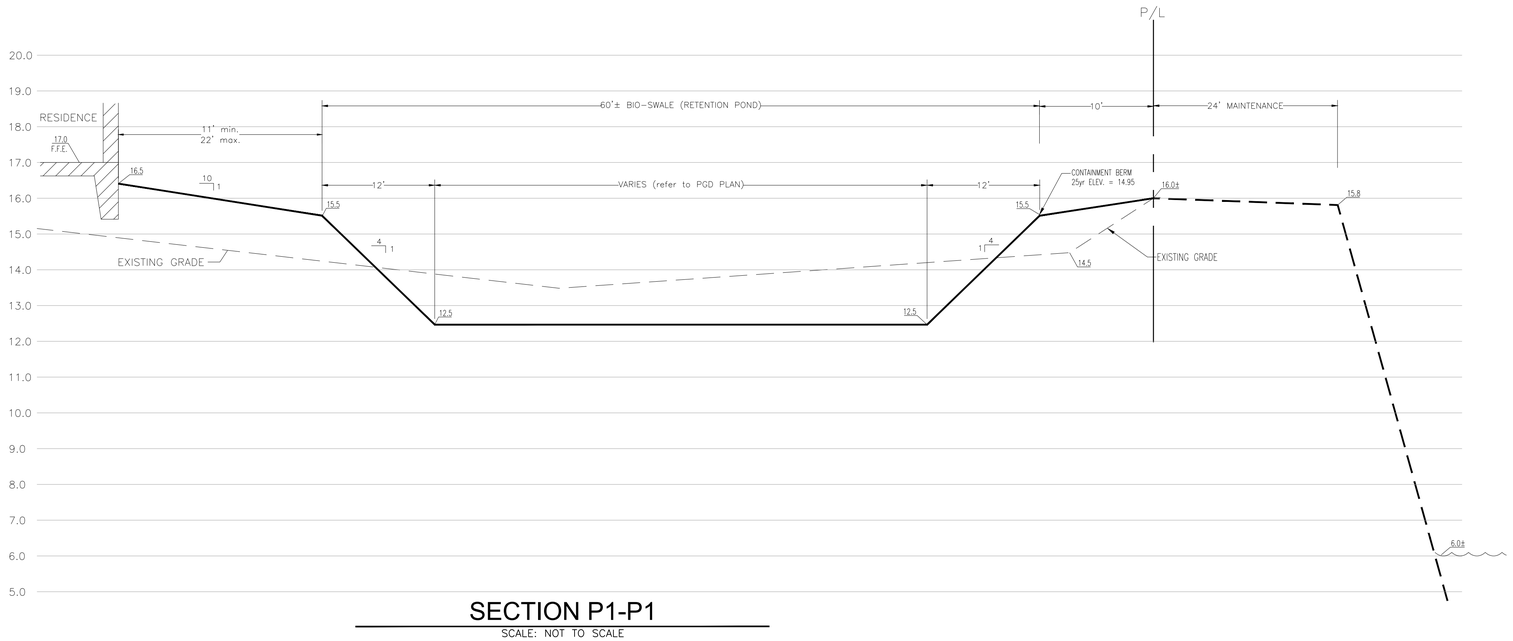
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PROJECT No.:	23-1011
DRAWN BY:	CRW
CHECKED BY:	BRB
DATE:	08/23/2023

SHEET TITLE:
GRADING SECTIONS

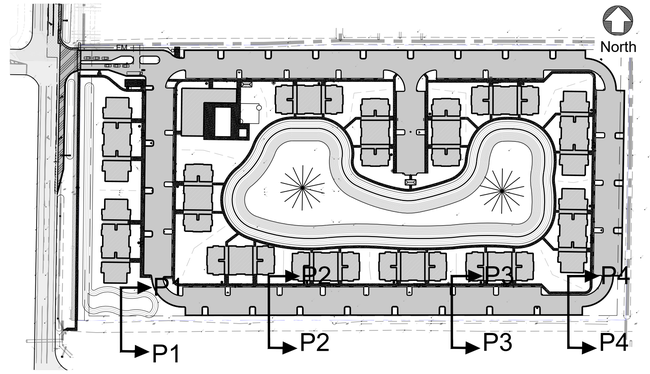
SHEET NUMBER:
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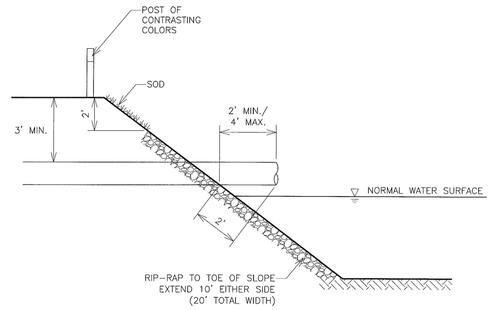
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SECTION P1-P1

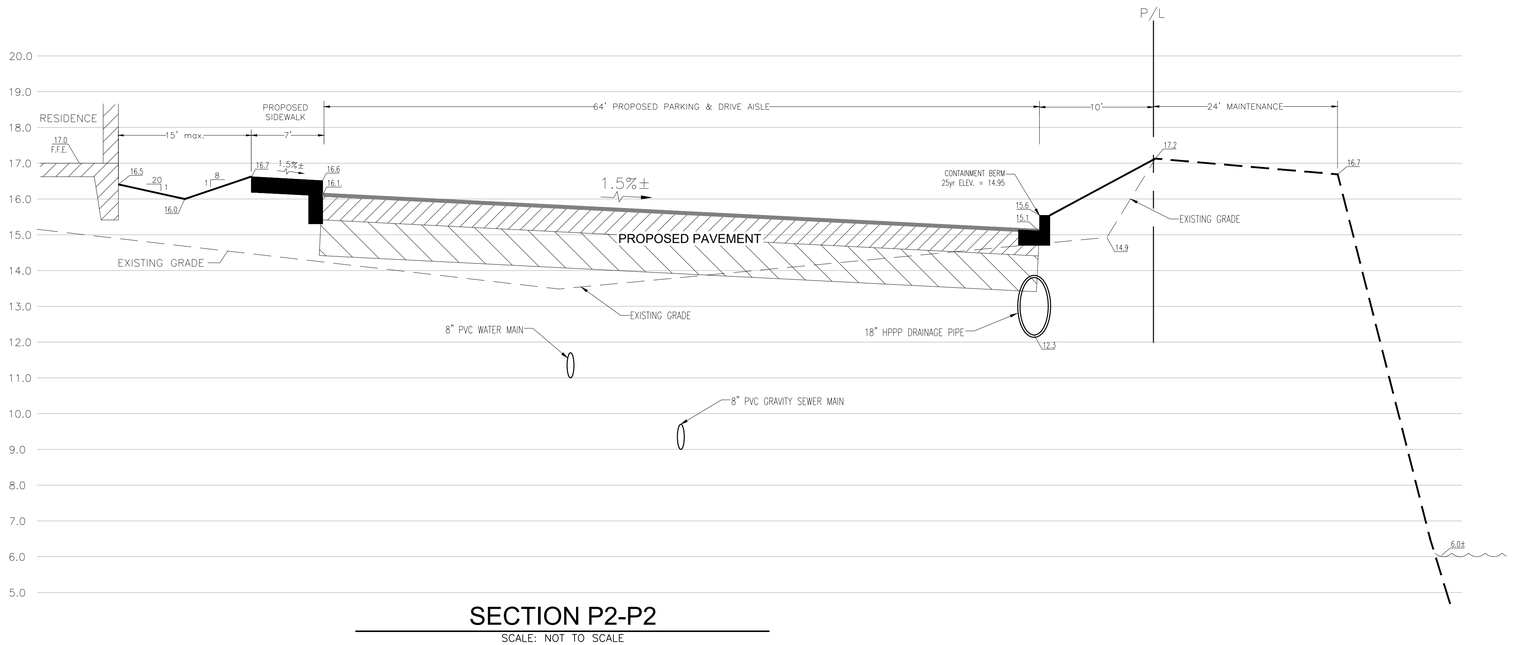
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NSLRWCD CONNECTION DETAIL

SCALE: NOT TO SCALE



SECTION P2-P2

SCALE: NOT TO SCALE

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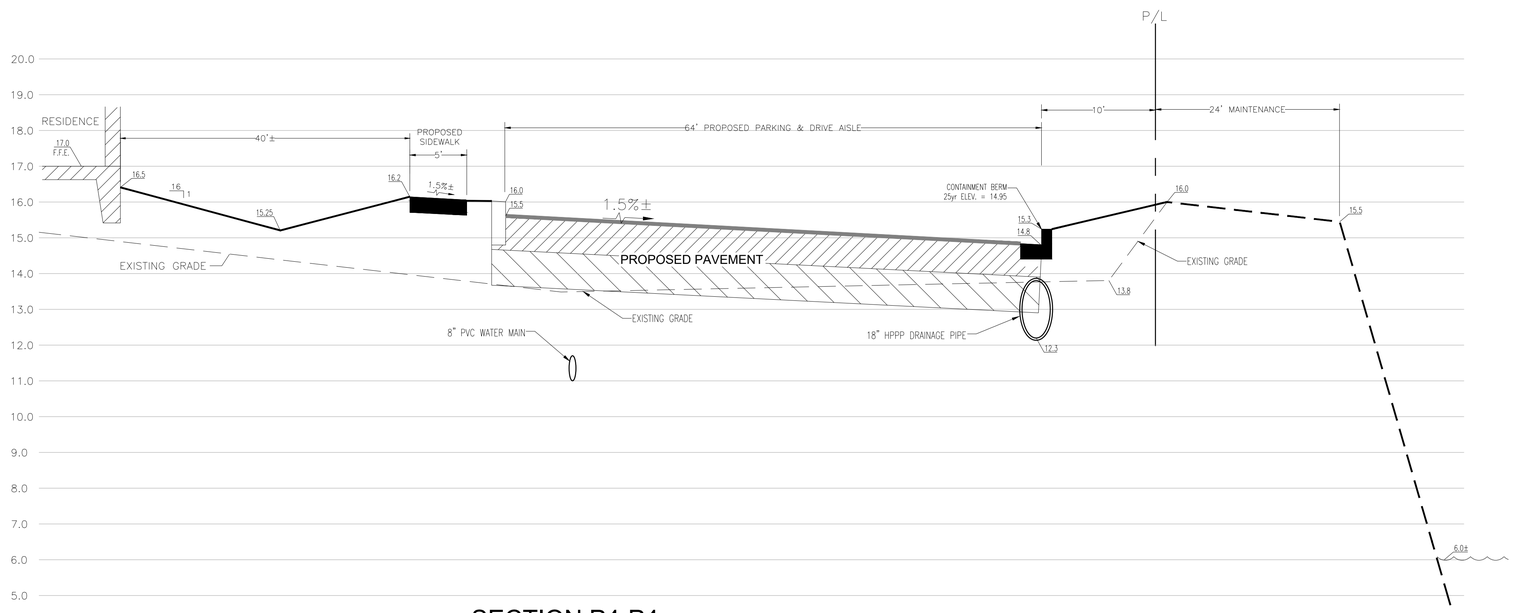
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PROJECT No.:	23-1011
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DATE:	08/23/2023

SHEET TITLE:
GRADING SECTIONS

SHEET NUMBER:
C-301a

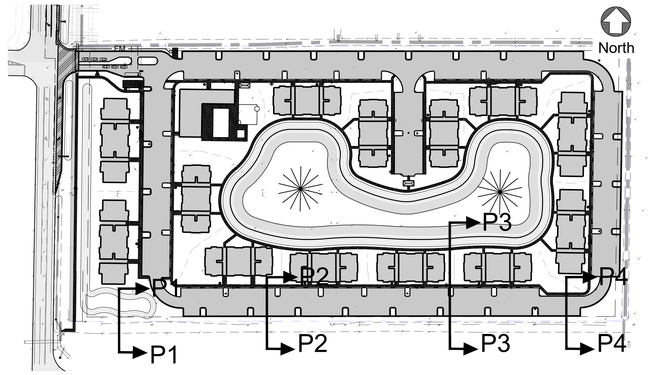


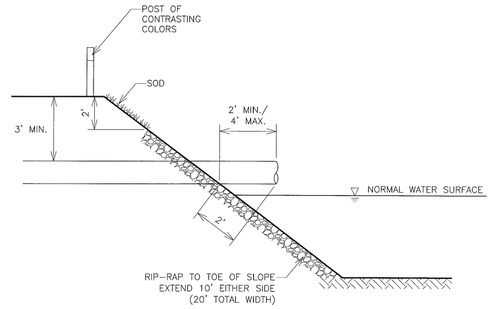
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NAVD 1988

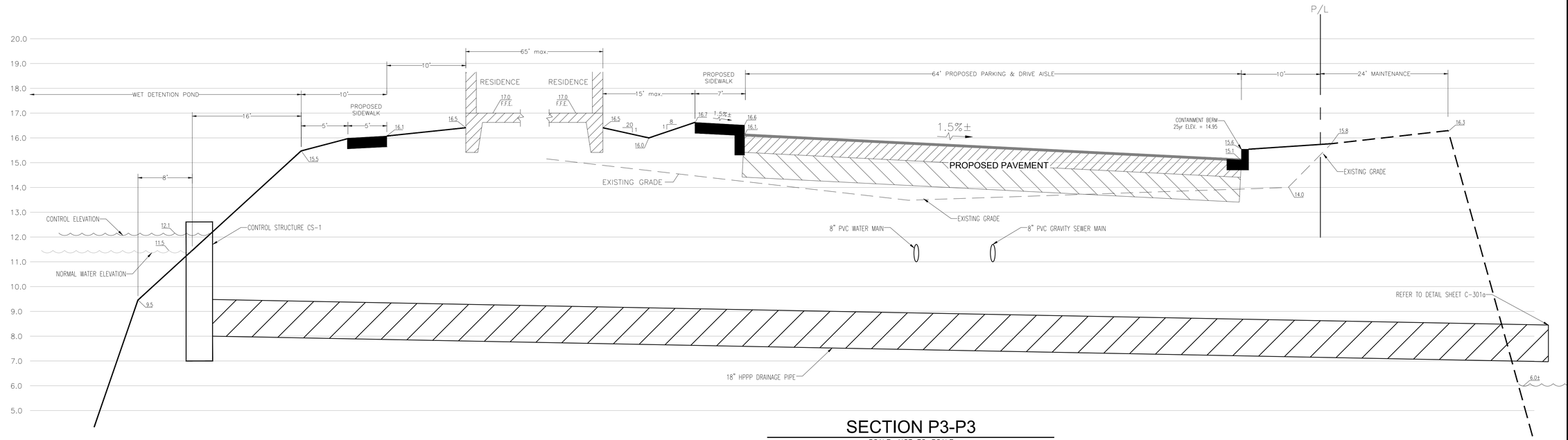
ALL ELEVATIONS DEPICTED
HEREON REFERENCE NAVD 1988





NSLRWCD CONNECTION DETAIL

SCALE: NOT TO SCALE



SECTION P3-P3

SCALE: NOT TO SCALE

Some items and services represented on this plan may be performed by one or more subcontractors and/or suppliers. Any reference to a specific subcontractor or supplier is for the convenience of the Owner and does not relieve the Contractor of the responsibility for the entire scope of work.

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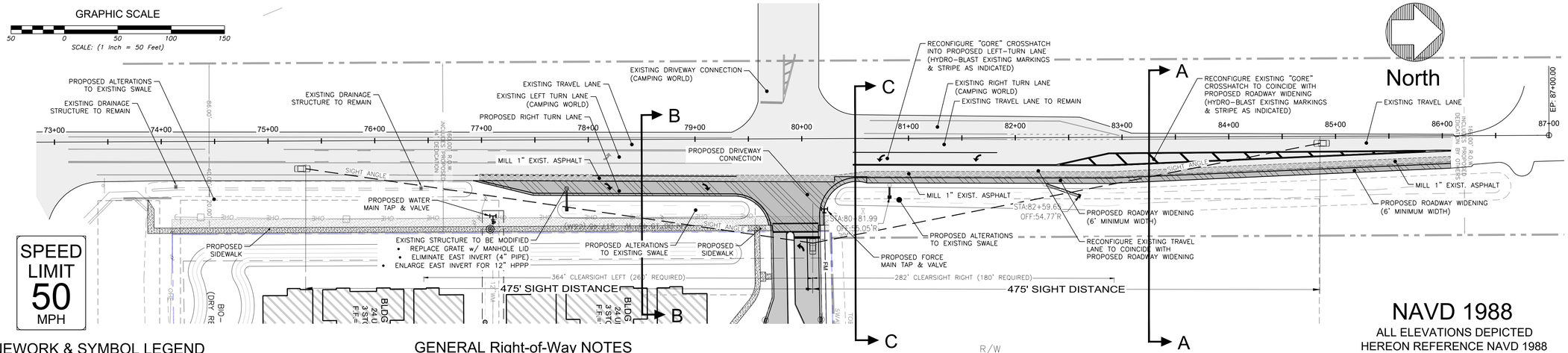
SHEET TITLE:
GRADING SECTIONS

SHEET NUMBER:
C-301b

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SCALE: (1 inch = 50 Feet)

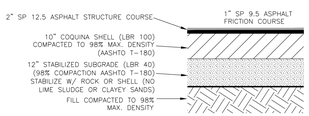


LINEWORK & SYMBOL LEGEND

- DENOTES PROPERTY BOUNDARY
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- PROPOSED PAVEMENT RESURFACING WITH 1" FC-9.5 OVERLAY *REQUIRES MILLING
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SEE SPECIFICATIONS SHEET C-100 FOR ADDITIONAL PAVEMENT AND TESTING REQUIREMENTS.

ASPHALTIC CONCRETE PAVING SECTION (within the SLC Right-of-Way)

N.T.S.

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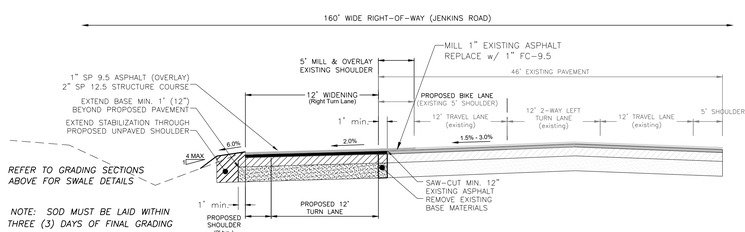
The calculations and recommended modifications are included in the Stormwater Management Report for the Regatta Apartments Project; refer to Appendix F "Jenkins Road Right-of-Way Improvements - Drainage Impacts & Calculations" for complete details.

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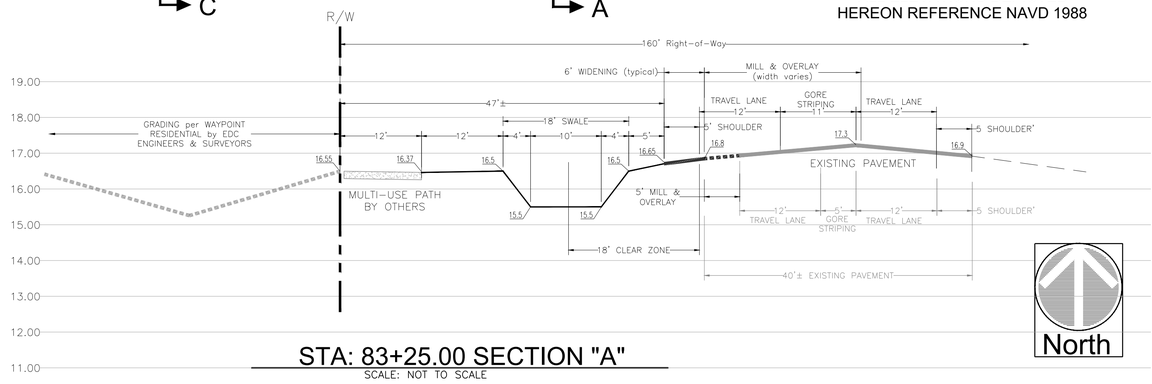
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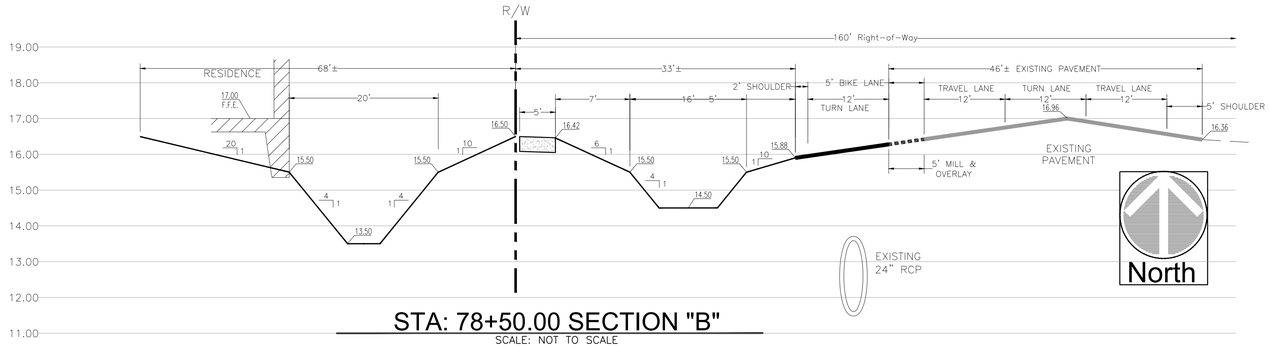
TYPICAL ROADWAY WIDENING SECTION

N.T.S.



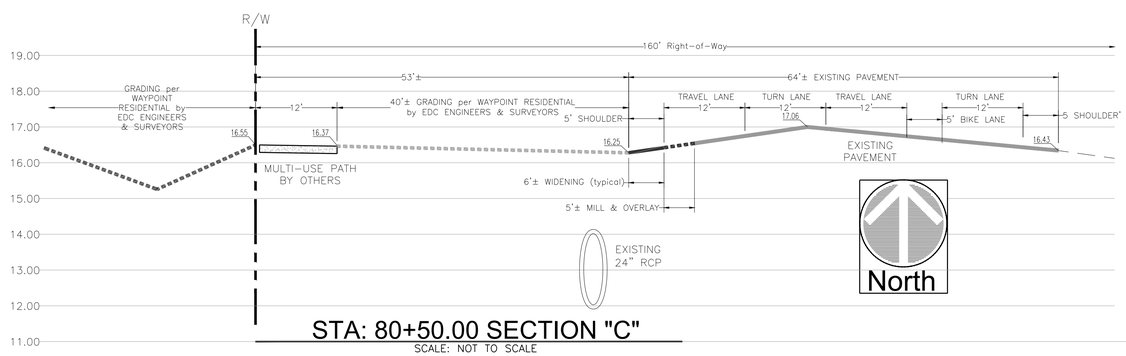
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SCALE: NOT TO SCALE



STA: 78+50.00 SECTION "B"

SCALE: NOT TO SCALE



STA: 80+50.00 SECTION "C"

SCALE: NOT TO SCALE

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BY:	DATE:	COMMENT:

PROJECT:

REGATTA APARTMENTS

2152 SOUTH JENKINS ROAD

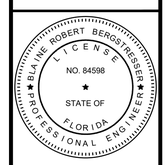
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PROJECT No.:	23-1011
DRAWN BY:	CRW
CHECKED BY:	BRB
DATE:	08/23/2023

SHEET TITLE:

MASTER ROW PLAN

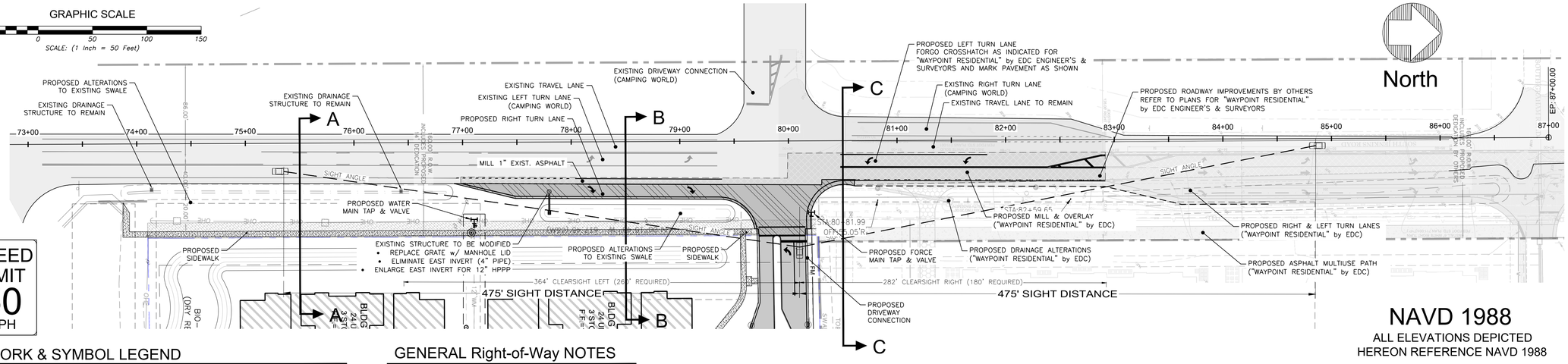
SHEET NUMBER:

C-302

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SCALE: (1 inch = 50 Feet)



SPEED LIMIT 50 MPH

NAVD 1988

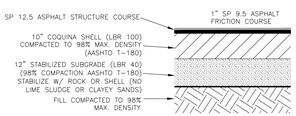
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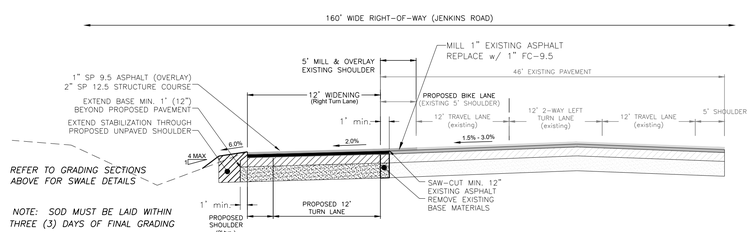
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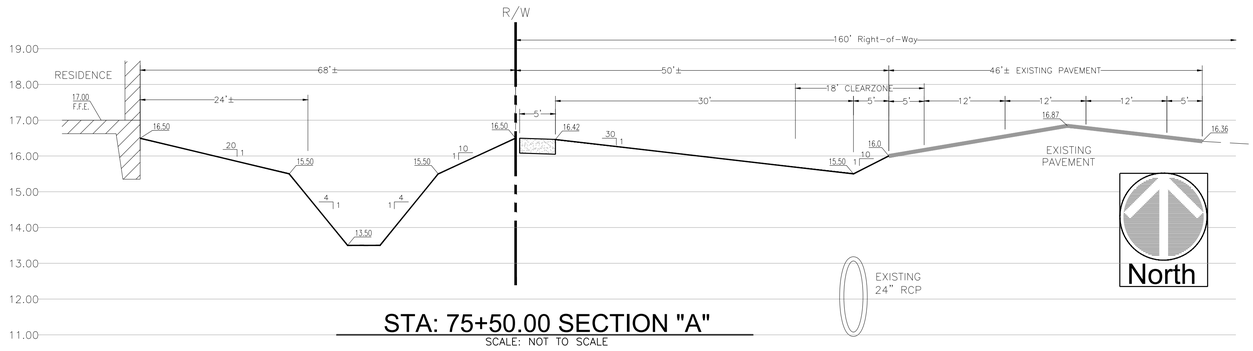


NOTE: SOD MUST BE LAID WITHIN THREE (3) DAYS OF FINAL GRADING

NOTE: REFER TO "SAW-CUT DETAIL" SHEET C-5a

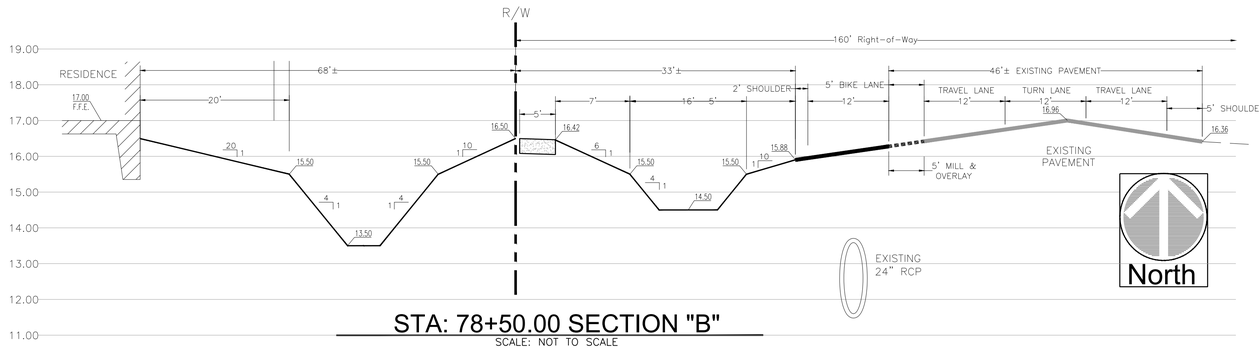
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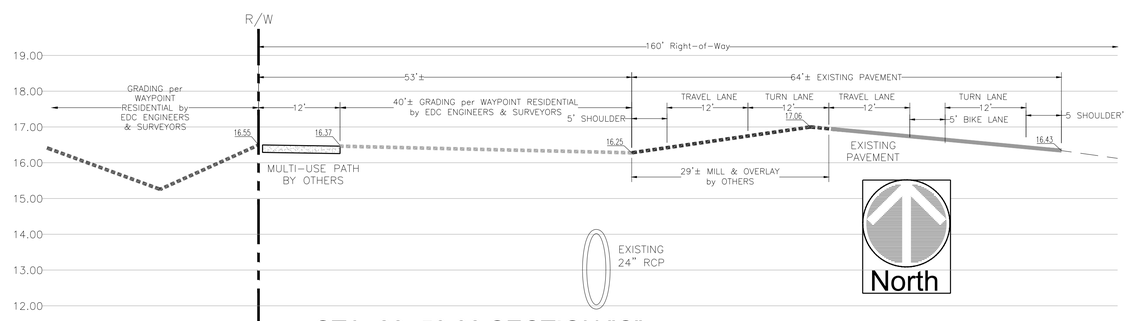
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SCALE: NOT TO SCALE



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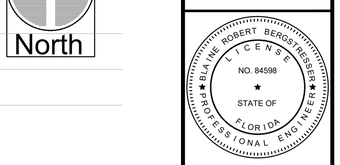
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591 EVERNIA STREET
WEST PALM BEACH, FL 33401



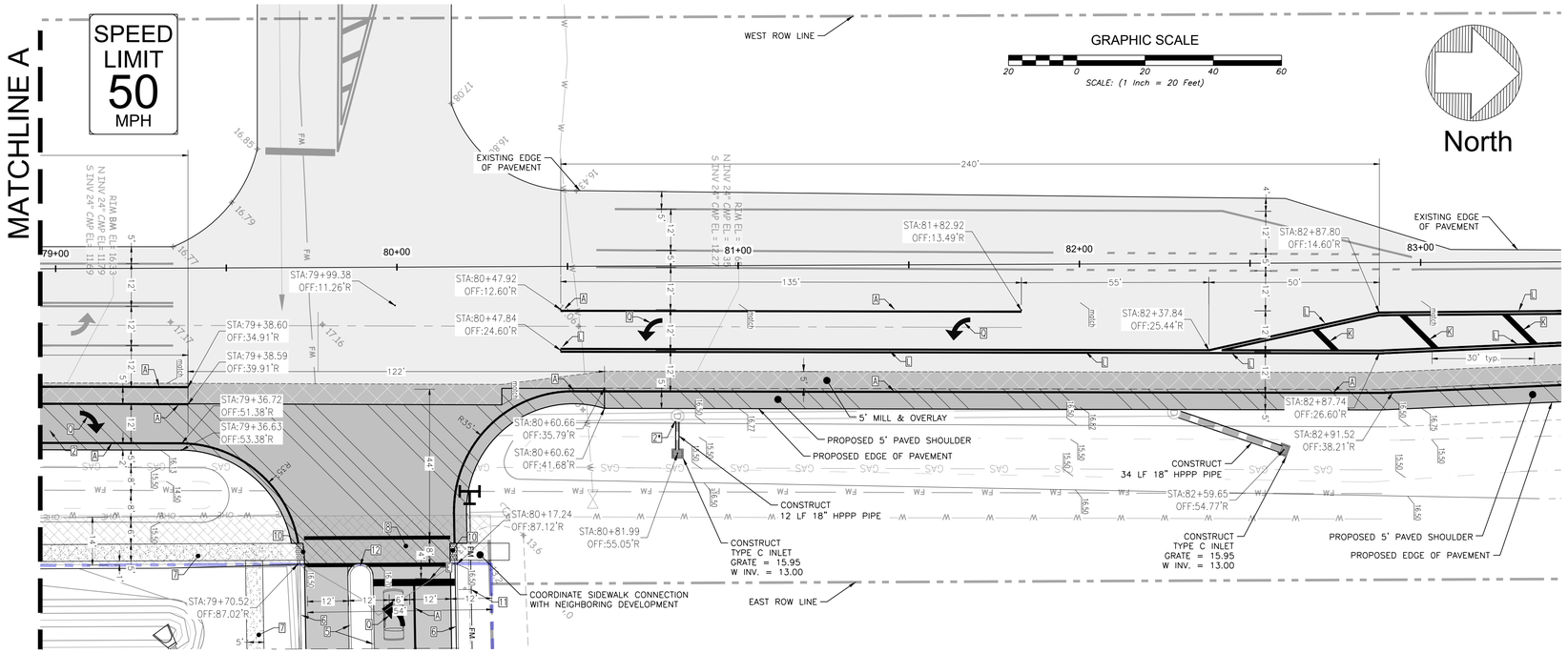
BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE No. 84598
09/16/2022

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PROJECT No.: 23-1011
DRAWN BY: CRW
CHECKED BY: BRB
DATE: 08/23/2023

SHEET TITLE: MASTER ROW PLAN - ALTERNATE

SHEET NUMBER: C-302a



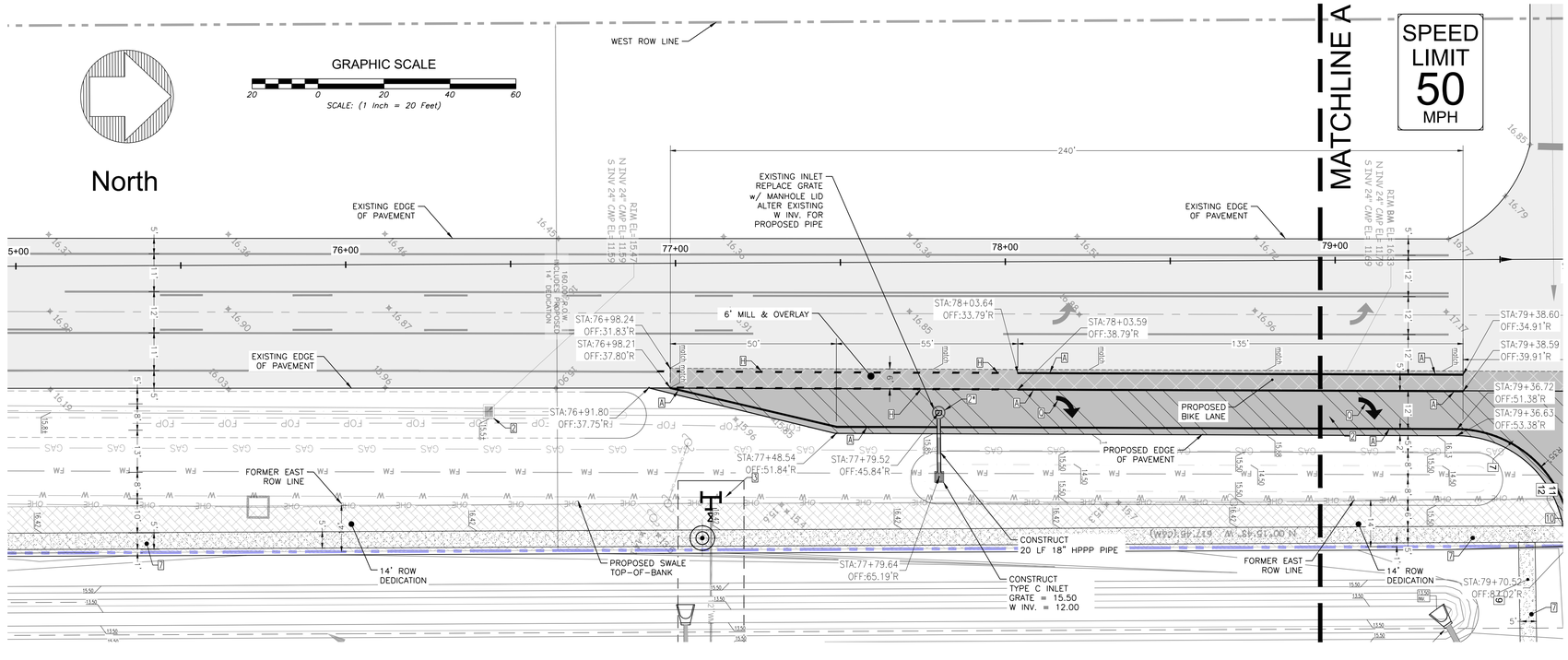
NAVD 1988

ALL ELEVATIONS DEPICTED HEREON REFERENCE NAVD 1988

TRAFFIC STATEMENT TRIP GENERATION

BASED ON ITE TRIP GENERATION, 10TH EDITION.

MULTIFAMILY HOUSING – LOW RISE (220)
SATURDAY 5.78 TRIPS/DWELLING UNIT
312 UNITS @ 5.78 = 1,803.36 TRIPS
1,804 TRIPS/DAY



LINEWORK & SYMBOL LEGEND

- DENOTES PROPERTY BOUNDARY
- DENOTES RIGHT-OF-WAY
- DENOTES CENTERLINE
- DENOTES EASEMENT
- DENOTES SWALE FLOWLINE
- W — DENOTES WATER MAIN
- OHE — DENOTES GRAVITY SEWER
- FM — DENOTES FORCE MAIN
- GAS — DENOTES GAS MAIN
- FOP — DENOTES FIBER-OPTIC CABLE
- DENOTES DRAINAGE PIPE
- DENOTES DITCH BOTTOM INLET
- D — DENOTES DRAINAGE STRUCTURE
- 20.50 / + 20.50 — DENOTES PROPOSED GRADE / DENOTES EXISTING GRADE
- S — DENOTES SEWER MANHOLE
- DENOTES GATE VALVE
- DENOTES FIRE HYDRANT
- DENOTES POWER POLE

HATCH LEGEND

- PROPOSED ROADWAY WIDENING 2" SP-9.5 STRUCTURE COUSE PLUS 1" FC-9.5 OVERLAY FULL DEPTH BASE MATERIALS
- EXISTING ASPHALT PAVEMENT
- PROPOSED PAVEMENT RESURFACING WITH 1" FC-9.5 OVERLAY •REQUIRES MILLING
- PROPOSED CONCRETE SIDEWALK REFER TO DETAILS SHEET C-500

CONSTRUCTION NOTES

1	SEWER MANHOLE (existing)
2	DRAINAGE STRUCTURE (existing)
3	WATER MAIN TAP & VALVE
4	FIRE HYDRANT
5	FDOT TYPE 'D' CURB
6	FDOT TYPE 'F' CURB
6a	'F' CURB FLARED END
7	CONCRETE SIDEWALK
8	PEDESTRIAN CROSSWALK
9	ADA CURB RAMP
10	TACTILE SURFACE
11	R1-1 STOP SIGN
12	R4-7 KEEP RIGHT SIGN
13	STREET LIGHT

STRIPING NOTES

A	6" SOLID WHITE
B	8" SOLID WHITE
C	12" SOLID WHITE
D	18" SOLID WHITE
E	24" SOLID WHITE
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Q	TURN ARROW per FDOT INDEX 711-001
R	R.P.M.'s per FDOT INDEX 706-001 Use only a single RPM between double-yellow centerlines.
S	F.D.P.'s per FDOT INDEX 706-001

ALL STRIPING SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED

GENERAL NOTES

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3001 INDUSTRIAL 2 AVE
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PHONE: (772) 569-5505
FBPE C.O.A. # 33705

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PROJECT:
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2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
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BLAINE ROBERT BERGSTRESSER LICENSE NO. 84598 STATE OF FLORIDA PROFESSIONAL ENGINEER

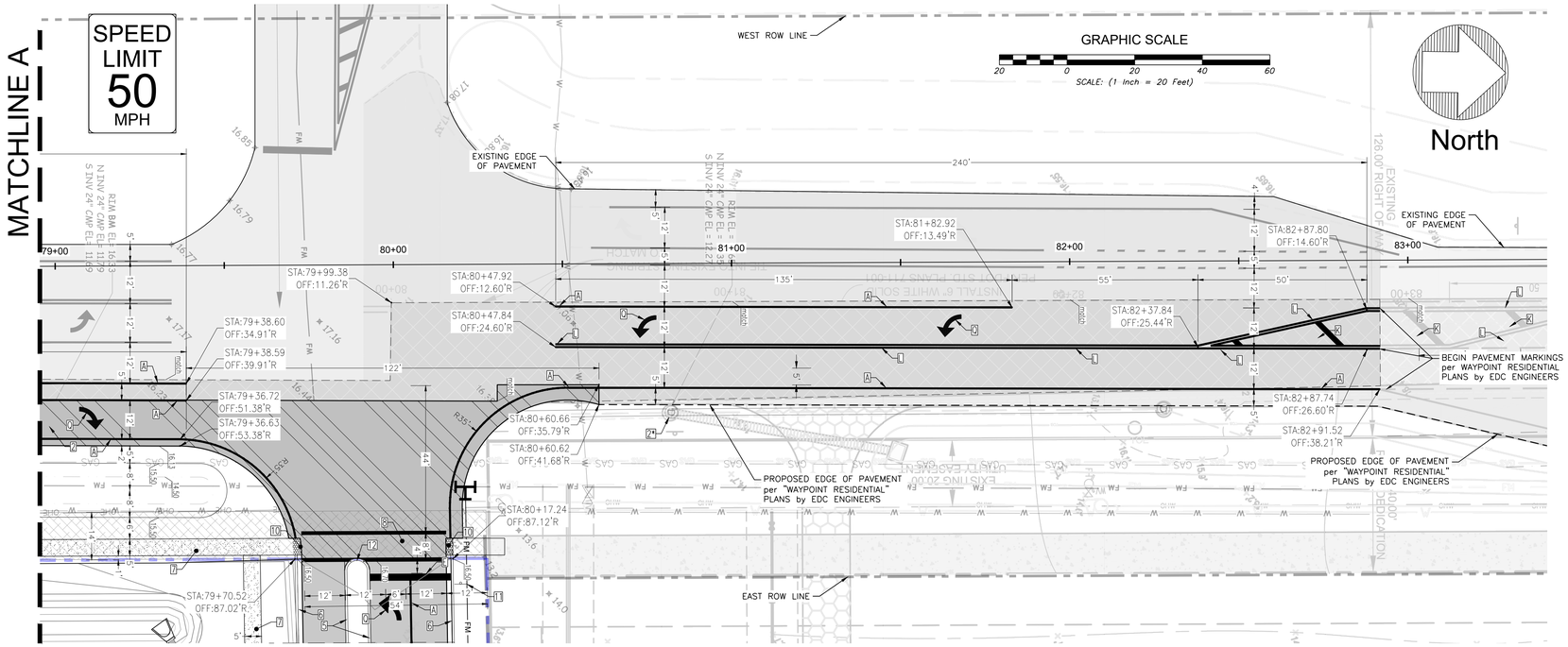
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PROJECT No.: 23-1011
DRAWN BY: CRW
CHECKED BY: BRB
DATE: 08/23/2023

SHEET TITLE:
DRIVEWAY CONNECTION PLAN

SHEET NUMBER:
C-303



NAVD 1988

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TRAFFIC STATEMENT
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BASED ON ITE TRIP GENERATION, 10TH EDITION.

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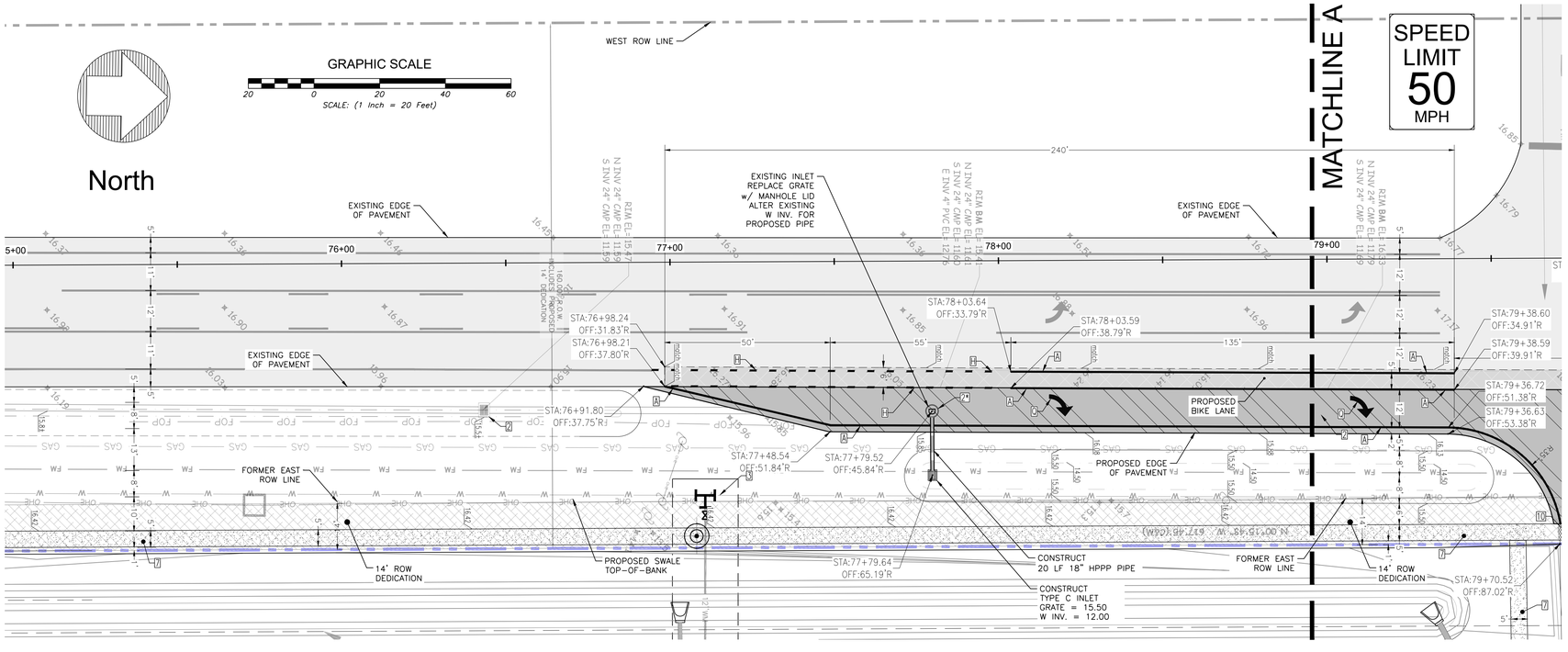
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FBPE C.O.A. # 33705

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CLIENT:
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BLAINE ROBERT BERGSTRESSER LICENSE NO. 84598 STATE OF FLORIDA PROFESSIONAL ENGINEER

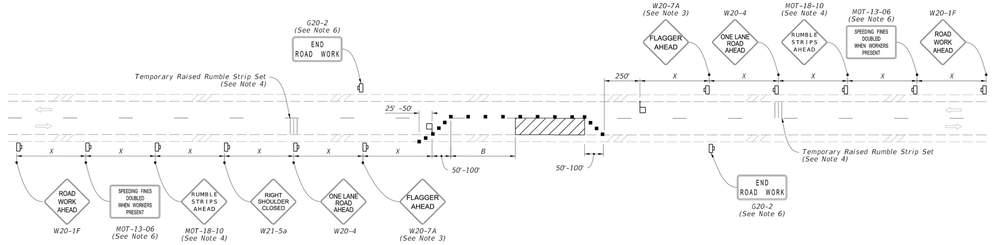
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PROJECT No.: 23-1011
DRAWN BY: CRW
CHECKED BY: BRB
DATE: 08/23/2023

SHEET TITLE:
DRIVEWAY CONNECTION PLAN - ALTERNATE

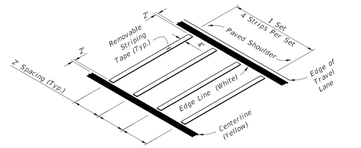
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C-303a



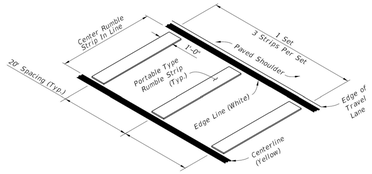
NOTES:

1. This Index applies to Two-Lane, Two-Way Roadways with work within the traveled way.
2. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Spacing
   See Index 102-600 for "L", "B", "X" and channelizing device spacing values.
3. Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
4. Use temporary raised rumble strips when the existing posted speed is 55 mph or greater and the work duration is greater than 60 minutes. If temporary raised rumble strips are not used, omit "Rumble Strips Ahead" signs (MOT-18-10) and associated work zone sign spacing.
5. Additional one-way control may be provided by the following means:
   a. Flag-carrying vehicle
   b. Official vehicle
   c. Pilot vehicles
   d. Traffic signals

   When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.
6. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign spacing, may be omitted when the work operation will be in place for 24 hours or less.
7. Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specification Sections 102, 990 and the APL vendor drawings.
8. Railroad Crossings:
   a. If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
   b. If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.



OPTION - 1
REMOVABLE STRIPING TYPE



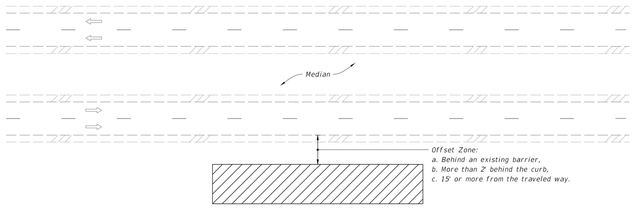
OPTION - 2
PORTABLE TYPE

RUMBLE STRIP SETS

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Flagger
- Lane Identification and Direction of Traffic

LAST REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX	SHEET
11/01/21	REVISION				102-603	1 of 2



MULTILANE ROADWAY SHOWN, TWO-LANE ROADWAY SIMILAR

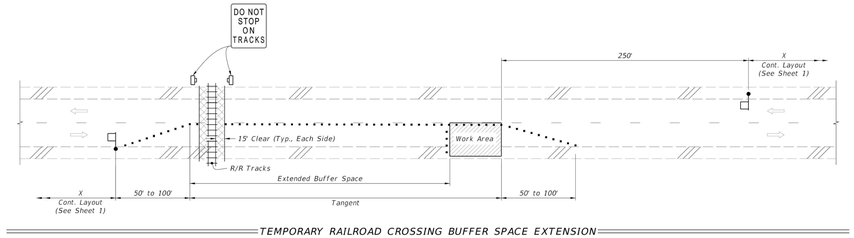
NOTES:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work beyond the shoulder.
2. Use Index 102-602 when the work operation (excluding establishing and terminating the work areas) requires that two or more work vehicles cross the Offset Zone in any one hour period.
3. Use Index 102-660 when Work Area encroaches a Sidewalk.

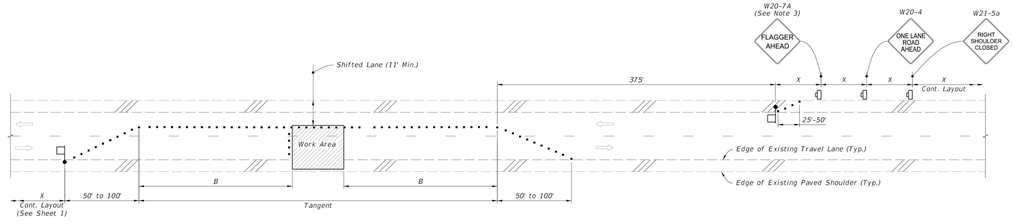
SYMBOLS:

- Work Area
- Lane Identification and Direction of Traffic

LAST REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE ROADWAY, WORK BEYOND THE SHOULDER	INDEX	SHEET
11/01/20	REVISION				102-601	1 of 1



TEMPORARY RAILROAD CROSSING BUFFER SPACE EXTENSION



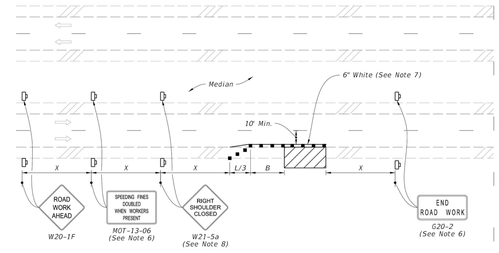
TEMPORARY LANE SHIFT TO SHOULDER WHEN WORK AREA ENCROACHES ON THE CENTERLINE
(For Work Operations In place 24 Hours or Less)

SYMBOLS:

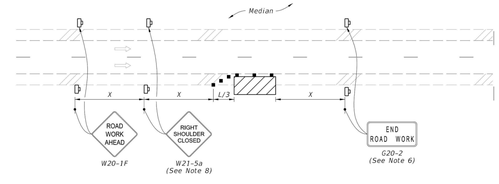
- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Flagger
- Lane Identification and Direction of Traffic

SPECIAL CONDITIONS

LAST REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX	SHEET
11/01/21	REVISION				102-603	2 of 2



MULTILANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY
WITH WORK ZONE SPEED OF 45 MPH OR LESS



MULTILANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic

LAST REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/20	REVISION				102-602	2 of 2

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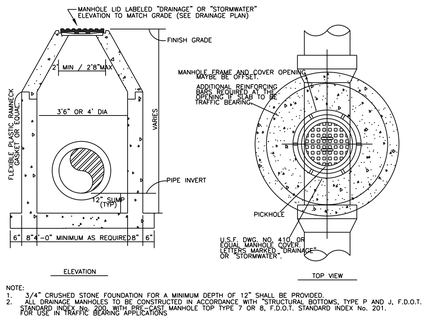
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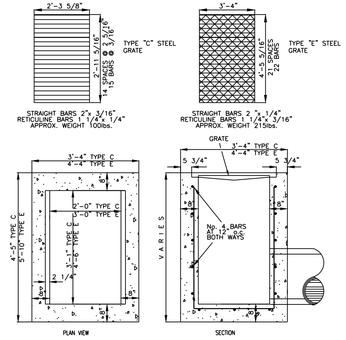
SHEET TITLE:
MAINTENANCE OF TRAFFIC

SHEET NUMBER:
C-304

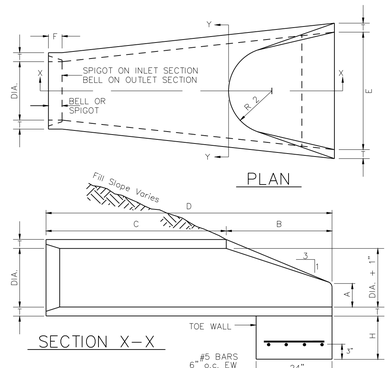


NOTE:
1. 3/4" CRUSHED STONE FOUNDATION FOR A MINIMUM DEPTH OF 12" SHALL BE PROVIDED.
2. ALL DRAINAGE MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH "STRUCTURAL BOTTOMS, TYPE P AND J, F.D.O.T. STANDARD INDEX No. 200, W/ APPLICATIONS.
MANHOLE TOP TYPE 7 OR 8, F.D.O.T. STANDARD INDEX No. 201. FOR USE IN TRAFFIC BEARING APPLICATIONS

DRAINAGE JUNCTION BOX
N.T.S.

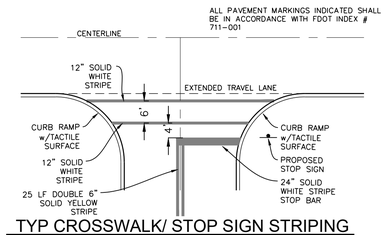


TYPE 'C' & 'E' INLETS
N.T.S.

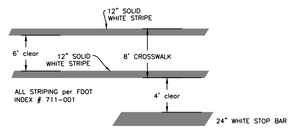


DIA.	T	BELL OR SPIGOT	A	B	C	D	E	P	R 1	R 2	F	H	WEIGHT (LBS.)
15"	2 1/4"	2"	6"	2'-3"	3'-10"	6'-1"	2'-6"	24 5/16"	12 1/2"	11"	3 1/2"	24"	740
18"	2 1/2"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	29"	15 1/2"	12"	4"	24"	990
24"	3"	2 1/2"	9 1/2"	3'-8"	2'-6"	6'-2"	4'-0"	33 3/16"	16 1/8"	14"	4 1/2"	24"	1520

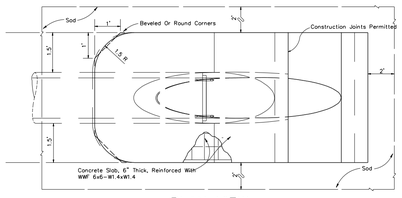
FLARED END SECTION DETAILS & NOTES
N.T.S.



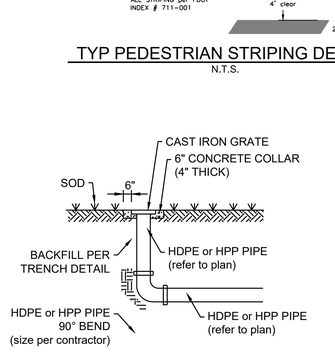
TYP CROSSWALK/ STOP SIGN STRIPING
N.T.S.



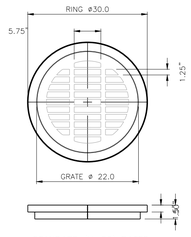
TYP PEDESTRIAN STRIPING DETAIL
N.T.S.

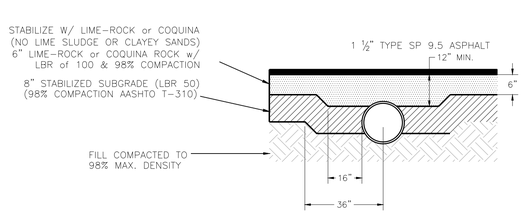


MITERED END SECTION (M.E.S.) DETAILS
N.T.S.

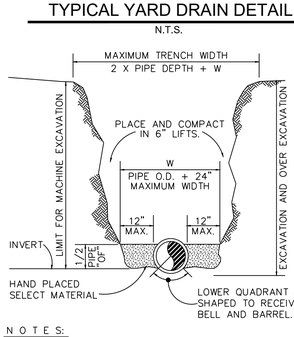


TYPICAL YARD DRAIN DETAIL
N.T.S.



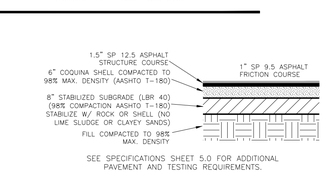


TYPICAL ASPHALTIC CONCRETE PAVING OVER DRAINAGE PIPES
N.T.S.

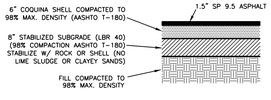


NOTES:
1) THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
2) BACKFILL TO 12" MAXIMUM LAYERS OR OTHER APPROVED METHOD TO ACHIEVE 98% COMPACTION UNDER PAVED SURFACES AND 95% COMPACTION UNDER OTHER SURFACES AS ESTABLISHED BY A.A.S.H.T.O. METHOD T-180.

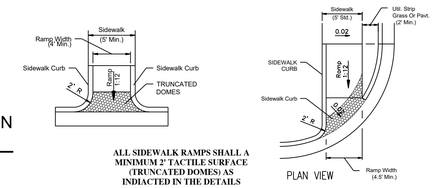
TYPICAL TRENCH DETAIL
N.T.S.

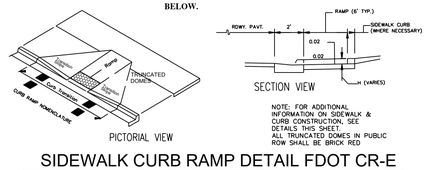


ASPHALTIC CONCRETE PAVING SECTION (within the FDOT Right-of-Way)
N.T.S.



TYPICAL ASPHALTIC CONCRETE PAVING SECTION
N.T.S.

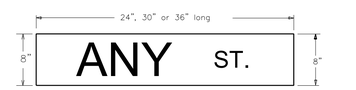




SIDEWALK CURB RAMP DETAIL FDOT CR-E
N.T.S.



N.T.S.

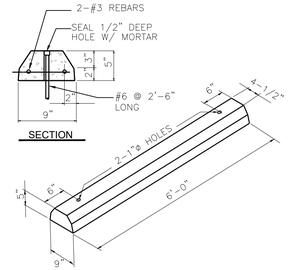


GENERAL SPECIFICATIONS:
FLAT PLATE, Alcoa # 86054.6063-T6 alloy, etched, degreased with #1200 alodine finish with #2277 green Scotchlite background or equal. The street name must be on both sides of the sign plate.
Dimensions: 8"H, 24",30" or 36"L, .08" thick aluminum
Scotchlite (silver) or equal.

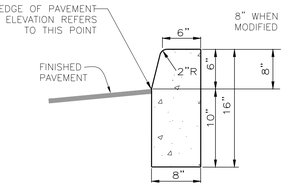
NOTE: CR510 & US-1 STREET SIGN SHALL BE VARRIED TO 12" HIGH W/ 8" LETTERS

STREET SIGN DETAIL
N.T.S.

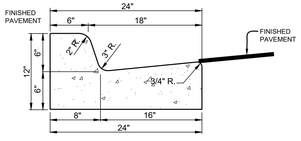
NAVD 1988
ALL ELEVATIONS DEPICTED HEREON REFERENCE NAVD 1988. THE CONVERSION FACTOR TO NGVD 1929 IS +1.496'



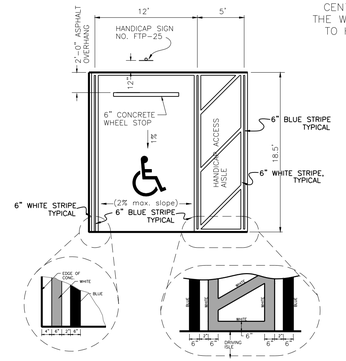
PRECAST CONCRETE WHEEL STOP DETAIL
N.T.S.



TYPE 'D' CURB
N.T.S.

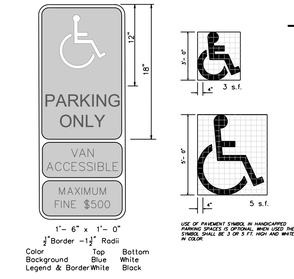


TYPE 'F' CURB
N.T.S.

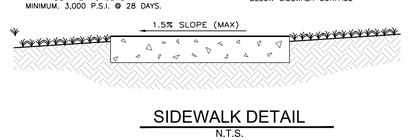


HANDICAP PARKING STALL DETAIL
N.T.S.

NOTE: PARKING STALL WIDTHS SHALL BE DIMENSIONED FROM CENTERLINE TO CENTERLINE OF THE WHITE STRIPES. THIS APPLIES TO HANDICAP PARKING STALLS ALSO.

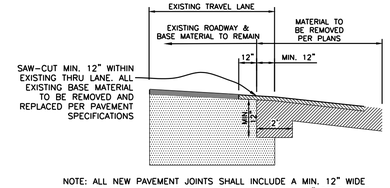


HANDICAP SIGNAGE & PAVEMENT SYMBOLS DETAIL
N.T.S.



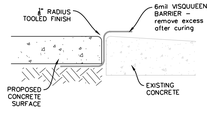
SIDEWALK DETAIL
N.T.S.

SIDEWALK NOTES:
1. ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH THE "SUGGESTED SPECIFICATIONS FOR CONCRETE AREAS" PREPARED BY THE PORTLAND CEMENT ASSOCIATION.
2. CONTROL JOINTS SHALL BE CONSTRUCTED AT A MAXIMUM OF 8-FEET.
3. AT LEAST THREE (3) COMPRESSIVE STRENGTH CYLINDER SAMPLES SHALL BE TAKEN FOR EACH 10,000 SQUARE FEET OF PAVEMENT OR FIVE (5) PER JOB, WHICHEVER IS GREATER. SLUMP SHALL BE 2 TO 4 INCHES (AASHTO T-119). COMPRESSIVE STRENGTH SHALL BE REPORTED AT 7, 14, AND 28 DAYS.
4. CONSTRUCT UPON FIRM, STABILIZED GROUND, COMPACTED TO 95% MAXIMUM DRY DENSITY.
5. SURFACE WITH BROOM FINISH.
6. SIDEWALK LOCATION AND DETAILS PER FDOT INDEX #310, LATEST EDITION.

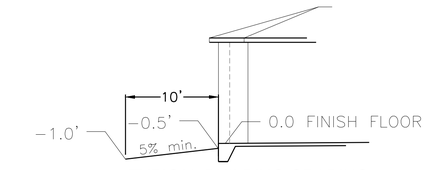


NOTE: ALL NEW PAVEMENT JOINTS SHALL INCLUDE A MIN. 12" WIDE ASPHALT OVERLAY OVER EXISTING BASE AND A MIN. 12" DEEP BASE FOR THE FIRST 2 FEET OF NEW CONSTRUCTION.

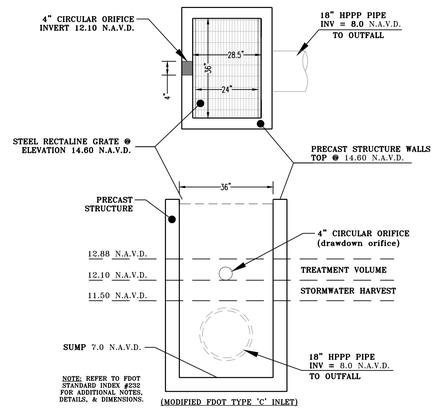
SAW CUT DETAIL
N.T.S.



CONCRETE BUTT JOINT DETAILS
N.T.S.



TYPICAL BUILDING GRADING
N.T.S.



CONTROL STRUCTURE CS-1
N.T.S.

KMA
ENGINEERING & SURVEYING, LLC
3001 INDUSTRIAL 2 AVE
FT. PIERCE, FL 34946
PHONE: (772) 569-5505
FBPE C.O.A. # 33705

REVISIONS: BY: DATE: COMMENT:

PROJECT:
REGATTA APARTMENTS
2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

BLAINE ROBERT BERGSTRESSER LICENSE NO. 84598 STATE OF FLORIDA PROFESSIONAL ENGINEER
BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE No. 84598
09/16/2022

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PROJECT No.: 23-1011
DRAWN BY: CRW
CHECKED BY: BRB
DATE: 08/23/2023

SHEET TITLE:
GENERAL DETAILS

SHEET NUMBER:
C-500

GRAPHIC SCALE

50 0 50 100 150

SCALE: (1 Inch = 50 Feet)

North

UNPLATTED LANDS
(VACANT)
PARCEL ID: 2418-322-0002-000-2
ORB 3065, PAGE 2045

UNPLATTED LANDS
(VACANT)
PARCEL ID: 2418-331-0001-000-3
ORB 3065, PAGE 2045

S 89°04'39" W 1245.68'(C)

RIM EL= 16.65
N INV 24" CMP EL= 12.35
S INV 24" CMP EL= 12.27

SAW-CUT & REMOVE EXISTING PAVEMENT

1" MILL EXISTING PAVEMENT

NOT INCLUDED
LESS AND ACCEPT
EXCEPTION NO.7
OR BOOK 2625 PAGE 1118

W LINE OF THE SW 1/4 OF THE SW 1/4 OF SECTION 18 PER FDOT R/W MAP SECTION 94001-2404, DATED 03/73

JENKINS ROAD
(146' R/W
ASPHALT
WIDTH VARIES)

RIM BM EL= 16.33
N INV 24" CMP EL= 11.79
S INV 24" CMP EL= 11.69

SWA-CUT & REMOVE EXISTING PAVEMENT

S 00°15'43" W 617.48'(C&M)

RIM BM EL= 15.41
N INV 24" CMP EL= 11.61
S INV 24" CMP EL= 11.60
E INV 4" PVC EL= 12.76

REPLACE EXISTING GRATE INLET w/ DRAINAGE MANHOLE LID

NOT INCLUDED
LESS AND ACCEPT
OR BOOK 2974 PAGE 708

RIM EL= 15.47
N INV 24" CMP EL= 11.59
S INV 24" CMP EL= 11.59

160.00' R.O.W.
INCLUDES PROPOSED
14' DEDICATION

EASTERLY 100.00'(D)
N 89°43'23" E 100.00'(C)

EASTERLY 25.00'(D)
N 89°43'23" E 25.00'(C)

WESTERN R/W LINE

NORTHERLY 132.00'(D)
N 00°16'37" W 132.00'(C)

WESTERLY 25.00'(D)
N 89°43'23" E 25.00'(C)

POB
PARCEL 3 AND PARCEL 4

NORTHERLY 104.48(D)
N 00°16'37" W 104.83'(C)

RIM BM EL= 15.60
N INV 24" CMP EL= 10.75
S INV 24" RCP EL= 10.70

POC
PARCEL 3 AND PARCEL 4

FND PK&D
"CULPEPPER &
TERPENING"
pk

72" RCP INV EL= 16.40

SW COR OF SECTION 18
TOWNSHIP 35 SOUTH
RANGE 40 EAST

16.49
94
pktab 5647 trav pk

RIM EL= 15.98
N INV EL= 12.78

EASTERLY R/W LINE

SOUTHERLY 132.00'(D)
S 00°15'43" E 132.00'(C&M)

SET 5/8" R&C
LB 8206

WESTERLY 100.00'(D)
N 89°43'23" E 100.00'(C)

FOUND 5/8" R&C
LB 8206

PARCEL 4
EXCEPTION NO.8 OR BOOK 879 PAGE 276
PARCEL ID: 2418-333-0004-000-0

FLOOD ZONE "AE" EL= 16

FLOOD ZONE "X"

EOW

TOB

TOE

SWALE

TOP

FOP

GAS

FM

OHE

PHE

REMOVE EXISTING CONCRETE SLAB

CONCRETE

EXISTING POND TO BE DEWATERED AND FILLED

REMOVE EXISTING PIPE

REMOVE EXISTING WELL

EXISTING DITCH TO BE USED FOR TEMPORARY SEDIMENT CONTROL CONVEYANCE SWALE

12X12 RCP
INV EL= 10.83

12X12 RCP
INV EL= 11.64

12X12 RCP
INV EL= 10.83

12X12 RCP
INV EL= 10.81

12X18 CMP
INV EL= 11.63

12X18 CMP
INV EL= 11.88

12X18 CMP
INV EL= 11.80

12X18 CMP
INV EL= 11.21

12X18 CMP
INV EL= 12.50

12X12 RCP
INV EL= 10.83

THE NORTH LINE OF THE N 1/2 OF THE N 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4 SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST

THE SOUTH LINE OF THE N 1/2 OF THE N 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4 SECTION 18, TOWNSHIP 35 SOUTH, RANGE 40 EAST

THE NORTH LINE OF THE S 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4 OF SECTION 18, TOWNSHIP 35 SOUTH RANGE 40 EAST

THE EAST LINE OF THE S 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4 OF SECTION 18, TOWNSHIP 35 SOUTH RANGE 40 EAST

PARCEL 1
N 1/2 OF THE N 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4
EXCEPTION NO.6 OR BOOK 2328 PAGE 1501
EXCEPTION NO.7 OR BOOK 2625, PAGE 1118
PARCEL ID: 2418-333-0001-000-9

PARCEL 2
S 1/2 OF THE N 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4
EXCEPTION NO.6 OR BOOK 2328 PAGE 1501
PARCEL ID: 2418-333-0002-000-6

PARCEL 3
ALL OF THE S 1/2 OF THE S 1/2 OF THE SW 1/4 OF THE SW 1/4
EXCEPTION NO.8 OR BOOK 879 PAGE 276
PARCEL ID: 2418-333-0003-000-3

N 89°03'54" E 1244.97'(C)

S 89°03'08" W 1244.26'(C)

N 89°01'37" E 1243.03'(C&M)

S 00°01'46" E 616.39'(C)

S 00°01'46" E 165.22'(C)

S 00°01'46" E 285.94'(C)

FND 5/8" R&C
LB 7344
N 0.18', E 0.18'

FND 5/8" IR
NO ID
S 0.06', E 0.10'

FND 5/8" IR
BENT
N 4.73', E 1.50'

SET 5/8" R&C
LB 8206

FND 5/8" IR
BENT
S 1.93', W 13.95'

FND 5/8" R&C
LB 7344
S 3.86', E 0.20'

FND 5/8" R&C
ILL
S 0.15', W 0.13'

UNPLATTED LANDS
(VACANT)
PARCEL ID: 2418-343-0001-000-0
ORB 3065, PAGE 2045

N.S.L.R.W.M.D. CANAL NO 37
(85' R/W)
PARCEL ID: 2418-333-0005-000-7

S LINE OF THE SW 1/4 OF THE SW 1/4 OF SECTION 18 PER FDOT R/W MAP SECTION 94030-2516, DATED 03/22/12

ALL EXISTING DITCHES USED FOR PHASE ONE RUNOFF CONVEYANCE SHALL BE FILLED AS A CONDITION OF PHASE TWO EROSION CONTROL

NAVD 1988
ALL ELEVATIONS DEPICTED HEREON REFERENCE NAVD 1988

KMA
ENGINEERING & SURVEYING, LLC
3001 INDUSTRIAL 2 AVE
FT. PIERCE, FL 34946
PHONE: (772) 569-5505
FBPE C.O.A. # 33705

REVISIONS:

BY:	DATE:	COMMENT:

PROJECT:
REGATTA APARTMENTS
2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

BLAINE ROBERT BERGSTRESSER LICENSE NO. 84598 STATE OF FLORIDA PROFESSIONAL ENGINEER

BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE No. 84598
09/16/2022

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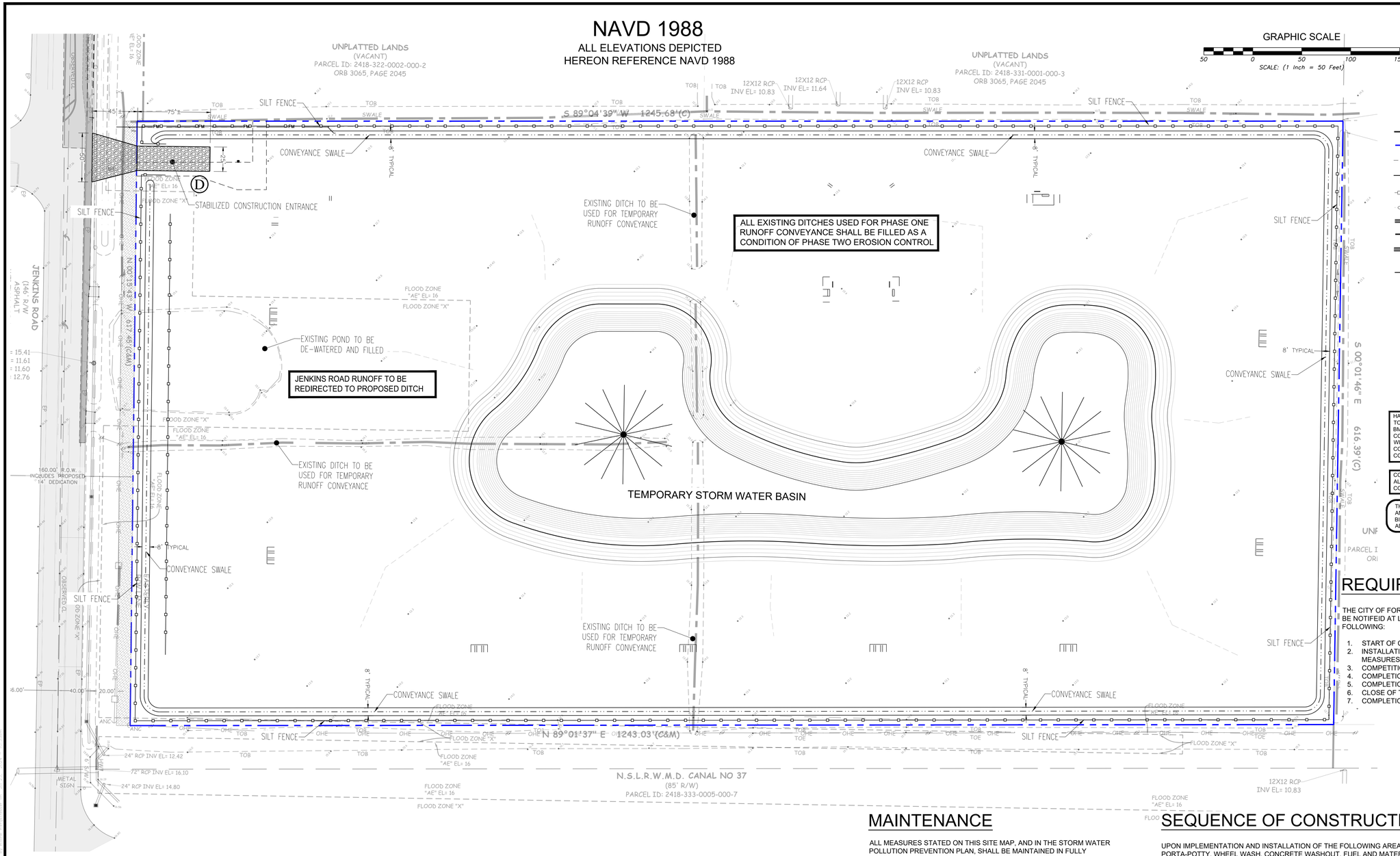
PROJECT No.:	23-1011
DRAWN BY:	CRW
CHECKED BY:	BRB
DATE:	08/23/2023

SHEET TITLE:
EXISTING CONDITIONS & DEMOLITION PLAN

SHEET NUMBER:
C-600

NAVD 1988

ALL ELEVATIONS DEPICTED
HEREON REFERENCE NAVD 1988



LEGEND

- DENOTES PARCEL BOUNDARY
- DENOTES EASEMENTS
- DENOTES ROW LINES
- DENOTES SILT FENCE
- DENOTES TURBIDITY BARRIER
- DENOTES DRAINAGE PIPE
- DENOTES SWALE CENTERLINE
- DENOTES RETAINING WALL
- OHE — DENOTES OVERHEAD ELECTIC
- DENOTES DRAINAGE INLET
- (Y) DENOTES YARD DRAIN
- DENOTES M.E.S. or F.E.S.
- (J) DENOTES JUNCTION BOX
- (X) SWPP BMP refer to details on following sheet

HALT ALL ACTIVITIES AND CONTACT THE CONSULTANT TO PERFORM INSPECTION AND CERTIFICATION OF BMPS. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT STORM WATER PRE-CONSTRUCTION MEETING WITH CONSULTANT AND ALL GROUND-DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.

CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING ALL DEWATERING PERMITS NECESSARY FOR CONSTRUCTION

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

REQUIRED INSPECTIONS

THE CITY OF FORT PIERCE ENGINEERING DEPARTMENT SHALL BE NOTIFEID AT LEAST TWO WORKING DAYS BEFORE THE FOLLOWING:

1. START OF CONSTRUCTION
2. INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES
3. COMPETITION OF SITE CLEARING
4. COMPLETION OF ROUGH GRADING
5. COMPLETION OF FINAL GRADING
6. CLOSE OF THE CONSTRUCTION SEASON
7. COMPLETION OF FINAL LANDSCAPING

SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TEMPORARY CONSTRUCTION EXITS																								
TEMPORARY CONTROL MEASURES																								
SEDIMENT CONTROL BASINS																								
STRIP & STOCKPILE TOPSOIL																								
ROUGH GRADE																								
STORM FACILITIES																								
SITE CONSTRUCTION																								
PERMANENT CONTROL STRUCTURES																								
FOUNDATION / BUILDING CONSTRUCTION																								
FINISH GRADING																								
LANDSCAPING/SEED/FINAL STABILIZATION																								

MAINTENANCE

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

SEQUENCE OF CONSTRUCTION

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAYDOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

PHASE 1:
1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1) AND INSTALL SILT FENCE.
2. DEMOLISH EXISTING STRUCTURES, IF APPLICABLE
3. CONSTRUCT AND STABILIZE SEDIMENT BASIN AND DRAINAGE SWALES WITH APPROPRIATE OUTFALL STRUCTURES (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL CONTROL DEVICES LISTED ABOVE)
4. INSTALL INLET PROTECTION AT EXISTING INLET(S).
5. INSTALL AND STABILIZE ANY NECESSARY HYDRAULIC CONTROL STRUCTURES (DIKES, CHECK DAMS, OUTLET TRAPS, RISER PIPE DISCHARGE POINT, ETC.)
6. PREPARE CLEARING AND GRUBBING OF THE SITE, IF APPLICABLE.

PHASE 2:
7. PERFORM MASS GRADING. ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS.
8. START CONSTRUCTION OF THE BUILDING PAD AND STRUCTURES.
9. TEMPORARILY SEED WITH PURE LIVE SEED, THROUGHOUT CONSTRUCTION, DISTURBED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE OR AS REQUIRED BY GENERIC PERMIT.
10. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, AND CURBS.
11. INSTALL INLET PROTECTION AT ALL STORM DRAIN INLETS AS EACH INLET IS INSTALLED. PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
12. PREPARE SITE FOR PAVING AND PAVE SITE.
13. CONTACT CIVIL ENGINEER ONCE THE SITE APPEARS TO BE FULLY STABILIZED.
14. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER INSPECTION AND APPROVAL OF THE ENGINEER AND STABILIZE ANY AREA DISTURBED BY THE REMOVAL OF BMPS.
15. CONTINUE DAILY INSPECTION REPORTS UNTIL THE FINAL DAILY INSPECTION IS SIGNED OFF BY THE CONSTRUCTION MANAGER THAT THE SITE IS FULLY STABILIZED AND THE PERMIT MAY BE TERMINATED.

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REVISIONS: BY: DATE: COMMENT:

PROJECT:
REGATTA APARTMENTS
2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

BLAINE ROBERT BERGSTRESSER LICENSE NO. 84598 STATE OF FLORIDA PROFESSIONAL ENGINEER

BLAINE BERGSTRESSER, P.E.
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09/16/2022

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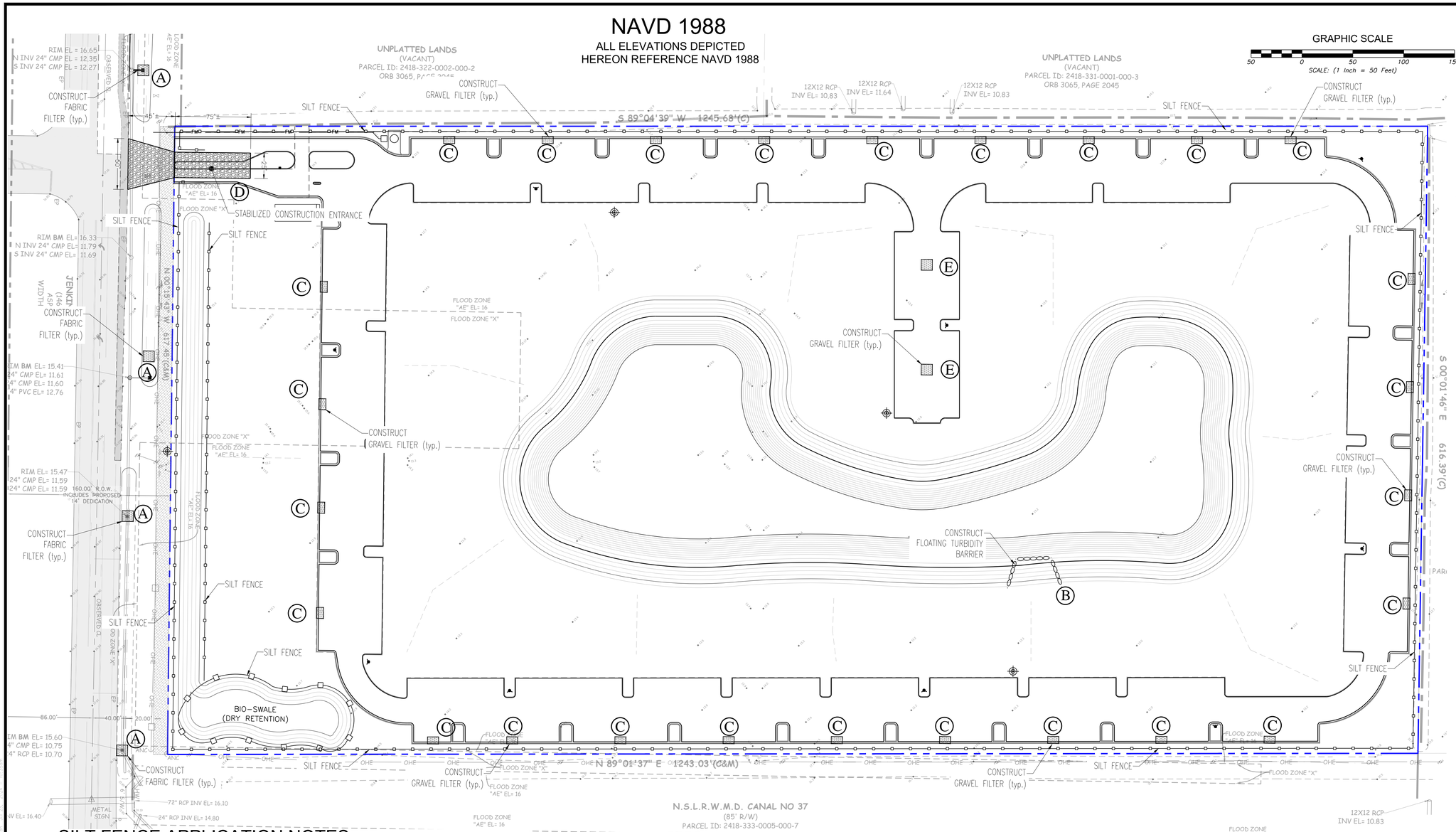
PROJECT No.: 23-1011
DRAWN BY: CRW
CHECKED BY: BRB
DATE: 08/23/2023

SHEET TITLE:
PHASE ONE EROSION CONTROL PLAN

SHEET NUMBER:
C-601

NAVD 1988

ALL ELEVATIONS DEPICTED
HEREON REFERENCE NAVD 1988



LEGEND

- DENOTES PARCEL BOUNDARY
- DENOTES EASEMENTS
- DENOTES ROW LINES
- DENOTES SILT FENCE
- DENOTES TURBIDITY BARRIER
- DENOTES DRAINAGE PIPE
- DENOTES SWALE CENTERLINE
- DENOTES RETAINING WALL
- OHE — DENOTES OVERHEAD ELECTIC
- DENOTES DRAINAGE INLET
- (Y) DENOTES YARD DRAIN
- DENOTES M.E.S. or F.E.S.
- (J) DENOTES JUNCTION BOX
- (X) SWPP BMP refer to details on following sheet

SILT FENCE APPLICATION NOTES

1. THE HEIGHT OF SILT FENCE SHALL NOT EXCEED 36 INCHES (90CM).
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLE CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED AS DESCRIBED IN ITEM 8 BELOW.
3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET (3M) APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES (30 CM). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FT (1.8M).
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES (10CM) WIDE AND 6 INCHES (10CM) DEEP ALONG THE LINES OF POSTS AND UPSLOPE FROM THE BARRIER.
5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH (25MM) LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES (5CM) AND SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES (20CM) OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
7. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACINGS ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM NO.6 APPLYING.
8. WHEN ATTACHING TWO SILT FENCES TOGETHER, PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH THE POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FILTER FABRIC. DRIVE BOTH POSTS INTO THE GROUND AND BURY THE FLAP.
9. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
10. THE MOST EFFECTIVE APPLICATION CONSISTS OF A DOUBLE ROW OF SILT FENCES SPACED A MINIMUM OF THREE FEET APART. THE THREE FOOT SEPARATION IS SO THAT IF THE FIRST ROW COLLAPSES IT WILL NOT FALL ON THE SECOND ROW. WIRE OR SYNTHETIC MESH MAY BE USED TO REINFORCE THE FIRST ROW.
11. WHEN USED TO CONTROL SEDIMENTS FROM A STEEP SLOPE, SILT FENCES SHOULD BE PLACED AWAY FROM THE TOE OF THE SLOPE FOR INCREASED HOLDING CAPACITY.
12. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

EROSION CONTROL NOTES

1. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE.
2. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE OF SITE. PERIMETER SEDIMENT BARRIERS SHALL BE CONSTRUCTED TO PREVENT SEDIMENT OR TRASH FROM FLOWING OR FLOATING ON TO ADJACENT PROPERTIES.
3. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR.
4. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES SHALL BE STABILIZED, COVERED OR CONTAINED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
5. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED.
6. AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
7. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, SLOPE DRAIN STRUCTURE OR APPROVED CONTROL.
8. SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM WATER SYSTEM, DITCH OR CHANNEL. ALL STORM WATER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
9. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION.
10. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE DEVELOPER, OWNER AND/OR CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT CONTROLS. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
11. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE WITH CURBS AND GUTTERS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES.
12. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
13. PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION AT ALL TIMES DURING CONSTRUCTION.
14. EROSION CONTROL DESIGN AND CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS IN INDEX NUMBERS 101, 102 AND 103 OF F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS AND COUNTY PERMITS.
15. CONTRACTOR IS RESPONSIBLE FOR ALL SURFACE WATER DISCHARGES, RAINFALL RUN OFF OR DEWATERING ACTIVITIES.
16. CONTRACTOR MUST INCORPORATE ALL BMP'S NECESSARY TO MEET OR EXCEED STATE WATER QUALITY AND SWPPP REQUIREMENTS.
17. THE POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITIONAL BMP'S MAY BE NECESSARY AT CONTRACTOR'S EXPENSE.
18. NOI TO BE POSTED ON SITE.
19. DEWATERING ACTIVITIES:
    - A - DISCHARGE MUST NOT EXCEED STATE WATER QUALITY STANDARDS.
    - B - CONTRACTOR MUST HAVE A TRANSFERABLE SJRWMD CONSUMPTIVE USE PERMIT KNOWN AS A "NOTICED GENERAL PERMIT FOR SHORT TERM CONSTRUCTION DE-WATERING".
    - C - NO HYDRAULIC PUMPS MAY BE USED FOR DEWATERING UNLESS APPROVED BY THE WATER MANAGEMENT DISTRICT FOR THAT AREA.
    - D - NO TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK AND MUST BE REPORTED TO THE PROJECT ENGINEER.

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REVISIONS:

BY:	DATE:	COMMENT:

PROJECT:
REGATTA APARTMENTS
2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

BLAINE ROBERT BERGSTRESSER LICENSE NO. 84598 STATE OF FLORIDA PROFESSIONAL ENGINEER

BLAINE BERGSTRESSER, P.E.
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09/16/2022

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PROJECT No.:	23-1011
DRAWN BY:	CRW
CHECKED BY:	BRB
DATE:	08/23/2023

SHEET TITLE:
PHASE TWO EROSION CONTROL PLAN

SHEET NUMBER:
C-602

Section 1	Project Name and location information:	REGATTA APARTMENTS 2152 SOUTH JENKINS ROAD FT. PIERCE, FLORIDA
Section 2	Describe the nature of the construction activity:	Construction activities consist of the development of a 17.96 AC residential property totaling 312 apartment units and related infrastructure within the City of Fort Pierce, Florida.
Section 3	Describe the intended sequence of major soil disturbing activities:	- 0-2 DAYS - SITE PREP AND STABILIZED CONSTRUCTION ENTRANCE - 3-6 DAYS - INSTALL PERIMETER SEDIMENT AND EROSION CONTROLS - 7-60 DAYS - INSTALL STORMWATER RETENTION BASIN - 7-10 DAYS - CLEARING/GRUBBING OVER ALL AREAS - 11-90 DAYS - SITE GRADING - 90-150 DAYS - INSTALL STORM SEWER AND UTILITIES - 150-180 DAYS - STABILIZE SITE
Section 4	Total area of the site:	17.96 AC
Section 5	Total area of the site to be disturbed:	17.96 AC
Section 6	Existing data describing the soil or quality of any stormwater discharge from the site:	The soils on site are all sand of the "Winder loamy sand" variety.
Section 7	Estimate the drainage area size for each discharge point:	17.96 AC
Section 8	Latitude and longitude of each discharge point and identify the receiving water or MS4 for each discharge point:	LAT: 27° 25' 33" N LON: 80° 22' 50" W NSLRWCD Canal #37
Section 9	Give a detailed description of all controls, Best Management Practices (BMPs) and measures that will be implemented at the construction site for each activity identified in the intended sequence of major soil disturbing activities section. Provide time frames in which the controls will be implemented. NOTE: All controls shall be consistent with performance standards for erosion and sediment control and stormwater treatment set forth in s. 62-40.432, F.A.C., the applicable Stormwater or Environmental Resource Permitting requirements of the Department or a Water Management District, and the guidelines contained in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual, FDOT, FDEP, and any subsequent amendments.	
	PHASE I *1. INSTALL STABILIZED CONSTRUCTION EXIT(S) AND SWPPP ENTRANCE SIGN.* *2. INSTALL SILT FENCE(S) ON THE SITE (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE).* 3. PREPARE TEMPORARY PARKING AND STORAGE AREA. 4. ORANGE PROTECTIVE FENCE AROUND ANY LAND TO BE PRESERVED IF NECESSARY, INCLUDING TREES/WETLANDS. *5. INSTALL AND STABILIZE HYDRAULIC CONTROL STRUCTURES (SWALES, CHECK DAMS, ETC.).* 6. BEGIN CLEARING AND GRUBBING THE SITE. 7. BEGIN GRADING THE SITE.	
Section 10	Describe all temporary and permanent stabilization practices. Stabilization practices include temporary seeding, mulching, permanent seeding, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, vegetative preservations, etc.	
	1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR. 2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES SHALL BE STABILIZED, COVERED OR CONTAINED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE. 3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. 4. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. 5. ALL CLEARED AREAS WILL RECEIVE SEED AND MULCH WITHIN 7 DAYS IF NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE OR PLANNED FOR 7 DAYS OR MORE AND/OR COMPLETION OF A PHASE OF GRADING. 6. VEGETATIVE COVER OR OTHER EROSION CONTROL DEVICES OR STRUCTURES USED TO MEET THESE REQUIREMENTS SHALL BE PROPERLY MAINTAINED DURING AND AFTER CONSTRUCTION	
Section 11	Describe all structural controls to be implemented to divert stormwater flow from exposed soils and structural practices to store flows, retain sediment on-site or in any other way limit stormwater runoff. These controls include silt fences, earth dikes, diversions, swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, coagulating agents and temporary or permanent sediment basins.	
	1. SEDIMENT BASINS AND TRAPS. PERIMETER DIKES. SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE. 2. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE OF SITE. PERIMETER SEDIMENT BARRIERS SHALL BE CONSTRUCTED TO PREVENT SEDIMENT OR TRASH FROM FLOWING OR FLOATING ON TO ADJACENT PROPERTIES. 3. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, SLOPE DRAIN STRUCTURE OR APPROVED CONTROL. 4. SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM WATER SYSTEM, DITCH OR CHANNEL. ALL STORM WATER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT. 5. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. 6. PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION AT ALL TIMES DURING CONSTRUCTION. 7. ALL STORM SEWER INLET GRATES TO BE COVERED WITH FILTER FABRIC DURING CONSTRUCTION 8. CUT AND FILL SLOPES TO BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SILT FENCES TO BE USED WHERE NECESSARY. 9. SILT FENCE INSTALLATION SHALL BE IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 102. 10. FLOATING TURBIDITY BARRIER INSTALLATION SHALL BE IN ACCORDANCE WITH THE FDOT STANDARD INDEX NO. 103. 11. THE ANGLE FOR GRADED SLOPES AND FILLS SHALL NOT BE GREATER THAN THE ANGLE WHICH CAN BE RETAINED BY VEGETATIVE COVER, OR OTHER ADEQUATE EROSION-CONTROL, DEVICES OR STRUCTURE (GENERALLY 4:1 OR LESS). SLOPES LEFT EXPOSED WILL, WITHIN SEVEN 97) WORKING DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. 12. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE DEVELOPER, OWNER AND/OR CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT CONTROLS. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.	
Section 12	Describe all sediment basins to be implemented for areas that will disturb 10 or more acres at one time. The sediment basins (or an equivalent alternative) should be able to provide 3,600 cubic feet of storage for each acre drained. Temporary sediment basins (or an equivalent alternative) are recommended for drainage areas under 10 acres.	
Section 13	Describe all permanent stormwater management controls such as, but not limited to, detention or retention systems or vegetated swales that will be installed during the construction process.	

RESPONSIBLE ENTITIES

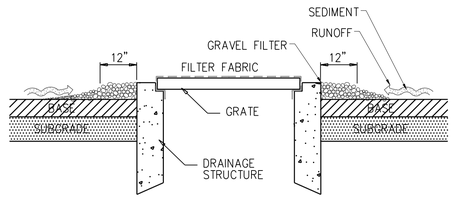
THE SWPPP MUST CLEARLY IDENTIFY, FOR EACH MEASURE IDENTIFIED WITHIN THE SWPPP, THE CONTRACTOR(S) OR SUBCONTRACTOR(S) THAT WILL IMPLEMENT EACH MEASURE. ALL CONTRACTOR(S) AND SUBCONTRACTOR(S) THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF THE MEASURES IDENTIFIED IN THE SWPPP MUST SIGN THE FOLLOWIN CERTIFICATION.

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THERE UNDER."

Section 14	Waste disposal, this may include construction debris, chemicals, litter, and sanitary wastes:	All construction materials and debris will be placed in a dumpster and hauled off site to a landfill or other proper disposal site. No materials will be buried on site.
Section 15	Offsite vehicle tracking from construction entrances/exits:	Off site vehicle tracking of sediments and dust generation will be minimized via a rock construction entrance, street sweeping and the use of water to keep dust down.
Section 16	The proper application rates of all fertilizers, herbicides and pesticides used at the construction site:	Florida-friendly fertilizers and pesticides will be used at a minimum and in accordance with the manufacturer's suggested application rates.
Section 17	The storage, application, generation and migration of all toxic substances:	All paints and other chemicals will be stored in a locked covered shed.
Section 18	Other:	Port-o-lets will be placed away from storm sewer systems, storm inlet(s), surface waters and wetlands. No vehicle maintenance shall be conducted on-site. A washdown area shall be designated at all times and will not be located in any area that will allow for the discharge of polluted runoff.
Section 19	Provide a detailed description of the maintenance plan for all structural and non-structural controls to assure that they remain in good and effective operating condition.	
	Contractor shall provide routine maintenance of permanent and temporary sediment and erosion control features in accordance with the technical specifications or as follows, whichever is more stringent: • Silt fence shall be inspected at least weekly. Any required repairs shall be made immediately. Sediment deposits shall be removed when they reach approximately one-half the height of the barrier. • Maintenance shall be performed on the rock entrance when any void spaces are full of sediment. • Inlet(s)/outfalls shall be inspected immediately after each rain event and any required repairs to the filter inlets, silt fence, or filter fabric shall be performed immediately. • Bare areas of the site that were previously seeded shall be reseeded per manufactures' instructions. • Mulch and sod that has been washed out shall be replaced immediately. • Maintain all other areas of the site with proper controls as necessary.	
Section 20	Inspections: Describe the inspection and inspection documentation procedures, as required by the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	
	Qualified personnel will inspect all points of discharges, all disturbed areas of construction that have not been stabilized, constructed areas and locations where vehicles enter and exit the site, and all BMPs at least once every 7 calendar days and within 24 hours of the end of a rainfall event that is 0.5 inches or greater. Where sites have been finally stabilized, said inspections shall be conducted at least once every month until the Notice of Termination is filed.	
Section 21	Identify and describe all sources of non-stormwater discharges as allowed by the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	
	1. Contractor is responsible for all surface water discharges, rainfall run off or dewatering activities. 2. Contractor must incorporate all BMP's necessary to meet or exceed state water quality and SWPPPP requirements. 3. Dewatering from construction activities shall be maintained onsite with no discharge to surface waters of the state or MS4 systems.	
Section 22	All contractor(s) and subcontractor(s) identified in the SWPPP must sign the following certification:	
	"I certify under penalty of law that I understand, and shall comply with, the terms and conditions of the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities and this Stormwater Pollution Prevention Plan prepared thereunder."	

NOTE: CONTRACTOR SHALL FILL OUT THE RESPONSIBLE ENTITIES THE FOLLOWING TABLE...

Section 22	Name	Title	Company Name, Address and Phone Number	Date



THIS METHOD OF INLET PROTECTION IS APPLICABLE AT DITCH BOTTOM INLETS USED IN VEHICLE USE AREAS, WHERE STAKED SEDIMENT FILTER IN NOT PRACTICAL.

GRAVEL GRATE INLET SEDIMENT FILTER (E)

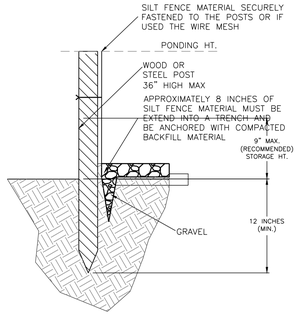
N.T.S.

NAVD 1988

ALL ELEVATIONS DEPICTED HEREON REFERENCE NAVD 1988

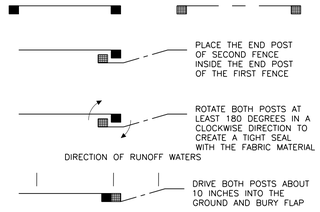
FILTER FABRIC NOTES:

1. FILTER BARRIERS SHALL BE CONSTRUCTED AT THE FOLLOWING LOCATIONS TO INTERCEPT AND DETAIN SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS FROM ENTERING EXISTING WETLANDS, DITCHES, OR RECEIVING WATERS.
   - 1.A. AT THE PERIMETER OF ALL EXISTING WETLANDS THAT ARE BELOW DISTURBED AREAS WHERE EROSION COULD OCCUR DURING CONSTRUCTION OPERATIONS, AND AT THE LIMITS OF FILL OF EXISTING WETLANDS.
   - 1.B. AT THE PERIMETER OF ALL INLETS IMMEDIATELY FOLLOWING THE INSTALLATION AND BACKFILLING OF EACH INLET.
   - 1.C. AT ALL EXISTING DITCHES THAT TRAVERSE THE PROJECT SITE, A FILTER BARRIER SHALL BE CONSTRUCTED AT THE DOWNSTREAM PROPERTY LINE.
   - 1.D. AT ALL OTHER LOCATIONS DEPICTED ON THE PLANS OR AS REQUESTED IN THE FIELD BY THE PROJECT ENGINEER.
2. FLOATING SILT BARRIERS SHALL BE INSTALLED AROUND THE POINT OF DISCHARGE TO A WATER BODY. THE BARRIERS SHALL BE REGULARLY CHECKED AND MAINTAINED TO ENSURE ADEQUATE FUNCTION UNTIL ALL PAVEMENT SURFACES ARE COMPLETE AND ALL SWALED AREAS HAVE GRASS COVER.
3. IN LIEU OF SEED AND MULCH, SOD ALL AREAS THAT ARE PRONE TO EXCESSIVE EROSION, INCLUDING AREAS ADJACENT TO CULVERT ENDS, DISCHARGE STRUCTURES, FLUMES, ETC.
4. PROVIDE 18" MIN. WIDE STRIP OF SOD ADJACENT TO THE EDGE OF ALL NEW PAVED SURFACES.



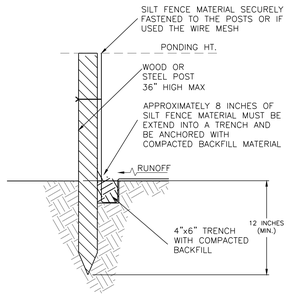
ALTERNATE DETAIL TRENCH WITH GRAVEL

N.T.S.



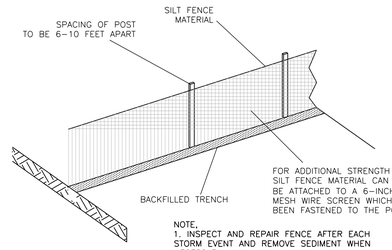
ATTACHING TWO SILT FENCES

N.T.S.



STANDARD DETAIL TRENCH WITH NATIVE BACKFILL

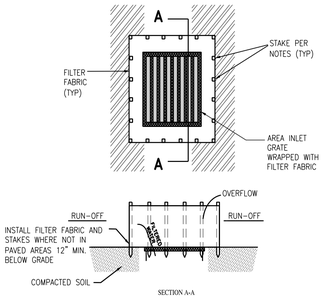
N.T.S.



NOTE,
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

FABRIC SILT FENCE

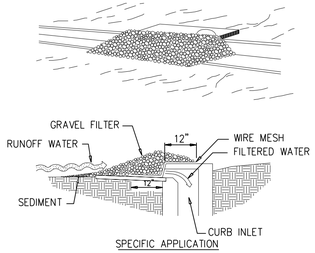
N.T.S.



1. FABRIC SHALL BE CUT FROM A CONTINUOUS ROLL TO AVOID JOINTS.
2. STAKES SHALL BE 2"X4"(5 cmx10 cm) WOOD (PREFERRED) OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3-FEET (90 cm).
3. STAPLES SHALL BE OF HEAVY DUTY WIRE AT LEAST 1/2-INCH (13 mm) LONG.
4. STAPLES SHALL BE SPACED AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3-FEET (90 cm) APART AND SECURELY DRIVEN INTO THE GROUND MINIMUM OF 8-INCHES (20 cm). A FRAME OF 2"X4" (5 cm x 10 cm) WOOD SHALL BE CONSTRUCTED AROUND THE TOP OF THE STAKES FOR PROPER STABILITY.
5. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4-INCHES (10cm) WIDE AND 4-INCHES (10cm) DEEP AROUND THE OUTSIDE PERIMETER OF THE STAKES.
6. THE FILTER SHALL BE STAPLED TO THE WOODEN STAKES, AND 8-INCHES (20cm) OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE HEIGHT OF THE FILTER BARRIER SHALL BE A MINIMUM OF 15- INCHES (38cm) AND SHALL NOT EXCEED 18-INCHES (45cm).
7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER.

FABRIC DROP INLET SEDIMENT FILTER (A)

N.T.S.



SPECIFIC APPLICATION

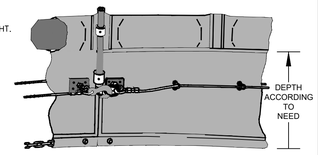
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURE AND UNPROTECTED AREAS.

GRAVEL CURB INLET SEDIMENT FILTER (C)

N.T.S.

SPECIFICATIONS:

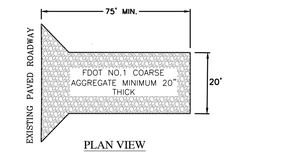
FABRIC:	HIGH STRENGTH NYLON REINFORCED VINYL. HIGH VISIBILITY YELLOW, 22 OZ. /YD WEIGHT.
CONNECTOR:	SNAP HOOKS AND RINGS CONNECT LOAD LINES WITH SLOTTED REINFORCED PVC PIPE FOR FABRIC CLOSURE. OPTIONAL EXTRUDED ALUMINUM CONNECTORS.
FLOTATION:	12" EXPANDED POLYSTYRENE OVER 29 LBS./FT BUOYANCY.
BALLAST:	5/16" GALVANIZED CHAIN (1.1 LBS/FT.)
LOAD LINES:	DUAL 5/16" GALVANIZED WIRE ROPES WITH HEAVY VINYL COATING.



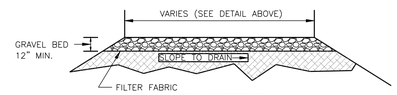
TURBIDITY CURTAINS ARE TO REMAIN IN PLACE FOR A PERIOD OF TIME NOT LESS THAN SEVEN (7) DAYS AFTER WORK HAS BEEN COMPLETED AND TURBIDITY LEVELS ARE EQUAL TO OR BELOW BACKGROUND N.T.U. LEVELS.

FLOATING TURBIDITY BARRIER (B)

N.T.S.



PLAN VIEW



CROSS-SECTION

CONSTRUCTION ENTRANCE NOTES

1. ENTRANCE MUST EXTEND THE FULL WIDTH OF THE VEHICULAR INGRESS AND EGRESS AREA AND WIDE ITS CONNECTION TO THE ROADWAY TO ACCOMMODATE THE TURNING RADIUS OF THE LARGE VEHICLES.
2. ENTRANCE MUST BE AT LEAST 12" THICK, 75 FEET LONG, AND 20 FEET WIDE. THE ENTRANCE SHALL BE PAVED WITHIN THE COUNTY RIGHT-OF-WAY.
3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
4. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
5. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)

N.T.S.

KMA
ENGINEERING & SURVEYING, LLC
3001 INDUSTRIAL 2 AVE
FT. PIERCE, FL 34946
PHONE: (772) 569-5505
FIPE C.O.A. # 33705

REVISIONS:

BY:	DATE:	COMMENT:

PROJECT:
REGATTA APARTMENTS
2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

LICENSE
BLAINE ROBERT BERGSTRESSER
NO. 84598
STATE OF FLORIDA
PROFESSIONAL ENGINEER

BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE No. 84598
09/16/2022

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PROJECT No.:	23-1011
DRAWN BY:	CRW
CHECKED BY:	BRB
DATE:	08/23/2023

SHEET TITLE:
EROSION CONTROL DETAILS & SPECIFICATIONS

SHEET NUMBER:
C-603

THESE PLANS ARE THE PROPERTY OF KMA ENGINEERING & SURVEYING, LLC AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PERMISSION OF KMA ENGINEERING & SURVEYING, LLC



TYPICAL BUILDING ELEVATION

General Notes

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address

Regatta
2190 S Jenkins Rd
Fort Pierce FL 34947

Project: Regatta	Sheet: 03
Date: 8-15-23	
Scale: As Noted	

ATLANTIC
ENVIRONMENTAL
ENVIRONMENTAL PERMITTING & MITIGATION

ENVIRONMENTAL ASSESSMENT

On the

Regatta Project Site
South Jenkins Road, Fort Pierce, Florida
±17.81 Acres

Parcel No.'s 2418-333-0001-000-9, 2418-333-0002-000-6,
2418-333-0003-000-3, & 2418-333-0004-000-0

Conducted for:

Mr. Pedro Quijada
Alva Stone Group, LLC
591 Evernia Street
West Palm Beach, Florida 33401

Conducted by:

Atlantic Environmental of Florida, LLC
657 Montreal Avenue
Melbourne, Florida 32935

August 15, 2023

ATLANTIC ENVIRONMENTAL
ENVIRONMENTAL PERMITTING & MITIGATION

657 Montreal Avenue • Melbourne, FL 32935
ph 321.676.1505 • fax 321.676.1730

August 15, 2023

Mr. Pedro Quijada
Alva Stone Group, LLC
591 Evernia Street
West Palm Beach, FL 33401

Re: Environmental Assessment
Regatta Project Site
South Jenkins Road, Fort Pierce, Florida
Parcel No.'s 2418-333-0001-000-9, 2418-333-0002-000-6, 2418-333-0003-000-3, & 2418-333-0004-000-0
Atlantic Environmental File No. 23631

Dear Mr. Quijada:

Atlantic Environmental of Florida, LLC (Atlantic Environmental) has completed an environmental assessment and feasibility study of the above-referenced property, an approximately 17.81-acre tract of land located on the east side of South Jenkins Road in Fort Pierce, St. Lucie County, Florida (Figures 1 and 2). The field assessment of this tract, hereinafter referred to as "the Property", occurred on August 14, 2023. This study is intended to assess any reasonably ascertainable environmental issues that might influence the developability of the subject property. Following are the results of our study.

Topography and Soils

Figure 3 shows the USGS Topographical Map for the Property and surrounding areas. According to this map, the Property is relatively flat. The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) map for St. Lucie County (Figure 4) depicts one soil type underlying the Property. Following is a description of the mapped soil type as it occurs in a natural environment.

Winder loamy sand (55)
The Winder, drained and bedded component makes up 67 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 14 inches during June, July, August, September, and October. This soil does not meet hydric criteria.

The Winder, hydric component makes up 15 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during June, July, August, September, October, November. This soil meets hydric criteria.

Past agricultural activity within the Property appears to have altered some of the characteristics

possessed by the underlying soils. However, for the most part, the soil description above appears relatively accurate.

Vegetation and Community Types

Different combinations of natural and human-influenced factors, such as surface elevation, hydrology, vegetative species and structure, soil characteristics, and degree and type of historical disturbance, will give rise to a variety of distinct ecological systems and functions, known as communities and land uses. The Florida Land Use, Cover, and Forms Classification System (FLUCFCS) organizes most of the major categories of communities and land uses into particular descriptions, each corresponding to a different code number. Using our field observations and the FLUCFCS system as a guideline, Atlantic Environmental has identified the on-site communities as they currently exist on the Property. Figure 5 depicts the code numbers of the on-site FLUCFCS categories, specifically, Open Land (FLUCFCS Code Number 190), Streams and Waterways (510), and Reservoirs less than 10 acres (534).

Following is a description of these classifications, as they exist on the Property, along with an assessment of the jurisdictional wetland status based on the rules and regulations of the South Florida Water Management District (SFWMD) and the U.S. Army Corps of Engineers (USACE). In December 2020, the Florida Department of Environmental Protection (FDEP) took over a significant portion of the Section 404 federal permitting from USACE. The jurisdictional status of FDEP will also be referenced below.

Open Land (190)
The vast majority (±17.81 acres) of the Property supports Open Land that previously supported several structures that no longer exist other than the slabs. The beds and furrows of the past agricultural usage are still evident throughout a majority of the Property, and the vegetation within the beds is dominated by earleaf acacia, cogongrass, lantana, rosary pea, guineagrass, broomsedge, cowpea, St. Augustine grass, wax myrtle, Brazilian pepper, saltbush, torpedograss, bahiagrass, sedges, and dog fennel. The higher elevated areas will be claimed as uplands by the regulatory agencies while some of the shallow furrows may be claimed as surface waters by SFWMD. No mitigation for impacts to these furrows should be required but the acreages will need to be accounted for throughout the permitting process.

Streams and Waterways (510)
Besides the numerous relic furrows throughout the Property that may be claimed as surface waters, there is a larger ditch found within the central portion of the Property. FDEP should not assert federal jurisdiction over this ditch while SFWMD will claim it as surface waters and therefore will require a permit for proposed impacts. Mitigation should not be required for impacts to the on-site surface waters.

Reservoirs less than 10 acres (534)
A small, manmade pond is located along the western extent of the Property that totals approximately 0.28 acres. Any impacts to this pond will require permits from SFWMD. Due to its small size, no mitigation will be required for impacts. Lastly, FDEP should not claim jurisdiction over this surface water.

Protected Wildlife Species

A preliminary survey for listed species and suitable listed species habitats was completed on the Property. This survey resulted in the determination that the Property may provide suboptimal habitat for a variety of wading birds.

Wading Birds

Wading birds, including little blue herons, tricolored herons, sandhill cranes, and wood storks, depend on freshwater marshes and shorelines for foraging and typically roost in forested wetland systems. It is possible that any or all of these birds use the on-site wetlands from time to time on an opportunistic foraging basis. However, the preliminary survey did not indicate that any of the above listed protected wading bird species are using the Property in a way that is significantly dependent upon on-site habitat. No nests of any of the listed species were observed on the Property, and no signs of these species were noted. The potential opportunistic usage should not trip a threshold to require compensatory mitigation for any of these species.

Surface Waters

As mentioned above, there are several surface waters on the Property that may require permitting through SFWMD. No mitigation should be required for surface water impacts.

Conclusions

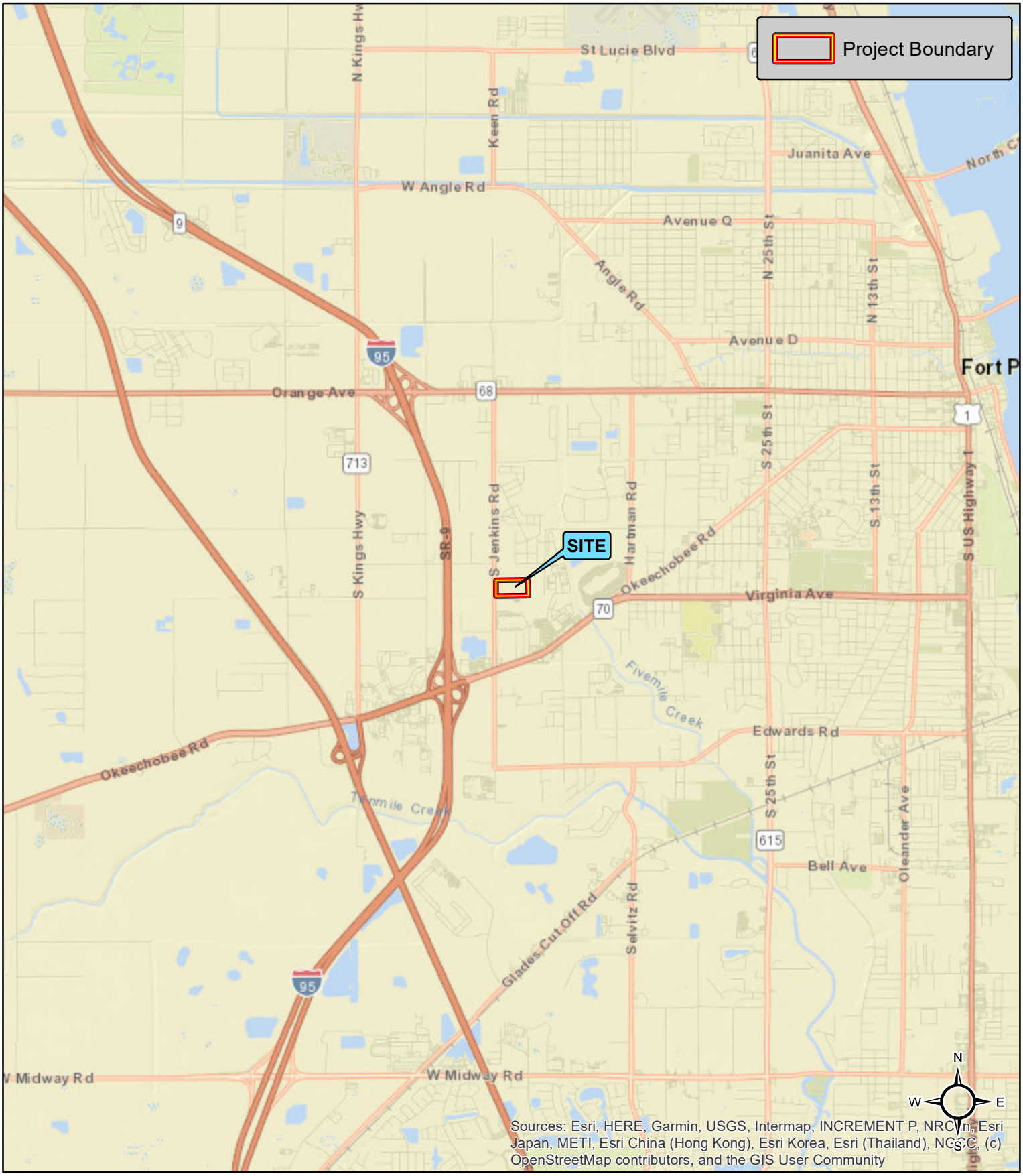
Atlantic Environmental determined that the Property contains ±17.53 acres of uplands and ±0.28 acres of surface waters (in addition to the acreage of the on-site furrows that are included in the upland acreage above for the purposes of this report). The on-site surface waters will require permits from SFWMD for impacts. FDEP should not claim the surface waters as federally jurisdictional.

Should you have any questions or need additional information, please do not hesitate to contact our office. We look forward to working further with you on this project.

Sincerely,

David G. Purkerson, MS, PWS
Vice President/Biologist

Jon H. Shepherd, MS, PWS
President/Ecologist



Project: Regatta

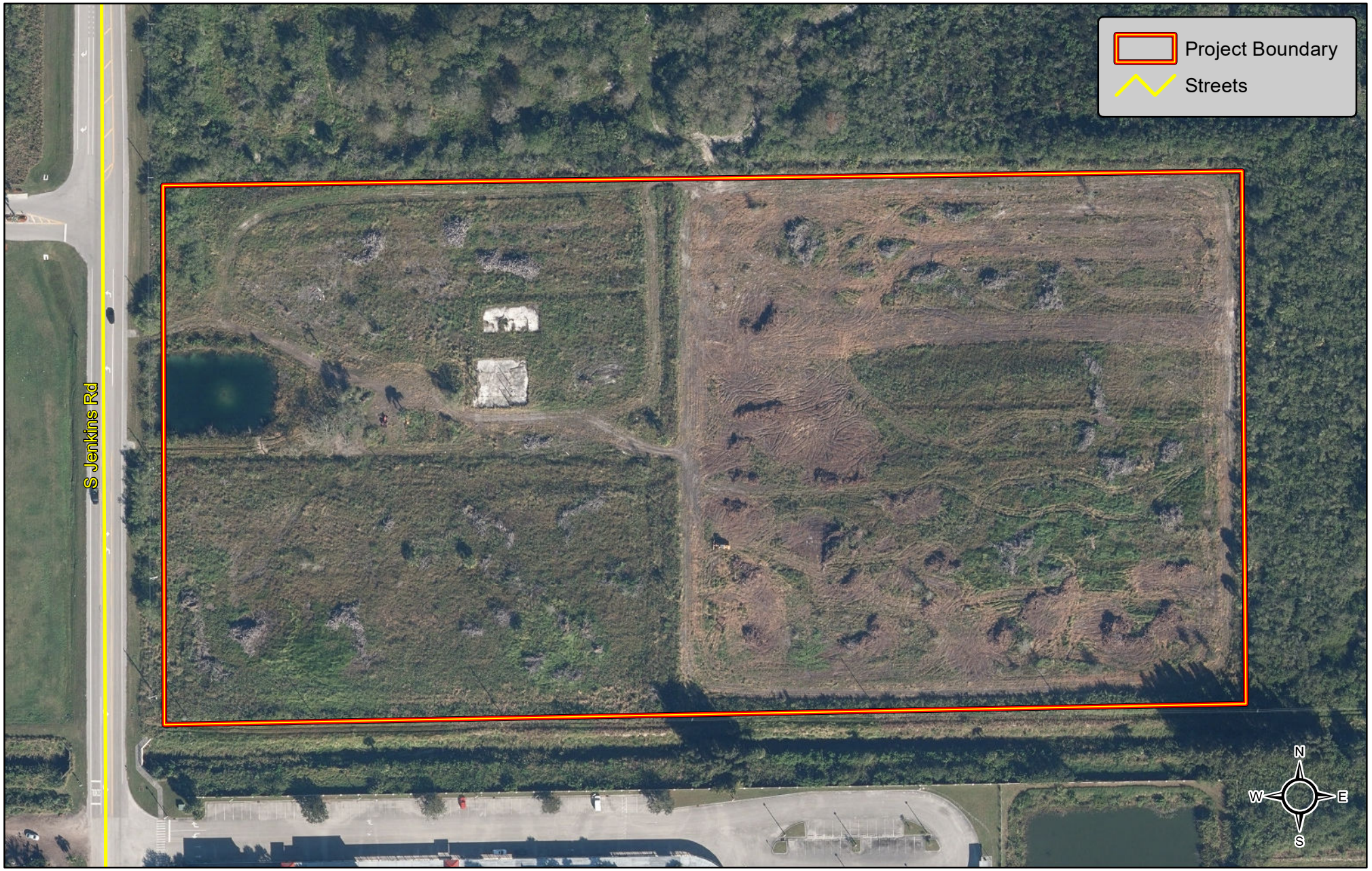
Figure 1: Location Map

0 0.5 1 2 Miles

St Lucie County, Florida

ATLANTIC ENVIRONMENTAL
ENVIRONMENTAL PERMITTING & MITIGATION

AE Proj #: 23631



Project: Regatta

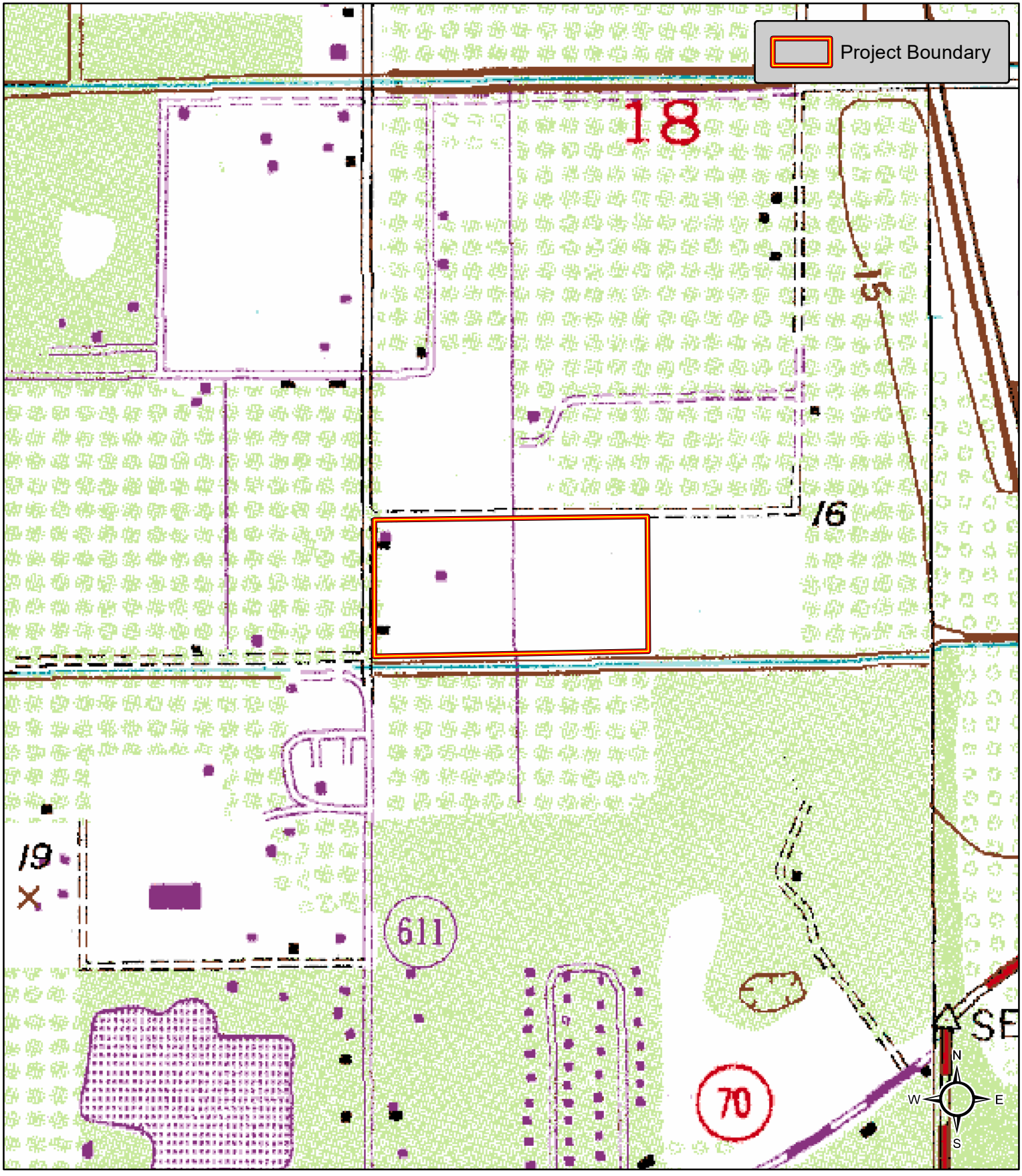
Figure 2: Aerial Map

0 100 200 400 Feet

2023 Aerial, St Lucie County, Florida

ATLANTIC ENVIRONMENTAL
ENVIRONMENTAL PERMITTING & MITIGATION

AE Proj #: 23631



Project: Regatta

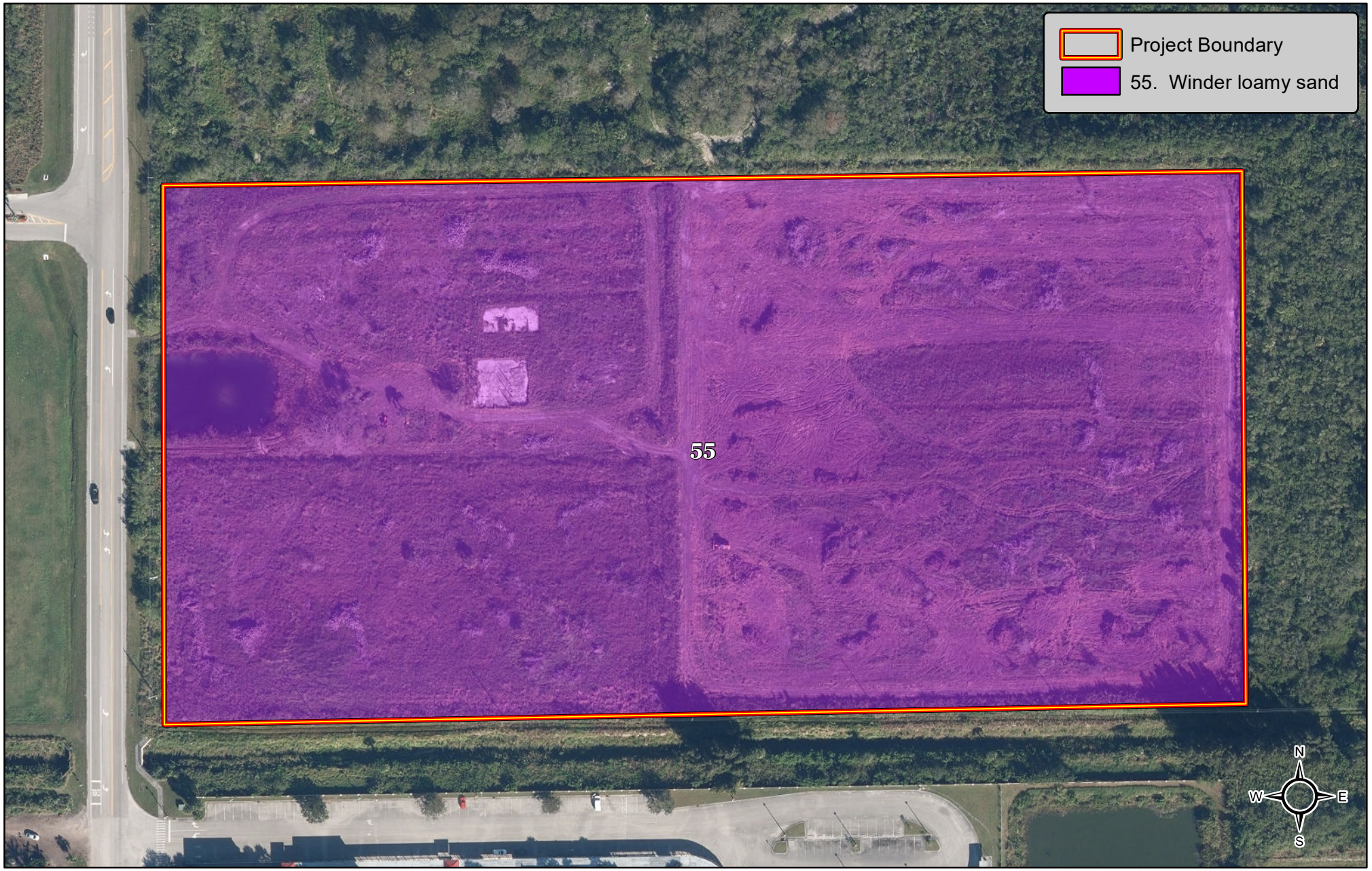
Figure 3: USGS Topo Map

0 500 1,000 2,000 Feet

Fort Pierce NW Quadrangle, St Lucie County, Florida

ATLANTIC ENVIRONMENTAL
ENVIRONMENTAL PERMITTING & MITIGATION

AE Proj #: 23631



Project: Regatta

Figure 4: NRCS Soils Map

0 100 200 400 Feet

2023 Aerial, St Lucie County, Florida

ATLANTIC ENVIRONMENTAL
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AE Proj #: 23631



Project: Regatta

Figure 5: Land Use (FLUCFCS) Map

0 100 200 400 Feet

2023 Aerial, St Lucie County, Florida

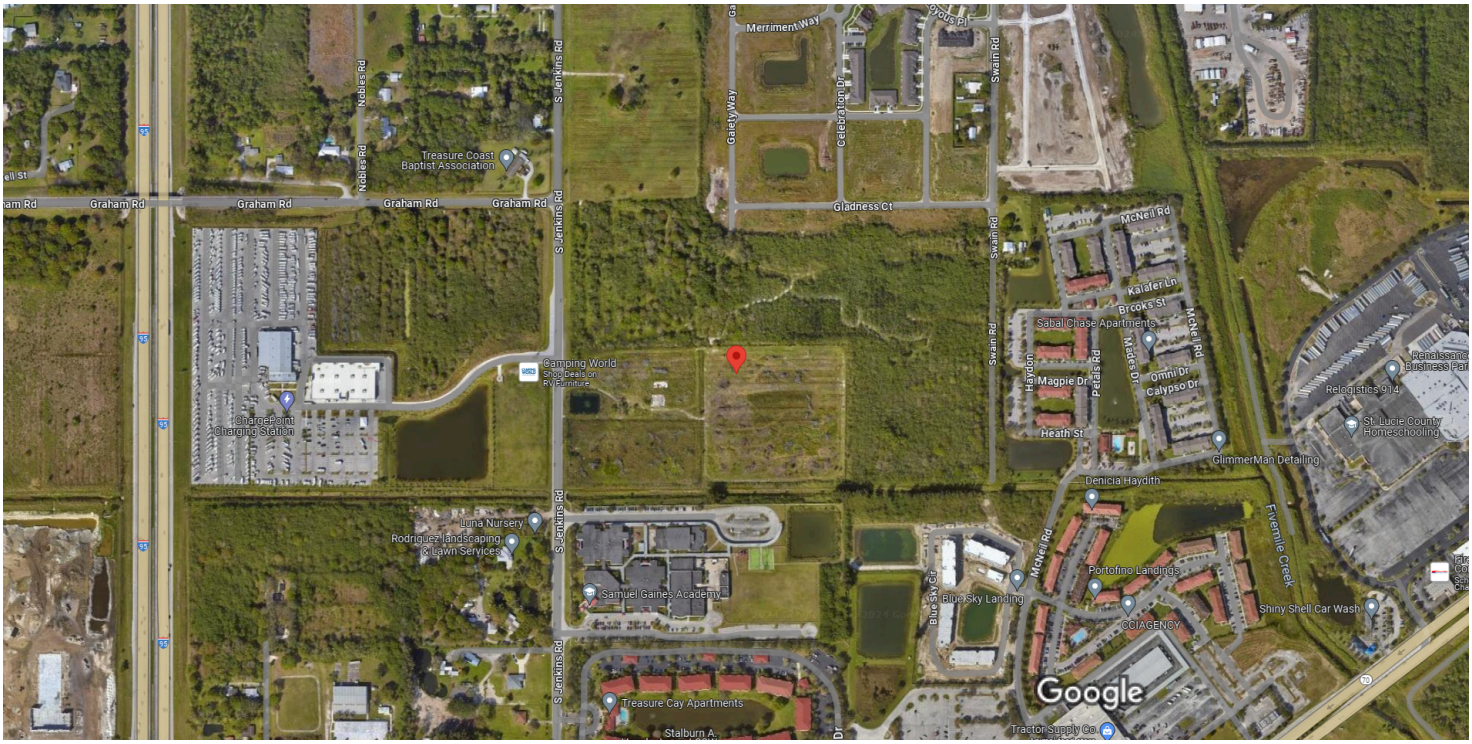
ATLANTIC ENVIRONMENTAL
ENVIRONMENTAL PERMITTING & MITIGATION

AE Proj #: 23631

Google Maps

27°25'37.6"N 80°22'48.9"W

Regatta Apartments



Imagery ©2024 Airbus, Maxar Technologies, Map data ©2024 200 ft



27°25'37.6"N 80°22'48.9"W

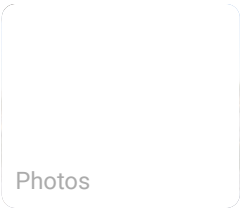
27.427114, -80.380257

Directions | Save | Nearby | Send to phone | Share

Fort Pierce, FL

CJG9+RVX Fort Pierce, Florida

Photos


Photos

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	SLA	2	L□h□□□ L□h□□□	DS□0 LED P□□0□ □0CRI T□TM M□OLT RPA NLTAIR2 PIRHN DD□□D □ MOUNTED □ 2□A□G ROUND TAPERED ALUMINUM DIRECT □URIAL POLE	11□□7	1	□0.12
	SL□	1	L□h□□□ L□h□□□	DS□0 LED P□□0□ □0CRI T□□ M□OLT RPA NLTAIR2 PIRHN DD□□D □ MOUNTED □ 2□A□G ROUND TAPERED ALUMINUM DIRECT □URIAL POLE	11772	1	□0.12
	SL□2	□	L□h□□□ L□h□□□	DS□0 LED P□□0□ □0CRI T□□ M□OLT RPA NLTAIR2 PIRHN DD□□D □ MOUNTED □ 2□A□G ROUND TAPERED ALUMINUM DIRECT □URIAL POLE	11772	1	1□0.2□
	SLC	2□	L□h□□□ L□h□□□	DS□0 LED P□□0□ □0CRI □LC□M□OLT RPA NLTAIR2 PIRHN DD□□D □ MOUNTED □ 2□A□G ROUND TAPERED ALUMINUM DIRECT □URIAL POLE	□□□□	1	□0.12

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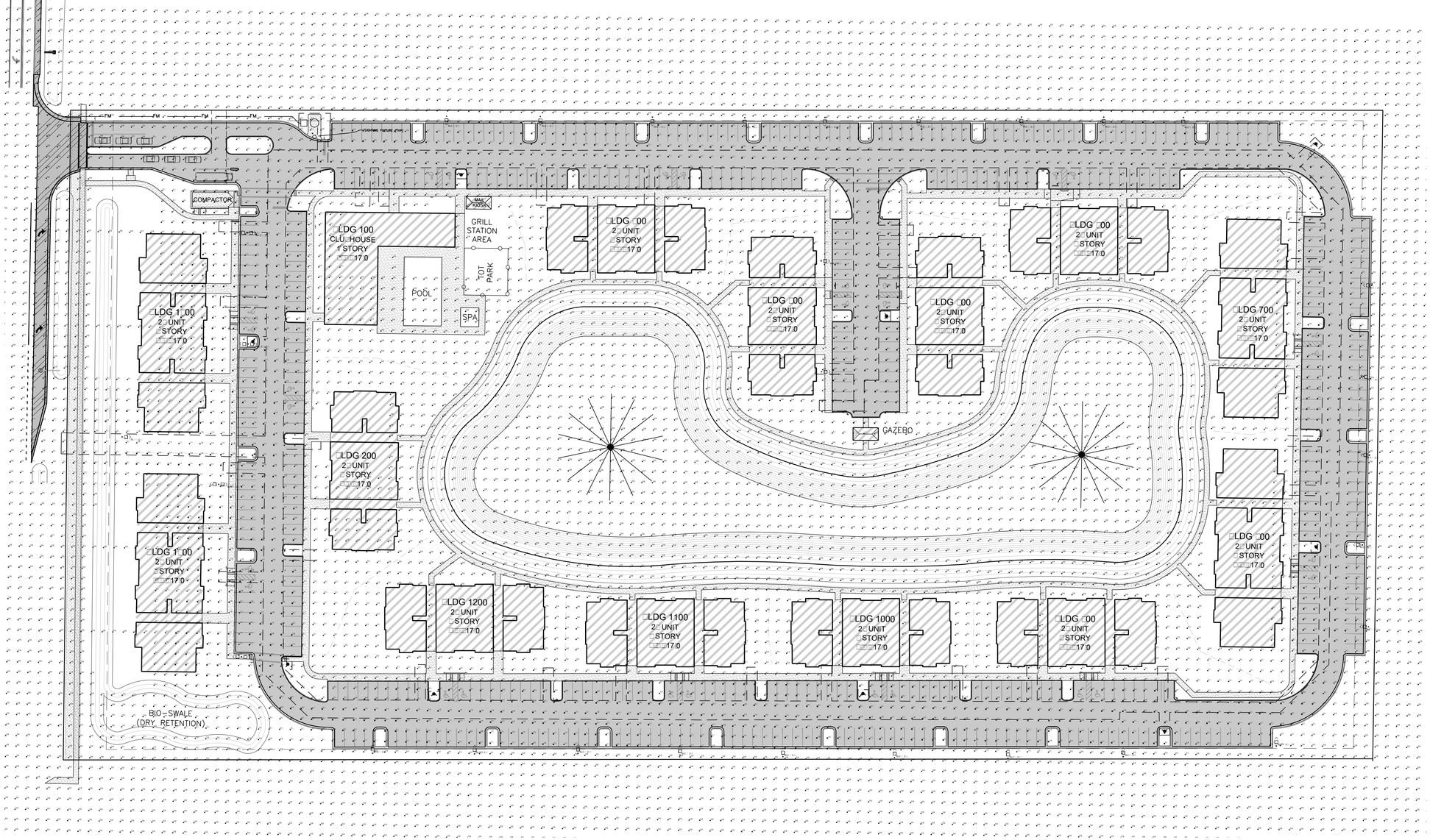
De□□p□□□	Sy□ □□□	A□□	M□□	M□	M□□M□	A□□M□
p□T□□□ □□□		1□1 □□	2□2 □□	0□ □□	□□□1	2□□1

GRAPHIC SCALE

50 0 50 100 150

SCALE: (1 Inch = 50 Feet)

North



NA□D 1□□□

ALL ELE□ATIONS DEPICTED HEREON RE□ERENCE NA□D 1□□□

KMA
ENGINEERING □ SUR□EYING□LLC
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BY:	DATE:	COMMENT:

PRO□ECT□

REGATTA APARTMENTS

21□2 SOUTH□EN□INS ROAD

□T□PIERCE□L □□□7

CLIENT□

AL□A STONE GROUP□LLC

□□1 E□ERNIA STREET

□ EST PALM□EACH□L □□□01

BLAINE RO□ERT □ERGSTRESSER
LICENSE
NO□□□□□□
STATE O□
□LORIDA
PROFESSIONAL ENGINEER

BLAINE BERGSTRESSER, P.E.
□LORIDA LICENSE N□□□□□□□
0□1□2022

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
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PRO□ECT N□□ 2□-1011
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SHEET TITLE□

LIGHTING PLAN & PHOTOMETRICS

SHEET NUM□ER□

C-201

Drawing name: 2021-1011 Regatta Apartments Boundary Survey.dwg Plotted by Ang Nguyen on Jul 27, 2022 - 10:30:34

Google Maps Regatta Neighborhood



Imagery ©2024 Airbus, Maxar Technologies, Map data ©2024 500 ft

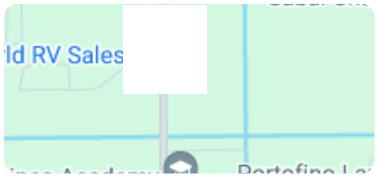
Google Maps

2123 S Jenkins Rd

Regatta Street View



Image capture: Oct 2023 © 2024 Google



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

Property Identification

Site Address: 2144 S JENKINS RD	Parcel ID: 2418-333-0001-000-9	Account #: 27286	Sec/Town/Range: 18/35S/40E
Use Type: 0000	Jurisdiction: Fort Pierce	Map ID: 24/18S	Zoning: Medium Den

Ownership

REGATTA LUXURY APARTMENTS DEVELOPMENT LLC

2055 NE 202nd ST
Miami, FL 33179

Legal Description

18 35 40 N 1/2 OF N 1/2 OF S 1/2 OF SW 1/4 OF SW 1/4-LESS W 60 FT FOR RD R/W- (4.73 AC)

Current Values

Just/Market:	$614,900	Assessed:	$129,003
Exemptions:	$0	Taxable:	$129,003

Historical Values 3-year

Year	Just/Market	Assessed	Exemptions	Taxable
2023	$614,900	$129,003	$0	$129,003
2022	$338,200	$117,276	$0	$117,276
2021	$233,700	$106,615	$0	$106,615

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
05-22-2024	5156 / 2768	0205	WD	JENKINS PROPERTY MP LLC	$6,240,000
05-22-2024	5156 / 2764	0311	QC	BGDN LLC	$0
08-19-2011	3320 / 2396	0311	CertTtle	BDGN LLC	$0

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):	4.73
Land Size (SF):	206,039
Total Building Count:	1

Special Features and Yard Items

Type	Qty	Units	Year Blt

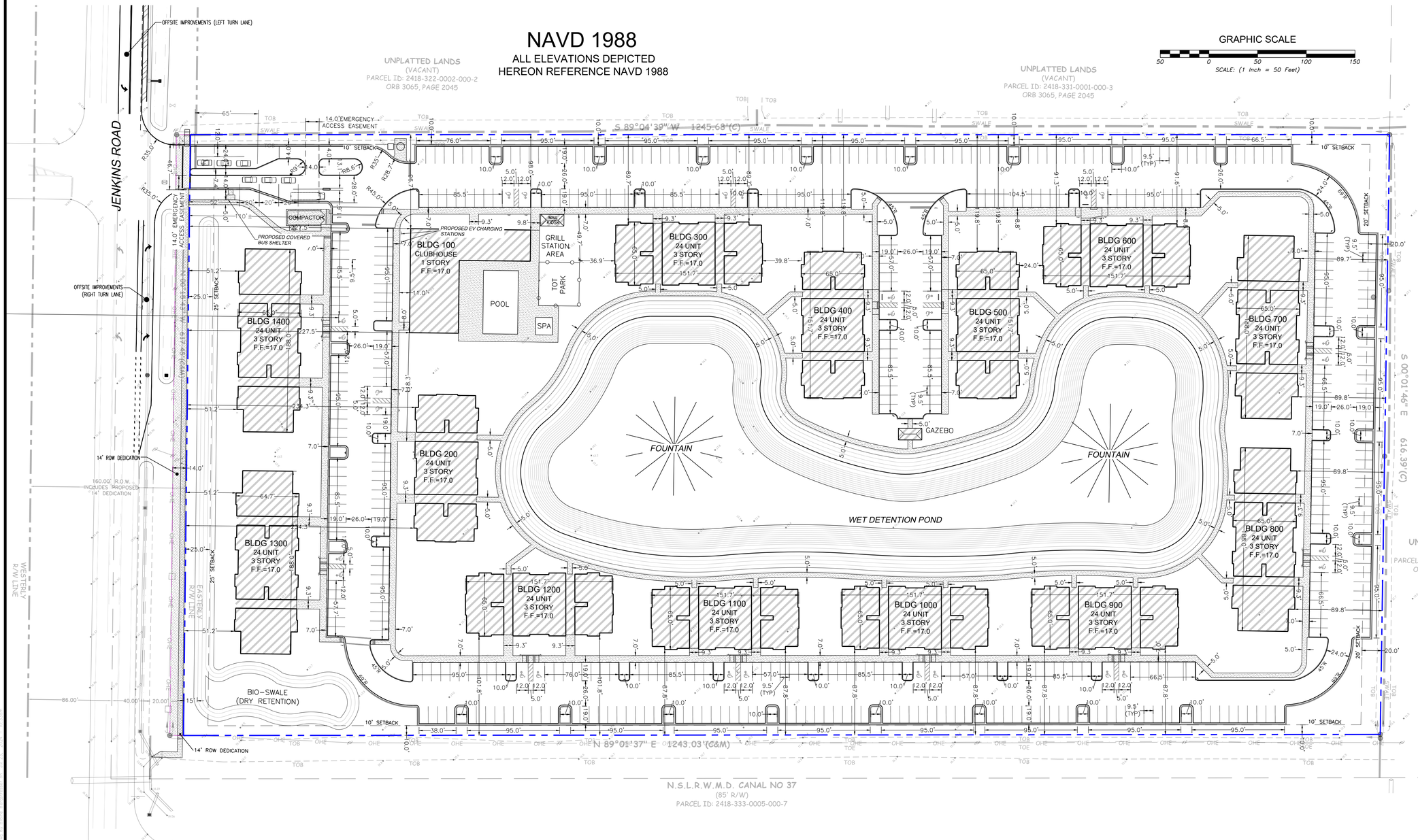
All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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NAVD 1988

ALL ELEVATIONS DEPICTED
HEREON REFERENCE NAVD 1988

GRAPHIC SCALE
50 0 50 100 150
SCALE: (1 Inch = 50 Feet)

North



LINEWORK & SYMBOL LEGEND

- DENOTES PROPERTY BOUNDARY
- DENOTES ROW DEDICATION
- DENOTES RIGHT-OF-WAY
- DENOTES CENTERLINE
- DENOTES EASEMENT
- DENOTES SWALE FLOWLINE
- W — DENOTES WATER MAIN
- OHE — DENOTES GRAVITY SEWER
- FM — DENOTES FORCE MAIN
- GAS — DENOTES GAS MAIN
- DENOTES DRAINAGE PIPE
- DENOTES DITCH BOTTOM INLET
- D — DENOTES DRAINAGE STRUCTURE
- 20.50 / × 20.50 — DENOTES PROPOSED GRADE / DENOTES EXISTING GRADE
- S — DENOTES SEWER MANHOLE
- DENOTES GATE VALVE
- DENOTES FIRE HYDRANT
- DENOTES POWER POLE
- TM — DENOTES TRANSITION MANHOLE

HATCH LEGEND

- PROPOSED STRUCTURES
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED RIGHT-OF-WAY DEDICATION

SITE DATA & DEVELOPMENT CRITERIA

OWNER — BGDN LLC
1820 AVENUE K
BROOKLYN, NY 11230

ENGINEER — BLAINE BERGSTRESSER P.E.
KMA ENGINEERING & SURVEYING LLC
3001 INDUSTRIAL AVENUE 2
FT. PIERCE FL. 34946

SURVEYOR — WILLIAM HAYHURST P.S.M.
KMA ENGINEERING & SURVEYING LLC
3001 INDUSTRIAL AVENUE 2
FT. PIERCE FL. 34946

312 UNIT MULTI-FAMILY APARTMENTS
W/ 4,300 SF CLUBHOUSE

SITE ADDRESS — 2152 SOUTH JENKINS ROAD
FT. PIERCE, FL. 34947

PARCEL ID(S) — 2418-333-0001-000-9
2418-333-0002-000-6
2418-333-0003-000-3
2418-333-0004-000-0

ZONING — R-5 HIGH DENSITY RESIDENTIAL

DENSITY
ALLOWED — MAX. 18 UNITS/AC.
PROPOSED — 312 UNITS / 17.96 AC = 17.4 UNITS/AC

SIDE YARDS:	REQUIRED	PROPOSED
FRONT	25'	25'
SIDE	10'	10'
CORNER LOT SIDE	15'	15'
REAR	20'	20'

SITE AREAS:			
GROSS SITE	767,592 SF	(17.96 AC)	
less ROW DEDICATION	8,702 SF		
DEVELOPMENT AREA	758,890 SF	(17.42 AC)	100%
BUILDING FOOTPRINTS	138,240 SF	(3.17 AC)	
PAVEMENT & CURBING	190,660 SF	(4.38 AC)	
SIDEWALKS & OTHER	51,700 SF	(1.19 AC)	
WET DETENTION @ C.E.	114,708 SF	(2.63 AC)	
TOTAL IMPERVIOUS AREA	468,310 SF	(10.75 AC)	61.7%
OPEN GREEN SPACE	290,580 SF	(6.67 AC)	38.3%

PARKING:
REQUIRED: MULTI-FAMILY
1.5 SPACES PER UNIT
312 UNITS x 1.5 = 468 REQUIRED SPACES

CLUBHOUSE
1 SPACE PER 200 SF
4300 SF / 200 = 22 REQUIRED SPACES

TOTAL REQUIRED = 490 PARKING SPACES
ADA PARKING REQUIRED = 9 of 490 SPACES

PROPOSED 28 ADA PARKING SPACES PROVIDED
462 STANDARD PARKING SPACES PROVIDED

490 TOTAL SPACES PROVIDED

KMA
ENGINEERING & SURVEYING, LLC
3001 INDUSTRIAL 2 AVE
FT. PIERCE, FL 34946
PHONE: (772) 569-5505
FBPE C.O.A. # 33705

REVISIONS:
BY: DATE: COMMENT:

PROJECT:
REGATTA APARTMENTS
2152 SOUTH JENKINS ROAD
FT. PIERCE, FL 34947

CLIENT:
ALVA STONE GROUP, LLC
591 EVERNIA STREET
WEST PALM BEACH, FL 33401

LICENSE
BLAINE ROBERT BERGSTRESSER
NO. 84598
STATE OF FLORIDA
PROFESSIONAL ENGINEER

BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE No. 84598
09/16/2022

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PROJECT No.: 23-1011
DRAWN BY: CRW
CHECKED BY: BRB
DATE: 08/23/2023

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C-200

O'ROURKE
ENGINEERING & PLANNING

TRAFFIC ANALYSIS

FOR

Regatta

Prepared for:

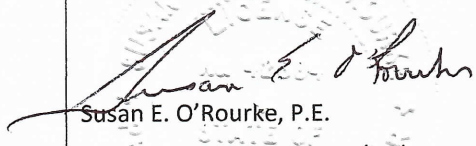
Mr. Pedro Quijada
Alva Stone Group
591 Evernia St
West Palm Beach, FL 33401

Prepared by:

O'Rourke Engineering & Planning
22 SE Seminole Street
Stuart, Florida 34994
772-781-7918

August 11, 2023

SR23071.0

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: 8/11/2023 License #: 42684

O'ROURKE
ENGINEERING & PLANNING

August 11, 2023

Mr. Pedro Quijada
Alva Stone Group
591 Evernia St
West Palm Beach, FL 33401

Re: Regatta

Dear Mr. Quijada:

O'Rourke Engineering & Planning has completed the analysis of the proposed development located on Jenkins Road 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

22 SE Seminole Street | Stuart, FL 34994 | 772-781-7918 | Susan@OREP.tech

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EXISTING CONDITIONS	3
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PROJECT DISTRIBUTION/ ASSIGNMENT/ IMPACT	5
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APPENDICES

APPENDIX A: Site Plan
APPENDIX B: St. Lucie County 2023 Level of Service Report
APPENDIX C: Other Project Data/Growth Rate
APPENDIX D: Arterial Analysis Data
APPENDIX E: Intersection Analysis Data
APPENDIX F: Driveway Data & Analysis

INTRODUCTION

O'Rourke Engineering & Planning was retained to prepare a traffic analysis for the proposed development consisting of 312 multi-family dwelling units located on Jenkins Road in Ft. Pierce, St. Lucie County, Florida. The purpose of this report is to determine the project's impact on the surrounding roadway system.

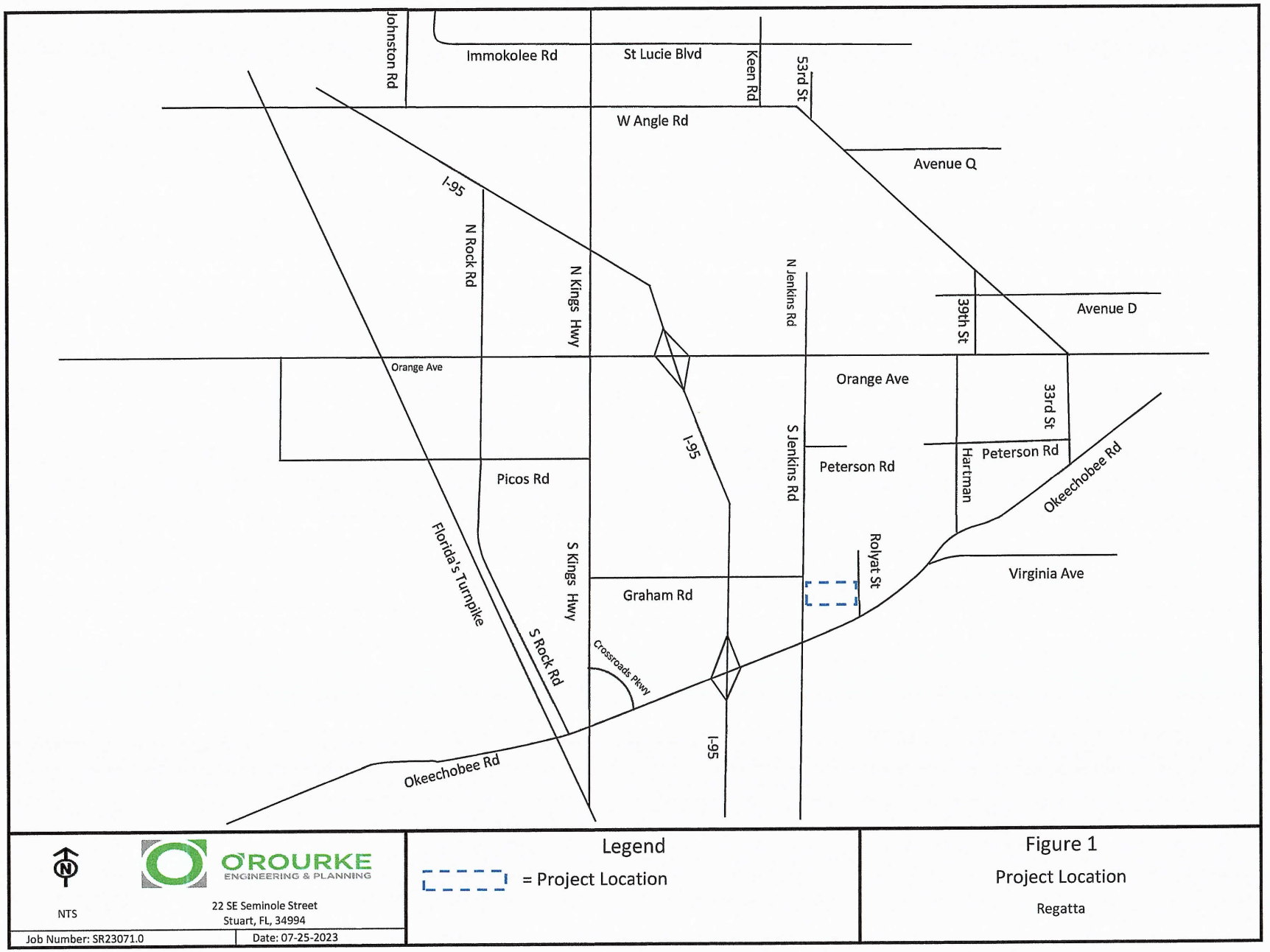
In order to make the determination that the project complies with County Concurrency Guidelines, the following analytical steps were taken:

- summary of the project
- summary of existing lane geometries
- summary of the existing traffic volumes
- assessment of project traffic
- determination of impact area
- summary of buildout cumulative traffic volumes
- summary of levels of service with the project traffic added

Each of these steps is outlined herein.

PROJECT DESCRIPTION

The proposed development will consist of 312 multi-family dwelling units. The project is located east of Jenkins Road and south of Graham Road. The location is shown in **Figure 1**.



NTS

O'ROURKE ENGINEERING & PLANNING

22 SE Seminole Street
Stuart, FL, 34994

Job Number: SR23071.0 | Date: 07-25-2023

Legend

= Project Location

Figure 1

Project Location

Regatta

EXISTING CONDITIONS

The study area is defined as the roadways upon which the project has an impact of 3% of the level of service capacity of the roadway and 1% on the adjacent link. 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 lane geometrics and existing traffic volumes.

Existing/Proposed Lane Geometrics and Traffic Control

The study area was reviewed to determine the existing number and type of lanes, and the traffic control along the roadway. Each roadway is described below.

- Okeechobee Road is a multi-lane divided arterial roadway with an east/west alignment. It is four-lane divided west of Kings Highway and east of Virginia Avenue. It is six-lane divided from Rolyat Street to Virginia Avenue and from Kings Highway to I-95. There is an eight-lane divided section from east of I-95 to Rolyat Street. There are numerous extended turn lanes and freeway auxiliary lanes.
- Kings Highway is a two-lane arterial with a north/south alignment and is under construction in portions and included in the 5-year TIP to be widened to a four-lane divided roadway.
- Graham Road is a 2 lane arterial roadway with an E/W alignment.
- Jenkins Road is a 2 lane arterial roadway with a N/S alignment.

Existing Traffic Volumes/ Service Volume

Traffic volumes were obtained from the St. Lucie County TPO and FDOT. The count data along with the number of lanes and the associated peak hour/peak direction service volumes will be summarized in the upcoming sections of the report. Sources of the data are included in **Appendix B.**

PROJECT TRAFFIC

To estimate future traffic generated by the development, the ITE Trip Generation, 11th Edition trip rates for Multi-Family Housing – Low Rise (Land Use Code 220) was applied to estimate the trips generated by the proposed development. These calculations are shown in **Tables 1a, 1b, and 1c**.

As shown, the project will generate 2,075 new daily trips. There will be 120 AM peak hour trips with 29 entering the project and 91 trips exiting the project. The project will generate 155 new PM peak hour trips. There will be 98 trips entering the project and 57 trips exiting the project in the PM peak hour.

Table 1 - Trip Generation

Table 1a: Daily

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Net New Trips		
					In	Out	In	Out	Total
Multifamily Housing (Low-Rise)	220	312	DU	T = 6.41(X) + 75.31	50%	50%	1,038	1,037	2,075
TOTALS							**1,038**	**1,037**	**2,075**

Source: ITE 11th Edition Trip Generation Rates

Table 1b: AM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Net New Trips		
					In	Out	In	Out	Total
Multifamily Housing (Low-Rise)	220	312	DU	T = 0.31(X) + 22.85	24%	76%	29	91	120
TOTALS							**29**	**91**	**120**

Source: ITE 11th Edition Trip Generation Rates

Table 1c: PM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Net New Trips		
					In	Out	In	Out	Total
Multifamily Housing (Low-Rise)	220	312	DU	T = 0.43(X) + 20.55	63%	37%	98	57	155
TOTALS							**98**	**57**	**155**

Source: ITE 11th Edition Trip Generation Rates

PROJECT DISTRIBUTION/ ASSIGNMENT/IMPACT

The project traffic was distributed by general geographic direction and then assigned to the roadway network.

Distribution/ Assignment – This general distribution led to an assignment of trips based on the anticipated ultimate destinations and the roadway paths used to reach those destinations. The project assignment is shown in **Figure 2.**

Impact – Tables 2a and 2b summarize the project impact as a percent of service volume capacity. Significant is defined as 1% or more on an adjacent link and 3% or more on all other links. As shown, the project is significant on Jenkins Road between Okeechobee Boulevard and Orange Avenue.

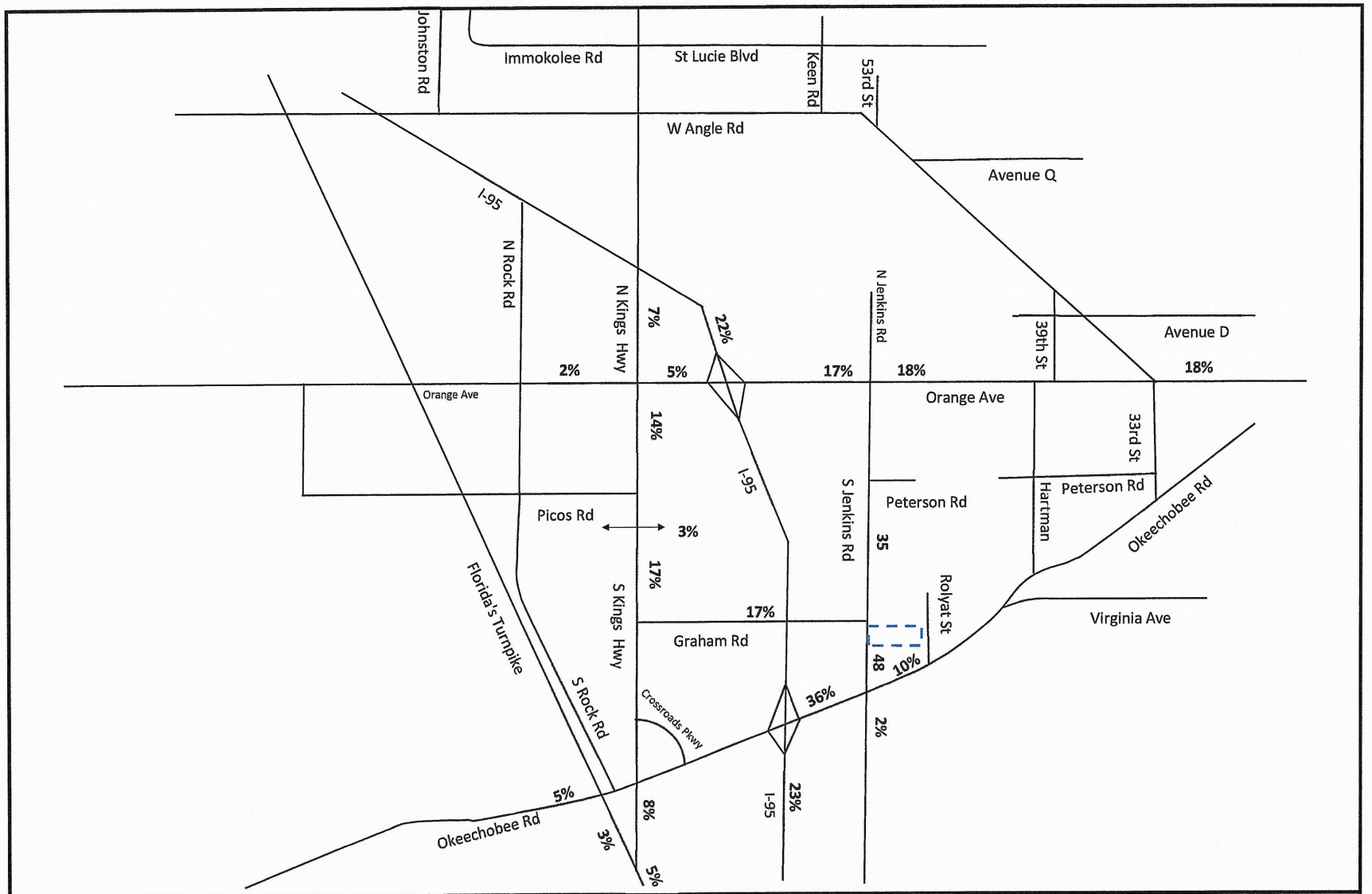
LINK ANALYSIS / REVIEW

Links where the project was significant were analyzed further to ensure they will meet concurrency. A project buildout of 2026 was used in the analysis. A growth rate of 1.1% was calculated for Jenkins Road. The greater of 1.1% growth or 1% plus traffic from other projects in the area were used to determine the 2026 background without project traffic. Other project data includes committed traffic from Kings Hwy Commerce Park, Sunnyland, Drawdy Angle Road, KRE, Stonemont, Creekside, Orange 95, Bent Creek, Celebration Pointe, Hillpointe Residential, Whispering Oaks, Viva at Treasure Coast, Project Hunt, 7/11 Angle Road, Jenkins Waypoint, and Project Hurricane. Project traffic was then added to determine the 2026 Future Total traffic.

Details of the background traffic are included in **Appendix C**.

Table 3a and 3b summarize the results of the link analysis. Jenkins Road is projected to exceed the theoretical capacity. Therefore, a detailed analysis of this road was performed. As shown, the detailed analysis demonstrates that this roadway will operate at acceptable levels of service at project buildout.

The detailed analysis is included in **Appendix D.**



NTS 22 SE Seminole Street Stuart, FL, 34994 Job Number: SR23071.0 | Date: 07-25-2023	Legend = Project Location	Figure 2 Percent Assignment Regatta

TABLE 2a - Project Percent Impact - AM Peak Hour

Segment	From	To	Lanes	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	Peak Hour Service Capacity[1]	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment
Jenkins Rd	Okeechobee Rd	Project Driveway	2L	NB	IN	YES	920	14	1.52%	48%
	Okeechobee Rd	Project Driveway	2L	SB	OUT	YES	920	44	4.78%	48%
	Project Driveway	Graham Rd	2L	NB	OUT	YES	920	47	5.11%	52%
	Project Driveway	Graham Rd	2L	SB	IN	YES	920	15	1.63%	52%
	Graham Rd	Peterson Rd	2L	NB	OUT	YES	630	32	5.08%	35%
	Graham Rd	Peterson Rd	2L	SB	IN	NO	630	10	1.59%	35%
	Peterson Rd	Orange Ave	2L	NB	OUT	YES	920	32	3.48%	35%
	Peterson Rd	Orange Ave	2L	SB	IN	NO	920	10	1.09%	35%
Orange Ave	Campbell Rd	Kings Hwy	2L	EB	IN	NO	1,070	1	0.09%	2%
	Campbell Rd	Kings Hwy	2L	WB	OUT	NO	1,070	2	0.19%	2%
	Kings Hwy	I-95	4LD	EB	IN	NO	2,100	1	0.05%	5%
	Kings Hwy	I-95	4LD	WB	OUT	NO	2,100	5	0.24%	5%
	I-95	Jenkins Rd	4LD	EB	IN	NO	2,100	5	0.24%	17%
	I-95	Jenkins Rd	4LD	WB	OUT	NO	2,100	15	0.71%	17%
	Jenkins Rd	Hartman Rd	4LD	EB	OUT	NO	2,100	16	0.76%	18%
	Jenkins Rd	Hartman Rd	4LD	WB	IN	NO	2,100	5	0.24%	18%
	Hartman	Angle Rd	4LD	EB	OUT	NO	2,100	16	0.76%	18%
	Hartman	Angle Rd	4LD	WB	IN	NO	2,100	5	0.24%	18%
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	4LD	NB	IN	NO	2,000	4	0.20%	13%
	Okeechobee Rd	Crossroads Pkwy	4LD	SB	OUT	NO	2,000	12	0.60%	13%
	Crossroads Pkwy	Graham Rd	4LD	NB	IN	NO	2,000	4	0.20%	13%
	Crossroads Pkwy	Graham Rd	4LD	SB	OUT	NO	2,000	12	0.60%	13%
	Graham Rd	Picos Rd	4LD	NB	OUT	NO	2,000	15	0.75%	17%
	Graham Rd	Picos Rd	4LD	SB	IN	NO	2,000	5	0.25%	17%
	Picos Rd	Orange Ave	4LD	NB	OUT	NO	2,000	13	0.65%	14%
	Picos Rd	Orange Ave	4LD	SB	IN	NO	2,000	4	0.20%	14%
	Orange Ave	I-95 Overpass	4LD	SB	OUT	NO	2,000	6	0.30%	7%
	Orange Ave	I-95 Overpass	4LD	SB	IN	NO	2,000	2	0.10%	7%
	I-95 Overpass	Angle Rd	2L	NB	OUT	NO	920	6	0.65%	7%
	I-95 Overpass	Angle Rd	2L	SB	IN	NO	920	2	0.22%	7%
Okeechobee Rd	Florida's Turnpike	Kings Hwy	4LD	EB	IN	NO	2,100	1	0.05%	5%
	Florida's Turnpike	Kings Hwy	4LD	WB	OUT	NO	2,100	5	0.24%	5%
	I95	Jenkins Rd	6LD	EB	IN	NO	4,240	7	0.17%	23%
	I95	Jenkins Rd	6LD	WB	OUT	NO	4,240	21	0.50%	23%
	Jenkins Rd	McNeil Rd	6LD	EB	OUT	NO	4,040	9	0.22%	10%
	Jenkins Rd	McNeil Rd	6LD	WB	IN	NO	4,040	3	0.07%	10%
I-95	Midway Rd	Okeechobee Rd	6LD	NB	IN	NO	5,500	7	0.13%	23%
	Midway Rd	Okeechobee Rd	6LD	SB	OUT	NO	5,500	21	0.38%	23%
	Orange Ave	Indrio Rd	8LD	NB	OUT	NO	7,320	20	0.27%	22%
	Orange Ave	Indrio Rd	8LD	SB	IN	NO	7,320	6	0.08%	22%

(1) St. Lucie County 2023 Traffic Counts and LOS Report

IN: 29
OUT: 91

TABLE 2b - Project Percent Impact - PM Peak Hour

Segment	From	To	Lanes	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	Peak Hour Service Capacity[1]	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment
Jenkins Rd	Okeechobee Rd	Project Driveway	2L	NB	IN	YES	920	47	5.11%	48%
	Okeechobee Rd	Project Driveway	2L	SB	OUT	YES	920	27	2.93%	48%
	Project Driveway	Graham Rd	2L	NB	OUT	YES	920	30	3.26%	52%
	Project Driveway	Graham Rd	2L	SB	IN	YES	920	51	5.54%	52%
	Graham Rd	Peterson Rd	2L	NB	OUT	YES	630	20	3.17%	35%
	Graham Rd	Peterson Rd	2L	SB	IN	YES	630	34	5.40%	35%
	Peterson Rd	Orange Ave	2L	NB	OUT	NO	920	20	2.17%	35%
	Peterson Rd	Orange Ave	2L	SB	IN	YES	920	34	3.70%	35%
Orange Ave	Campbell Rd	Kings Hwy	2L	EB	IN	NO	1,070	2	0.19%	2%
	Campbell Rd	Kings Hwy	2L	WB	OUT	NO	1,070	1	0.09%	2%
	Kings Hwy	I-95	4LD	EB	IN	NO	2,100	5	0.24%	5%
	Kings Hwy	I-95	4LD	WB	OUT	NO	2,100	3	0.14%	5%
	I-95	Jenkins Rd	4LD	EB	IN	NO	2,100	17	0.81%	17%
	I-95	Jenkins Rd	4LD	WB	OUT	NO	2,100	10	0.48%	17%
	Jenkins Rd	Hartman Rd	4LD	EB	OUT	NO	2,100	10	0.48%	18%
	Jenkins Rd	Hartman Rd	4LD	WB	IN	NO	2,100	18	0.86%	18%
	Hartman	Angle Rd	4LD	EB	OUT	NO	2,100	10	0.48%	18%
	Hartman	Angle Rd	4LD	WB	IN	NO	2,100	18	0.86%	18%
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	4LD	NB	IN	NO	2,000	13	0.65%	13%
	Okeechobee Rd	Crossroads Pkwy	4LD	SB	OUT	NO	2,000	7	0.35%	13%
	Crossroads Pkwy	Graham Rd	4LD	NB	IN	NO	2,000	13	0.65%	13%
	Crossroads Pkwy	Graham Rd	4LD	SB	OUT	NO	2,000	7	0.35%	13%
	Graham Rd	Picos Rd	4LD	NB	OUT	NO	2,000	10	0.50%	17%
	Graham Rd	Picos Rd	4LD	SB	IN	NO	2,000	17	0.85%	17%
	Picos Rd	Orange Ave	4LD	NB	OUT	NO	2,000	8	0.40%	14%
	Picos Rd	Orange Ave	4LD	SB	IN	NO	2,000	14	0.70%	14%
	Orange Ave	I-95 Overpass	4LD	SB	OUT	NO	2,000	4	0.20%	7%
	Orange Ave	I-95 Overpass	4LD	SB	IN	NO	2,000	7	0.35%	7%
	I-95 Overpass	Angle Rd	2L	NB	OUT	NO	920	4	0.43%	7%
	I-95 Overpass	Angle Rd	2L	SB	IN	NO	920	7	0.76%	7%
Okeechobee Rd	Florida's Turnpike	Kings Hwy	4LD	EB	IN	NO	2,100	5	0.24%	5%
	Florida's Turnpike	Kings Hwy	4LD	WB	OUT	NO	2,100	3	0.14%	5%
	I95	Jenkins Rd	6LD	EB	IN	NO	4,240	23	0.54%	23%
	I95	Jenkins Rd	6LD	WB	OUT	NO	4,240	13	0.31%	23%
	Jenkins Rd	McNeil Rd	6LD	EB	OUT	NO	4,040	6	0.15%	10%
	Jenkins Rd	McNeil Rd	6LD	WB	IN	NO	4,040	10	0.25%	10%
I-95	Midway Rd	Okeechobee Rd	6LD	NB	IN	NO	5,500	23	0.42%	23%
	Midway Rd	Okeechobee Rd	6LD	SB	OUT	NO	5,500	13	0.24%	23%
	Orange Ave	Indrio Rd	8LD	NB	OUT	NO	7,320	13	0.18%	22%
	Orange Ave	Indrio Rd	8LD	SB	IN	NO	7,320	22	0.30%	22%

(1) St. Lucie County 2023 Traffic Counts and LOS Report

IN: 98
OUT: 57

TABLE 3a - Link Analysis - AM Peak Hour

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	D Factor (1)	2023 Peak Hour Volumes (From 2023 TPO)	2023 Directional Peak Hour Volumes	Growth Rate (2)	2026 Peak Hour Volumes w/ Growth Factor	2026 Peak Hour w/ 1% Growth	AM Peak Hour Committed Projects Directional	2026 1% Growth + Committed Peak Direction	Higher of Growth Rate or 1% + Commited	Peak Hour Service Capacity (E+C)	Project Volume Peak Direction	Total Traffic (Peak Direction)	% Project of Capacity- Peak Hour	Does Project Meet Concurrency ?	Project Percent Assignment
Jenkins Rd	Okeechobee Rd	Project Driveway	NB	IN	YES	0.603	567	567	1.10%	586	584	191	775	775	920	14	789	1.52%	YES	48%
	Okeechobee Rd	Project Driveway	SB	OUT	YES	0.397	567	373	1.10%	386	385	214	599	599	920	44	643	4.78%	YES	48%
	Project Driveway	Graham Rd	NB	OUT	YES	0.603	567	567	1.10%	586	584	191	775	775	920	47	822	5.11%	YES	52%
	Project Driveway	Graham Rd	SB	IN	YES	0.397	567	373	1.10%	386	385	214	599	599	920	15	614	1.63%	YES	52%
	Graham Rd	Peterson Rd	NB	OUT	YES	0.423	567	416	1.10%	430	428	259	687	687	630	32	719	5.08%	YES (3)	35%
	Graham Rd	Peterson Rd	SB	IN	NO	0.577	567	567	1.10%	586	584	165	749	749	630	10	759	1.59%	YES (3)	35%
	Peterson Rd	Orange Ave	NB	OUT	YES	0.539	567	567	1.10%	586	584	352	936	936	920	32	968	3.48%	YES (3)	35%
	Peterson Rd	Orange Ave	SB	IN	NO	0.461	567	485	1.10%	501	500	171	671	671	920	10	681	1.09%	YES	35%

Note: TPO Provides Peak Direction, off-peak derived from D Factor

(1) FDOT 2022 Annual Average Daily Traffic Report

(2) Growth rate calculated from St Lucie County Traffic Counts and Level of Service Reports

(3) 2026 and Commited Project trips cause the roadway to exceed service capacity

IN: 29
OUT: 91
Years Grown: 3

TABLE 3b - Link Analysis - PM Peak Hour

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	D Factor (1)		2023 Peak Hour Volumes (From 2023 TPO)	Growth Rate (2)	2026 Peak Hour Volumes w/ Growth Factor	2026 Peak Hour w/ 1% Growth	PM Peak Hour Committed Projects Directional	2026 1% Growth + Committed Peak Direction	Higher of Growth Rate or 1% + Commited	Peak Hour Service Capacity (E+C)	Project Volume Peak Direction	Total Traffic (Peak Direction)	% Project of Capacity- Peak Hour	Does Project Meet Concurrency ?	Project Percent Assignment
Jenkins Rd	Okeechobee Rd	Project Driveway	NB	IN	YES	0.495	574	563	1.10%	581	580	249	829	829	920	47	876	5.11%	YES	48%
	Okeechobee Rd	Project Driveway	SB	OUT	YES	0.505	574	574	1.10%	593	591	237	828	828	920	27	855	2.93%	YES	48%
	Project Driveway	Graham Rd	NB	OUT	YES	0.495	574	563	1.10%	581	580	249	829	829	920	30	859	3.26%	YES	52%
	Project Driveway	Graham Rd	SB	IN	YES	0.505	574	574	1.10%	593	591	237	828	828	920	51	879	5.54%	YES	52%
	Graham Rd	Peterson Rd	NB	OUT	YES	0.530	574	574	1.10%	593	591	231	822	822	630	20	842	3.17%	YES (3)	35%
	Graham Rd	Peterson Rd	SB	IN	YES	0.470	574	509	1.10%	526	524	289	813	813	630	34	847	5.40%	YES (3)	35%
	Peterson Rd	Orange Ave	NB	OUT	NO	0.437	574	446	1.10%	460	459	265	724	724	920	20	744	2.17%	YES	35%
	Peterson Rd	Orange Ave	SB	IN	YES	0.563	574	574	1.10%	593	591	379	970	970	920	34	1004	3.70%	YES (3)	35%

Note: TPO Provides Peak Direction, off-peak derived from D Factor

(1) FDOT 2022 Annual Average Daily Traffic Report

(2) Growth rate calculated from St Lucie County Traffic Counts and Level of Service Reports

(3) 2026 and Commited Project trips cause the roadway to exceed service capacity

IN: 98
OUT: 57
Years Grown: 3

INTERSECTION ANALYSIS

Three intersections were analyzed for Existing, Background without Project, and Future Total with Project scenarios for both the AM and PM peak hours. The three intersections analyzed include Jenkins Road & Graham Road, Jenkins Road & Orange Avenue, and Jenkins Road & Okeechobee Boulevard. The intersections of Jenkins Road & Orange Avenue and Jenkins Road & Okeechobee Boulevard will continue to operate at an acceptable level of service of D or better at project build out.

The intersection of Jenkins Road & Graham Road is projected to operate at a LOS F in the Background and Future Total scenarios. The Jenkins Waypoint project is committed to constructing the westbound approach and a northbound right-turn lane at this intersection. The addition of an eastbound left-turn lane will decrease the delays at the intersection, but it will continue to operate at a LOS F at project buildout with the additional lane. A signal warrant analysis was performed at this intersection. It is not projected to meet the 100% threshold for the 8-hour or 4-hour warrants at project buildout. It is recommended to continue monitoring the signal warrant thresholds as developments come online in the area of the project. As this is a Background failure without the addition of project traffic, it is not the projects responsibility to construct the additional eastbound left-turn lane.

Table 4 summarizes the delay and LOS.

The intersection data is included in **Appendix E.**

DRIVEWAY ANALYSIS

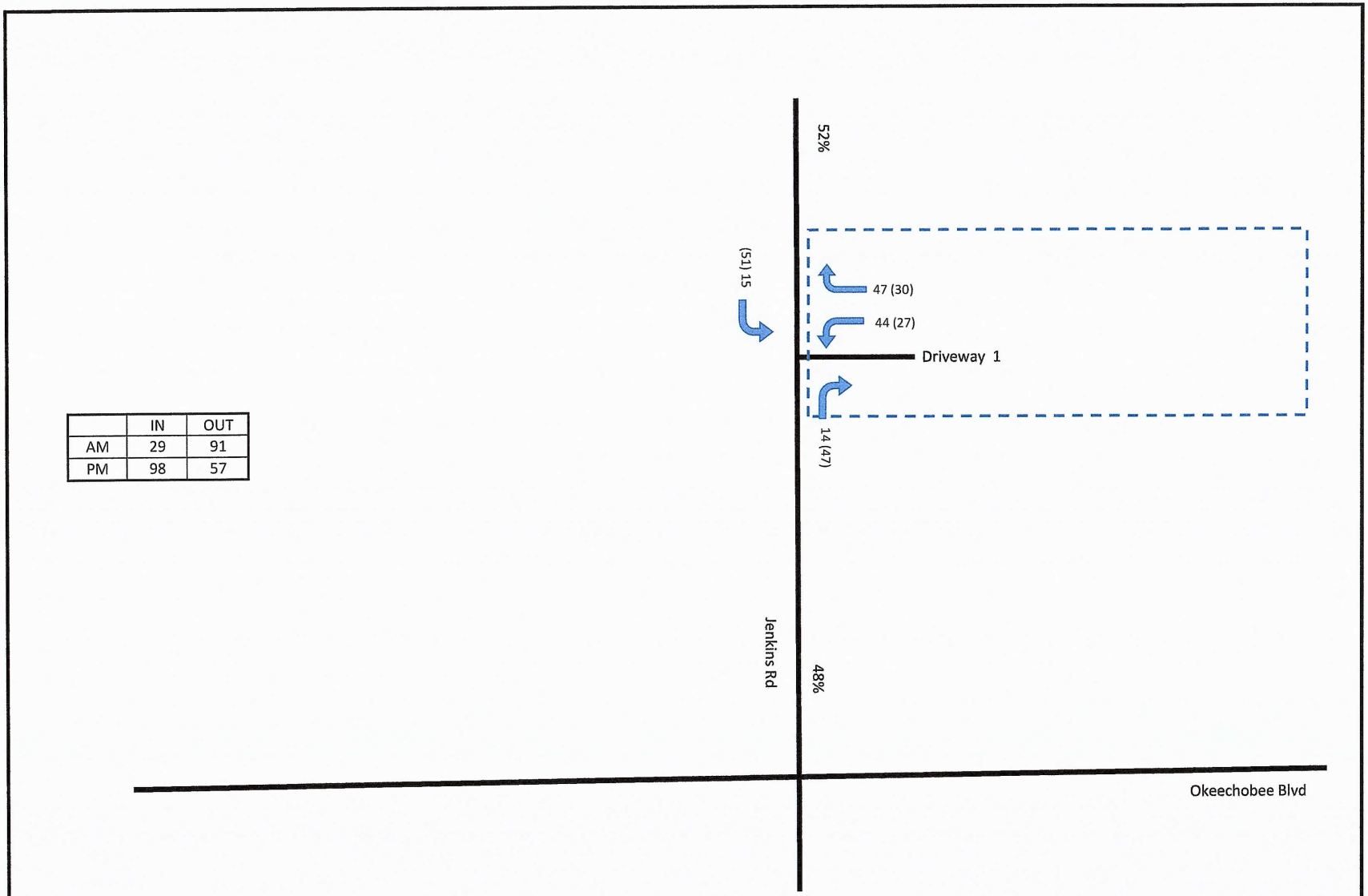
The project will have a single driveway that will be a full access driveway located on Jenkins Road. **Figure 3** shows the driveway volumes for the AM and PM peak hours. The driveway was analyzed using HCS. The analysis shows the driveway will operate at LOS D for the westbound movement in the AM peak hour a ns a LOS C in the PM peak hour.

The need for turn lanes at the project driveway were analyzed. The need for a left-turn lane was analyzed using NCHRP 457 with a left-turn percentage of 9% of the advancing volume and an approaching volume of 569 and an opposing volume of 578, a southbound left-turn lane is warranted at the project driveway. FDOT criteria for a right turn lane has a threshold of 80 vehicles for a right turn lane. The highest right turning volume is 47. Therefore, a right turn lane is not required. The driveway data and analyses are included in **Appendix F.**

Table 4: Intersection Level of Service

Intersection	Period	Existing		2026 wo/Project		2026 wo/Project With Improvements		2026 w/Project		2026 w/Project With Improvements	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Jenkins Road & Graham Road	AM	18.3	C	135.9 / 61.9	F / F	43.2 / 61.9	E / F	219.7 / 99.5	F / F	60.0 / 99.5	F / F
	PM	16	C	297.3 / 75.5	F / F	97.9 / 75.5	F / F	420.7 / 115.2	F / F	126.9 / 115.2	F / F
Jenkins Road & Okeechobee Road	AM	42.2	D	53.7	D	N/A	-	55	D	N/A	-
	PM	39.2	D	51.8	D	N/A	-	52.2	D	N/A	-
Orange Avenue & Jenkins Avenue	AM	18.8	B	22.9	C	N/A	-	23.3	C	N/A	-
	PM	18.5	B	27.4	C	N/A	-	29.0	C	N/A	-

Note: XX /XX = Eastbound / Westbound Approaches


52%
(51) 15
47 (30)
44 (27)
Driveway 1
14 (47)
Jenkins Rd
48%
Okeechobee Blvd
IN OUT
AM 29 91
PM 98 57
NTS
O'ROURKE ENGINEERING & PLANNING
22 SE Seminole Street
Stuart, Fl, 34994
Job Number: SR23071.0
6/13/2022
Legend
= Project Location
XX (XX) = AM (PM)
Figure 3
Driveway Volumes
Regatta

CONCLUSION

With 120 net new AM peak hour trips and 155 net new PM peak hour trips, all links and intersections operate at acceptable levels of service with the existing roadway network with the exception of the intersection of Jenkins Road & Graham Road.

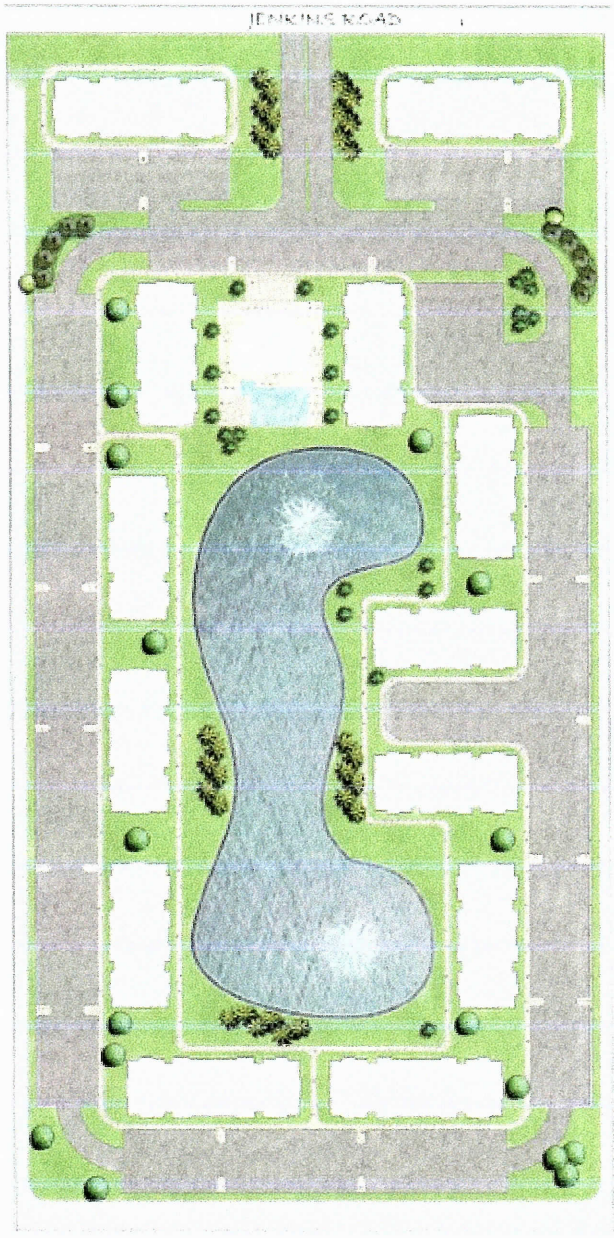
An eastbound left-turn lane is recommended for the interim conditions until the intersection meets the warrants for signalization. As this is a background failure without project traffic, the eastbound left-turn lane is not the responsibility of the project. The intersection should continue to be monitored for a signal warrant as developments in the area are completed.

A southbound left turn lane on Jenkins Road at the Project Driveway is recommended.

Therefore, the project meets the requirements for concurrency.

APPENDIX A

SITE PLAN


JENKINS ROAD

APPENDIX B

ST. LUCIE COUNTY 2023 LEVEL OF SERVICE REPORT

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
2023

Roadway Name	Location	AADT	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
				Volume	LOS	V/C	Volume	LOS	V/C
GATLIN BLVD	E OF I-95 to SAVAGE BLVD	49,323	3,170	2,408	C	0.76	2,408	C	0.76
GATLIN BLVD	SAVAGE BLVD to ROSSER BLVD	49,323	3,170	2,408	C	0.76	2,408	C	0.76
GATLIN BLVD	ROSSER BLVD to SAVONA BLVD	49,323	3,170	2,408	C	0.76	2,408	C	0.76
GATLIN BLVD	SAVONA BLVD to PORT ST LUCIE BLVD	49,323	3,170	2,408	C	0.76	2,408	C	0.76
GEORGIA AVE	25TH ST to OKEECHOBEE RD	4,000	600	233	C	0.39	223	C	0.37
GEORGIA AVE	OKEECHOBEE RD to 17TH ST	4,000	750	233	C	0.31	223	C	0.30
GEORGIA AVE	17TH ST to 13TH ST	5,400	600	275	C	0.46	277	C	0.46
GEORGIA AVE	13TH ST to 7TH ST	2,500	600	152	C	0.25	170	C	0.28
GEORGIA AVE	7TH ST to US 1	2,200	600	121	C	0.20	131	C	0.22
GILSON RD	MARTIN C.L. to BECKER RD	11,039	710	925	F	1.30	957	F	1.35
GILSON RD	BECKER RD to LAKERIDGE DR	11,039	540	925	F	1.71	957	F	1.77
GLADES CUT-OFF RD	RANGE LINE RD to RESERVE BLVD	2,894	1,070	182	B	0.17	192	B	0.18
GLADES CUT-OFF RD	RESERVE BLVD to COMMERCE CENTER DR	5,748	1,070	452	C	0.42	526	C	0.49
GLADES CUT-OFF RD	CARLTON RD to RANGE LINE RD	2,894	390	182	B	0.47	192	B	0.49
GLADES CUT-OFF RD	COMMERCE CENTER DR to MIDWAY RD	3,331	920	162	C	0.18	162	C	0.18
GLADES CUT-OFF RD	MIDWAY RD to JENKINS RD	10,787	790	647	D	0.82	685	D	0.87
GLADES CUT-OFF RD	JENKINS RD to SELVITZ RD	5,900	830	351	C	0.42	326	C	0.39
GRAHAM RD	KINGS HWY to JENKINS RD	2,686	630	170	C	0.27	170	C	0.27
GREEN RIVER PKWY	MARTIN C.L. to CHARLESTON DR	5,780	1,070	401	C	0.38	364	B	0.34
GREEN RIVER PKWY	CHARLESTON DR to MELALEUCA BLVD	5,780	1,070	401	C	0.38	364	B	0.34
GREEN RIVER PKWY	MELALEUCA BLVD to WALTON RD	5,780	1,070	401	C	0.38	364	B	0.34
HARTMAN RD	OKEECHOBEE RD to PETERSON RD	6,204	750	296	C	0.40	289	C	0.39
HARTMAN RD	PETERSON RD to DELAWARE AVE	6,204	540	296	D	0.55	289	D	0.54
HARTMAN RD	DELAWARE AVE to ORANGE AVE	6,204	790	296	C	0.38	289	C	0.37
HEADER CANAL RD	OKEECHOBEE RD to ORANGE AVE	598	670	50	B	0.08	60	B	0.09
HILLMOOR DR	US 1 to LENNARD RD	7,100	790	394	D	0.50	373	C	0.47
I-95	GATLIN BLVD to ST LUCIE WEST BLVD	87,285	5,500	5,058	D	0.92	5,058	D	0.92
I-95	ST LUCIE WEST BLVD to MIDWAY RD	70,410	5,500	4,080	C	0.74	4,080	C	0.74
I-95	MIDWAY RD to OKEECHOBEE RD	81,706	5,500	4,734	D	0.86	4,734	D	0.86

* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
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Traffic Counts and Level of Service Report
2023

Roadway Name	Location	AADT	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
				Volume	LOS	V/C	Volume	LOS	V/C
I-95	OKEECHOBEE RD to ORANGE AVE	69,903	7,320	3,439	B	0.47	3,439	B	0.47
I-95	ORANGE AVE to INDRIO RD	52,086	7,320	3,018	B	0.41	3,018	B	0.41
INDIAN RIVER DR	CITRUS AVE to ORANGE AVE	5,559	750	276	C	0.37	276	C	0.37
INDIAN RIVER DR	ORANGE AVE to AVENUE A	6,098	750	302	C	0.40	302	C	0.40
INDIAN RIVER DR	AVENUE D to SEAWAY DR	6,293	790	312	C	0.40	312	C	0.40
INDIAN RIVER DR	AVENUE A to AVENUE D	6,293	540	312	D	0.58	312	D	0.58
INDRIO RD	PRIVATE RD to I-95 W RAMP	1,130	1,080	56	B	0.05	56	B	0.05
INDRIO RD	I-95 W RAMP to I-95 E RAMP	1,130	3,240	56	B	0.02	56	B	0.02
INDRIO RD	I-95 E RAMP to KOBLEGARD RD	11,474	3,240	560	B	0.17	560	B	0.17
INDRIO RD	KOBLEGARD RD to JOHNSTON RD	11,474	700	560	C	0.80	560	C	0.80
INDRIO RD	JOHNSTON RD to EMERSON AVE	11,474	880	560	C	0.64	560	C	0.64
INDRIO RD	EMERSON RD to SEMINOLE RD	10,743	920	524	C	0.57	524	C	0.57
INDRIO RD	SEMINOLE RD to KINGS HWY	10,743	790	524	D	0.66	524	D	0.66
INDRIO RD	KINGS HWY to SLASH PINE TRL	6,500	790	411	D	0.52	404	D	0.51
INDRIO RD	SLASH PINE TRL to US 1	6,500	920	411	C	0.45	404	C	0.44
INDRIO RD	US 1 to OLD DIXIE HWY	1,246	750	108	C	0.14	114	C	0.15
JENKINS RD	EDWARDS RD to OKEECHOBEE RD	10,375	880	488	C	0.56	535	C	0.61
JENKINS RD	OKEECHOBEE RD to GRAHAM RD	10,849	920	567	C	0.62	574	C	0.62
JENKINS RD	GRAHAM RD to PETERSON RD	10,849	630	567	C	0.90	574	C	0.91
JENKINS RD	PETERSON RD to ORANGE AVE	10,849	920	567	C	0.62	574	C	0.62
JENNINGS RD	US 1 to LENNARD RD	5,465	2,100	286	C	0.14	273	C	0.13
JOHNSTON RD	ANGLE RD to L20	2,909	1,070	228	B	0.21	200	B	0.19
JOHNSTON RD	L20 to MEADOWOOD DR	2,604	1,070	172	B	0.16	163	B	0.15
JOHNSTON RD	MEADOWOOD DR to OLD JOHNSTON RD	2,604	1,070	172	B	0.16	163	B	0.15
JOHNSTON RD	OLD JOHNSTON RD to INDRIO RD	2,604	1,070	172	B	0.16	163	B	0.15
JOHNSTON RD	INDRIO RD to RUSSOS RD	10,000	1,070	580	C	0.54	547	C	0.51
JOHNSTON RD	RUSSOS RD to INDIAN RIVER C.L.	10,000	1,070	580	C	0.54	547	C	0.51
JUANITA AVE	53RD ST to 25TH ST	1,972	750	126	C	0.17	103	C	0.14
JUANITA AVE	25TH ST to US 1	3,749	750	191	C	0.26	209	C	0.28

B-2

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* AADT = Annual Average Daily Traffic

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2023

Roadway Name	Location	AADT	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
				Volume	LOS	V/C	Volume	LOS	V/C
KEEN RD	ANGLE RD to JUANITA AVE	3,200	630	234	C	0.37	253	C	0.40
KEEN RD	JUANITA AVE to ST LUCIE BLVD	3,200	630	234	C	0.37	253	C	0.40
KINGS HWY	OKEECHOBEE RD to CROSSROADS PKWY	9,383	880	472	C	0.54	472	C	0.54
KINGS HWY	CROSSROADS PKWY to GRAHAM RD	9,383	700	472	C	0.67	472	C	0.67
KINGS HWY	GRAHAM RD to PICOS RD	7,181	700	361	C	0.52	361	C	0.52
KINGS HWY	PICOS RD to ORANGE AVE	7,181	880	361	C	0.41	361	C	0.41
KINGS HWY	ORANGE AVE to ANGLE RD	15,247	920	767	C	0.83	767	C	0.83
KINGS HWY	ANGLE RD to ST LUCIE BLVD	11,202	880	547	C	0.62	547	C	0.62
KINGS HWY	ST LUCIE BLVD to INDRIO RD	13,787	880	673	C	0.77	673	C	0.77
KIRBY LOOP RD	EDWARDS RD to 35TH ST	2,581	630	150	C	0.24	139	C	0.22
KITTERMAN RD	OLEANDER AVE to US 1	2,600	750	167	C	0.22	136	C	0.18
KITTERMAN RD	US 1 to LENNARD EXT	2,095	750	123	C	0.16	128	C	0.17
LENNARD RD	US 1 to MARIPOSA AVE	20,570	1,710	1,234	D	0.72	1,170	D	0.68
LENNARD RD	MARIPOSA AVE to MELALEUCA BLVD	20,570	1,710	1,234	D	0.72	1,170	D	0.68
LENNARD RD	MELALEUCA BLVD to JENNINGS RD	20,570	1,630	1,234	D	0.76	1,170	D	0.72
LENNARD RD	JENNINGS RD to HILLMOOR DR	20,570	1,710	1,234	D	0.72	1,170	D	0.68
LENNARD RD	HILLMOOR DR to TIFFANY AVE	20,570	1,710	1,234	D	0.72	1,170	D	0.68
LENNARD RD	TIFFANY AVE to WALTON RD	7,365	1,710	403	C	0.24	389	C	0.23
LENNARD RD	WALTON RD to S OF SAVANNA CLUB BLVD	3,748	790	259	C	0.33	246	C	0.31
LYNGATE DR	VETERANS MEMORIAL PKWY to MORNINGSIDE BLVD	9,700	920	612	C	0.67	553	C	0.60
LYNGATE DR	MORNINGSIDE BLVD to US 1	9,700	920	612	C	0.67	553	C	0.60
MARIPOSA AVE	LENNARD RD to HALLAHAN ST	7,300	880	568	C	0.65	541	C	0.62
MCCARTY RD	WILLIAMS RD to MIDWAY RD	364	540	27	C	0.05	25	C	0.05
MCCARTY RD	MIDWAY RD to OKEECHOBEE RD	431	540	37	C	0.07	37	C	0.07
MCNEIL RD	OKEECHOBEE RD to KIRBY LOOP RD	4,900	790	307	C	0.39	298	C	0.38
MCNEIL RD	KIRBY LOOP RD to EDWARDS RD	4,900	540	307	D	0.57	298	D	0.55
MELALEUCA BLVD	LENNARD RD to GREEN RIVER PKWY	10,710	920	630	C	0.69	601	C	0.65
MIDWAY RD	EAST TORINO PKWY to MILNER DR	25,000	880	1,245	F	1.42	1,298	F	1.48
MIDWAY RD	MILNER DR to W OF SELVITZ RD	25,000	790	1,245	F	1.58	1,298	F	1.64

* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic

St. Lucie Transportation Planning Organization

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2023

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				Volume	LOS	V/C	Volume	LOS	V/C
OKEECHOBEE RD	FLORIDA'S TURNPIKE to KINGS HWY	9,733	2,100	490	C	0.23	490	C	0.23
OKEECHOBEE RD	KINGS HWY to CROSSROADS PKWY	23,734	4,240	1,195	C	0.28	1,195	C	0.28
OKEECHOBEE RD	CROSSROADS PKWY to I-95	26,375	4,240	1,327	C	0.31	1,327	C	0.31
OKEECHOBEE RD	I-95 to JENKINS RD	32,142	4,240	1,569	C	0.37	1,569	C	0.37
OKEECHOBEE RD	JENKINS RD to MCNEIL RD	32,142	4,040	1,569	C	0.39	1,569	C	0.39
OKEECHOBEE RD	MCNEIL RD to VIRGINIA AVE	31,230	3,170	1,524	C	0.48	1,524	C	0.48
OKEECHOBEE RD	VIRGINIA AVE to HARTMAN RD	15,500	2,100	802	C	0.38	791	C	0.38
OKEECHOBEE RD	HARTMAN RD to 35TH ST	15,500	1,630	802	D	0.49	791	D	0.49
OKEECHOBEE RD	35TH ST to 33RD ST	16,500	1,630	859	D	0.53	822	D	0.50
OKEECHOBEE RD	33RD ST to 25TH ST	16,500	1,630	859	D	0.53	822	D	0.50
OKEECHOBEE RD	25TH ST to GEORGIA AVE	12,000	1,630	695	C	0.43	616	C	0.38
OKEECHOBEE RD	GEORGIA AVE to DELAWARE AVE	12,000	1,710	695	C	0.41	616	C	0.36
OLD DIXIE HWY	US 1 to SR A1A NORTH	830	790	129	C	0.16	123	C	0.16
OLD DIXIE HWY	SR A1A NORTH to ST LUCIE BLVD	1,753	750	82	C	0.11	82	C	0.11
OLD DIXIE HWY	ST LUCIE BLVD to INDRIO RD	2,125	790	172	C	0.22	126	C	0.16
OLD DIXIE HWY	INDRIO RD to INDIAN RIVER C.L.	1,340	870	63	C	0.07	63	C	0.07
OLEANDER AVE	BEACH AVE to KITTERMAN RD	2,970	540	172	C	0.32	194	C	0.36
OLEANDER AVE	KITTERMAN RD to MIDWAY RD	6,162	750	358	C	0.48	358	C	0.48
OLEANDER AVE	MIDWAY RD to WEATHERBEE RD	6,400	750	362	C	0.48	365	C	0.49
OLEANDER AVE	WEATHERBEE RD to BELL AVE	6,400	540	362	D	0.67	365	D	0.68
OLEANDER AVE	BELL AVE to FARMER'S MARKET RD	12,703	540	613	F	1.14	581	F	1.08
OLEANDER AVE	FARMER'S MARKET RD to EDWARDS RD	12,703	750	613	D	0.82	581	D	0.78
OLEANDER AVE	EDWARDS RD to WISTERIA AVE	9,907	750	601	D	0.80	500	D	0.67
OLEANDER AVE	WISTERIA AVE to GARDENIA AVE	9,907	540	601	F	1.11	500	D	0.93
OLEANDER AVE	GARDENIA AVE to VIRGINIA AVE	9,907	790	601	D	0.76	500	D	0.63
OLEANDER AVE	VIRGINIA AVE to SUNRISE BLVD	5,500	600	309	D	0.52	320	D	0.53
ORANGE AVE	OKEECHOBEE C.L. to SNEED RD	5,195	670	303	C	0.45	289	C	0.43
ORANGE AVE	SNEED RD to HEADER CANAL RD	5,195	670	303	C	0.45	289	C	0.43
ORANGE AVE	HEADER CANAL RD to SHINN RD	5,195	670	303	C	0.45	289	C	0.43

* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic

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
2023

Roadway Name	Location	AADT	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
				Volume	LOS	V/C	Volume	LOS	V/C
ORANGE AVE	SHINN RD to CAMPBELL RD	2,957	1,070	142	B	0.13	142	B	0.13
ORANGE AVE	CAMPBELL RD to KINGS HWY	2,957	1,070	142	B	0.13	142	B	0.13
ORANGE AVE	KINGS HWY to I-95	18,080	2,100	910	C	0.43	910	C	0.43
ORANGE AVE	I-95 to JENKINS RD	14,693	2,100	717	C	0.34	717	C	0.34
ORANGE AVE	JENKINS RD to HARTMAN RD	16,898	2,100	825	C	0.39	825	C	0.39
ORANGE AVE	HARTMAN RD to ANGLE RD	16,898	2,100	825	C	0.39	825	C	0.39
ORANGE AVE	ANGLE RD to 25TH ST	9,547	1,710		B			B	
ORANGE AVE	25TH ST to 17TH ST	13,554	1,630	661	C	0.41	661	C	0.41
ORANGE AVE	17TH ST to 13TH ST	13,554	1,710	661	C	0.39	661	C	0.39
ORANGE AVE	13TH ST to 10TH ST	13,554	750	661	D	0.88	661	D	0.88
ORANGE AVE	10TH ST to 7TH ST	9,873	600	482	D	0.80	482	D	0.80
ORANGE AVE	7TH ST to US 1	7,622	600	372	D	0.62	372	D	0.62
ORANGE AVE	US 1 to 2ND ST	4,209	600	209	C	0.35	209	C	0.35
ORANGE AVE	2ND ST to INDIAN RIVER DR	4,209	750	209	C	0.28	209	C	0.28
PARR DR	PORT ST LUCIE BLVD to DARWIN BLVD	2,283	700	177	C	0.25	153	C	0.22
PARR DR	DARWIN BLVD to TULIP BLVD	2,100	540	184	C	0.34	140	C	0.26
PARR DR	SAVONA BLVD to PORT ST LUCIE BLVD	2,283	700	177	C	0.25	153	C	0.22
PARR DR	ROSSER BLVD to SAVONA BLVD	2,283	630	177	C	0.28	153	C	0.24
PEACOCK BLVD	CALIFORNIA BLVD to CASHMERE BLVD	5,417	630	343	C	0.54	381	C	0.61
PEACOCK BLVD	UNIVERSITY BLVD to CALIFORNIA BLVD	11,327	920	778	C	0.85	637	C	0.69
PEACOCK BLVD	ST LUCIE WEST BLVD to UNIVERSITY BLVD	15,129	2,100	699	C	0.33	699	C	0.33
PETERSON RD	BENT CREEK DR to HARTMAN RD	2,195	540	163	C	0.30	150	C	0.28
PICOS RD	CAMPBELL RD to KINGS HWY	1,300	540	87	C	0.16	87	C	0.16
PORT ST LUCIE BLVD	MARTIN C.L. to BECKER RD	16,735	920	774	C	0.84	774	C	0.84
PORT ST LUCIE BLVD	BECKER RD to PAAR DR	16,735	920	774	C	0.84	774	C	0.84
PORT ST LUCIE BLVD	PAAR DR to TULIP BLVD	16,735	700	774	F	1.11	774	F	1.11
PORT ST LUCIE BLVD	TULIP BLVD to DARWIN BLVD	16,735	920	774	C	0.84	774	C	0.84
PORT ST LUCIE BLVD	DARWIN BLVD to GATLIN BLVD	34,500	3,020	1,765	C	0.58	1,744	C	0.58
PORT ST LUCIE BLVD	GATLIN BLVD to DEL RIO BLVD	44,000	3,170	2,481	C	0.78	2,389	C	0.75

* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic

APPENDIX C

OTHER PROJECT DATA/GROWTH RATE

AM APPROVED PROJECTS			Indrio Groves @ 25%						Ferrell Communities						Kings Hwy Commerce Park / White Parcel						Sunnyland					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	0%	0	0	-	0	0	0%	0	0	-	0	0	10%	514	58	OUT	11	46	5%	205	15	IN	4	11
	Peterson	Graham Rd	0%	0	0	-	0	0	0%	0	0	-	0	0	10%	514	58	OUT	11	46	5%	205	15	IN	4	11
	Graham Rd	Okeechobee	0%	0	0	-	0	0	0%	0	0	-	0	0	10%	514	58	IN	46	11	5%	205	15	IN	4	11
	Okeechobee	Edwards	0%	0	0	-	0	0	5%	133	9	IN	2	7	0%	0	0	-	0	0	0%	0	0	-	0	0
				2,539	330		In	135		2,655	181		In	42		5,135	577		In	463		4,092	298		In	75
				Daily	Two-Way		Out	195		Daily	Two-Way		Out	139		Daily	Two-Way		Out	114		Daily	Two-Way		Out	223

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AM APPROVED PROJECTS			Drawdy Angle Road FKA: Pineapple Grove						KRE						Stonemont						Creekside					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	2%	73	5	IN	1	4	2%	96	10	IN	8	2	5%	111	13	OUT	3	10	5%	372	28	OUT	21	7
	Peterson	Graham Rd	2%	73	5	IN	1	4	2%	96	10	IN	8	2	5%	111	13	OUT	3	10	5%	372	28	OUT	21	7
	Graham Rd	Okeechobee	2%	73	5	IN	1	4	2%	96	10	IN	8	2	3%	67	8	IN	6	2	5%	372	28	OUT	21	7
	Okeechobee	Edwards	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	5%	372	28	OUT	21	7
				3,646	265		In	66		4,778	510		In	393		2,226	259		In	203		7,443	564		In	143
				Daily	Two-Way		Out	199		Daily	Two-Way		Out	117		Daily	Two-Way		Out	56		Daily	Two-Way		Out	421

C-2

AM APPROVED PROJECTS			Orange 95 Parcel B						Orange 95 Parcels D & E						Bent Creek @ 50% Complete City of Fort Pierce						Celebration Pointe @ 25% Complete City of Fort Pierce					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	30%	304	37	IN	31	6	100%	1,086	133	IN	111	22	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	12%	121	15	IN	12	2	12%	130	16	IN	13	3	2%	0	5	IN	1	4	30%	476	38	OUT	29	10
	Peterson	Graham Rd	12%	121	15	IN	12	2	12%	130	16	IN	13	3	2%	0	5	IN	1	4	50%	793	64	OUT	48	16
	Graham Rd	Okeechobee	12%	121	15	IN	12	2	12%	130	16	IN	13	3	2%	0	5	IN	1	4	50%	793	64	IN	16	48
	Okeechobee	Edwards	2%	20	2	IN	2	0	2%	22	3	IN	2	0	0%	0	0	-	0	0	5%	79	6	IN	2	5
				1,012	123		In	103		1,086	133		In	111		0	248		In	62		1,585	128		In	32
				Daily	Two-Way		Out	20		Daily	Two-Way		Out	22		Daily	Two-Way		Out	186		Daily	Two-Way		Out	96

AM APPROVED PROJECTS			Hillpointe Residential						Interstate Commerce Center						Whispering Oaks						Viva at Treasure Coast West					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	56%	947	57	OUT	43	13	0%	0	0	-	0	0	70%	1,964	148	OUT	117	32	5%	75	5	OUT	4	1
	Peterson	Graham Rd	56%	947	57	OUT	43	13	0%	0	0	-	0	0	12%	337	25	IN	5	20	5%	75	5	OUT	4	1
	Graham Rd	Okeechobee	34%	575	34	IN	8	26	0%	0	0	-	0	0	12%	337	25	IN	5	20	10%	150	9	OUT	7	2
	Okeechobee	Edwards	0%	0	0	-	0	0	0%	0	0	-	0	0	5%	140	11	IN	2	8	90%	1,348	83	OUT	63	20
				1,691	101		In	24		373	35		In	27		2,806	212		In	45		1,498	92		In	22
				Daily	Two-Way		Out	77		Daily	Two-Way		Out	8		Daily	Two-Way		Out	167		Daily	Two-Way		Out	70

AM APPROVED PROJECTS			Viva at Treasure Coast East						3000 Virginia						Project Hunt						Wawa Kings Highway					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	5%	70	4	OUT	3	1	0%	0	0	-	0	0	2%	19	2	OUT	0	2	0%	0	0	-	0	0
	Peterson	Graham Rd	5%	70	4	OUT	3	1	0%	0	0	-	0	0	2%	19	2	OUT	0	2	0%	0	0	-	0	0
	Graham Rd	Okeechobee	10%	140	9	OUT	7	2	0%	0	0	-	0	0	5%	48	5	IN	4	1	0%	0	0	-	0	0
	Okeechobee	Edwards	90%	1,256	78	OUT	59	19	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
				1,396	87		In	21		2,383	134		In	32		956	101		In	84		1,422	127		In	63
				Daily	Two-Way		Out	66		Daily	Two-Way		Out	102		Daily	Two-Way		Out	17		Daily	Two-Way		Out	64

AM APPROVED PROJECTS			Kings Highway Warehouse						7/11 Angle Road						Woodspring Suites Ft Pierce						Jenkins Waypoint / Resurrection Life					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	0%	0	0	-	0	0	2%	18	2	IN	1	1	5%	45	3	IN	2	1	56%	1,858	117	OUT	87	30
	Peterson	Graham Rd	0%	0	0	-	0	0	0%	0	0	-	0	0	5%	45	3	OUT	1	2	56%	1,858	117	OUT	87	30
	Graham Rd	Okeechobee	0%	0	0	-	0	0	0%	0	0	-	0	0	90%	809	49	IN	27	22	34%	1,128	71	IN	18	53
	Okeechobee	Edwards	0%	0	0	-	0	0	0%	0	0	-	0	0	10%	90	5	IN	3	2	0%	0	0	-	0	0
				5,100	683		In	342		900	91		In	46		899	54		In	30		3,318	209		In	53
				Daily	Two-Way		Out	341		Daily	Two-Way		Out	45		Daily	Two-Way		Out	24		Daily	Two-Way		Out	156

AM APPROVED PROJECTS			Walsh Crossroads						Project Hurricane						SUM Daily		SUM 2 Way		SUM Directional N/E		SUM Directional S/W		Two Way		Directional N/E		Directional S/W	
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Double Count	Net 2 Way	Double Count	Net	Double Count	Net
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0	1,390	0	170	0	142	0	28	0	170	0	142	0	28
	Orange	Peterson	0%	0	0	-	0	0	15%	63	7	OUT	2	5	6,039	1,117	423	125	310	52	112	73	-25	523	-10	352	-15	171
	Peterson	Graham Rd	0%	0	0	-	0	0	15%	63	7	OUT	2	5	4,729	1,099	325	123	218	51	107	72	-25	424	-10	259	-14	165
	Graham Rd	Okeechobee	0%	0	0	-	0	0	20%	84	10	IN	7	2	3,771	1,869	266	170	89	124	178	46	-34	402	-22	191	9	214
	Okeechobee	Edwards	0%	0	0	-	0	0	0%	0	0	-	0	0	3,329	132	215	11	149	7	66	3	-2	224	-1	155	-1	69
				184	12		In	7		422	48		In	36														
				Daily	Two-Way		Out	5		Daily	Two-Way		Out	12														

PM APPROVED PROJECTS			Indrio Groves @ 25%						Ferrell Communities						Kings Hwy Commerce Park / White Parcel						Sunnyland					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	0%	0	0	-	0	0	0%	0	0	-	0	0	10%	514	60	OUT	46	14	5%	205	21	IN	13	8
	Peterson	Graham Rd	0%	0	0	-	0	0	0%	0	0	-	0	0	10%	514	60	OUT	46	14	5%	205	21	IN	13	8
	Graham Rd	Okeechobee	0%	0	0	-	0	0	0%	0	0	-	0	0	10%	514	60	IN	14	46	5%	205	21	IN	13	8
	Okeechobee	Edwards	0%	0	0	-	0	0	5%	133	10	IN	6	4	0%	0	0	-	0	0	0%	0	0	-	0	0
				2,539	278		In	164		2,655	190		In	116		5,135	600		In	142		4,092	415		In	261
				Daily	Two-Way		Out	114		Daily	Two-Way		Out	74		Daily	Two-Way		Out	458		Daily	Two-Way		Out	154

PM APPROVED PROJECTS			Drawdy Angle Road FKA: Pineapple Grove						KRE						Stonemont						Creekside					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	2%	73	7	IN	5	3	2%	96	11	IN	3	8	5%	111	13	OUT	10	4	5%	372	34	OUT	13	21
	Peterson	Graham Rd	2%	73	7	IN	5	3	2%	96	11	IN	3	8	5%	111	13	OUT	10	4	5%	372	34	OUT	13	21
	Graham Rd	Okeechobee	2%	73	7	IN	5	3	2%	96	11	IN	3	8	3%	67	8	IN	2	6	5%	372	34	OUT	13	21
	Okeechobee	Edwards	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	5%	372	34	OUT	13	21
				3,646	369		In	232		4,778	540		In	151		2,226	262		In	70		7,443	682		In	426
				Daily	Two-Way		Out	137		Daily	Two-Way		Out	389		Daily	Two-Way		Out	192		Daily	Two-Way		Out	256

PM APPROVED PROJECTS			Orange 95 Parcel B						Orange 95 Parcels D & E						Bent Creek @ 50% Complete City of Fort Pierce												Celebration Pointe @ 25% Complete City of Fort Pierce					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	30%	304	38	IN	8	30	100%	1,086	137	IN	30	107	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	12%	121	15	IN	3	12	12%	130	16	IN	4	13	2%	0	6	IN	4	2	0%	0	0	-	0	0	30%	476	47	OUT	17	30
	Peterson	Graham Rd	12%	121	15	IN	3	12	12%	130	16	IN	4	13	2%	0	6	IN	4	2	0%	0	0	-	0	0	50%	793	79	OUT	29	51
	Graham Rd	Okeechobee	12%	121	15	IN	3	12	12%	130	16	IN	4	13	2%	0	6	IN	4	2	0%	0	0	-	0	0	50%	793	79	IN	51	29
	Okeechobee	Edwards	2%	20	3	IN	1	2	2%	22	3	IN	1	2	0%	0	0	-	0	0	0%	0	0	-	0	0	5%	79	8	IN	5	3
				1,012	127		In	28		1,086	137		In	30		0	306		In	193		0	0		In	0		1,585	158		In	101
				Daily	Two-Way		Out	99		Daily	Two-Way		Out	107		Daily	Two-Way		Out	113		Daily	Two-Way		Out	0		Daily	Two-Way		Out	57

PM APPROVED PROJECTS			Hillpointe Residential						Interstate Commerce Center						Whispering Oaks						Viva at Treasure Coast West					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	56%	947	72	OUT	27	45	0%	0	0	-	0	0	70%	1,964	186	OUT	66	120	5%	75	6	OUT	2	4
	Peterson	Graham Rd	56%	947	72	OUT	27	45	0%	0	0	-	0	0	12%	337	32	IN	21	11	5%	75	6	OUT	2	4
	Graham Rd	Okeechobee	34%	575	44	IN	28	16	0%	0	0	-	0	0	12%	337	32	IN	21	11	10%	150	12	OUT	4	7
	Okeechobee	Edwards	0%	0	0	-	0	0	0%	0	0	-	0	0	5%	140	13	IN	9	5	80%	1,348	104	OUT	39	66
				1,691	129		In	81		373	39		In	11		2,806	266		In	172		1,498	116		In	73
				Daily	Two-Way		Out	48		Daily	Two-Way		Out	28		Daily	Two-Way		Out	94		Daily	Two-Way		Out	43

PM APPROVED PROJECTS			Viva at Treasure Coast East						3000 Virginia						Project Hunt						Wawa Kings Highway					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	5%	70	5	OUT	2	3	0%	0	0	-	0	0	2%	19	2	OUT	2	1	0%	0	0	-	0	0
	Peterson	Graham Rd	5%	70	5	OUT	2	3	0%	0	0	-	0	0	2%	19	2	OUT	2	1	0%	0	0	-	0	0
	Graham Rd	Okeechobee	10%	140	11	OUT	4	7	0%	0	0	-	0	0	5%	48	6	IN	1	4	0%	0	0	-	0	0
	Okeechobee	Edwards	90%	1,256	98	OUT	36	62	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
				1,396	109		In	69		2,383	175		In	110		956	114		In	29		1,422	115		In	57
				Daily	Two-Way		Out	40		Daily	Two-Way		Out	65		Daily	Two-Way		Out	85		Daily	Two-Way		Out	58

PM APPROVED PROJECTS			Kings Highway Warehouse						7/11 Angle Road						Woodspring Suites Ft Pierce						Jenkins Waypoint / Resurrection Life					
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E In or Out	Directional N/E	Directional S/W
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0	0%	0	0	-	0	0
	Orange	Peterson	0%	0	0	-	0	0	2%	18	2	IN	1	1	5%	45	3	IN	2	2	56%	1,858	153	OUT	57	96
	Peterson	Graham Rd	0%	0	0	-	0	0	0%	0	0	-	0	0	5%	45	3	OUT	2	2	56%	1,858	153	OUT	57	96
	Graham Rd	Okeechobee	0%	0	0	-	0	0	0%	0	0	-	0	0	90%	809	56	IN	29	27	34%	1,128	93	IN	58	35
	Okeechobee	Edwards	0%	0	0	-	0	0	0%	0	0	-	0	0	10%	90	6	IN	3	3	0%	0	0	-	0	0
				5,100	674		In	458		900	80		In	40		899	62		In	32		3,318	274		In	172
				Daily	Two-Way		Out	216		Daily	Two-Way		Out	40		Daily	Two-Way		Out	30		Daily	Two-Way		Out	102

PM APPROVED PROJECTS			Walsh Crossroads						Project Hurricane						SUM Daily		SUM 2 Way		SUM Directional N/E		SUM Directional S/W		Two Way		Directional N/E		Directional S/W	
Road Name	From	To	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	%	Daily	Two-Way Trips	Is N/E in or Out	Directional N/E	Directional S/W	Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Double Count	Net 2 Way	Double Count	Net	Double Count	Net
Jenkins Rd	Loop Rd	Orange Ave	0%	0	0	-	0	0	0%	0	0	-	0	0	0	1,390	0	175	0	38	0	137	0	175	0	38	0	137
	Orange	Peterson	0%	0	0	-	0	0	15%	63	9	OUT	6	3	6,039	1,117	539	132	205	75	333	57	-26	644	-15	265	-11	379
	Peterson	Graham Rd	0%	0	0	-	0	0	15%	63	9	OUT	6	3	4,729	1,099	416	130	172	74	245	56	-26	520	-15	231	-11	289
	Graham Rd	Okeechobee	0%	0	0	-	0	0	20%	84	12	IN	5	7	3,771	1,869	339	184	200	61	139	123	-37	486	-12	249	-25	237
	Okeechobee	Edwards	0%	0	0	-	0	0	0%	0	0	-	0	0	3,329	132	267	11	107	4	160	7	-2	276	-1	110	-1	166
				184	21		In	10		422	60		In	23														
				Daily	Two-Way		Out	11		Daily	Two-Way		Out	37														

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0273 - CR 611/JENKINS RD - N. OF SR 70/OKEECHOBEE RD (COUNTY 131)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	8600 T	N 4300	S 4300	9.00	51.40	5.00
2021	8600 S	N 4300	S 4300	9.00	50.90	7.20
2020	8800 F	N 4400	S 4400	9.00	51.30	31.50
2019	9200 C	N 4600	S 4600	9.00	51.00	7.80
2018	10000 V	N 4400	S 5600	9.00	51.30	5.80
2017	9900 R	N 4400	S 5500	9.00	50.90	10.00
2016	9700 T	N 4300	S 5400	9.00	50.90	6.20
2015	9600 S	N 4300	S 5300	9.00	51.00	41.80
2014	9600 F	N 4300	S 5300	9.00	50.80	49.50
2013	9600 C	N 4300	S 5300	9.00	50.80	11.90
2012	7100 S	N 3600	S 3500	9.00	56.80	4.80
2011	7100 F	N 3600	S 3500	9.00	57.20	4.80
2010	7100 C	N 3600	S 3500	10.32	55.40	4.80
2009	8500 C	N 4200	S 4300	10.27	57.35	10.70
2008	9100 C	N 4500	S 4600	10.45	58.06	6.60

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

Historical Growth Rate Calculation

Segment	From	To	2020 AADT	2023 AADT	3 Year Historical Growth Rate
Jenkins Rd	Graham Rd	Okeechobee Rd	10,500	10,849	1.10%

*Source St Lucie County Traffic Counts and Level of Service Reports

AM Peak Hour - D Factor Calculation

Segment	Location	Time	Direction		D Factor
			N/E	S/W	
Jenkins Road	South of Orange	7:15-8:15	187	160	0.539
	North of Graham	8:00-9:00	159	217	0.577
	South of Graham	8:00-9:00	217	330	0.603

Source: TMC Counts

PM Peak Hour - D Factor Calculation

Segment	Location	Time	Direction		D Factor
			N/E	S/W	
Jenkins Road	South of Orange	4:30-5:30	223	287	0.563
	North of Graham	4:15-5:15	287	254	0.530
	South of Graham	4:15-5:15	355	362	0.505

Source: TMC Counts

APPENDIX D

ARTERIAL ANALYSIS

ARTPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	James Kemp	**Arterial Name**	Jenkins Road	**Study Period**	**Dir Hr Demand Vol**
Date Prepared	7/27/2023 4:56:07 PM	**From**	Okeechobee Rd	**Modal Analysis**	Auto Only
Agency	O'Rourke Engineering	**To**	Orange Ave	**Program**	ARTPLAN 2012
Area Type	Other Urbanized	**Peak Direction**	Northbound	**Version Date**	12/12/2012
Arterial Class	1				

File Name	C:\Users\admin\Documents\Projects\St. Lucie\Regatta\8.8.23\C6 - Jenkins Rd - AM - NB.xap
User Notes	AM Peak Hour - Northbound

Arterial Data

K	0.09	**PHF**	1	**Control Type**	FullyActuated
D	0.565	**% Heavy Vehicles**	2	**Base Sat. Flow Rate**	1950

Automobile Intersection Data

Cross Street	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	Left Turn Phasing	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes
Orange Ave	150	0.35	3	1	33	33	Yes	ProtPerm	1	235	0.15	Yes

Automobile Segment Data

Segment #	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
1 (to Orange Ave)	10560	15000	968	1	45	50	None	No	N/A

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS
1 (to Orange Ave)	329	1051	0.894	55.24	E	#	34.29	B

Arterial Length	2.0114	Weighted g/C	0.35	FFS Delay	67.15	Threshold Delay	0.00	Auto Speed	34.29	Auto LOS	B

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	1080	***	***	***
2	410	2120	***	***	***
3	640	3180	***	***	***
4	850	4260	***	***	***
*	200	1080	***	***	***
Lanes	**Hourly Volume In Both Directions**				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A
Lanes	**Annual Average Daily Traffic**				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A

*** Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**
 # Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.
Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

ARTPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	James Kemp	**Arterial Name**	Jenkins Road	**Study Period**	**Dir Hr Demand Vol**
Date Prepared	7/27/2023 4:56:07 PM	**From**	Orange Ave	**Modal Analysis**	Auto Only
Agency	O'Rourke Engineering	**To**	Okeechobee Rd	**Program**	ARTPLAN 2012
Area Type	Other Urbanized	**Peak Direction**	Southbound	**Version Date**	12/12/2012
Arterial Class	1				

File Name	C:\Users\admin\Documents\Projects\St. Lucie\Regatta\8.8.23\C6 - Jenkins Rd - AM - SB.xap
User Notes	PM Peak Hour - Southbound

Arterial Data

K	0.09	**PHF**	1	**Control Type**	FullyActuated
D	0.565	**% Heavy Vehicles**	2	**Base Sat. Flow Rate**	1950

Automobile Intersection Data

Cross Street	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	Left Turn Phasing	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes
Okeechobee Rd	150	0.35	3	2	19	37	Yes	Protected	2	470	0.15	Yes

Automobile Segment Data

Segment #	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
1 (to Okeechobee Rd)	10560	10000	759	1	45	50	None	No	N/A

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS
1 (to Okeechobee Rd)	334	1848	0.516	38.95	D	0.16	37.79	B

Arterial Length	2.0114	Weighted g/C	0.35	FFS Delay	47.60	Threshold Delay	0.00	Auto Speed	37.79	Auto LOS	B

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	160	780	***	***	***
2	330	1500	***	***	***
3	510	2260	***	***	***
4	690	3020	***	***	***
*	240	1500	***	***	***
Lanes	**Hourly Volume In Both Directions**				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A
Lanes	**Annual Average Daily Traffic**				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A

*** Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**
 # Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.
Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

ARTPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	James Kemp	**Arterial Name**	Jenkins Road	**Study Period**	**Dir Hr Demand Vol**
Date Prepared	7/27/2023 4:56:07 PM	**From**	Okeechobee Rd	**Modal Analysis**	Auto Only
Agency	O'Rourke Engineering	**To**	Orange Ave	**Program**	ARTPLAN 2012
Area Type	Other Urbanized	**Peak Direction**	Northbound	**Version Date**	12/12/2012
Arterial Class	1				

File Name	C:\Users\admin\Documents\Projects\St. Lucie\Regatta\8.8.23\C6 - Jenkins Rd - PM - NB.xap
User Notes	PM Peak Hour - Northbound

Arterial Data

K	0.09	**PHF**	1	**Control Type**	FullyActuated
D	0.565	**% Heavy Vehicles**	2	**Base Sat. Flow Rate**	1950

Automobile Intersection Data

Cross Street	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	Left Turn Phasing	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes
Orange Ave	150	0.35	3	1	33	33	Yes	ProtPerm	1	235	0.15	Yes

Automobile Segment Data

Segment #	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
1 (to Orange Ave)	10560	15000	876	1	45	50	None	No	N/A

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS
1 (to Orange Ave)	298	1047	0.813	50.50	D	#	35.34	B

Arterial Length	2.0114	Weighted g/C	0.35	FFS Delay	60.87	Threshold Delay	0.00	Auto Speed	35.34	Auto LOS	B

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	200	1080	***	***	***
2	410	2120	***	***	***
3	640	3180	***	***	***
4	850	4260	***	***	***
*	200	1080	***	***	***
Lanes	**Hourly Volume In Both Directions**				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A
Lanes	**Annual Average Daily Traffic**				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A

*** Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**
 # Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.
Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

ARTPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	James Kemp	**Arterial Name**	Jenkins Road	**Study Period**	**Dir Hr Demand Vol**
Date Prepared	7/27/2023 4:56:07 PM	**From**	Orange Ave	**Modal Analysis**	Auto Only
Agency	O'Rourke Engineering	**To**	Okeechobee Rd	**Program**	ARTPLAN 2012
Area Type	Other Urbanized	**Peak Direction**	Southbound	**Version Date**	12/12/2012
Arterial Class	1				
File Name	C:\Users\admin\Documents\Projects\St. Lucie\Regatta\8.8.23\C6 - Jenkins Rd - PM - SB.xap				
User Notes	PM Peak Hour - Southbound				

Arterial Data

K	0.09	**PHF**	1	**Control Type**	FullyActuated
D	0.565	**% Heavy Vehicles**	2	**Base Sat. Flow Rate**	1950

Automobile Intersection Data

Cross Street	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	Left Turn Phasing	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes
Okeechobee Rd	150	0.35	3	2	36	28	Yes	Protected	2	470	0.15	Yes

Automobile Segment Data

Segment #	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
1 (to Okeechobee Rd)	10560	15000	1004	1	45	50	None	No	N/A

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS
1 (to Okeechobee Rd)	361	2245	0.057	32.35	C	0.64	38.33	B

Arterial Length	2.0114	Weighted g/C	0.35	FFS Delay	44.92	Threshold Delay	0.00	Auto Speed	38.33	Auto LOS	B

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	210	1180	***	***	***
2	420	2300	***	***	***
3	670	3460	***	***	***
4	900	4620	***	***	***
*	290	1790	2300	***	***
Lanes	**Hourly Volume In Both Directions**				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A
Lanes	**Annual Average Daily Traffic**				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A

*** Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**
 # Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.
Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.
Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

APPENDIX E

INTERSECTION ANALYSIS

TURNING MOVEMENT VOLUME COUNTS

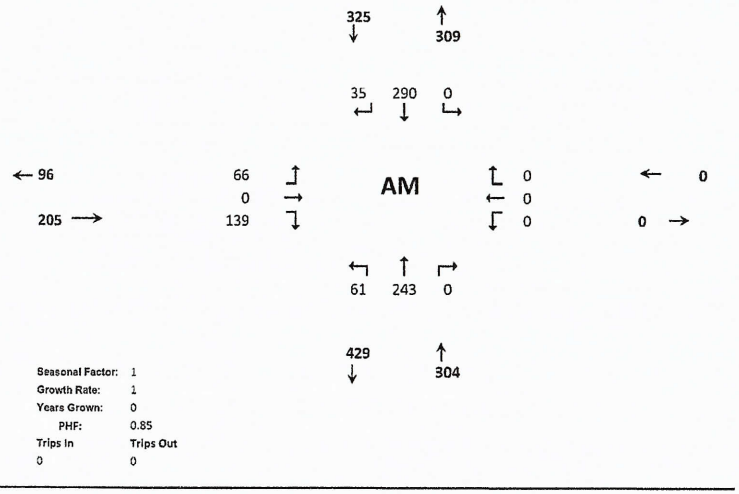
N/S STREET: Jenkins Road **E/W STREET:** Graham Rd **CONTROL:** TWSC

FILENAME:

COUNT DATE: 3/9/2022 **DAY:** Wednesday **CITY:** St Lucie

REPORT DATE: 7/26/2023 **ANALYSIS YEAR:** 2022 Existing

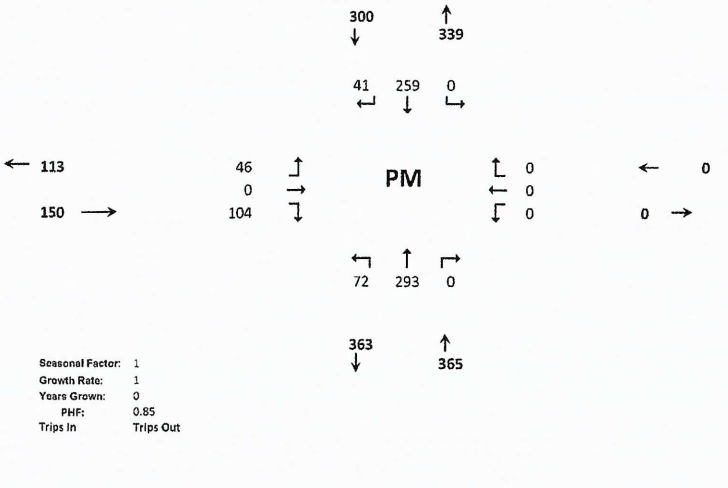
15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	12	40	0	0	51	9	7	0	17	0	0	0	136	796
7:15-7:30	19	49	0	0	68	7	18	0	33	0	0	0	194	834
7:30-7:45	20	70	0	0	83	9	20	0	42	0	0	0	244	810
7:45-8:00	13	75	0	0	66	10	22	0	36	0	0	0	222	725
8:00-8:15	9	49	0	0	73	9	6	0	28	0	0	0	174	684
8:15-8:30	10	57	0	0	57	7	7	0	32	0	0	0	170	
8:30-8:45	15	45	0	0	63	5	10	0	21	0	0	0	159	
8:45-9:00	13	53	0	0	81	7	7	0	20	0	0	0	181	
AM PEAK HOUR IS FROM:	7:15AM TO 8:15AM													
Volumes	61	243	0	0	290	35	66	0	139	0	0	0	834	
Season Factor	61	243	0	0	290	35	66	0	139	0	0	0	834	
Growth	61	243	0	0	290	35	66	0	139	0	0	0	834	
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	61	243	0	0	290	35	66	0	139	0	0	0	834	



Seasonal Factor: 1
Growth Rate: 1
Years Grown: 0
PHF: 0.85
Trips In: 0 Trips Out: 0

Jenkins & Graham
Existing

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
lanes	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	20	81	0	0	82	6	16	0	34	0	0	0	239	815
4:15-4:30	17	71	0	0	62	14	10	0	14	0	0	0	188	814
4:30-4:45	16	68	0	0	64	10	11	0	30	0	0	0	199	798
4:45-5:00	19	73	0	0	51	11	9	0	26	0	0	0	189	774
5:00-5:15	20	77	0	0	91	14	12	0	24	0	0	0	238	742
5:15-5:30	13	55	0	0	57	17	8	0	22	0	0	0	172	
5:30-5:45	15	54	0	0	62	9	14	0	21	0	0	0	175	
5:45-6:00	10	60	0	0	61	7	6	0	13	0	0	0	157	
PM PEAK HOUR IS FROM:	4:00PM TO 5:00PM													
Volumes	72	293	0	0	259	41	46	0	104	0	0	0	815	
Season Factor	72	293	0	0	259	41	46	0	104	0	0	0	815	
Growth	72	293	0	0	259	41	46	0	104	0	0	0	815	
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	72	293	0	0	259	41	46	0	104	0	0	0	815	



Seasonal Factor: 1
Growth Rate: 1
Years Grown: 0
PHF: 0.85
Trips In: Trips Out:

E-11

HCS Two-Way Stop-Control Report

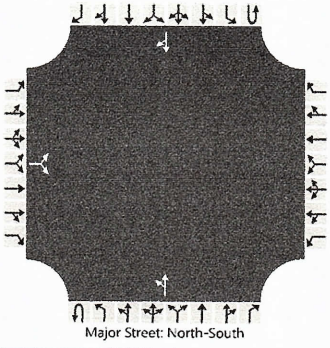
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2022
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Existing

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		66		139						61	243				290	35
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
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)			241							72						
Capacity, c (veh/h)			508							1171						
v/c Ratio			0.47							0.06						
95% Queue Length, Q_{95} (veh)			2.5							0.2						
Control Delay (s/veh)			18.3							8.3	0.6					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)		18.3								2.1						
Approach LOS		C								A						

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HCS Two-Way Stop-Control Report

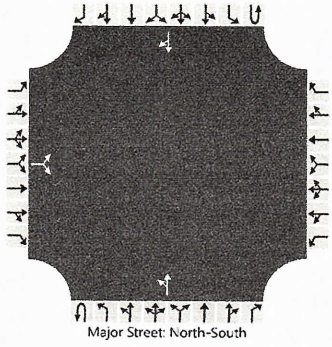
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2022
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Existing

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		46		104						72	293				259	41
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
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)			176							85						
Capacity, c (veh/h)			504							1200						
v/c Ratio			0.35							0.07						
95% Queue Length, Q_{95} (veh)			1.6							0.2						
Control Delay (s/veh)			16.0							8.2	0.7					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)		16.0								2.2						
Approach LOS		C								A						

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TURNING MOVEMENT VOLUME COUNTS

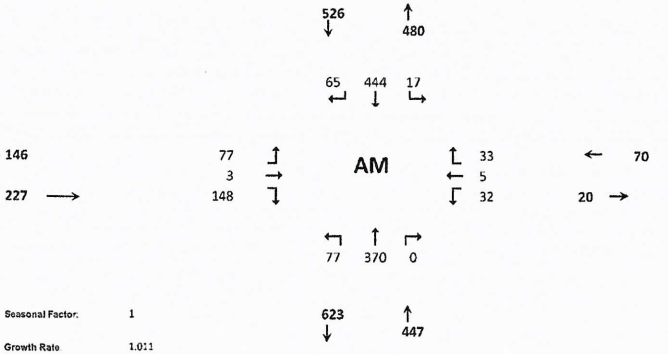
N/S STREET: Jenkins Road **E/W STREET:** Graham Rd **CONTROL:** TWSC

FILENAME:

COUNT DATE: 3/9/2022 **DAY:** Wednesday **CITY:** St Lucie

REPORT DATE: 7/26/2023 **ANALYSIS YEAR:** 2026 Background

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	12	40	0	0	51	9	7	0	17	0	0	0	136	796
7:15-7:30	19	49	0	0	68	7	18	0	33	0	0	0	194	834
7:30-7:45	20	70	0	0	83	9	20	0	42	0	0	0	244	810
7:45-8:00	13	75	0	0	66	10	22	0	36	0	0	0	222	725
8:00-8:15	9	49	0	0	73	9	6	0	28	0	0	0	174	684
8:15-8:30	10	57	0	0	57	7	7	0	32	0	0	0	170	
8:30-8:45	15	45	0	0	63	5	10	0	21	0	0	0	159	
8:45-9:00	13	53	0	0	81	7	7	0	20	0	0	0	181	
AM PEAK HOUR IS FROM:	7:15AM TO 8:15AM													
Volumes	61	243	0	0	290	35	66	0	139	0	0	0	834	
Season Factor	61	243	0	0	290	35	66	0	139	0	0	0	834	
Growth	64	254	0	0	303	37	69	0	145	0	0	0	871	
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	64	254	0	0	303	37	69	0	145	0	0	0	871	
Other Projects														
%	1%	0%	0%	0%	0%	4%	4%	0%	1%	0%	0%	0%		
In/Out	IN	-	-	-	-	IN	OUT	-	OUT	-	-	-		
Volume	1	0	0	0	0	3	1	0	0	0	0	0	0	
%	0%	41%	0%	0%	41%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	18	0	0	68	0	0	0	0	0	0	0	0	
%	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	1	0	0	4	0	0	0	0	0	0	0	0	
%	0%	8%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	3	0	0	3	0	0	0	0	0	0	0	0	
%	10%	56%	0%	0%	56%	0%	0%	0%	10%	0%	0%	0%		
In/Out	OUT	OUT	-	-	IN	-	-	-	IN	-	-	-		
Volume	7	41	0	0	13	0	0	0	2	0	0	0	0	
%	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	0%		
In/Out	-	-	-	-	-	IN	OUT	-	-	-	-	-		
Volume	0	0	0	0	0	18	5	0	0	0	0	0	0	
%	0%	0%	0%	0%	0%	20%	20%	0%	0%	0%	0%	0%		
In/Out	-	-	-	-	-	IN	OUT	-	-	-	-	-		
Volume	0	0	0	0	0	7	2	0	0	0	0	0	0	
%	0%	50%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	15	0	0	48	0	0	0	0	0	0	0	0	
%	0%	3%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	6	0	0	2	0	0	0	0	0	0	0	0	
%	0%	12%	0%	0%	13%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	12	0	0	2	0	0	0	0	0	0	0	0	
%	5%	20%	0%	56%	0%	0%	0%	10%	0%	34%	5%	16%		
In/Out	OUT	OUT	-	IN	-	-	-	IN	-	Out	OUT	OUT		
Volume	5	19	0	17	0	0	0	3	0	32	5	33	0	
Subtotal	13	116	0	17	141	28	8	3	3	32	5	33	0	
Total	77	370	0	17	444	65	77	3	148	32	5	33	871	



Seasonal Factor:	1
Growth Rate	1.011
Years Grown:	4
PHF:	0.85
Trips In	Trips Out
0	0

Project Name	Trips In	Trips Out
Project Hunt	76	17
Whispering Oaks	45	167
Bent Creek	62	186
Wawa Kings	42	42
Hillpointe Residential	24	74
Kings Highway Commerce Park	362	90
Project Hurricane	36	12
Celebration Point	30	96
Stonemont	197	55
Orange 95 Parcel B	103	20
Jenkins Waypoint	30	93

HCS Two-Way Stop-Control Report

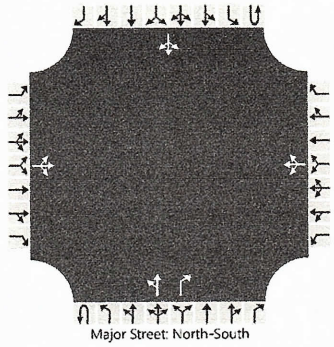
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2026
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Background without Project

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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	0		0	1	0	0	0	1	1	0	0	1	0
Configuration			LTR				LTR			LT		R			LTR	
Volume (veh/h)		77	3	148		32	5	33		77	370	0		17	444	65
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										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)			268				82			91				20		
Capacity, c (veh/h)			241				140			973				1119		
v/c Ratio			1.11				0.59			0.09				0.02		
95% Queue Length, Q_{95} (veh)			11.9				3.0			0.3				0.1		
Control Delay (s/veh)			135.9				61.9			9.1	0.7			8.3	0.2	0.2
Level of Service (LOS)			F				F			A	A			A	A	A
Approach Delay (s/veh)	135.9				61.9				2.1				0.5			
Approach LOS	F				F				A				A			

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HCS Two-Way Stop-Control Report

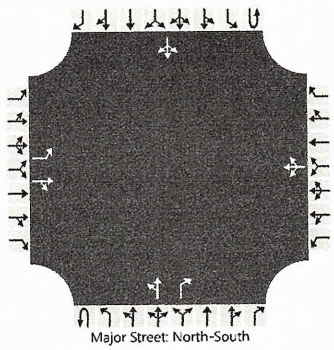
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2026
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Background without Project + Improvements

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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		1	1	0		0	1	0	0	0	1	1	0	0	1	0
Configuration		L		TR			LTR			LT		R			LTR	
Volume (veh/h)		77	3	148		32	5	33		77	370	0		17	444	65
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									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

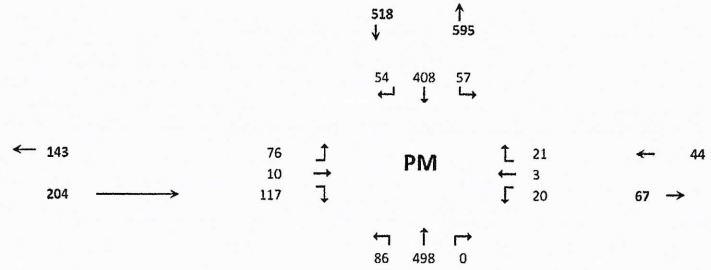
Flow Rate, v (veh/h)		91		178			82			91				20		
Capacity, c (veh/h)		119		502			140			973				1119		
v/c Ratio		0.76		0.35			0.59			0.09				0.02		
95% Queue Length, Q_{95} (veh)		4.3		1.6			3.0			0.3				0.1		
Control Delay (s/veh)		96.3		16.0			61.9			9.1	0.7			8.3	0.2	0.2
Level of Service (LOS)		F		C			F			A	A			A	A	A
Approach Delay (s/veh)	43.2				61.9				2.1				0.5			
Approach LOS	E				F				A				A			

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TURNING MOVEMENT VOLUME COUNTS

Jenkins & Graham
Background

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	20	81	0	0	82	6	16	0	34	0	0	0	239	815
4:15-4:30	17	71	0	0	62	14	10	0	14	0	0	0	188	814
4:30-4:45	16	68	0	0	64	10	11	0	30	0	0	0	199	798
4:45-5:00	19	73	0	0	51	11	9	0	26	0	0	0	189	774
5:00-5:15	20	77	0	0	91	14	12	0	24	0	0	0	238	742
5:15-5:30	13	55	0	0	57	17	8	0	22	0	0	0	172	
5:30-5:45	15	54	0	0	62	9	14	0	21	0	0	0	175	
5:45-6:00	10	60	0	0	61	7	6	0	13	0	0	0	157	



PM PEAK HOUR IS FROM:	4:00PM TO 5:00PM												
Volumes	72	293	0	0	259	41	46	0	104	0	0	0	815
Season Factor	72	293	0	0	259	41	46	0	104	0	0	0	815
Growth	73	306	0	0	271	43	48	0	109	0	0	0	851
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	75	306	0	0	271	43	48	0	109	0	0	0	851

Seasonal Factor:	1
Growth Rate:	1.011
Years Grown	4
PHF:	0.85
Trips In	Trips Out

Other Projects																
%	1%	0%	0%	0%	0%	4%	4%	0%	1%	0%	0%	0%				
In/Out	IN	-	-	-	-	IN	OUT	-	OUT	-	-	-		Project Hunt	Trips In	Trips Out
Volume	0	0	0	0	0	1	2	0	1	0	0	0	4		19	57
%	0%	41%	0%	0%	41%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Whispering Oaks		
Volume	0	71	0	0	39	0	0	0	0	0	0	0	109		172	94
%	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Bert Creek		
Volume	0	4	0	0	2	0	0	0	0	0	0	0	6		193	113
%	0%	8%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Wawa Kings		
Volume	0	5	0	0	5	0	0	0	0	0	0	0	9		57	58
%	10%	56%	0%	0%	56%	0%	0%	0%	10%	0%	0%	0%				
In/Out	OUT	OUT	-	-	IN	-	-	-	IN	-	-	-		Hillpointe Residential		
Volume	8	45	0	0	45	0	0	0	8	0	0	0	107		81	48
%	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	0%				
In/Out	-	-	-	-	-	IN	OUT	-	-	-	-	-		Kings Highway Commerce Park		
Volume	0	0	0	0	0	6	19	0	0	0	0	0	24		115	371
%	0%	0%	0%	0%	0%	20%	20%	0%	0%	0%	0%	0%				
In/Out	-	-	-	-	-	IN	OUT	-	-	-	-	-		Project Hurricane		
Volume	0	0	0	0	0	5	7	0	0	0	0	0	12		23	37
%	0%	50%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Celebration Point		
Volume	0	50	0	0	29	0	0	0	0	0	0	0	79		100	57
%	0%	3%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Stonemont		
Volume	0	2	0	0	6	0	0	0	0	0	0	0	8		70	192
%	0%	12%	0%	0%	12%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Orange 95 Parcel B		
Volume	0	3	0	0	12	0	0	0	0	0	0	0	15		28	99
%	5%	20%	0%	56%	0%	0%	0%	10%	0%	34%	5%	36%				
In/Out	OUT	OUT	-	IN	-	-	-	IN	-	Out	OUT	OUT		Jenkins Waypoint		
Volume	3	12	0	57	0	0	0	10	0	20	3	21	126		101	59

Subtotal	11	192	0	57	137	11	28	10	9	20	3	21	499
Total	86	498	0	57	408	54	76	10	117	20	3	21	1350

HCS Two-Way Stop-Control Report

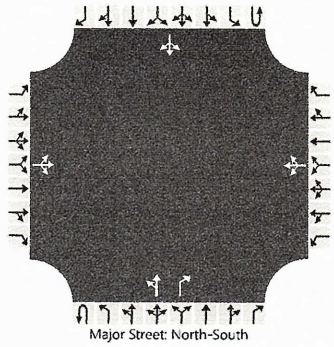
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2026
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Background without Project

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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	0		0	1	0	0	0	1	1	0	0	1	0
Configuration			LTR				LTR			LT		R			LTR	
Volume (veh/h)		76	10	117		20	3	21		86	498	0		57	408	54
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										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)			239				52			101				67		
Capacity, c (veh/h)			162				99			1020				984		
v/c Ratio			1.48				0.52			0.10				0.07		
95% Queue Length, Q_{95} (veh)			15.5				2.3			0.3				0.2		
Control Delay (s/veh)			297.3				75.5			8.9	0.8			8.9	0.9	0.9
Level of Service (LOS)			F				F			A	A			A	A	A
Approach Delay (s/veh)		297.3				75.5				2.0				1.8		
Approach LOS		F				F				A				A		

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HCS Two-Way Stop-Control Report

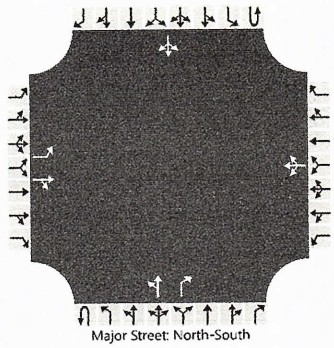
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2026
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Background without Project + Improvements

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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		1	1	0		0	1	0	0	0	1	1	0	0	1	0
Configuration		L		TR			LTR			LT		R			LTR	
Volume (veh/h)		76	10	117		20	3	21		86	498	0		57	408	54
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									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)		89		149			52			101				67		
Capacity, c (veh/h)		80		419			99			1020				984		
v/c Ratio		1.12		0.36			0.52			0.10				0.07		
95% Queue Length, Q_{95} (veh)		6.4		1.6			2.3			0.3				0.2		
Control Delay (s/veh)		230.8		18.3			75.5			8.9	0.8			8.9	0.9	0.9
Level of Service (LOS)		F		C			F			A	A			A	A	A
Approach Delay (s/veh)	97.9				75.5				2.0				1.8			
Approach LOS	F				F				A				A			

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TURNING MOVEMENT VOLUME COUNTS

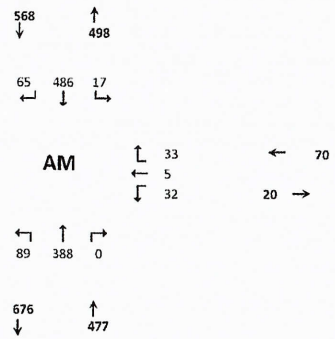
N/S STREET Jenkins Road **E/W STREET** Graham Rd **CONTROL:** TWSC

FILENAME

COUNT DATE 3/9/2022 **DAY** Wednesday **CITY** St Lucie

REPORT DATE: 7/26/2023 **ANALYSIS YEAR** 2026 Future Total

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	12	40	0	0	51	9	7	0	17	0	0	0	136	796
7:15-7:30	19	49	0	0	68	7	18	0	33	0	0	0	194	834
7:30-7:45	20	70	0	0	83	9	20	0	42	0	0	0	244	870
7:45-8:00	13	75	0	0	66	10	22	0	36	0	0	0	222	725
8:00-8:15	9	49	0	0	73	9	6	0	26	0	0	0	174	684
8:15-8:30	10	57	0	0	57	7	7	0	32	0	0	0	170	
8:30-8:45	15	45	0	0	63	5	10	0	21	0	0	0	159	
8:45-9:00	13	53	0	0	81	7	7	0	20	0	0	0	181	
AM PEAK HOUR IS FROM:				7:15AM TO 8:15AM										
Volumes	61	243	0	0	290	35	66	0	139	0	0	0	834	
Season Factor	61	243	0	0	290	35	66	0	139	0	0	0	834	
Growth	64	254	0	0	303	37	69	0	145	0	0	0	871	
In/Out	OUT	OUT	-	-	IN	-	-	-	IN	-	-	-		
Percentage	17%	85%	0%	0%	35%	0%	0%	0%	17%	0%	0%	0%		
PROJECT	15	32	0	0	10	0	0	0	5	0	0	0	62	
Total	79	286	0	0	313	37	69	0	150	0	0	0	934	
Other Projects														
%	1%	0%	0%	0%	0%	4%	4%	0%	1%	0%	0%	0%		
In/Out	IN	-	-	-	-	IN	OUT	-	OUT	-	-	-		
Volume	1	0	0	0	0	3	1	0	0	0	0	0	0	
%	0%	41%	0%	0%	41%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	18	0	0	68	0	0	0	0	0	0	0	0	
%	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	1	0	0	4	0	0	0	0	0	0	0	0	
%	0%	8%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	3	0	0	3	0	0	0	0	0	0	0	0	
%	10%	56%	0%	0%	56%	0%	0%	0%	10%	0%	0%	0%		
In/Out	OUT	OUT	-	-	IN	-	-	-	IN	-	-	-		
Volume	5	27	0	0	45	0	0	0	8	0	0	0	0	
%	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	0%		
In/Out	-	-	-	-	-	IN	OUT	-	-	-	-	-		
Volume	0	0	0	0	0	18	5	0	0	0	0	0	0	
%	0%	0%	0%	0%	0%	20%	20%	0%	0%	0%	0%	0%		
In/Out	-	-	-	-	-	IN	OUT	-	-	-	-	-		
Volume	0	0	0	0	0	7	2	0	0	0	0	0	0	
%	0%	50%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	15	0	0	48	0	0	0	0	0	0	0	0	
%	0%	3%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	6	0	0	2	0	0	0	0	0	0	0	0	
%	0%	12%	0%	0%	12%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		
Volume	0	12	0	0	2	0	0	0	0	0	0	0	0	
%	5%	20%	0%	56%	0%	0%	0%	10%	0%	34%	5%	36%		
In/Out	OUT	OUT	-	IN	-	-	-	IN	-	Out	OUT	OUT		
Volume	5	19	0	17	0	0	0	3	0	32	5	33	0	
Subtotal	26	134	0	17	183	28	8	3	13	32	5	33	62	
Total	89	388	0	17	486	65	77	3	158	32	5	33	934	



PHF: 0.85
Seasonal Factor: 1
Growth Rate 1.011
Years Grown: 4
Trips In 29 **Trips Out** 91

Project Name	Trips In	Trips Out
Project Hunt	76	17
Whispering Oaks	45	167
Bent Creek	62	186
Wawa Kings	42	42
Hillpointe Residential	81	48
Kings Highway Commerce Park	362	90
Project Hurricane	36	12
Celebration Point	30	96
Stonemont	197	55
Orange 95 Parcel B	103	20
Jenkins Waypoint	30	93

HCS Two-Way Stop-Control Report

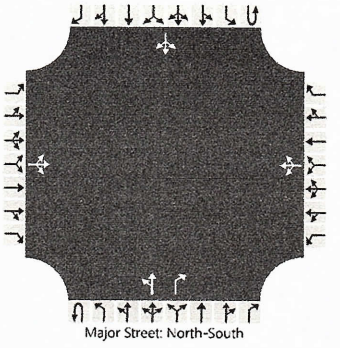
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2026
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Future Total with Project

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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	0		0	1	0	0	0	1	1	0	0	1	0
Configuration			LTR				LTR			LT		R			LTR	
Volume (veh/h)		77	3	158		32	5	33		89	388	0		17	486	65
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										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)			280				82			105				20		
Capacity, c (veh/h)			211				110			933				1099		
v/c Ratio			1.32				0.75			0.11				0.02		
95% Queue Length, Q_{95} (veh)			15.4				4.1			0.4				0.1		
Control Delay (s/veh)			219.7				99.5			9.3	0.8			8.3	0.2	0.2
Level of Service (LOS)			F				F			A	A			A	A	A
Approach Delay (s/veh)	219.7				99.5				2.4				0.5			
Approach LOS	F				F				A				A			

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HCS Two-Way Stop-Control Report

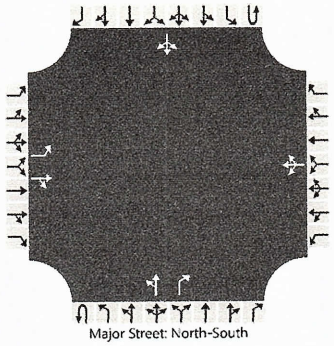
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2026
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Future Total with Project + Improvements

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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		1	1	0		0	1	0	0	0	1	1	0	0	1	0
Configuration		L		TR			LTR			LT		R			LTR	
Volume (veh/h)		77	3	158		32	5	33		89	388	0		17	486	65
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										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

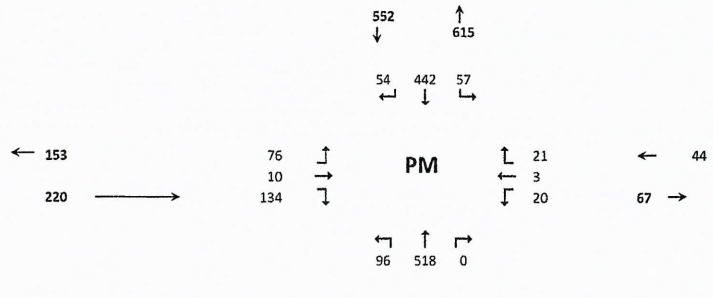
Flow Rate, v (veh/h)		91		189			82			105				20		
Capacity, c (veh/h)		98		469			110			933				1099		
v/c Ratio		0.92		0.40			0.75			0.11				0.02		
95% Queue Length, Q_{95} (veh)		5.4		1.9			4.1			0.4				0.1		
Control Delay (s/veh)		148.3		17.8			99.5			9.3	0.8			8.3	0.2	0.2
Level of Service (LOS)		F		C			F			A	A			A	A	A
Approach Delay (s/veh)		60.0				99.5				2.4				0.5		
Approach LOS		F				F				A				A		

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TURNING MOVEMENT VOLUME COUNTS

Jenkins & Graham
Future Total

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	20	81	0	0	82	6	16	0	34	0	0	0	239	815
4:15-4:30	17	71	0	0	62	14	10	0	14	0	0	0	188	814
4:30-4:45	16	68	0	0	64	10	11	0	30	0	0	0	199	798
4:45-5:00	19	73	0	0	51	11	9	0	26	0	0	0	189	774
5:00-5:15	20	77	0	0	91	14	12	0	24	0	0	0	238	742
5:15-5:30	13	55	0	0	57	17	8	0	22	0	0	0	172	
5:30-5:45	15	54	0	0	62	9	14	0	21	0	0	0	175	
5:45-6:00	10	60	0	0	61	7	6	0	13	0	0	0	157	



PM PEAK HOUR IS FROM:	4:00PM TO 5:00PM												
Volumes	72	293	0	0	259	41	46	0	104	0	0	0	815
Season Factor	72	293	0	0	259	41	46	0	104	0	0	0	815
Growth	75	306	0	0	271	43	48	0	109	0	0	0	851
In/Out	OUT	OUT	-	-	IN	-	-	-	IN	-	-	-	
Percentage	17%	35%	0%	0%	35%	0%	0%	0%	17%	0%	0%	0%	
PROJECT	10	20	0	0	34	0	0	0	17	0	0	0	81
Total	85	326	0	0	305	43	48	0	125	0	0	0	932

Seasonal Factor:	1
Growth Rate:	1.011
Years Grown	4
PHF:	0.85
Trips In	**Trips Out**
98	57

Other Projects																
%	1%	0%	0%	0%	0%	4%	4%	0%	1%	0%	0%	0%				
In/Out	IN	-	-	-	-	IN	OUT	-	OUT	-	-	-		Project Hunt		
Volume	0	0	0	0	0	1	2	0	1	0	0	0	4		19	57
%	0%	41%	0%	0%	41%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Whispering Oaks		
Volume	0	71	0	0	39	0	0	0	0	0	0	0	109		172	94
%	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Bent Creek		
Volume	0	4	0	0	2	0	0	0	0	0	0	0	6		193	113
%	0%	8%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%				
In/Out		IN			OUT									Wawa Kings		
Volume	0	5	0	0	5	0	0	0	0	0	0	0	9		57	58
%	10%	56%	0%	0%	56%	0%	0%	0%	10%	0%	0%	0%				
In/Out	OUT	OUT	-	-	IN	-	-	-	IN	-	-	-		Hillpointe Residential		
Volume	8	45	0	0	45	0	0	0	8	0	0	0	107		81	48
%	0%	0%	0%	0%	0%	5%	5%	0%	0%	0%	0%	0%				
In/Out	-	-	-	-	-	IN	OUT	-	-	-	-	-		Kings Highway Commerce Park		
Volume	0	0	0	0	0	6	19	0	0	0	0	0	24		115	371
%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	-	-	-	-	-	-	-	-	-	-	-		Walsh Crossroads		
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0		10	11
%	0%	0%	0%	0%	0%	20%	20%	0%	0%	0%	0%	0%				
In/Out	-	-	-	-	-	IN	OUT	-	-	-	-	-		Project Hurricane		
Volume	0	0	0	0	0	5	7	0	0	0	0	0	12		33	37
%	0%	50%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Celebration Point		
Volume	0	50	0	0	29	0	0	0	0	0	0	0	79		100	57
%	0%	3%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Stonemont		
Volume	0	2	0	0	6	0	0	0	0	0	0	0	8		70	192
%	0%	12%	0%	0%	12%	0%	0%	0%	0%	0%	0%	0%				
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-		Orange 95 Parcel B		
Volume	0	3	0	0	12	0	0	0	0	0	0	0	15		28	99
%	5%	20%	0%	56%	0%	0%	0%	10%	0%	34%	5%	36%				
In/Out	OUT	OUT	-	IN	-	-	-	IN	-	Out	OUT	OUT		Jenkins Waypoint		
Volume	3	12	0	57	0	0	0	10	0	20	3	21	126		101	59
Subtotal	21	212	0	57	171	11	28	10	25	20	3	21	352			
Total	96	518	0	57	442	54	76	10	134	20	3	21	1203			

HCS Two-Way Stop-Control Report

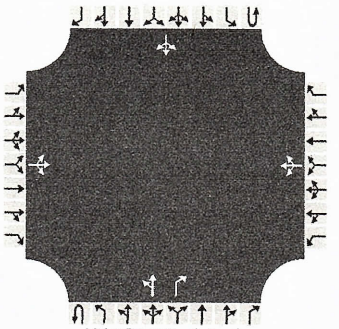
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2026
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Future Total with Project

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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	0		0	1	0	0	0	1	1	0	0	1	0
Configuration			LTR				LTR			LT		R			LTR	
Volume (veh/h)		76	10	134		20	3	21		96	518	0		57	442	54
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										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)			259				52			113				67		
Capacity, c (veh/h)			147				78			986				964		
v/c Ratio			1.76				0.66			0.11				0.07		
95% Queue Length, Q_{95} (veh)			19.1				3.1			0.4				0.2		
Control Delay (s/veh)			420.7				115.2			9.1	0.9			9.0	0.9	0.9
Level of Service (LOS)			F				F			A	A			A	A	A
Approach Delay (s/veh)		420.7				115.2				2.2				1.8		
Approach LOS		F				F				A				A		

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HCS Two-Way Stop-Control Report

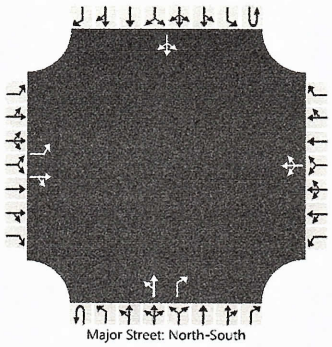
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/26/2023
Analysis Year	2026
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Future Total with Project + Improvements

Site Information

Intersection	Graham & Jenkins
Jurisdiction	St. Lucie
East/West Street	Graham Road
North/South Street	Jenkins Ave
Peak Hour Factor	0.85
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		1	1	0		0	1	0	0	0	1	1	0	0	1	0
Configuration		L		TR			LTR			LT		R			LTR	
Volume (veh/h)		76	10	134		20	3	21		96	518	0		57	442	54
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										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)		89		169			52			113				67		
Capacity, c (veh/h)		67		398			78			986				964		
v/c Ratio		1.33		0.43			0.66			0.11				0.07		
95% Queue Length, Q_{95} (veh)		7.4		2.1			3.1			0.4				0.2		
Control Delay (s/veh)		328.3		20.6			115.2			9.1	0.9			9.0	0.9	0.9
Level of Service (LOS)		F		C			F			A	A			A	A	A
Approach Delay (s/veh)		126.9				115.2				2.2				1.8		
Approach LOS		F				F				A				A		

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TURNING MOVEMENT VOLUME COUNTS

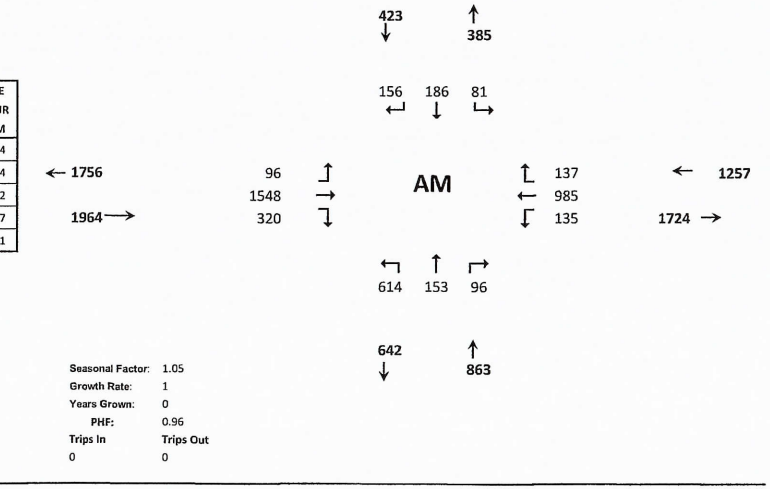
N/S STREET: Jenkins Ave **E/W STREET:** Okeechobee Rd **CONTROL:** Signalized

FILENAME:

COUNT DATE: 6/15/2023 **DAY:** Wednesday **CITY:** St Lucie

REPORT DATE: 7/26/2023 **ANALYSIS YEAR:** 2023 Existing

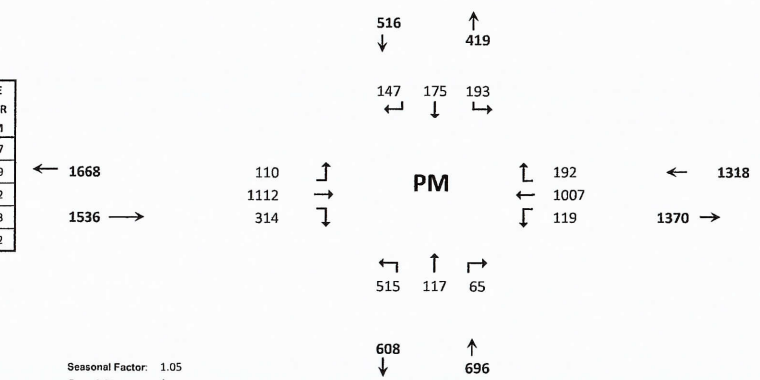
15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	108	29	17	12	27	20	11	237	42	9	154	12	678	3704
7:15-7:30	119	35	19	19	36	28	18	320	52	20	239	22	927	4144
7:30-7:45	127	43	19	20	41	36	19	344	76	26	229	28	1008	4292
7:45-8:00	142	35	26	21	53	30	21	418	68	29	227	21	1091	4277
8:00-8:15	152	32	29	19	43	39	27	379	84	31	255	28	1118	4091
8:15-8:30	164	36	17	17	40	44	24	333	77	43	227	53	1075	
8:30-8:45	117	43	21	24	51	39	22	319	67	29	214	47	993	
8:45-9:00	98	34	14	22	44	28	17	296	76	24	207	45	905	
AM PEAK HOUR IS FROM:	7:30 AM TO 8:30AM													
Volumes	585	146	91	77	177	149	91	1474	305	129	938	130	4292	
Season Factor	614	153	96	81	186	156	96	1548	320	135	985	137	4507	
Growth	614	153	96	81	186	156	96	1548	320	135	985	137	4507	
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	614	153	96	81	186	156	96	1548	320	135	985	137	4507	



Seasonal Factor: 1.05
Growth Rate: 1
Years Grown: 0
PHF: 0.96
Trips In: 0
Trips Out: 0

Jenkins & Okeechobee
Existing

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	106	32	7	47	38	24	34	215	63	23	207	34	830	3607
4:15-4:30	121	36	11	47	53	26	24	207	73	28	201	42	869	3759
4:30-4:45	143	31	19	44	45	46	20	230	88	22	229	55	972	3872
4:45-5:00	119	29	14	52	54	29	26	246	68	30	224	45	936	3853
5:00-5:15	105	26	16	47	37	33	29	289	64	33	265	38	982	3762
5:15-5:30	123	25	13	41	31	32	30	294	79	28	241	45	982	
5:30-5:45	104	33	11	43	36	33	26	284	70	28	252	33	953	
5:45-6:00	100	29	7	39	31	23	31	245	47	33	235	25	845	
PM PEAK HOUR IS FROM:	4:30 PM TO 5:30PM													
Volumes	490	111	62	184	167	140	105	1059	299	113	959	183	3872	
Season Factor	515	117	65	193	175	147	110	1112	314	119	1007	192	4066	
Growth	515	117	65	193	175	147	110	1112	314	119	1007	192	4066	
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	515	117	65	193	175	147	110	1112	314	119	1007	192	4066	

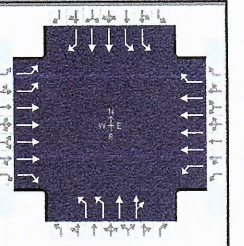


Seasonal Factor: 1.05
Growth Rate: 1
Years Grown: 0
PHF: 0.99
Trips In: Trips Out

E-16

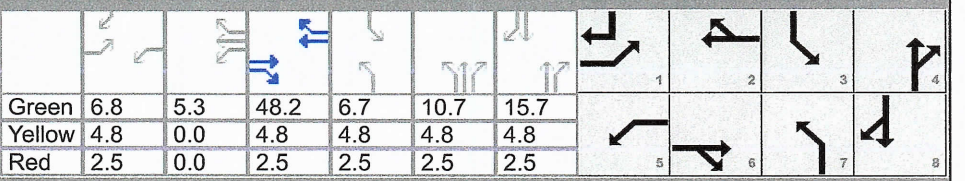
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering and Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 27, 2023	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Okeechobee Road	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C5 - Okeechobee & Jenkins - Existing - AM.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	96	1548	320	135	985	137	614	153	96	81	186	156

Signal Information			
Cycle, s	130.0	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	5.3	48.2	6.7	10.7	15.7
Yellow	4.8	0.0	4.8	4.8	4.8	4.8
Red	2.5	0.0	2.5	2.5	2.5	2.5

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	14.1	55.5	19.4	60.8	32.0	41.1	14.0	23.0
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.0	4.1	4.0	4.1
Queue Clearance Time (g_s), s	5.6		11.9		25.4	9.9	5.0	14.1
Green Extension Time (g_e), s	0.3	0.0	0.3	0.0	0.0	2.3	0.2	1.7
Phase Call Probability	0.97		0.99		1.00	1.00	0.95	1.00
Max Out Probability	0.00		0.01		1.00	0.00	0.00	0.14

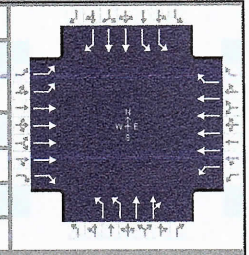
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	100	1613	333	141	1026	143	640	134	126	84	194	163
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1725	1610	1810	1725	1610	1757	1900	1662	1757	1809	1610
Queue Service Time (g_s), s	3.6	24.9	21.3	9.9	13.4	7.4	23.4	7.3	7.9	3.0	6.5	12.1
Cycle Queue Clearance Time (g_c), s	3.6	24.9	21.3	9.9	13.4	7.4	23.4	7.3	7.9	3.0	6.5	12.1
Green Ratio (*g/C*)	0.05	0.37	0.37	0.09	0.41	0.41	0.19	0.26	0.26	0.05	0.12	0.17
Capacity (*c*), veh/h	184	2561	598	169	2842	663	668	494	432	180	438	279
Volume-to-Capacity Ratio (*X*)	0.543	0.630	0.558	0.834	0.361	0.215	0.958	0.271	0.291	0.468	0.442	0.582
Back of Queue (*Q*), ft/ln (95 th percentile)	73.8	388.7	337.5	214	230	130.5	452.5	152	143.7	61.9	131.6	213.2
Back of Queue (*Q*), veh/ln (95 th percentile)	3.0	15.5	13.5	8.6	9.2	5.2	18.1	6.1	5.7	2.5	5.3	8.5
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	60.1	33.5	32.4	58.0	26.4	24.7	52.1	38.3	38.5	59.9	53.1	49.4
Incremental Delay (d_2), s/veh	2.5	1.2	3.7	10.2	0.4	0.7	24.8	0.3	0.4	1.9	0.7	1.9
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	62.6	34.7	36.2	68.1	26.8	25.4	76.9	38.6	38.9	61.8	53.8	51.3
Level of Service (LOS)	E	C	D	E	C	C	E	D	D	E	D	D
Approach Delay, s/veh / LOS	36.3	D		31.1	C		65.9	E		54.4	D	
Intersection Delay, s/veh / LOS	42.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.44	B	2.58	C	2.97	C	3.09	C
Bicycle LOS Score / LOS	1.33	A	1.03	A	1.23	A	0.85	A

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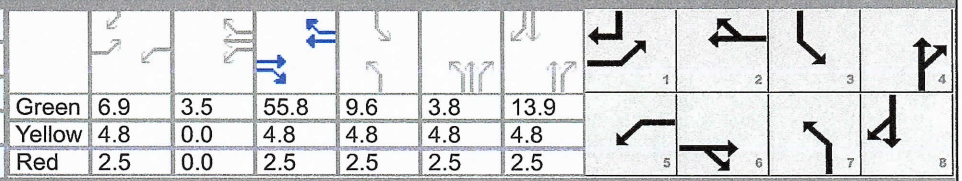
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering and Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 27, 2023	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.99
Urban Street	Okeechobee Road	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C5 - Okeechobee & Jenkins - Existing - PM.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	110	1112	314	119	1007	192	515	117	65	193	175	147

Signal Information			
Cycle, s	130.0	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	6.9	3.5	55.8	9.6	3.8	13.9	
Yellow	4.8	0.0	4.8	4.8	4.8	4.8	
Red	2.5	0.0	2.5	2.5	2.5	2.5	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	14.2	63.1	17.7	66.6	28.0	32.4	16.9	21.2
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.0	4.1	4.0	4.1
Queue Clearance Time (g_s), s	6.0		10.5		21.0	7.9	9.1	13.1
Green Extension Time (g_e), s	0.3	0.0	0.0	0.0	0.0	1.8	0.5	0.9
Phase Call Probability	0.98		0.99		1.00	1.00	1.00	1.00
Max Out Probability	0.00		1.00		1.00	0.00	0.00	0.80

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	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	111	1123	317	120	1017	194	520	94	90	195	177	148
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1725	1610	1810	1725	1610	1757	1900	1679	1757	1809	1610
Queue Service Time (g_s), s	4.0	14.4	18.2	8.5	12.2	9.7	19.0	5.5	5.9	7.1	6.0	11.1
Cycle Queue Clearance Time (g_c), s	4.0	14.4	18.2	8.5	12.2	9.7	19.0	5.5	5.9	7.1	6.0	11.1
Green Ratio (*g/C*)	0.05	0.43	0.43	0.08	0.46	0.46	0.16	0.19	0.19	0.07	0.11	0.16
Capacity (*c*), veh/h	186	2960	691	145	3147	734	560	366	324	259	388	258
Volume-to-Capacity Ratio (*X*)	0.598	0.380	0.459	0.830	0.323	0.264	0.930	0.256	0.278	0.753	0.455	0.576
Back of Queue (*Q*), ft/ln (95 th percentile)	82.7	243.5	288.6	214.2	211.7	167.6	376.5	115.5	111.3	146	122	200.2
Back of Queue (*Q*), veh/ln (95 th percentile)	3.3	9.7	11.5	8.6	8.5	6.7	15.1	4.6	4.5	5.8	4.9	8.0
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	60.2	25.3	26.4	58.9	22.6	21.9	53.9	44.6	44.7	59.0	54.5	50.5
Incremental Delay (d_2), s/veh	3.1	0.4	2.2	27.5	0.3	0.9	22.2	0.4	0.5	4.4	0.8	2.0
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	63.3	25.7	28.6	86.4	22.8	22.7	76.2	44.9	45.2	63.4	55.3	52.5
Level of Service (LOS)	E	C	C	F	C	C	E	D	D	E	E	D
Approach Delay, s/veh / LOS	29.0	C		28.6	C		68.0	E		57.6	E	
Intersection Delay, s/veh / LOS	39.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.57	C	2.97	C	3.09	C
Bicycle LOS Score / LOS	1.13	A	1.04	A	1.07	A	0.92	A

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TURNING MOVEMENT VOLUME COUNTS

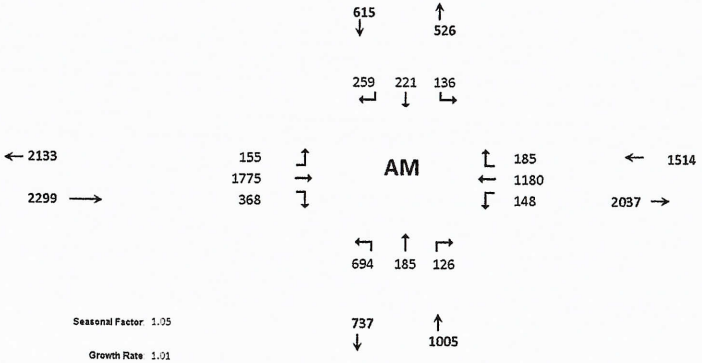
N/S STREET: Jenkins Ave **E/W STREET:** Okeechobee Rd **CONTROL:** Signalized

FILENAME:

COUNT DATE: 6/15/2023 **DAY:** Wednesday **CITY:** St Lucie

REPORT DATE: 7/26/2023 **ANALYSIS YEAR:** 2026 Background

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	108	29	17	12	27	20	11	237	42	9	154	12	678	3704
7:15-7:30	119	35	19	19	36	28	18	320	52	20	239	22	927	4144
7:30-7:45	127	43	19	20	41	36	19	344	76	26	229	28	1008	4292
7:45-8:00	142	35	26	21	53	30	21	418	68	29	227	21	1091	4277
8:00-8:15	152	32	29	19	43	39	27	379	84	31	255	28	1118	4091
8:15-8:30	164	36	17	17	40	44	24	333	77	43	227	53	1075	
8:30-8:45	117	43	21	24	51	39	22	319	67	29	214	47	993	
8:45-9:00	98	34	14	22	44	28	17	296	76	24	207	45	905	
AM PEAK HOUR IS FROM:			7:30 AM TO 8:30AM											
Volumes	585	146	91	77	177	149	91	1474	305	129	938	130	4292	
Season Factor	614	153	96	81	186	156	96	1548	320	135	985	137	4507	
Growth	633	158	98	83	191	161	98	1595	330	140	1015	141	4643	
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	633	158	98	83	191	161	98	1595	330	140	1015	141	4643	
Other Projects														
Percentage	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	10	0	0	3	0	13	
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	11	0	0	4	0	15	
%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	2	0	0	8	0	9	
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	6	0	0	20	0	26	
%	0%	10%	0%	10%	10%	21%	21%	0%	0%	0%	0%	10%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	5	0	17	17	35	9	0	0	0	0	5	87	
%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	15%	0%		
In/Out	-	-	-	-	-	-	-	IN	-	-	OUT	-		
Volume	0	0	0	0	0	0	0	9	0	0	28	0	37	
%	5%	0%	0%	0%	0%	5%	5%	30%	5%	0%	30%	0%		
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Volume	7	0	0	0	0	7	21	126	21	0	43	0	226	
%	0%	10%	0%	40%	10%	40%	40%	0%	0%	0%	0%	40%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	3	0	10	2	10	12	0	0	0	0	12	49	
%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	9	0	0	36	0	45	
%	0%	0%	0%	10%	0%	24%	24%	0%	0%	0%	0%	10%		
In/Out	-	-	-	OUT	-	OUT	IN	-	-	-	-	IN		
Volume	0	0	0	17	0	41	13	0	0	0	0	5	76	
%	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	40%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	5	0	0	14	0	19	
%	0%	5%	0%	5%	5%	5%	5%	0%	0%	0%	0%	5%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	2	0	5	5	5	2	0	0	0	0	2	19	
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	3	0	0	10	0	13	
%	0%	2%	0%	10%	2%	0%	0%	0%	0%	0%	0%	10%		
In/Out	-	IN	-	OUT	OUT	-	-	-	-	-	-	IN		
Volume	0	4	0	4	1	0	0	0	0	0	0	21	31	
%	40%	10%	20%	0%	10%	0%	0%	0%	40%	20%	0%	0%		
In/Out	OUT	OUT	OUT	-	IN	-	-	-	IN	IN	-	-		
Volume	54	14	27	0	4	0	0	0	17	9	0	0	125	
Subtotal	62	27	27	52	29	97	57	181	38	9	166	45	789	
Total	694	185	126	136	221	259	155	1775	368	148	1180	185	5433	



Seasonal Factor: 1.05

Growth Rate: 1.01

Years Grown: 3

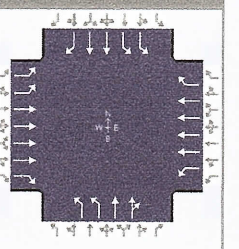
PHF: 0.96

Trips In	Trips Out
0	0

Project Name	Trips In	Trips Out
Pineapple Grove	69	197
Sunnyland	75	223
Project Hunt	76	17
KRE	393	117
Whispering Oaks	45	167
Bent Creek	62	186
Creekside	148	421
Woodspring Suites	30	24
Kings Highway Commerce Park	362	90
Jenkins Waypoint / Hillside	54	170
Project Hurricane	36	12
Celebration Point	30	96
Stonemont	197	55
Orange 95 Parcel B, D & E	214	42
Viva at Treasure Coast East / West	43	136

HCS Signalized Intersection Results Summary

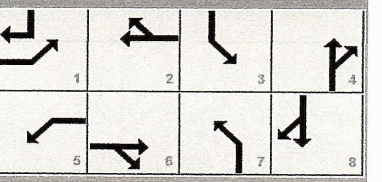
General Information				Intersection Information	
Agency	O'Rourke Engineering and Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 27, 2023	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Okeechobee Road	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C5 - Okeechobee Jenkins - Background - AM.xus		
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	155	1775	368	148	1180	185	694	185	126	136	221	259

Signal Information			
Cycle, s	130.0	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	8.1	4.8	40.5	7.5	9.9	22.6
Yellow	4.8	0.0	4.8	4.8	4.8	4.8
Red	2.5	0.0	2.5	2.5	2.5	2.5



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	15.4	47.8	20.2	52.6	32.0	47.1	14.8	29.9
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.0	4.1	4.0	4.1
Queue Clearance Time (g_s), s	7.9		12.9		26.7	11.4	7.1	22.0
Green Extension Time (g_e), s	0.3	0.0	0.1	0.0	0.0	3.2	0.4	0.7
Phase Call Probability	1.00		1.00		1.00	1.00	0.99	1.00
Max Out Probability	0.08		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	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	161	1849	383	154	1229	193	723	169	155	142	230	270
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1725	1610	1810	1725	1610	1757	1900	1649	1757	1809	1610
Queue Service Time (g_s), s	5.9	32.7	28.0	10.9	18.3	11.5	24.7	8.8	9.4	5.1	7.3	20.0
Cycle Queue Clearance Time (g_c), s	5.9	32.7	28.0	10.9	18.3	11.5	24.7	8.8	9.4	5.1	7.3	20.0
Green Ratio (*g/C*)	0.06	0.31	0.31	0.10	0.35	0.35	0.19	0.31	0.31	0.06	0.17	0.24
Capacity (*c*), veh/h	220	2152	502	180	2407	562	668	582	505	203	630	381
Volume-to-Capacity Ratio (*X*)	0.735	0.859	0.763	0.857	0.511	0.343	1.083	0.290	0.308	0.696	0.366	0.708
Back of Queue (*Q*), ft/ln (95 th percentile)	121.7	507.7	447.5	256.2	302.7	203.8	590.2	180.6	168.1	106.5	146.7	327.6
Back of Queue (*Q*), veh/ln (95 th percentile)	4.9	20.3	17.9	10.2	12.1	8.2	23.6	7.2	6.7	4.3	5.9	13.1
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	59.9	42.0	40.4	57.6	33.5	31.3	52.7	34.3	34.5	60.1	47.4	45.5
Incremental Delay (d_2), s/veh	4.7	4.7	10.5	25.9	0.8	1.7	59.4	0.3	0.3	4.3	0.4	5.6
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	46.8	50.9	83.5	34.3	33.0	112.0	34.6	34.9	64.4	47.7	51.1
Level of Service (LOS)	E	D	D	F	C	C	F	C	C	E	D	D
Approach Delay, s/veh / LOS	48.7	D		39.0	D		88.1	F		52.8	D	
Intersection Delay, s/veh / LOS	53.7						D					

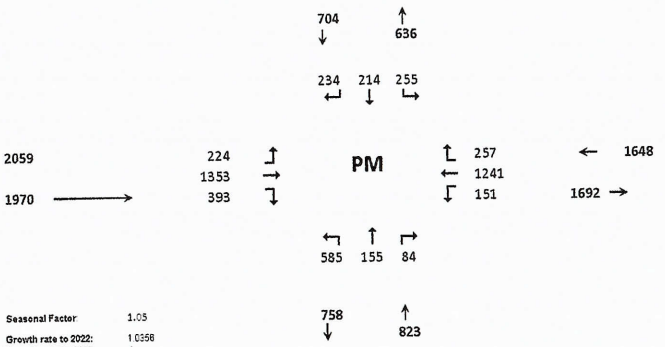
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.45	B	2.58	C	2.96	C	3.09	C
Bicycle LOS Score / LOS	1.48	A	1.14	A	1.35	A	1.02	A

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TURNING MOVEMENT VOLUME COUNTS

Jenkins & Okeechobee
Background

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	106	32	7	47	38	24	34	215	63	23	207	34	830	3607
4:15-4:30	121	36	11	47	53	26	24	207	73	28	201	42	869	3759
4:30-4:45	143	31	19	44	45	46	20	230	88	22	229	55	972	3872
4:45-5:00	119	29	14	52	54	29	26	246	68	30	224	45	936	3853
5:00-5:15	105	26	16	47	37	33	29	289	64	33	265	38	982	3762
5:15-5:30	128	25	13	41	31	32	30	294	79	28	241	45	982	
5:30-5:45	104	33	11	43	36	33	26	284	70	28	252	33	953	
5:45-6:00	100	29	7	39	31	28	31	245	47	33	235	25	845	
PM PEAK HOUR IS FROM:				4:30 PM TO 5:30PM										
Volumes	490	111	62	184	167	140	105	1059	299	113	959	183	3872	
Season Factor	515	117	65	193	175	147	110	1112	314	119	1007	192	4066	
Growth to 2022	515	117	65	193	175	147	110	1112	314	119	1007	192	4066	
Growth 2022-2028	530	120	67	199	181	151	114	1146	323	122	1037	198	4189	
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	530	120	67	199	181	151	114	1146	323	122	1037	198	4189	
Other Projects														
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0.0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	7	0	0	12	0	19	
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	8	0	0	13	0	21	
%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	6	0	0	2	0	8	
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	19	0	0	8	0	27	
%	0%	10%	0%	10%	10%	21%	21%	0%	0%	0%	0%	10%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	17	0	9	9	20	36	0	0	0	0	17	109	
%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	15%	0%		
In/Out	-	-	-	-	-	-	-	IN	-	-	OUT	-		
Volume	0	0	0	0	0	0	0	29	0	0	17	0	46	
%	5%	0%	0%	0%	0%	5%	5%	30%	5%	0%	30%	0%		
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Volume	21	0	0	0	0	21	13	77	13	0	128	0	273	
%	0%	10%	0%	40%	10%	40%	40%	0%	0%	0%	0%	40%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	3	0	13	3	13	13	0	0	0	0	13	58	
%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	37	0	0	12	0	49	
%	0%	0%	0%	10%	0%	24%	24%	0%	0%	0%	0%	10%		
In/Out	-	-	-	OUT	-	OUT	IN	-	-	-	-	IN		
Volume	0	0	0	11	0	26	44	0	0	0	0	18	98	
%	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	40%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	15	0	0	9	0	24	
%	0%	5%	0%	5%	5%	5%	5%	0%	0%	0%	0%	5%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	5	0	3	3	3	5	0	0	0	0	5	24	
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	10	0	0	4	0	13	
%	0%	2%	0%	10%	2%	0%	0%	0%	0%	0%	0%	10%		
In/Out	-	IN	-	OUT	OUT	-	-	-	-	-	-	IN		
Volume	0	1	0	21	4	0	0	0	0	0	0	6	32	
%	40%	10%	20%	0%	10%	0%	0%	0%	40%	20%	0%	0%		
In/Out	OUT	OUT	OUT	-	IN	-	-	-	IN	IN	-	-		
Volume	33	8	17	0	14	0	0	0	57	28	0	0	158	
Subtotal	55	35	17	56	34	82	110	207	70	28	203	59	956	
Total	585	155	84	255	214	234	224	1353	393	151	1241	257	5145	

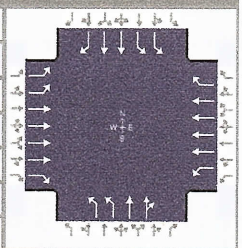


Seasonal Factor	1.05
Growth rate to 2022:	1.0358
Years Grown to 2022:	4
Growth Rate	1.01
Years Grown	3
PHF:	0.99
Trips In	Trips Out

	Trips In	Trips Out
Pineapple Grove	233	137
Sunnyland	261	154
Project Hunt	19	57
KRE	151	389
Whispering Oaks	172	94
Bent Creek	193	113
Creekside	426	256
Woodspring Suites	32	30
Kings Highway Commerce Park	115	371
Jenkins Waypoint / Hillside	182	107
Project Hurricane	23	37
Celebration Point	100	57
Stonemont	70	192
Orange 95 Parcel B, D & E	58	206
Viva at Treasure Coast East / West	142	88

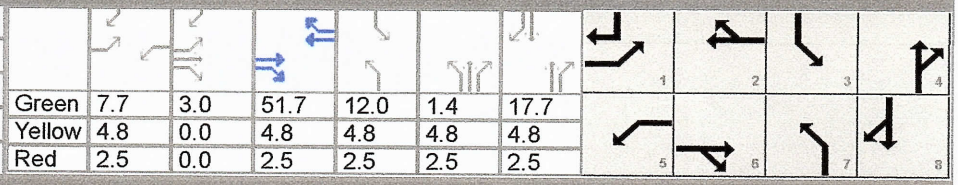
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering and Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 27, 2023	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.99
Urban Street	Okeechobee Road	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C5 - Okeechobee Jenkins - Background - PM.xus		
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	224	1353	393	151	1241	257	585	155	84	255	214	234

Signal Information			
Cycle, s	130.0	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		
							1	2	3	4		
Green	7.7	3.0	51.7	12.0	1.4	17.7						
Yellow	4.8	0.0	4.8	4.8	4.8	4.8	5	6	7	8		
Red	2.5	0.0	2.5	2.5	2.5	2.5						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	18.0	62.0	15.0	59.0	28.0	33.7	19.3	25.0
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.0	4.1	4.0	4.1
Queue Clearance Time (g_s), s	10.2		9.7		22.7	9.8	11.3	19.5
Green Extension Time (g_e), s	0.5	0.0	0.0	0.0	0.0	2.4	0.7	0.0
Phase Call Probability	1.00		1.00		1.00	1.00	1.00	1.00
Max Out Probability	0.08		1.00		1.00	0.02	0.02	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	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	226	1367	397	153	1254	260	591	124	117	258	216	236
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1725	1610	1810	1725	1610	1757	1900	1681	1757	1809	1610
Queue Service Time (g_s), s	8.2	18.6	24.6	7.7	17.4	15.0	20.7	7.2	7.8	9.3	7.1	17.5
Cycle Queue Clearance Time (g_c), s	8.2	18.6	24.6	7.7	17.4	15.0	20.7	7.2	7.8	9.3	7.1	17.5
Green Ratio (*g/C*)	0.08	0.42	0.42	0.06	0.40	0.40	0.16	0.20	0.20	0.09	0.14	0.22
Capacity (*c*), veh/h	289	2904	678	107	2745	641	560	386	342	324	493	352
Volume-to-Capacity Ratio (*X*)	0.783	0.471	0.586	1.423	0.457	0.405	1.056	0.321	0.344	0.795	0.439	0.672
Back of Queue (*Q*), ft/ln (95 th percentile)	169.5	299.9	374.5	434.7	285.7	249.2	488	152.8	145.8	191.3	144.7	293.7
Back of Queue (*Q*), veh/ln (95 th percentile)	6.8	12.0	15.0	17.4	11.4	10.0	19.5	6.1	5.8	7.7	5.8	11.7
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	58.5	27.2	28.9	61.2	28.8	28.1	54.7	44.2	44.4	57.8	51.6	46.5
Incremental Delay (d_2), s/veh	4.6	0.5	3.7	236.0	0.5	1.9	53.7	0.5	0.6	4.4	0.6	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	63.2	27.7	32.6	297.1	29.4	30.0	108.3	44.6	45.0	62.2	52.2	51.5
Level of Service (LOS)	E	C	C	F	C	C	F	D	D	E	D	D
Approach Delay, s/veh / LOS	32.7	C		54.0	D		89.9	F		55.6	E	
Intersection Delay, s/veh / LOS	51.8						D					

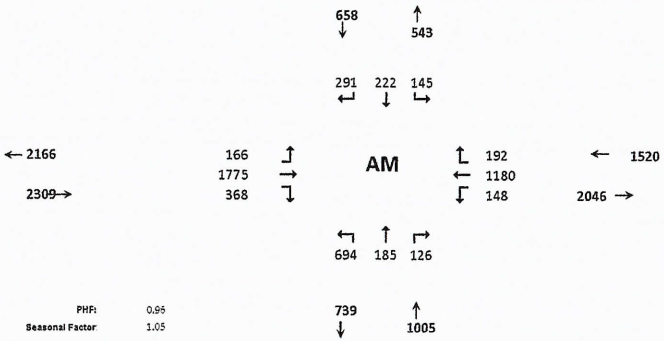
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.58	C	2.97	C	3.09	C
Bicycle LOS Score / LOS	1.31	A	1.17	A	1.17	A	1.07	A

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TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Jenkins Ave **E/W STREET** Okeechobee Rd **CONTROL** Signalized
FILENAME:
COUNT DATE 6/15/2023 **DAY** Wednesday **CITY** St Lucie
REPORT DATE 7/26/2023 **ANALYSIS YEAR** 2026 Future Total

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	108	29	17	12	27	20	11	237	42	9	154	12	678	3704
7:15-7:30	119	35	19	19	36	28	18	320	52	20	239	22	927	4144
7:30-7:45	127	43	19	20	41	36	19	344	76	26	229	28	1008	4292
7:45-8:00	142	35	26	21	53	30	21	418	68	29	227	21	1091	4277
8:00-8:15	152	32	29	19	43	39	27	379	84	31	255	28	1118	4091
8:15-8:30	164	36	17	17	40	44	24	333	77	43	227	53	1075	
8:30-8:45	117	43	21	24	51	39	22	319	67	29	214	47	993	
8:45-9:00	98	34	14	22	44	28	17	296	76	24	207	45	905	
AM PEAK HOUR IS FROM:				7:30 AM TO 8:30AM										
Volumes	585	146	91	77	177	149	91	1474	305	129	933	130	4292	
Season Factor	614	153	96	81	186	156	96	1548	320	135	985	137	4507	
Growth	633	158	98	83	191	161	98	1595	330	140	1015	141	4643	
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Percentage	0%	2%	0%	10%	2%	36%	36%	0%	0%	0%	0%	10%		
PROJECT	0	1	0	9	2	33	10	0	0	0	0	3	58	
Total	633	159	98	92	193	194	109	1595	330	140	1015	144	4701	
Other Projects														
Percentage	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	10	0	0	8	0	0	
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	11	0	0	4	0	0	
%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	2	0	0	8	0	0	
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	6	0	0	20	0	0	
%	0%	10%	0%	10%	10%	21%	21%	0%	0%	0%	0%	10%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	5	0	17	17	35	9	0	0	0	0	5	0	
%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	15%	0%		
In/Out	-	-	-	-	-	-	-	IN	-	-	OUT	-		
Volume	0	0	0	0	0	0	0	9	0	0	28	0	0	
%	5%	0%	0%	0%	0%	5%	5%	30%	5%	0%	30%	0%		
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-		
Volume	7	0	0	0	0	7	21	126	21	0	43	0	0	
%	0%	10%	0%	40%	10%	40%	40%	0%	0%	0%	0%	40%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	3	0	10	2	10	12	0	0	0	0	12	0	
%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	9	0	0	36	0	0	
%	0%	0%	0%	10%	0%	24%	24%	0%	0%	0%	0%	10%		
In/Out	-	-	-	OUT	-	OUT	IN	-	-	-	-	IN		
Volume	0	0	0	17	0	41	13	0	0	0	0	5	0	
%	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	40%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	5	0	0	14	0	0	
%	0%	5%	0%	5%	5%	5%	5%	0%	0%	0%	0%	5%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	2	0	5	5	5	2	0	0	0	0	5	0	
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	3	0	0	10	0	0	
%	0%	2%	0%	10%	2%	0%	0%	0%	0%	0%	0%	10%		
In/Out	-	IN	-	OUT	OUT	-	-	-	-	-	-	IN		
Volume	0	4	0	4	1	0	0	0	0	0	0	21	0	
%	40%	10%	20%	0%	10%	0%	0%	0%	40%	20%	0%	0%		
In/Out	OUT	OUT	OUT	-	IN	-	-	-	IN	IN	-	-		
Volume	54	14	27	0	4	0	0	0	17	9	0	0	0	
Subtotal	62	27	27	61	31	130	67	181	38	9	166	51	58	
Total	694	185	126	145	222	291	166	1775	368	148	1180	192	4701	

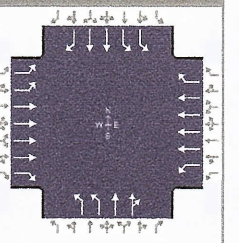


PHF: 0.95
Seasonal Factor: 1.05
Growth Rate: 1.01
Years Grown: 3
Trips In: 29 **Trips Out:** 91

Project Name	Trips In	Trips Out
Pineapple Grove	69	197
Sunnyland	75	223
Project Hunt	76	17
KRE	393	117
Whispering Oaks	45	167
Bent Creek	62	186
Creekside	143	421
Woodspring Suites	30	24
Kings Highway Commerce Park	362	90
Jenkins Waypoint / Hillside	54	170
Project Hurricane	36	12
Celebration Point	30	96
Stonemont	197	55
Orange 95 Parcel B, D & E	214	42
Viva at Treasure Coast East / West	43	136

HCS Signalized Intersection Results Summary

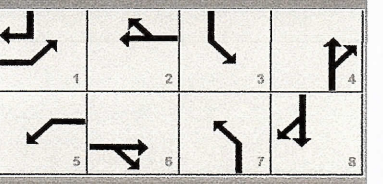
General Information				Intersection Information	
Agency	O'Rourke Engineering and Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 27, 2023	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Okeechobee Road	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C5 - Okeechobee Jenkins - Future Total - AM.xus		
Project Description	Future Total 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	166	1775	368	148	1180	192	694	185	126	145	222	291

Signal Information			
Cycle, s	130.0	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	39.5	7.9	9.5	23.7	
Yellow	4.8	0.0	4.8	4.8	4.8	4.8	
Red	2.5	0.0	2.5	2.5	2.5	2.5	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	15.8	46.8	20.2	51.2	32.0	47.8	15.2	31.0
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.0	4.1	4.0	4.1
Queue Clearance Time (g_s), s	8.3		12.9		26.7	11.3	7.5	24.7
Green Extension Time (g_e), s	0.3	0.0	0.0	0.0	0.0	3.4	0.5	0.0
Phase Call Probability	1.00		1.00		1.00	1.00	1.00	1.00
Max Out Probability	0.30		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	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	173	1849	383	154	1229	200	723	169	155	151	231	303
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1725	1610	1810	1725	1610	1757	1900	1649	1757	1809	1610
Queue Service Time (g_s), s	6.3	33.1	28.3	10.9	18.7	12.2	24.7	8.7	9.3	5.5	7.3	22.7
Cycle Queue Clearance Time (g_c), s	6.3	33.1	28.3	10.9	18.7	12.2	24.7	8.7	9.3	5.5	7.3	22.7
Green Ratio (*g/C*)	0.07	0.30	0.30	0.10	0.34	0.34	0.19	0.31	0.31	0.06	0.18	0.25
Capacity (*c*), veh/h	231	2097	489	179	2329	543	668	592	514	214	660	399
Volume-to-Capacity Ratio (*X*)	0.750	0.882	0.783	0.859	0.528	0.368	1.083	0.285	0.303	0.707	0.351	0.759
Back of Queue (*Q*), ft/ln (95 th percentile)	130.5	517.1	456.3	261.8	308.3	214.7	590.2	179.1	166.7	113.4	145.6	371
Back of Queue (*Q*), veh/ln (95 th percentile)	5.2	20.7	18.3	10.5	12.3	8.6	23.6	7.2	6.7	4.5	5.8	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	59.7	43.0	41.3	57.7	34.7	32.6	52.7	33.8	34.0	59.9	46.4	45.3
Incremental Delay (d_2), s/veh	4.8	5.8	11.9	29.3	0.9	1.9	59.4	0.3	0.3	4.2	0.3	8.2
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	64.5	48.8	53.2	86.9	35.6	34.5	112.0	34.1	34.3	64.2	46.7	53.5
Level of Service (LOS)	E	D	D	F	D	C	F	C	C	E	D	D
Approach Delay, s/veh / LOS	50.6	D		40.4	D		87.9	F		53.6	D	
Intersection Delay, s/veh / LOS	55.0						D					

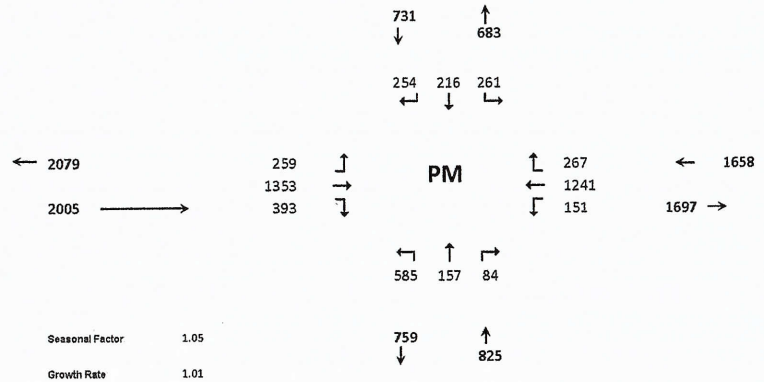
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.45	B	2.59	C	2.96	C	3.09	C
Bicycle LOS Score / LOS	1.48	A	1.14	A	1.35	A	1.05	A

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TURNING MOVEMENT VOLUME COUNTS

Jenkins & Okeechobee
Future Total

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	106	32	7	47	38	24	34	215	63	23	207	34	830	3607
4:15-4:30	121	36	11	47	53	26	24	207	73	28	201	42	869	3759
4:30-4:45	143	31	19	44	45	46	20	230	88	22	229	55	972	3872
4:45-5:00	119	29	14	52	54	29	26	246	68	30	224	45	936	3853
5:00-5:15	105	26	16	47	37	33	29	289	64	33	265	38	982	3762
5:15-5:30	123	25	13	41	31	32	30	294	79	28	241	45	982	
5:30-5:45	104	33	11	43	36	33	26	284	70	28	252	33	953	
5:45-6:00	100	29	7	39	31	23	31	245	47	33	235	25	845	



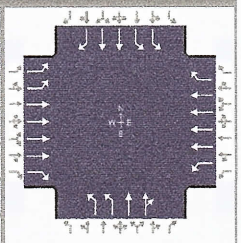
PM PEAK HOUR IS FROM:	4:30 PM TO 5:30PM												
Volumes	490	111	62	184	167	140	105	1059	299	113	959	183	3872
Season Factor	515	117	65	193	175	147	110	1112	314	119	1007	192	4066
Growth	530	120	67	199	181	151	114	1146	323	122	1037	198	4189
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN	
Percentage	0%	2%	0%	10%	2%	36%	36%	0%	0%	0%	0%	10%	
PROJECT	0	2	0	6	1	21	35	0	0	0	0	10	74
Total	530	122	67	205	182	172	149	1146	323	122	1037	208	4263

Seasonal Factor	1.05
Growth Rate	1.01
Years Grown	3
PHF:	0.99
Trips In	Trips Out
98	57

Other Projects															
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		Pineapple Grove	Trips In 233	Trips Out 137
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-				
Volume	0	0	0	0	0	0	0	7	0	0	12	0	19			
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		Sunnyland	261	154
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-				
Volume	0	0	0	0	0	0	0	8	0	0	13	0	21			
%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%	0%		Project Hunt	19	57
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-				
Volume	0	0	0	0	0	0	0	6	0	0	2	0	8			
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		KRE	151	389
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-				
Volume	0	0	0	0	0	0	0	19	0	0	8	0	27			
%	0%	10%	0%	10%	10%	21%	21%	0%	0%	0%	0%	10%		Whispering Oaks	172	94
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN				
Volume	0	17	0	9	9	20	36	0	0	0	0	17	109			
%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	15%	0%		Bent Creek	193	113
In/Out	-	-	-	-	-	-	-	IN	-	-	OUT	-				
Volume	0	0	0	0	0	0	0	29	0	0	17	0	46			
%	5%	0%	0%	0%	0%	5%	5%	30%	5%	0%	30%	0%		Creekside	426	256
In/Out	IN	-	-	-	-	IN	OUT	OUT	OUT	-	IN	-				
Volume	21	0	0	0	0	21	13	77	13	0	128	0	273			
%	0%	10%	0%	40%	10%	40%	40%	0%	0%	0%	0%	40%		Woodspring Suites	32	30
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN				
Volume	0	3	0	13	3	13	13	0	0	0	0	13	58			
%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%	0%		Kings Highway Commerce Park	115	371
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-				
Volume	0	0	0	0	0	0	0	37	0	0	12	0	49			
%	0%	0%	0%	10%	0%	24%	24%	0%	0%	0%	0%	10%		Jenkins Waypoint / Hillside	182	107
In/Out	-	-	-	OUT	-	OUT	IN	-	-	-	-	IN				
Volume	0	0	0	11	0	26	44	0	0	0	0	18	98			
%	0%	0%	0%	0%	0%	0%	0%	40%	0%	0%	40%	0%		Project Hurricane	23	37
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-				
Volume	0	0	0	0	0	0	0	15	0	0	9	0	24			
%	0%	5%	0%	5%	5%	5%	5%	0%	0%	0%	0%	5%		Celebration Point	100	57
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN				
Volume	0	5	0	3	3	3	5	0	0	0	0	5	24			
%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	5%	0%		Stonemont	70	192
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-				
Volume	0	0	0	0	0	0	0	10	0	0	4	0	13			
%	0%	2%	0%	10%	2%	0%	0%	0%	0%	0%	0%	10%		Orange 95 Parcel B, D & E	58	206
In/Out	-	IN	-	OUT	OUT	-	-	-	-	-	-	IN				
Volume	0	1	0	21	4	0	0	0	0	0	0	6	32			
%	40%	10%	20%	0%	10%	0%	0%	0%	40%	20%	0%	0%		Viva at Treasure Coast East / West	142	83
In/Out	OUT	OUT	OUT	-	IN	-	-	-	IN	IN	-	-				
Volume	33	8	17	0	14	0	0	0	57	28	0	0	158			
Subtotal	55	37	17	62	35	103	146	207	70	28	203	69	804			
Total	585	157	84	261	216	254	259	1353	393	151	1241	267	4993			

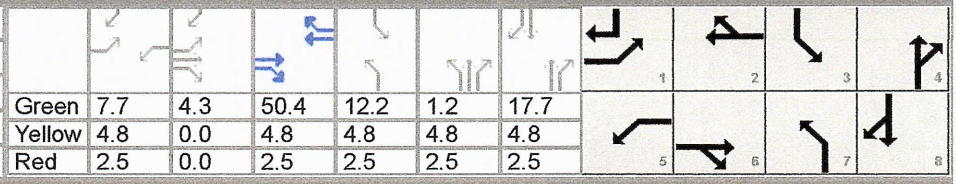
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering and Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 27, 2023	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.99
Urban Street	Okeechobee Road	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C5 - Okeechobee Jenkins - Future Total - PM.xus		
Project Description	Future Total 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	259	1353	393	151	1241	267	585	157	84	261	216	254

Signal Information			
Cycle, s	130.0	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	7.7	4.3	50.4	12.2	1.2	17.7	
Yellow	4.8	0.0	4.8	4.8	4.8	4.8	
Red	2.5	0.0	2.5	2.5	2.5	2.5	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	19.3	62.0	15.0	57.7	28.0	33.5	19.5	25.0
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.0	4.1	4.0	4.1
Queue Clearance Time (g_s), s	11.5		9.7		22.7	9.9	11.6	19.7
Green Extension Time (g_e), s	0.5	0.0	0.0	0.0	0.0	2.5	0.7	0.0
Phase Call Probability	1.00		1.00		1.00	1.00	1.00	1.00
Max Out Probability	0.22		1.00		1.00	0.03	0.03	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	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	262	1367	397	153	1254	270	591	125	118	264	218	257
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1725	1610	1810	1725	1610	1757	1900	1683	1757	1809	1610
Queue Service Time (g_s), s	9.5	18.6	24.6	7.7	17.7	16.0	20.7	7.3	7.9	9.6	7.2	17.7
Cycle Queue Clearance Time (g_c), s	9.5	18.6	24.6	7.7	17.7	16.0	20.7	7.3	7.9	9.6	7.2	17.7
Green Ratio (*g/C*)	0.09	0.42	0.42	0.06	0.39	0.39	0.16	0.20	0.20	0.09	0.14	0.23
Capacity (*c*), veh/h	324	2904	678	107	2675	624	560	383	339	330	493	368
Volume-to-Capacity Ratio (*X*)	0.807	0.471	0.586	1.423	0.469	0.432	1.056	0.327	0.349	0.798	0.443	0.697
Back of Queue (*Q*), ft/ln (95 th percentile)	196.3	299.9	374.5	434.7	290.4	263.2	488	154.8	147.5	194.5	146.1	315.8
Back of Queue (*Q*), veh/ln (95 th percentile)	7.9	12.0	15.0	17.4	11.6	10.5	19.5	6.2	5.9	7.8	5.8	12.6
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	0.00	0.00
Uniform Delay (d_1), s/veh	57.9	27.2	28.9	61.2	29.8	29.3	54.7	44.4	44.6	57.7	51.6	46.0
Incremental Delay (d_2), s/veh	6.3	0.5	3.7	236.0	0.6	2.2	53.7	0.5	0.6	4.4	0.6	5.7
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	64.1	27.7	32.6	297.1	30.4	31.4	108.3	44.9	45.2	62.1	52.2	51.7
Level of Service (LOS)	E	C	C	F	C	C	F	D	D	E	D	D
Approach Delay, s/veh / LOS	33.4	C		54.8	D		89.9	F		55.6	E	
Intersection Delay, s/veh / LOS	52.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.58	C	2.97	C	3.09	C
Bicycle LOS Score / LOS	1.32	A	1.18	A	1.18	A	1.10	A

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TURNING MOVEMENT VOLUME COUNTS

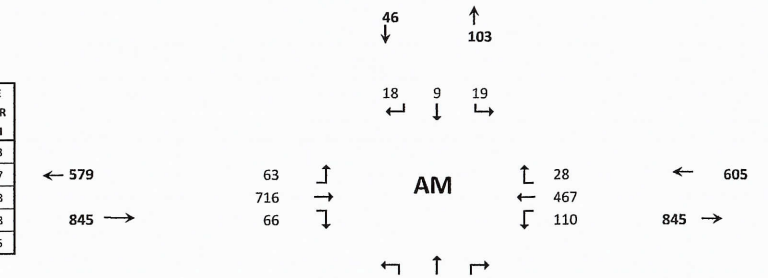
N/S STREET: Jenkins Ave **E/W STREET:** Orange Ave **CONTROL:** Signalized

FILENAME:

COUNT DATE: 6/27/2018 **DAY:** Wednesday **CITY:** St Lucie

REPORT DATE: 11/8/2022 **ANALYSIS YEAR:** 2022 Existing

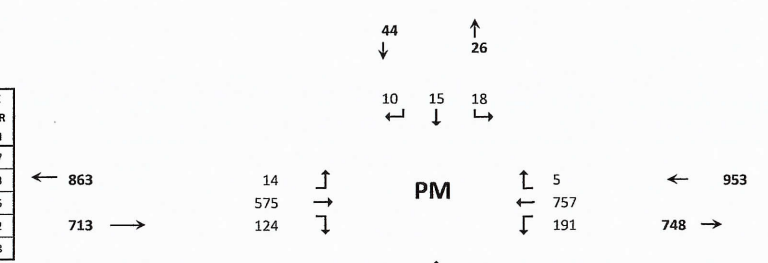
15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	21	6	15	1	2	4	6	101	13	17	99	4	289	1313
7:15-7:30	18	3	18	0	3	3	8	121	13	25	71	1	284	1327
7:30-7:45	17	2	18	2	1	1	16	143	15	22	101	4	342	1298
7:45-8:00	21	1	24	6	1	6	11	183	14	22	98	11	398	1228
8:00-8:15	17	3	25	7	2	4	14	108	9	16	92	6	303	1145
8:15-8:30	4	0	13	2	2	4	7	134	17	8	61	3	255	
8:30-8:45	12	2	16	0	4	1	5	115	16	13	85	3	272	
8:45-9:00	7	6	16	1	3	1	10	128	15	35	91	2	315	
AM PEAK HOUR IS FROM:	7:15AM TO 8:15AM													
Volumes	73	9	85	15	7	14	49	555	51	85	362	22	1327	
Season Factor	82	10	95	17	8	16	55	622	57	95	405	25	1486	
Growth	94	12	110	19	9	18	63	716	66	110	467	28	1712	
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	94	12	110	19	9	18	63	716	66	110	467	28	1712	



Seasonal Factor: 1.12
Growth Rate: 1.036
Years Grown: 4
PHF: 0.83
Trips In 0 **Trips Out** 0

Indrio Rd & I-95 NB
Existing

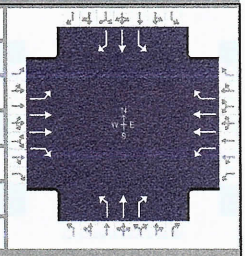
15 Min Period lanes	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	15	1	18	3	5	4	6	81	18	21	116	5	293	1287
4:15-4:30	16	1	25	5	3	1	2	79	14	32	139	3	320	1393
4:30-4:45	23	1	30	5	5	5	5	94	28	24	131	1	352	1525
4:45-5:00	18	1	22	4	1	2	2	107	20	29	115	1	322	1492
5:00-5:15	16	1	36	5	3	1	3	106	25	56	147	0	399	1428
5:15-5:30	17	2	32	0	3	0	1	139	23	39	194	2	452	
5:30-5:45	15	1	28	1	2	2	1	100	11	28	128	2	319	
5:45-6:00	25	0	24	0	0	1	1	81	17	22	86	1	258	
PM PEAK HOUR IS FROM:	4:30 PM TO 5:30PM													
Volumes	74	5	120	14	12	8	11	446	96	148	587	4	1525	
Season Factor	83	6	134	16	13	9	12	500	108	166	657	4	1708	
Growth	95	6	155	18	15	10	14	575	124	191	757	5	1968	
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	95	6	155	18	15	10	14	575	124	191	757	5	1968	



Seasonal Factor: 1.12
Growth Rate: 1.036
Years Grown: 4
PHF: 0.84
Trips In **Trips Out**

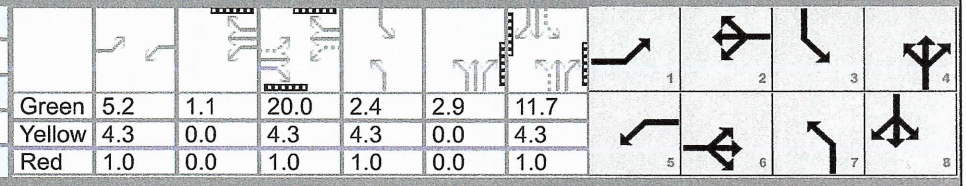
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	May 30, 2023	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.83
Urban Street	Orange Avenue	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Orange & Jenkins	File Name	C6 - Orange & Jenkins - Existing - AM.xus		
Project Description	2022				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	63	716	66	110	467	28	94	12	110	19	9	18

Signal Information			
Cycle, s	64.4	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	5.2	1.1	20.0	2.4	2.9	11.7		
Yellow	4.3	0.0	4.3	4.3	0.0	4.3		
Red	1.0	0.0	1.0	1.0	0.0	1.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	10.5	25.3	11.6	26.4	10.5	19.8	7.7	17.0
Change Period, ($Y+R_c$), s	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Max Allow Headway (*MAH*), s	3.0	2.9	3.0	2.9	3.0	3.2	3.0	3.2
Queue Clearance Time (g_s), s	3.7	16.2	5.1	10.1	5.2	6.6	2.7	2.7
Green Extension Time (g_e), s	0.1	3.7	0.1	3.8	0.1	0.2	0.0	0.3
Phase Call Probability	0.74	1.00	0.91	1.00	0.87	0.99	0.34	0.97
Max Out Probability	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00

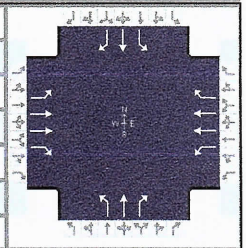
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	76	863	80	133	563	34	113	14	133	23	11	22
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1781	1781	1585	1781	1870	1585	1781	1870	1585
Queue Service Time (g_s), s	1.7	14.2	2.3	3.1	8.1	0.9	3.2	0.4	4.6	0.7	0.3	0.7
Cycle Queue Clearance Time (g_c), s	1.7	14.2	2.3	3.1	8.1	0.9	3.2	0.4	4.6	0.7	0.3	0.7
Green Ratio (*g/C*)	0.39	0.31	0.31	0.41	0.33	0.33	0.26	0.23	0.23	0.22	0.18	0.18
Capacity (*c*), veh/h	401	1104	491	345	1167	520	504	422	358	431	339	287
Volume-to-Capacity Ratio (*X*)	0.189	0.781	0.162	0.384	0.482	0.065	0.225	0.034	0.370	0.053	0.032	0.075
Back of Queue (*Q*), ft/ln (95 th percentile)	26.9	222.5	33.9	46.9	129.8	13.4	53.7	6.9	68.9	11.1	5.6	11.3
Back of Queue (*Q*), veh/ln (95 th percentile)	1.1	8.8	1.3	1.8	5.1	0.5	2.1	0.3	2.7	0.4	0.2	0.4
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	13.2	20.2	16.1	14.1	17.3	14.9	18.7	19.5	21.1	20.0	21.7	21.9
Incremental Delay (d_2), s/veh	0.1	0.5	0.1	0.3	0.1	0.0	0.1	0.0	0.2	0.0	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	0.0
Control Delay (*d*), s/veh	13.3	20.7	16.2	14.4	17.4	14.9	18.8	19.5	21.3	20.0	21.7	21.9
Level of Service (LOS)	B	C	B	B	B	B	B	B	C	B	C	C
Approach Delay, s/veh / LOS	19.8	B		16.7	B		20.1	C		21.1	C	
Intersection Delay, s/veh / LOS	18.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.10	B	2.10	B	2.43	B	2.43	B
Bicycle LOS Score / LOS	1.33	A	1.09	A	0.92	A	0.58	A

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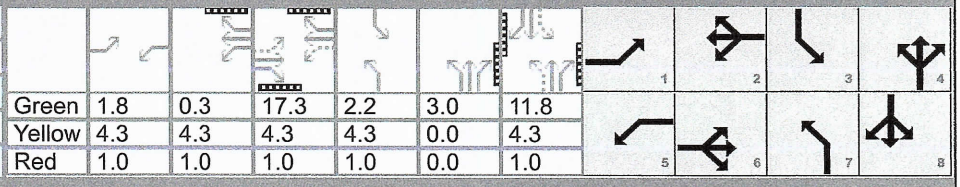
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	May 30, 2023	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.84
Urban Street	Orange Avenue	Analysis Year	2022	Analysis Period	1> 4:00
Intersection	Orange & Jenkins	File Name	C6 - Orange & Jenkins - Existing - PM.xus		
Project Description	2022				



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	575	124	191	757	5	95	6	155	18	15	10

Signal Information			
Cycle, s	62.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.8	0.3	17.3	2.2	3.0	11.8
Yellow	4.3	4.3	4.3	4.3	0.0	4.3
Red	1.0	1.0	1.0	1.0	0.0	1.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	7.1	22.6	12.6	28.1	10.5	20.1	7.5	17.1
Change Period, ($Y+R_c$), s	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	3.2	3.0	3.2
Queue Clearance Time (g_s), s	2.4	12.8	7.3	15.5	5.1	8.3	2.6	2.5
Green Extension Time (g_e), s	0.0	4.4	0.2	4.4	0.1	0.3	0.0	0.4
Phase Call Probability	0.25	1.00	0.98	1.00	0.86	1.00	0.31	0.99
Max Out Probability	0.00	0.00	0.19	0.00	0.01	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	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	17	685	148	227	901	6	113	7	185	21	18	12
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1781	1781	1585	1781	1870	1585	1781	1870	1585
Queue Service Time (g_s), s	0.4	10.8	4.7	5.3	13.5	0.2	3.1	0.2	6.3	0.6	0.5	0.4
Cycle Queue Clearance Time (g_c), s	0.4	10.8	4.7	5.3	13.5	0.2	3.1	0.2	6.3	0.6	0.5	0.4
Green Ratio (*g/C*)	0.30	0.28	0.28	0.42	0.36	0.36	0.27	0.24	0.24	0.22	0.19	0.19
Capacity (*c*), veh/h	237	980	436	400	1295	576	513	441	374	442	352	299
Volume-to-Capacity Ratio (*X*)	0.070	0.699	0.339	0.568	0.696	0.010	0.220	0.016	0.494	0.048	0.051	0.040
Back of Queue (*Q*), ft/ln (95 th percentile)	6.7	178.2	68.4	79.5	205.8	2.1	50.9	3.2	94.8	10	8.8	5.9
Back of Queue (*Q*), veh/ln (95 th percentile)	0.3	7.0	2.7	3.1	8.1	0.1	2.0	0.1	3.7	0.4	0.3	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	0.00
Uniform Delay (d_1), s/veh	16.2	20.4	18.2	13.8	17.0	12.8	17.8	18.4	20.8	19.2	20.9	20.8
Incremental Delay (d_2), s/veh	0.0	0.3	0.2	0.5	0.3	0.0	0.1	0.0	0.4	0.0	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	0.0
Control Delay (*d*), s/veh	16.2	20.8	18.4	14.3	17.3	12.8	17.9	18.4	21.1	19.2	20.9	20.9
Level of Service (LOS)	B	C	B	B	B	B	B	B	C	B	C	C
Approach Delay, s/veh / LOS	20.3	C		16.7	B		19.9	B		20.2	C	
Intersection Delay, s/veh / LOS	18.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.10	B	2.09	B	2.43	B	2.43	B
Bicycle LOS Score / LOS	1.19	A	1.42	A	0.99	A	0.57	A

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TURNING MOVEMENT VOLUME COUNTS

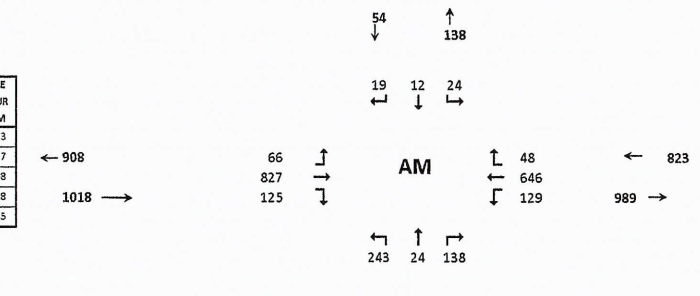
N/S STREET: Jenkins Ave **E/W STREET:** Orange Ave **CONTROL:** Signalized

FILENAME:

COUNT DATE: 6/27/2018 **DAY:** Wednesday **CITY:** St Lucie

REPORT DATE: 11/8/2022 **ANALYSIS YEAR:** 2026 Background

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	21	6	15	1	2	4	6	101	13	17	99	4	289	1313
7:15-7:30	18	3	18	0	3	3	8	121	13	25	71	1	284	1327
7:30-7:45	17	2	18	2	1	1	16	143	15	22	101	4	342	1298
7:45-8:00	21	1	24	6	1	6	11	183	14	22	98	11	398	1228
8:00-8:15	17	3	25	7	2	4	14	108	9	16	92	6	303	1145
8:15-8:30	4	0	13	2	2	4	7	134	17	8	61	3	255	
8:30-8:45	12	2	16	0	4	1	5	115	16	13	85	3	272	
8:45-9:00	7	6	16	1	3	1	10	128	15	35	91	2	315	



AM PEAK HOUR IS FROM: 7:15AM TO 8:15AM

Volumes	73	9	85	15	7	14	49	555	51	85	362	22	1327
Season Factor	82	10	95	17	8	16	55	622	57	95	405	25	1486
Growth to 2022	94	12	109	19	9	18	63	715	66	109	466	28	1709
Growth 2022-2028	98	12	114	20	9	19	66	744	68	114	485	29	1779
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	98	12	114	20	9	19	66	744	68	114	485	29	1779

Seasonal Factor	1.12
Growth rate to 2022:	1.0856
Years Grown to 2022:	4
Growth Rate 2022+	1.01
Years Grown	4
PHF:	0.83
Trips In	**Trips Out**
0	0

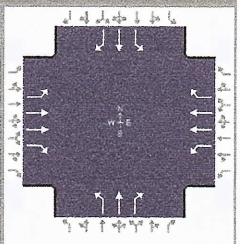
Other Projects													
Percentage	2%	0%	0%	0%	0%	0%	0%	8%	2%	0%	8%	0%	0%
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-	
PROJECT	1	0	0	0	0	0	0	16	4	0	6	0	0
%	8%	0%	0%	0%	0%	0%	0%	7%	5%	0%	7%	0%	
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-	
Volume	6	0	0	0	0	0	0	16	11	0	5	0	0
%	0%	0%	0%	0%	0%	0%	0%	18%	0%	0%	18%	0%	
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-	
Volume	0	0	0	0	0	0	0	3	0	0	14	0	0
%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
In/Out	-	-	-	-	-	-	-	-	-	-	-	-	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
%	60%	0%	10%	0%	0%	0%	0%	0%	60%	10%	0%	0%	
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-	
Volume	100	0	17	0	0	0	0	0	27	5	0	0	0
%	0%	0%	2%	0%	0%	0%	0%	20%	0%	2%	20%	0%	
In/Out	-	-	IN	-	-	-	-	IN	-	OUT	OUT	-	
Volume	0	0	1	0	0	0	0	12	0	4	37	0	0
%	10%	0%	0%	0%	0%	0%	0%	10%	10%	0%	10%	0%	
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-	
Volume	4	0	0	0	0	0	0	4	4	0	4	0	0
%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	3%	0%	
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-	
Volume	0	0	0	0	0	0	0	10	0	0	10	0	0
%	0%	0%	0%	0%	0%	0%	0%	18%	0%	0%	18%	0%	
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-	
Volume	0	0	0	0	0	0	0	16	0	0	65	0	0
%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
In/Out	-	-	-	-	-	-	-	-	-	-	-	-	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
%	0%	0%	15%	0%	0%	0%	0%	0%	0%	15%	0%	0%	
In/Out	-	-	OUT	-	-	-	-	-	-	IN	-	-	
Volume	0	0	2	0	0	0	0	0	0	5	0	0	0
%	25%	0%	5%	0%	0%	0%	0%	0%	25%	5%	0%	0%	
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-	
Volume	24	0	5	0	0	0	0	0	8	2	0	0	0
%	5%	0%	0%	0%	0%	0%	0%	10%	5%	0%	10%	0%	
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-	
Volume	10	0	0	0	0	0	0	6	3	0	20	0	0
%	0%	12%	0%	18%	12%	0%	0%	0%	0%	0%	0%	18%	
In/Out	-	IN	-	OUT	OUT	-	-	-	-	-	-	IN	
Volume	0	12	0	4	2	0	0	0	0	0	0	19	0
%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
In/Out	-	-	-	-	-	-	-	-	-	-	-	-	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Name	Trips In	Trips Out
Pineapple Grove	69	197
Sunnyland	75	223
Project Hunt	76	17
St. Lucie Commerce Center	141	31
Whispering Oaks	45	167
Bent Creek	62	186
Wawa Kings	42	42
Kings Highway Warehouse	342	341
Kings Highway Commerce Park	362	90
Walsh Crossroads	7	5
Project Hurricane	36	12
Celebration Point	30	96
Stonemont	197	55
Orange 95 Parcel B	103	20

Subtotal	146	12	25	4	2	0	0	83	57	15	161	19	0
Total	243	24	138	24	12	19	66	827	125	129	646	48	1779

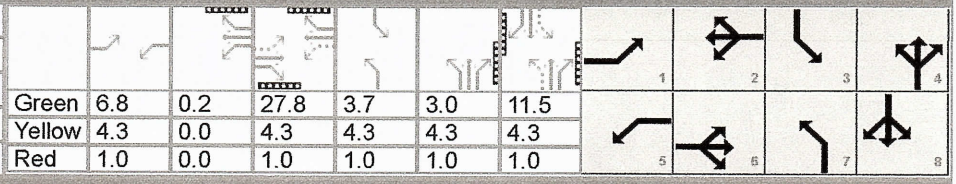
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 26, 2023	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.83
Urban Street	Orange Avenue	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Orange & Jenkins	File Name	C6 - Orange Jenkins - Without Project AM.xus		
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	143	836	141	149	678	68	294	38	199	28	14	34

Signal Information			
Cycle, s	79.5	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	6.8	0.2	27.8	3.7	3.0	11.5		
Yellow	4.3	0.0	4.3	4.3	4.3	4.3		
Red	1.0	0.0	1.0	1.0	1.0	1.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	12.1	33.1	12.3	33.3	17.3	25.1	9.0	16.8
Change Period, ($Y+R_c$), s	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	3.2	3.0	3.2
Queue Clearance Time (g_s), s	6.8	22.4	7.0	17.3	14.0	12.6	3.2	3.8
Green Extension Time (g_e), s	0.1	5.4	0.1	5.6	0.0	0.4	0.0	0.1
Phase Call Probability	0.98	1.00	0.98	1.00	1.00	1.00	0.53	1.00
Max Out Probability	0.09	0.04	0.12	0.02	1.00	0.20	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	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	172	1007	170	180	817	82	354	46	240	34	17	41
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1781	1781	1585	1781	1870	1585	1781	1870	1585
Queue Service Time (g_s), s	4.8	20.4	6.2	5.0	15.3	2.8	12.0	1.5	10.6	1.2	0.6	1.8
Cycle Queue Clearance Time (g_c), s	4.8	20.4	6.2	5.0	15.3	2.8	12.0	1.5	10.6	1.2	0.6	1.8
Green Ratio (*g/C*)	0.44	0.35	0.35	0.44	0.35	0.35	0.32	0.25	0.25	0.19	0.14	0.14
Capacity (*c*), veh/h	334	1246	555	300	1253	558	550	466	395	370	270	229
Volume-to-Capacity Ratio (*X*)	0.517	0.808	0.306	0.599	0.652	0.147	0.644	0.098	0.607	0.091	0.062	0.179
Back of Queue (*Q*), ft/ln (95 th percentile)	79.4	310.1	94.4	83.2	245.4	42.8	232.4	28.1	177.7	22.6	12.1	29.8
Back of Queue (*Q*), veh/ln (95 th percentile)	3.1	12.2	3.7	3.3	9.7	1.7	9.1	1.1	7.0	0.9	0.5	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	0.00
Uniform Delay (d_1), s/veh	16.5	23.4	18.8	17.8	21.7	17.6	23.2	23.0	26.4	26.5	29.4	29.9
Incremental Delay (d_2), s/veh	0.5	0.5	0.1	0.7	0.2	0.0	2.0	0.0	1.9	0.0	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	0.0
Control Delay (*d*), s/veh	17.0	23.9	18.9	18.5	21.9	17.7	25.3	23.0	28.3	26.6	29.4	30.0
Level of Service (LOS)	B	C	B	B	C	B	C	C	C	C	C	C
Approach Delay, s/veh / LOS	22.4	C		21.0	C		26.3	C		28.6	C	
Intersection Delay, s/veh / LOS	22.9						C					

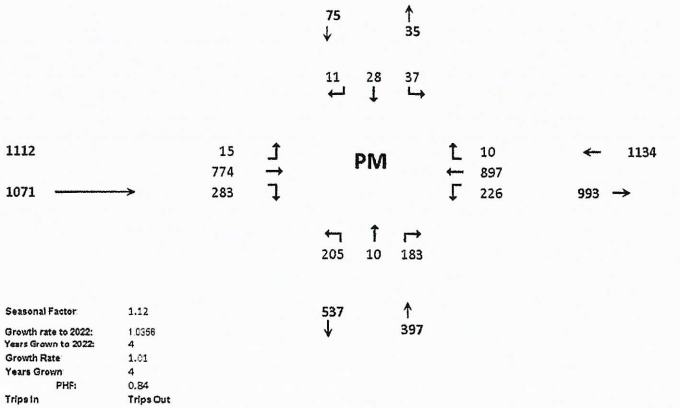
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.10	B	2.10	B	2.43	B	2.45	B
Bicycle LOS Score / LOS	1.60	B	1.38	A	1.54	B	0.64	A

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TURNING MOVEMENT VOLUME COUNTS

Jenkins & Orange Ave
Background

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
lanes	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
4:00-4:15	15	1	18	3	5	4	6	81	18	21	116	5	298	1287
4:15-4:30	16	1	25	5	3	1	2	79	14	32	139	3	320	1393
4:30-4:45	23	1	30	5	5	5	5	94	28	24	131	1	352	1525
4:45-5:00	18	1	22	4	1	2	2	107	20	29	115	1	322	1492
5:00-5:15	16	1	36	5	3	1	3	106	25	56	147	0	399	1428
5:15-5:30	17	2	32	0	3	0	1	139	23	39	194	2	452	
5:30-5:45	15	1	28	1	2	2	1	100	11	28	128	2	319	
5:45-6:00	25	0	24	0	0	1	1	81	17	22	86	1	258	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	74	5	120	14	12	8	11	446	96	148	587	4	1525	
Season Factor	83	6	134	16	13	9	12	500	108	166	657	4	1708	
Growth to 2022	95	6	155	18	15	10	14	575	124	191	756	5	1965	
Growth 2022-2028	99	7	161	19	16	11	15	598	129	198	787	5	2044	
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	99	7	161	19	16	11	15	598	129	198	787	5	2044	
Other Projects														
%	2%	0%	0%	0%	0%	0%	0%	8%	2%	0%	8%	0.0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
PROJECT	5	0	0	0	0	0	0	11	3	0	19	0	37	
%	8%	0%	0%	0%	0%	0%	0%	7%	5%	0%	7%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	21	0	0	0	0	0	0	11	8	0	18	0	58	
%	0%	0%	0%	0%	0%	0%	0%	18%	0%	0%	18%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	10	0	0	3	0	14	
%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	-	-	-	-	-	-	-	-	-	-	-		
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	
%	60%	0%	10%	0%	0%	0%	0%	0%	60%	10%	0%	0%		
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Volume	56	0	9	0	0	0	0	0	103	17	0	0	186	
%	0%	0%	2%	0%	0%	0%	0%	20%	0%	2%	20%	0%		
In/Out	-	-	IN	-	-	-	-	IN	-	OUT	OUT	-		
Volume	0	0	4	0	0	0	0	39	0	2	23	0	67	
%	10%	0%	0%	0%	0%	0%	0%	10%	10%	0%	10%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	6	0	0	0	0	0	0	6	6	0	6	0	23	
%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	3%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	14	0	0	14	0	27	
%	0%	0%	0%	0%	0%	0%	0%	18%	0%	0%	18%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	67	0	0	21	0	87	
%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	-	-	-	-	-	-	-	-	-	-	-		
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	
%	0%	0%	15%	0%	0%	0%	0%	0%	0%	15%	0%	0%		
In/Out	-	-	OUT	-	-	-	-	-	-	IN	-	-		
Volume	0	0	6	0	0	0	0	0	0	3	0	0	9	
%	25%	0%	5%	0%	0%	0%	0%	0%	25%	5%	0%	0%		
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Volume	14	0	3	0	0	0	0	0	25	5	0	0	47	
%	5%	0%	0%	0%	0%	0%	0%	10%	5%	0%	10%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	4	0	0	0	0	0	0	19	10	0	7	0	39	
%	0%	12%	0%	18%	12%	0%	0%	0%	0%	0%	0%	18%		
In/Out	-	IN	-	OUT	OUT	-	-	-	-	-	-	IN		
Volume	0	3	0	18	12	0	0	0	0	0	0	5	38	
%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
In/Out	-	-	-	-	-	-	-	-	-	-	-	-		
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	
Subtotal	105	3	22	18	12	0	0	176	154	28	110	5	633	
Total	205	10	183	37	28	11	15	774	283	226	897	10	2678	

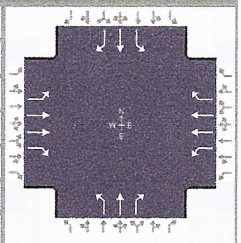


Seasonal Factor:	1.12
Growth rate to 2022:	1.0358
Years Grown to 2022:	4
Growth Rate	1.01
Years Grown	4
PHF:	0.84
Trips In	**Trips Out**

	Trips In	Trips Out
Pineapple Grove	233	137
Sunnyland	261	154
Project Hunt	19	57
St. Lucie Commerce Center	52	196
Whispering Oaks	172	94
Bent Creek	193	113
Wawa Kings	57	58
Kings Highway Warehouse	458	216
Kings Highway Commerce Park	115	371
Walsh Crossroads	10	11
Project Hurricane	23	37
Celebration Point	100	57
Stonemont	70	192
Orange 95 Parcel B	28	99
0		

HCS Signalized Intersection Results Summary

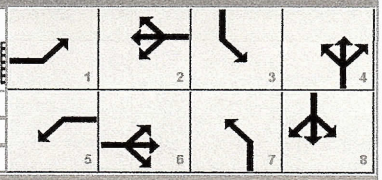
General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 26, 2023	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.84
Urban Street	Orange Avenue	Analysis Year	2026	Analysis Period	1> 4:00
Intersection	Orange & Jenkins	File Name	C6 - Orange Jenkins - Without Project PM.xus		
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	36	805	336	291	909	16	234	14	221	56	41	86

Signal Information			
Cycle, s	86.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.5	2.2	29.9	5.6	1.1	11.7						
Yellow	4.3	4.3	4.3	4.3	4.3	4.3						
Red	1.0	1.0	1.0	1.0	1.0	1.0						



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	9.8	35.2	17.3	42.6	17.3	23.4	10.9	17.0
Change Period, ($Y+R_c$), s	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	3.2	3.0	3.2
Queue Clearance Time (g_s), s	3.3	23.0	12.4	23.6	13.3	15.7	4.7	7.2
Green Extension Time (g_e), s	0.0	6.9	0.0	6.8	0.0	0.3	0.0	0.4
Phase Call Probability	0.64	1.00	1.00	1.00	1.00	1.00	0.80	1.00
Max Out Probability	0.00	0.11	1.00	0.12	1.00	1.00	0.00	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	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	43	958	400	346	1082	19	279	17	263	67	49	102
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1781	1781	1585	1781	1870	1585	1781	1870	1585
Queue Service Time (g_s), s	1.3	21.0	19.2	10.4	21.6	0.6	11.3	0.6	13.7	2.7	2.0	5.2
Cycle Queue Clearance Time (g_c), s	1.3	21.0	19.2	10.4	21.6	0.6	11.3	0.6	13.7	2.7	2.0	5.2
Green Ratio (*g/C*)	0.40	0.34	0.34	0.51	0.43	0.43	0.30	0.21	0.21	0.20	0.14	0.14
Capacity (*c*), veh/h	258	1225	545	389	1532	682	481	391	331	387	253	214
Volume-to-Capacity Ratio (*X*)	0.166	0.782	0.734	0.890	0.706	0.028	0.579	0.043	0.794	0.172	0.193	0.478
Back of Queue (*Q*), ft/ln (95 th percentile)	22.4	325.7	276.6	249.1	323.1	9	204.9	12	253.1	50	40	88
Back of Queue (*Q*), veh/ln (95 th percentile)	0.9	12.8	10.9	9.8	12.7	0.4	8.1	0.5	10.0	2.0	1.6	3.5
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	17.8	25.6	25.0	18.3	20.2	14.3	25.6	27.4	32.6	28.9	33.3	34.7
Incremental Delay (d_2), s/veh	0.1	0.6	0.7	20.9	0.7	0.0	1.2	0.0	11.6	0.1	0.1	0.6
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	18.0	26.2	25.7	39.2	20.9	14.3	26.7	27.4	44.2	29.0	33.5	35.3
Level of Service (LOS)	B	C	C	D	C	B	C	C	D	C	C	D
Approach Delay, s/veh / LOS	25.8	C		25.2	C		35.0	C		33.0	C	
Intersection Delay, s/veh / LOS	27.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.09	B	2.44	B	2.45	B
Bicycle LOS Score / LOS	1.64	B	1.68	B	1.41	A	0.85	A

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TURNING MOVEMENT VOLUME COUNTS

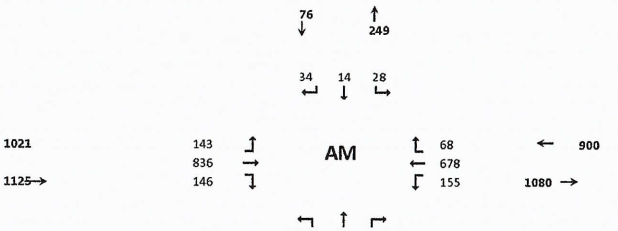
N/S STREET: Jenkins Ave **E/W STREET:** Orange Ave **CONTROL:** Signalized

FILENAME:

COUNT DATE: 6/27/2018 **DAY:** Wednesday **CITY:** St Lucie

REPORT DATE 11/8/2022 **ANALYSIS YEAR:** 2026 Future Total

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	21	6	15	1	2	4	6	101	13	17	99	4	289	1313
7:15-7:30	18	9	18	0	3	3	8	121	13	25	71	1	284	1327
7:30-7:45	17	2	18	2	1	1	16	149	15	22	101	4	342	1298
7:45-8:00	21	1	24	6	1	6	11	183	14	22	98	11	398	1228
8:00-8:15	17	3	25	7	2	4	14	108	9	16	92	6	303	1145
8:15-8:30	4	0	13	2	2	4	7	134	17	8	61	3	255	
8:30-8:45	12	2	16	0	4	1	5	115	16	13	85	3	272	
8:45-9:00	7	6	16	1	3	1	10	128	13	35	91	2	315	



AM PEAK HOUR IS FROM: **7:15AM TO 8:15AM**

Volumes	73	9	85	15	7	14	49	555	51	85	362	22	1327
Season Factor	82	10	95	17	8	16	55	622	57	95	405	25	1486
Growth to 2022	94	12	109	19	9	18	63	715	66	109	466	29	1709
Growth 2022-2028	98	12	114	20	9	19	66	744	69	114	485	29	1779
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-	
Percentage	17%	0%	18%	0%	0%	0%	0%	0%	17%	18%	0%	0%	
PROJECT	15	0	16	0	0	0	0	0	5	5	0	0	42
Total	113	12	130	20	9	19	66	744	73	119	485	29	1821

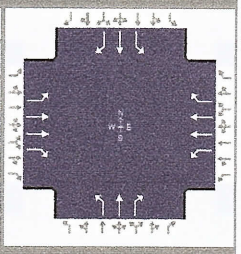
PHF:	0.83
Seasonal Factor:	1.12
Growth rate to 2022:	1.0356
Years Grown to 2022:	4
Growth Rate 2022+	1.01
Years Grown	4
Trips In	**Trips Out**
29	91

Other Projects														
Percentage	2%	0%	0%	0%	0%	0%	0%	8%	2%	0%	8%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
PROJECT	1	0	0	0	0	0	0	16	4	0	6	0	27	
%	9%	0%	0%	0%	0%	0%	0%	7%	5%	0%	7%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	6	0	0	0	0	0	0	16	11	0	5	0	38	
%	0%	0%	0%	0%	0%	0%	0%	18%	0%	0%	18%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	9	0	0	14	0	17	
%	2%	0%	0%	0%	0%	0%	0%	8%	2%	0%	8%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	8	0	0	0	0	0	0	9	3	0	31	0	51	
%	60%	0%	10%	0%	0%	0%	0%	0%	60%	10%	0%	0%		
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Volume	100	0	17	0	0	0	0	0	27	5	0	0	148	
%	0%	0%	2%	0%	0%	0%	0%	20%	0%	2%	20%	0%		
In/Out	-	-	IN	-	-	-	-	IN	-	OUT	OUT	-		
Volume	0	0	1	0	0	0	0	12	0	4	37	0	55	
%	10%	0%	0%	0%	0%	0%	0%	10%	10%	0%	10%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	4	0	0	0	0	0	0	4	4	0	4	0	17	
%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	3%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	10	0	0	10	0	20	
%	0%	0%	0%	0%	0%	0%	0%	18%	0%	0%	18%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	16	0	0	65	0	81	
%	25%	0%	31%	0%	0%	0%	0%	0%	25%	31%	0%	0%		
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Volume	43	0	53	0	0	0	0	0	14	17	0	0	125	
%	0%	0%	13%	0%	0%	0%	0%	0%	0%	13%	0%	0%		
In/Out	-	-	OUT	-	-	-	-	-	-	IN	-	-		
Volume	0	0	2	0	0	0	0	0	0	5	0	0	7	
%	25%	0%	5%	0%	0%	0%	0%	0%	25%	5%	0%	0%		
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Volume	24	0	3	0	0	0	0	0	9	2	0	0	38	
%	5%	0%	0%	0%	0%	0%	0%	10%	5%	0%	10%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	10	0	0	0	0	0	0	6	3	0	20	0	38	
%	0%	12%	0%	18%	12%	0%	0%	0%	0%	0%	0%	18%		
In/Out	-	IN	-	OUT	OUT	-	-	-	-	-	-	IN		
Volume	0	12	0	4	2	0	0	0	0	0	0	19	37	
%	0%	0%	5%	0%	0%	0%	0%	0%	0%	5%	0%	0%		
In/Out	-	-	OUT	-	-	-	-	-	-	IN	-	-		
Volume	0	0	7	0	0	0	0	0	0	2	0	0	9	
%	0%	12%	0%	18%	12%	70%	70%	0%	0%	0%	0%	18%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	13	0	4	3	15	78	0	0	0	0	20	133	
%	0%	0%	5%	0%	0%	0%	0%	0%	0%	5%	0%	0%		
In/Out	-	-	OUT	-	-	-	-	-	-	IN	-	-		
Volume	0	0	1	0	0	0	0	0	0	2	0	0	3	
Subtotal	211	26	102	8	5	15	78	92	77	41	192	39	886	
Total	309	38	216	28	14	34	149	836	146	155	678	68	2655	

Project Name	**Trips In**	**Trips Out**
Pineapple Grove	69	197
Sunnyland	75	223
Project Hunt	76	17
KRE	393	117
Whispering Oaks	45	167
Bent Creek	62	186
Wawa Kings	42	42
Kings Highway Warehouse	342	341
Kings Highway Commerce Park	362	90
Jenkins Waypoint / Hillside	54	170
Project Hurricane	36	12
Celebration Point	30	96
Stonemont	197	55
Orange 95 Parcel B	103	20
Viva at Treasure Coast East / West	43	136
Orange 95 Parcels D & E	111	22
Woodsprings Suites	30	24

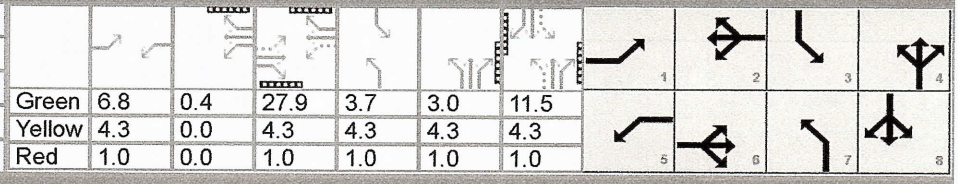
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 26, 2023	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.83
Urban Street	Orange Avenue	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Orange & Jenkins	File Name	C6 - Orange Jenkins - With Project AM.xus		
Project Description	Future Total 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	143	836	146	155	678	68	309	38	216	28	14	34

Signal Information			
Cycle, s	79.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	6.8	0.4	27.9	3.7	3.0	11.5	
Yellow	4.3	0.0	4.3	4.3	4.3	4.3	
Red	1.0	0.0	1.0	1.0	1.0	1.0	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	12.1	33.2	12.5	33.6	17.3	25.1	9.0	16.8
Change Period, ($Y+R_c$), s	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	3.2	3.0	3.2
Queue Clearance Time (g_s), s	6.8	22.5	7.2	17.3	14.0	13.8	3.2	3.8
Green Extension Time (g_e), s	0.1	5.5	0.1	5.6	0.0	0.3	0.0	0.1
Phase Call Probability	0.98	1.00	0.98	1.00	1.00	1.00	0.53	1.00
Max Out Probability	0.09	0.04	0.15	0.02	1.00	0.49	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	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	172	1007	176	187	817	82	372	46	260	34	17	41
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1781	1781	1585	1781	1870	1585	1781	1870	1585
Queue Service Time (g_s), s	4.8	20.5	6.5	5.2	15.3	2.8	12.0	1.5	11.8	1.2	0.6	1.8
Cycle Queue Clearance Time (g_c), s	4.8	20.5	6.5	5.2	15.3	2.8	12.0	1.5	11.8	1.2	0.6	1.8
Green Ratio (*g/C*)	0.44	0.35	0.35	0.44	0.35	0.35	0.32	0.25	0.25	0.19	0.14	0.14
Capacity (*c*), veh/h	335	1246	555	304	1264	562	547	463	393	368	269	228
Volume-to-Capacity Ratio (*X*)	0.514	0.808	0.317	0.614	0.646	0.146	0.680	0.099	0.663	0.092	0.063	0.180
Back of Queue (*Q*), ft/ln (95 th percentile)	79.6	311.6	98.7	86.9	245.3	42.7	249.3	28.3	200.7	22.8	12.1	30
Back of Queue (*Q*), veh/ln (95 th percentile)	3.1	12.3	3.9	3.4	9.7	1.7	9.8	1.1	7.9	0.9	0.5	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	0.00
Uniform Delay (d_1), s/veh	16.5	23.5	19.0	17.8	21.6	17.5	23.9	23.2	27.0	26.7	29.5	30.1
Incremental Delay (d_2), s/veh	0.5	0.5	0.1	0.8	0.2	0.0	2.8	0.0	3.4	0.0	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	0.0
Control Delay (*d*), s/veh	16.9	24.0	19.1	18.5	21.8	17.6	26.7	23.2	30.4	26.8	29.6	30.2
Level of Service (LOS)	B	C	B	B	C	B	C	C	C	C	C	C
Approach Delay, s/veh / LOS	22.5	C		20.9	C		27.9	C		28.8	C	
Intersection Delay, s/veh / LOS	23.3						C					

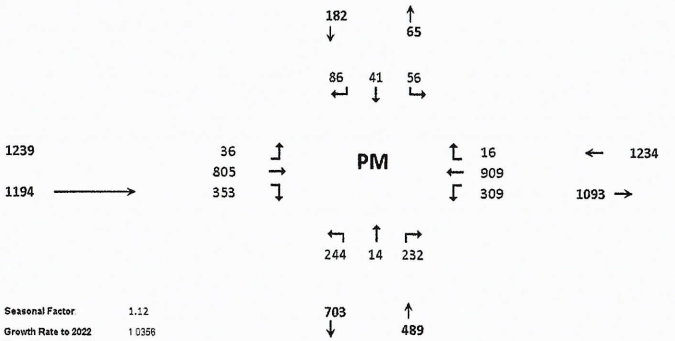
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.10	B	2.10	B	2.44	B	2.45	B
Bicycle LOS Score / LOS	1.61	B	1.38	A	1.61	B	0.64	A

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TURNING MOVEMENT VOLUME COUNTS

Jenkins & Orange Ave
Future Total

15 Min Period Ianes	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	1	18	3	5	4	6	81	18	21	116	5	293	1287
4:15-4:30	16	1	25	5	3	1	2	79	14	32	139	3	320	1393
4:30-4:45	23	1	30	5	5	5	5	94	28	24	131	1	352	1525
4:45-5:00	18	1	22	4	1	2	2	107	20	29	115	1	322	1492
5:00-5:15	16	1	36	5	3	1	3	106	25	56	147	0	399	1428
5:15-5:30	17	2	32	0	3	0	1	139	23	39	194	2	452	
5:30-5:45	15	1	28	1	2	2	1	100	11	28	128	2	319	
5:45-6:00	25	0	24	0	0	1	1	81	17	22	86	1	258	
PM PEAK HOUR IS FROM:			4:30 PM TO 5:30PM											
Volumes	74	5	120	14	12	8	11	446	96	148	587	4	1525	
Season Factor	83	6	134	16	13	9	12	500	108	166	657	4	1708	
Growth to 2022	95	6	155	18	15	10	14	575	124	191	756	5	1965	
Growth 2022-2028	99	7	161	19	16	11	15	598	129	198	787	5	2044	
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Percentage	17%	0%	18%	0%	0%	0%	0%	0%	17%	18%	0%	0%		
PROJECT	10	0	10	0	0	0	0	0	17	18	0	0	54	
Total	109	7	171	19	16	11	15	598	145	216	787	5	2099	
Other Projects														
%	2%	0%	0%	0%	0%	0%	0%	8%	2%	0%	8%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
PROJECT	5	0	0	0	0	0	0	11	3	0	19	0	37	
%	8%	0%	0%	0%	0%	0%	0%	7%	5%	0%	7%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	21	0	0	0	0	0	0	11	8	0	18	0	58	
%	0%	0%	0%	0%	0%	0%	0%	18%	0%	0%	18%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	10	0	0	3	0	14	
%	2%	0%	0%	0%	0%	0%	0%	8%	2%	0%	8%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	3	0	0	0	0	0	0	31	8	0	12	0	54	
%	60%	0%	10%	0%	0%	0%	0%	0%	60%	10%	0%	0%		
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Volume	56	0	9	0	0	0	0	0	103	17	0	0	186	
%	0%	0%	2%	0%	0%	0%	0%	20%	0%	2%	20%	0%		
In/Out	-	-	IN	-	-	-	-	IN	-	OUT	OUT	-		
Volume	0	0	4	0	0	0	0	39	0	2	23	0	67	
%	10%	0%	0%	0%	0%	0%	0%	10%	10%	0%	10%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	6	0	0	0	0	0	0	6	6	0	6	0	23	
%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	3%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	14	0	0	14	0	27	
%	0%	0%	0%	0%	0%	0%	0%	18%	0%	0%	18%	0%		
In/Out	-	-	-	-	-	-	-	OUT	-	-	IN	-		
Volume	0	0	0	0	0	0	0	67	0	0	21	0	87	
%	25%	0%	31%	0%	0%	0%	0%	0%	25%	31%	0%	0%		
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Volume	27	0	33	0	0	0	0	0	46	56	0	0	162	
%	0%	0%	15%	0%	0%	0%	0%	0%	0%	15%	0%	0%		
In/Out	-	-	OUT	-	-	-	-	-	-	IN	-	-		
Volume	0	0	6	0	0	0	0	0	0	3	0	0	9	
%	25%	0%	5%	0%	0%	0%	0%	0%	25%	5%	0%	0%		
In/Out	OUT	-	OUT	-	-	-	-	-	IN	IN	-	-		
Volume	14	0	3	0	0	0	0	0	25	5	0	0	47	
%	5%	0%	0%	0%	0%	0%	0%	10%	5%	0%	10%	0%		
In/Out	IN	-	-	-	-	-	-	OUT	OUT	-	IN	-		
Volume	4	0	0	0	0	0	0	19	10	0	7	0	39	
%	0%	12%	0%	18%	12%	0%	0%	0%	0%	0%	0%	18%		
In/Out	-	IN	-	OUT	OUT	-	-	-	-	-	-	IN		
Volume	0	3	0	18	12	0	0	0	0	0	0	5	38	
%	0%	0%	5%	0%	0%	0%	0%	0%	0%	5%	0%	0%		
In/Out	-	-	OUT	-	-	-	-	-	-	IN	-	-		
Volume	0	0	4	0	0	0	0	0	0	7	0	0	11	
%	0%	12%	0%	18%	12%	70%	70%	0%	0%	0%	0%	18%		
In/Out	-	IN	-	OUT	OUT	OUT	IN	-	-	-	-	IN		
Volume	0	4	0	19	13	75	21	0	0	0	0	5	137	
%	0%	0%	5%	0%	0%	0%	0%	0%	0%	5%	0%	0%		
In/Out	-	-	OUT	-	-	-	-	-	-	IN	-	-		
Volume	0	0	2	0	0	0	0	0	0	2	0	0	8	
Subtotal	145	7	71	37	25	75	21	207	224	111	122	10	1055	
Total	244	14	232	56	41	86	36	805	353	309	909	16	3099	

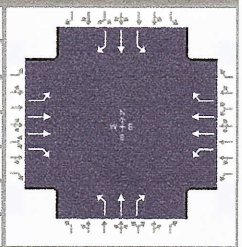


Seasonal Factor	1.12
Growth Rate to 2022	1.0356
Years Grown to 2022:	4
Growth Rate 2022+	1.01
Years Grown 2022+:	4
PHF:	0.84
Trips In	**Trips Out**
98	57

	Trips In	Trips Out
Pineapple Grove	238	137
Sunnyland	261	154
Project Hunt	19	57
KRE	151	389
Whispering Oaks	172	94
Bent Creek	193	113
Wawa Kings	57	58
Kings Highway Warehouse	458	216
Kings Highway Commerce Park	115	371
Jenkins Waypoint / Hillside	182	107
Project Hurricane	23	37
Celebration Point	100	57
Stonemont	70	192
Orange 95 Parcel B	28	99
Viva at Treasure Coast East / West	142	83
Orange 95 Parcels D & E	30	107
Woodsprings Suites	32	30

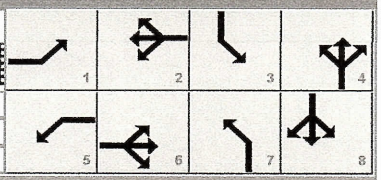
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.250
Analyst	James Kemp	Analysis Date	Jul 26, 2023	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.84
Urban Street	Orange Avenue	Analysis Year	2026	Analysis Period	1> 4:00
Intersection	Orange & Jenkins	File Name	C6 - Orange Jenkins - With Project PM.xus		
Project Description	2025 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	36	805	353	309	909	16	244	14	232	56	41	86

Signal Information			
Cycle, s	86.9	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	4.5	2.2	29.9	5.6	1.1	11.7	
Yellow	4.3	4.3	4.3	4.3	4.3	4.3	
Red	1.0	1.0	1.0	1.0	1.0	1.0	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	3.0
Phase Duration, s	9.8	35.2	17.3	42.7	17.3	23.4	10.9	17.0
Change Period, ($Y+R_c$), s	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Max Allow Headway (*MAH*), s	3.0	3.0	3.0	3.0	3.0	3.2	3.0	3.2
Queue Clearance Time (g_s), s	3.3	23.0	13.2	23.6	13.9	16.5	4.7	7.2
Green Extension Time (g_e), s	0.0	7.0	0.0	6.9	0.0	0.2	0.0	0.5
Phase Call Probability	0.64	1.00	1.00	1.00	1.00	1.00	0.80	1.00
Max Out Probability	0.00	0.11	1.00	0.12	1.00	1.00	0.00	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	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	43	958	420	368	1082	19	290	17	276	67	49	102
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1781	1585	1781	1781	1585	1781	1870	1585	1781	1870	1585
Queue Service Time (g_s), s	1.3	21.0	20.5	11.2	21.6	0.6	11.9	0.6	14.5	2.7	2.0	5.2
Cycle Queue Clearance Time (g_c), s	1.3	21.0	20.5	11.2	21.6	0.6	11.9	0.6	14.5	2.7	2.0	5.2
Green Ratio (*g/C*)	0.40	0.34	0.34	0.51	0.43	0.43	0.30	0.21	0.21	0.20	0.14	0.14
Capacity (*c*), veh/h	258	1227	546	390	1534	683	481	390	331	386	253	214
Volume-to-Capacity Ratio (*X*)	0.166	0.781	0.769	0.944	0.705	0.028	0.604	0.043	0.835	0.173	0.193	0.478
Back of Queue (*Q*), ft/ln (95 th percentile)	22.4	325.6	293.9	296.2	323	9	214.8	12	276.3	50.2	40.1	88.3
Back of Queue (*Q*), veh/ln (95 th percentile)	0.9	12.8	11.6	11.7	12.7	0.4	8.5	0.5	10.9	2.0	1.6	3.5
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	17.8	25.5	25.4	18.5	20.2	14.2	25.8	27.4	32.9	28.9	33.4	34.7
Incremental Delay (d_2), s/veh	0.1	0.6	1.1	31.3	0.7	0.0	1.5	0.0	15.8	0.1	0.1	0.6
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	17.9	26.1	26.5	49.8	20.9	14.2	27.4	27.5	48.7	29.0	33.5	35.4
Level of Service (LOS)	B	C	C	D	C	B	C	C	D	C	C	D
Approach Delay, s/veh / LOS	26.0	C		28.0	C		37.5	D		33.0	C	
Intersection Delay, s/veh / LOS	29.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.09	B	2.44	B	2.45	B
Bicycle LOS Score / LOS	1.66	B	1.70	B	1.45	A	0.85	A

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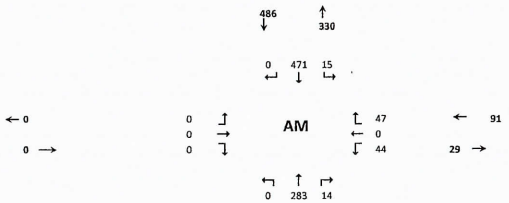
APPENDIX F

DRIVEWAY ANALYSIS

TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Jenkins Ave **E/W STREET:** Project Driveway **CONTROL:** TWSC
FILENAME:
COUNT DATE: 2/27/2018 **DAY:** Wednesday **CITY:** St Lucie
REPORT DATE: 7/26/2023 **ANALYSIS YEAR:** 2026 Future Total

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	35	0	0	52	0	0	0	0	0	0	0	87	494
7:15-7:30	0	51	0	0	63	0	0	0	0	0	0	0	114	513
7:30 7:45	0	65	0	0	78	0	0	0	0	0	0	0	143	526
7:45-8:00	0	53	0	0	97	0	0	0	0	0	0	0	150	520
8:00-8:15	0	45	0	0	61	0	0	0	0	0	0	0	106	526
8:15 8:30	0	59	0	0	68	0	0	0	0	0	0	0	127	
8:30-8:45	0	50	0	0	87	0	0	0	0	0	0	0	137	
8:45-9:00	0	55	0	0	101	0	0	0	0	0	0	0	156	



AM PEAK HOUR IS FROM: 8:00AM TO 9:00AM

Volumes	0	209	0	0	317	0	0	0	0	0	0	0	526
Season Factor	0	209	0	0	317	0	0	0	0	0	0	0	526
Growth to 2022	0	217	0	0	330	0	0	0	0	0	0	0	547
Growth 2022-2028	0	226	0	0	343	0	0	0	0	0	0	0	570
In/Out	-	-	IN	IN	-	-	-	-	-	OUT	-	OUT	
Percentage	0%	0%	48%	52%	0%	0%	0%	0%	0%	48%	0%	52%	
PROJECT	0	0	14	15	0	0	0	0	0	44	0	47	120
Total	0	226	14	15	343	0	0	0	0	44	0	47	690

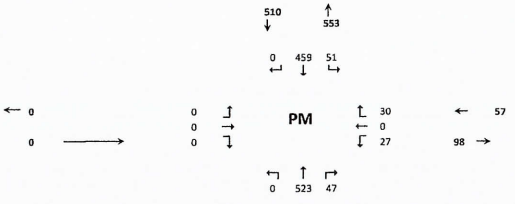
PHF:	0.84
Seasonal Factor:	1
Growth rate to 2022:	1.01
Years Grown to 2022:	4
Growth Rate 2022+:	1.01
Years Grown:	4
Trips In	Trips Out
29	91

Other Projects													Project Name		
%	0%	41%	0%	0%	41%	0%	0%	0%	0%	0%	0%	0%	Whispering Oaks		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	18	0	0	68	0	0	0	0	0	0	0	0	45	167
%	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	Bent Creek		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	1	0	0	4	0	0	0	0	0	0	0	0	62	186
%	0%	8%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%	Wawa Kings		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	3	0	0	3	0	0	0	0	0	0	0	0	42	42
%	0%	50%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	Celebration Point		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	15	0	0	48	0	0	0	0	0	0	0	0	30	96
%	0%	3%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	Stonemont		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	6	0	0	2	0	0	0	0	0	0	0	0	197	55
%	0%	12%	0%	0%	12%	0%	0%	0%	0%	0%	0%	0%	Orange 95 Parcel B		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	12	0	0	2	0	0	0	0	0	0	0	0	103	20
Subtotal	0	56	14	15	128	0	0	0	0	44	0	47	120		
	0	283	14	15	471	0	0	0	0	44	0	47	690		

F-1

Jenkins & Project Driveway
Future Total

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	88	0	0	96	0	0	0	0	0	0	0	184	698
4:15-4:30	0	106	0	0	80	0	0	0	0	0	0	0	186	689
4:30-4:45	0	81	0	0	84	0	0	0	0	0	0	0	165	662
4:45-5:00	0	84	0	0	79	0	0	0	0	0	0	0	163	653
5:00 5:15	0	70	0	0	105	0	0	0	0	0	0	0	175	627
5:15-5:30	0	72	0	0	87	0	0	0	0	0	0	0	159	
5:30-5:45	0	83	0	0	73	0	0	0	0	0	0	0	156	
5:45 6:00	0	66	0	0	71	0	0	0	0	0	0	0	137	



PM PEAK HOUR IS FROM: 4:00PM TO 5:00PM

Volumes	0	359	0	0	339	0	0	0	0	0	0	0	698
Season Factor	0	359	0	0	339	0	0	0	0	0	0	0	698
Growth to 2022	0	374	0	0	353	0	0	0	0	0	0	0	726
Growth 2022-2028	0	389	0	0	367	0	0	0	0	0	0	0	756
In/Out	-	-	IN	IN	-	-	-	-	-	OUT	-	OUT	
Percentage	0%	0%	48%	52%	0%	0%	0%	0%	0%	48%	0%	52%	
PROJECT	0	0	47	51	0	0	0	0	0	27	0	30	155
Total	0	389	47	51	367	0	0	0	0	27	0	30	911

Seasonal Factor	1
Growth Rate to 2022	1.01
Years Grown to 2022:	4
Growth Rate 2022+	1.01
Years Grown 2022+	4
PHF:	0.94
Trips In	Trips Out
98	57

Other Projects															
%	0%	41%	0%	0%	41%	0%	0%	0%	0%	0%	0%	0%	Whispering Oaks		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	71	0	0	39	0	0	0	0	0	0	0	109	172	94
%	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	Bent Creek		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	4	0	0	2	0	0	0	0	0	0	0	6	193	113
%	0%	8%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%	Wawa Kings		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	5	0	0	5	0	0	0	0	0	0	0	9	57	58
%	0%	50%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	Celebration Point		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			
Volume	0	50	0	0	29	0	0	0	0	0	0	0	79	100	57
%	0%	3%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	Stonemont		
In/Out	-	IN	-	-	OUT	-	-	-	-	-	-	-			

HCS Two-Way Stop-Control Report

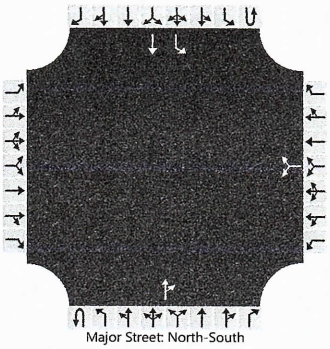
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/27/2023
Analysis Year	2026
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Future Total with Project

Site Information

Intersection	Jenkins Rd & Project Driveway
Jurisdiction	St. Lucie
East/West Street	Project Driveway
North/South Street	Jenkins Road
Peak Hour Factor	0.84
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

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		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						44		47			283	14		15	471	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
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)							108							18		
Capacity, c (veh/h)							411							1200		
v/c Ratio							0.26							0.01		
95% Queue Length, Q_{95} (veh)							1.0							0.0		
Control Delay (s/veh)							16.9							8.0		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)					16.9								0.2			
Approach LOS					C								A			

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HCS Two-Way Stop-Control Report

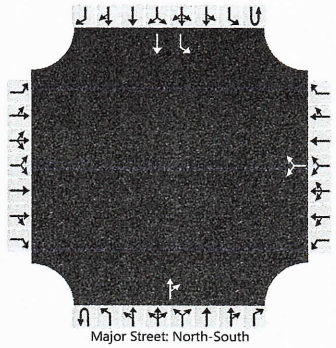
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	7/27/2023
Analysis Year	2026
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Future Total with Project

Site Information

Intersection	Jenkins Rd & Project Driveway
Jurisdiction	St. Lucie
East/West Street	Project Driveway
North/South Street	Jenkins Road
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

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		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						27		30			523	47		51	459	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
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)							61							54		
Capacity, c (veh/h)							292							967		
v/c Ratio							0.21							0.06		
95% Queue Length, Q_{95} (veh)							0.8							0.2		
Control Delay (s/veh)							20.5							8.9		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)					20.5								0.9			
Approach LOS					C								A			

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When Not to Consider Exclusive Right-Turn Lanes

- Dense or built-out corridors with limited space
- Right-turn lane that would negatively impact pedestrians or bicyclists
- Vehicular movements from driveways or median openings that cross the right-turn lane resulting in multiple threat crashes
- Context classifications C2T, C4, C5, or C6

When Exclusive Right-Turn Lanes are Beneficial

There are instances when adding an exclusive right-turn lane for unsignalized driveways are beneficial to traffic operations and safety. ***Table 27*** provides some guidance for this situation based on the speed limit of the roadway and how many right turns occur per hour. Locations where the Auto and Truck Modal Emphasis is "High" may be appropriate for consideration of Exclusive Right Turn Lanes.

Table 27 – Recommended Guidelines for Exclusive Right-Turn Lanes to Unsignalized Driveway[10]

Roadway Posted Speed Limit	Number of Right Turns Per Hour
45 mph or less	80 – 125[1]
Over 45 mph	35 – 55[2]
Note: A posted speed limit of 45 mph may be used with these thresholds if the operating speeds are known to be over 45 mph during the time of peak right turn demand.	
Note on traffic projections: Projecting turning volumes is, at best, a knowledgeable estimate. Keep this in mind especially if the projections of right turns are close to meeting the guidelines. In that case, consider requiring the turn lane.	
[1] The lower threshold of 80 right-turn vehicles per hour would be most used for higher volume (greater than 600 vehicles per hour, per lane in one direction on the major roadway) or two-lane roads where lateral movement is restricted. The 125 right-turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with a large entry radius (50 feet or greater).	
[2] The lower threshold of 35 right-turn vehicles per hour would be most appropriately used on higher volume two-lane roadways where lateral movement is restricted. The 55 right-turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with large entry radius (50 feet or greater).	

Source: NCHRP Report 420 (Impacts of Access Management Techniques)

These recommendations are primarily based on the research done in NCHRP Report 420, Impacts of Access Management Techniques, Chapter 4 – Unsignalized Access Spacing (Technique 1B), and Use of Speed Differential as a Measure to Evaluate the Need for Right-Turn Deceleration Lane at Unsignalized Intersections.

In the *NCHRP Report 420*, the observed high-speed roads, 30 to 40 right-turn vehicles per hour caused evasive maneuvers on 5 - 10 percent of the following through vehicles. For lower speed roadways, 80 to 110 right-turn vehicles caused 15 - 20 percent of the following through vehicles to make evasive maneuvers. The choice of acceptable percentages of through vehicles impacted is a decision based on reasonable expectations of the different roadways.

In this study, by modeling speed differentials, a better understanding of the impacts of through volume and driveway radius was discovered.

[10] May not be appropriate for signalized locations where signal phasing plays an important role in determining the need for right turn lanes.

NCHRP 279 Consistency

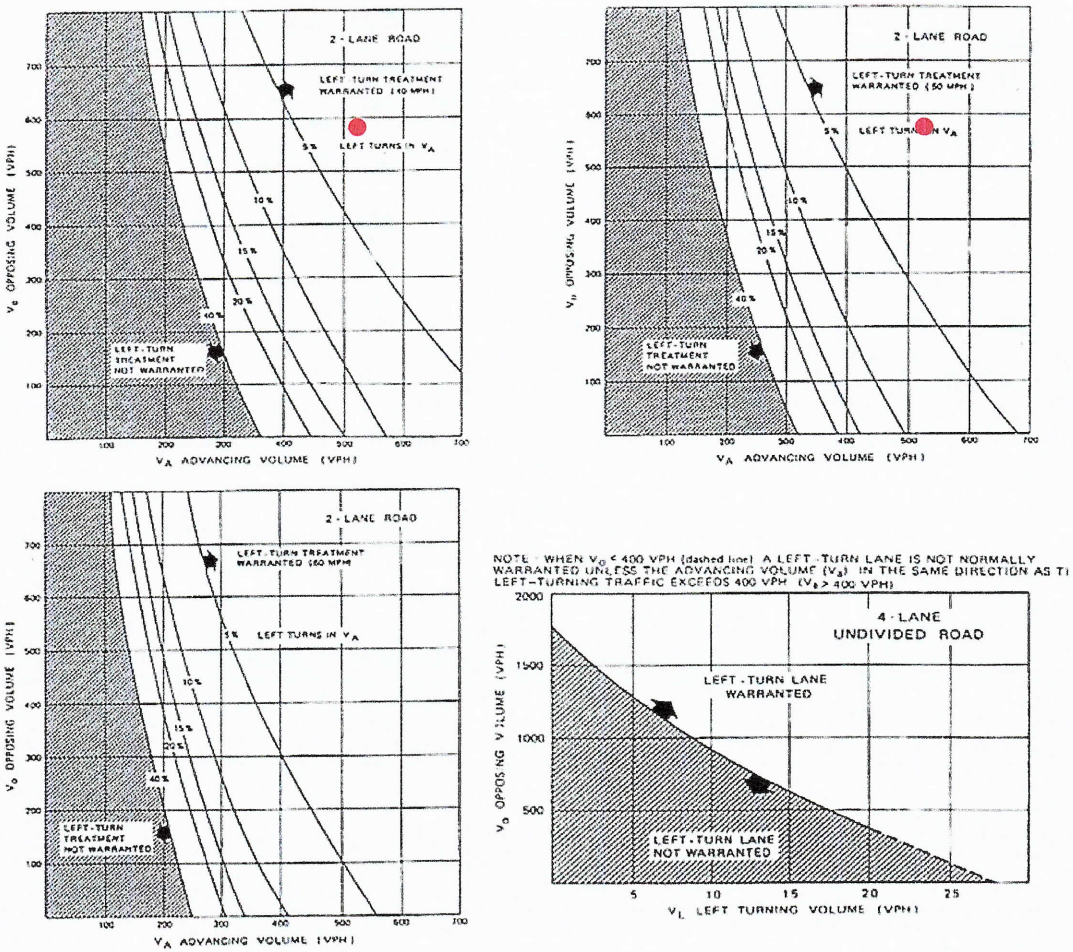
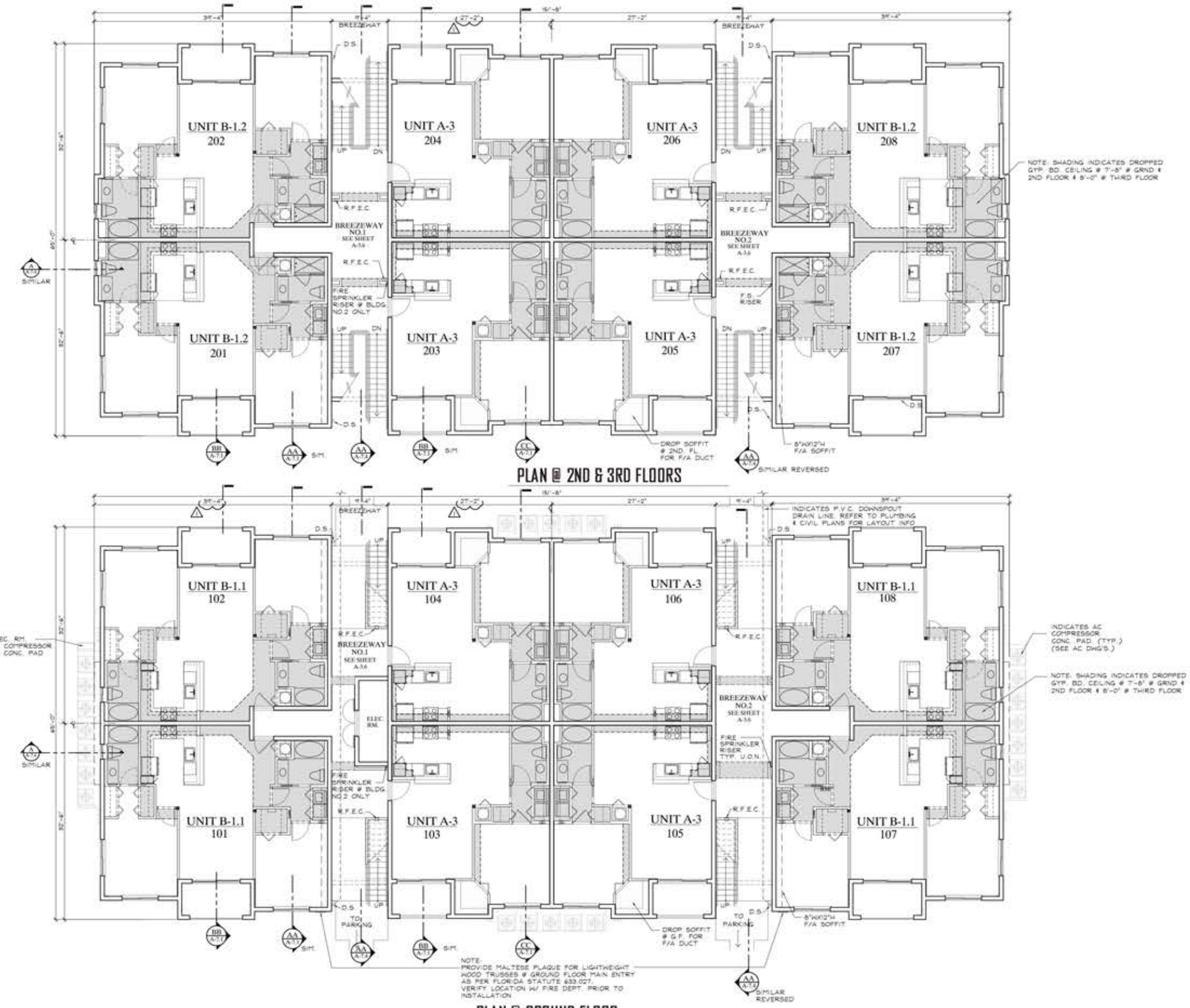


Figure 4-12. Volume warrants for left-turn lanes at unsignalized intersections. (Source: Ref. 4-7)



General Notes

TYPE A BUILDING - FLOORPLAN

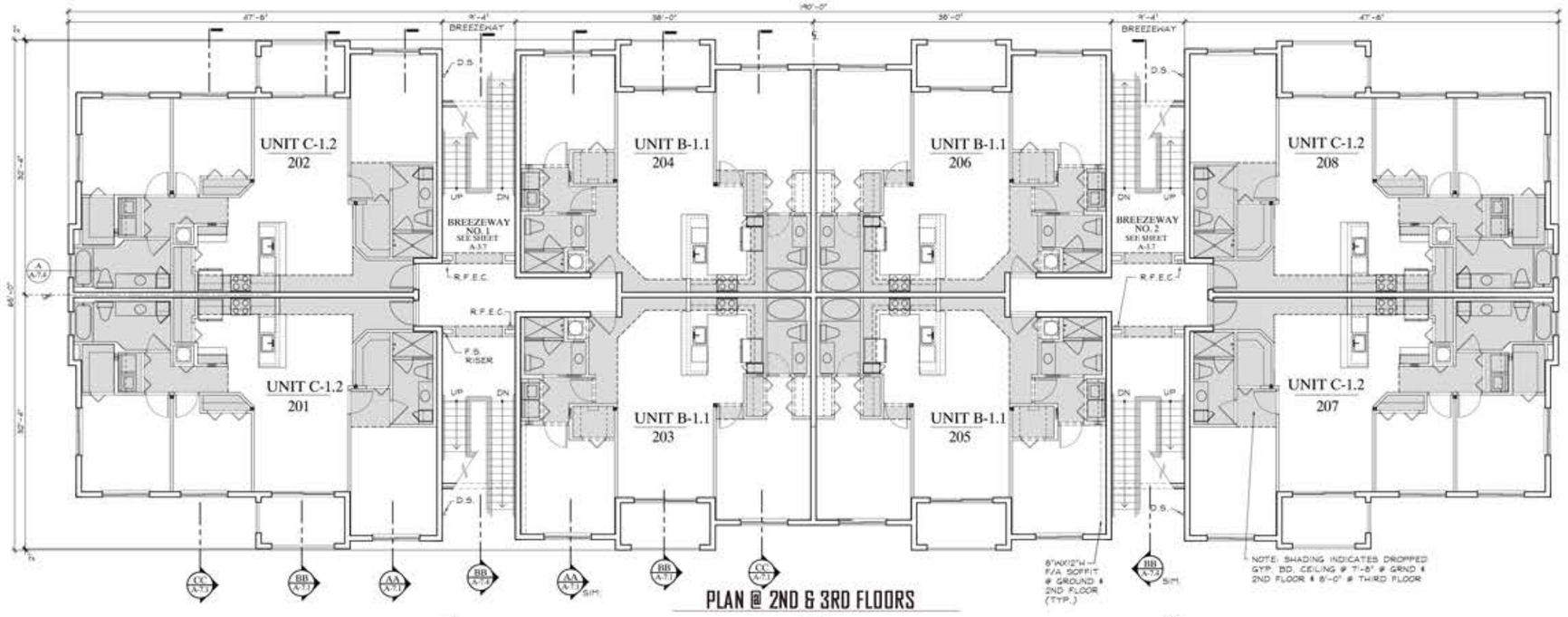
No.	Revision/Issue	Date

Firm Name and Address

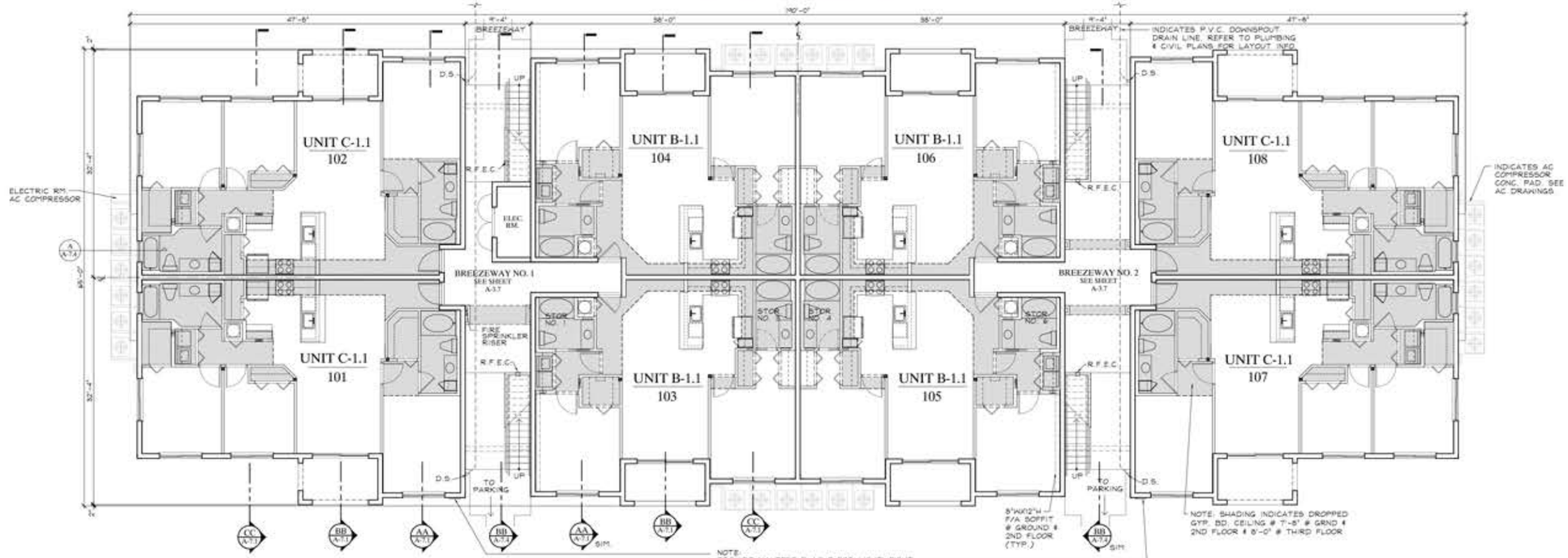
Project Name and Address

Regatta
2190 S Jenkins Rd
Fort Pierce FL 34947

Project: Regatta	Sheet: 01
Date: 8-15-23	
Scale: As Noted	



PLAN @ 2ND & 3RD FLOORS



PLAN @ GROUND FLOOR

General Notes

TYPE B BUILDING - FLOORPLAN

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
Regatta
2190 S Jenkins Rd
Fort Pierce FL 34947

Project: Regatta	Sheet: 02
Date: 8-15-23	
Scale: As Noted	

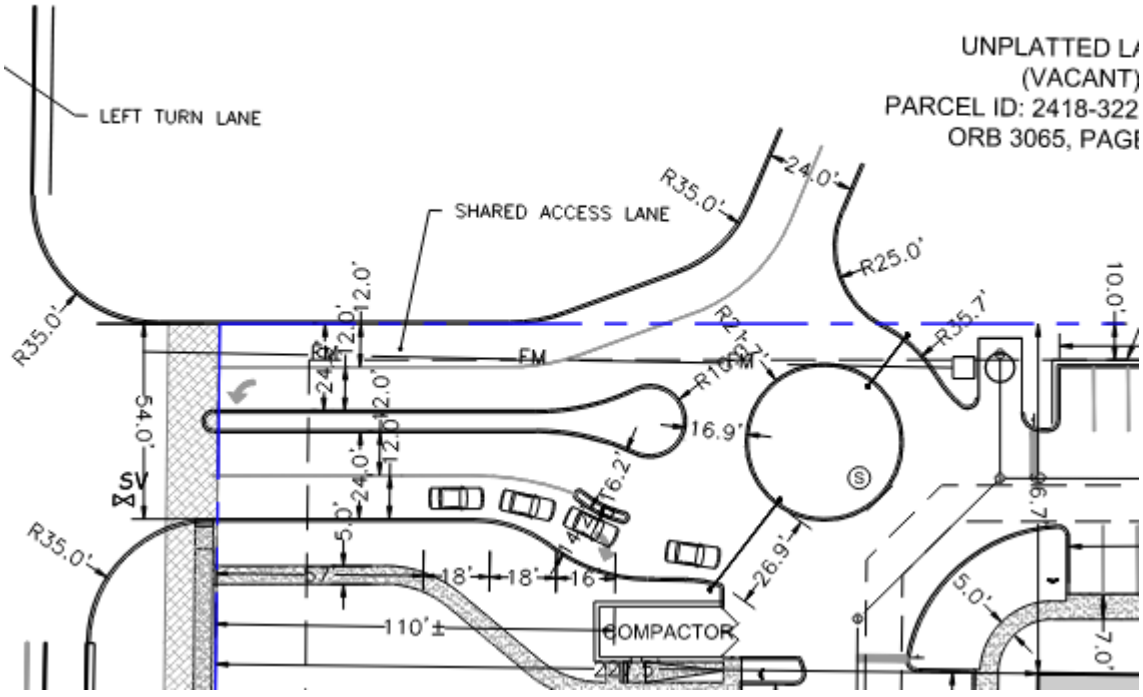
KMA Engineering & Surveying

3001 Industrial Ave 2
Fort Pierce, Fl. 34946
772-569-5505

July 25, 2024

Subject: Regatta Luxury Apartments Minor Site Plan Amendment
Location: 2144, 2152, & 2190 Jenkins Road
RE: Written Narrative

Regatta Apartments was previously approved by the City of Ft. Pierce to have a shared entrance with the property to the North. Below is a depiction of the approved entrance. During permitting with St. Lucie County it was determined that the project to the North was no longer moving forward. We coordinated with the Engineering Department at St. Lucie County to redesign the entrance and to minimally effect the overall design of our project. The attached submittal has been reviewed by St. Lucie County and approved conceptually. We are submitting a Minor Site Plan Amendment to the City to approve the redesign of the project's entrance



We hope we have sufficiently addressed all your concerns. If you have any questions, please do not hesitate to contact us. Thank You for your time in reviewing this submittal.

Cordially,



Blaine Bergstresser, P.E.