CITY OF FORT PIERCE
TECHNICAL REVIEW COMMITTEE

AGENDA

Regular Meeting of the Fort Pierce Technical Review Committee to be held Thursday, May 20, 2021 at 10:00 a.m. in the William D. Dannahower, 2nd Floor Conference Room, 100 North U.S. Highway 1.

1. **Call to Order**

2. **Roll Call**

3. **New Business:**

   a. Annexation – 1701 Woodward Drive

   b. Future Land Use Map Amendment and Rezoning - RV Storage - 2192 Copenhaver Road

   c. Rezoning (Planned Development) and Preliminary Plat - Oleander Oaks - Parcel ID: 2433-144-0002-000-3

   d. Site Plan – Kings Landing – 322 N. 2nd Street

   e. Site Plan, Preliminary Plat and Variance - Surfside Quadruplex - Parcel ID: 2412-501-0132-000-3

   f. Site Plan – Taylor Creek Development – Parcel ID: 1433-431-0001-000-4

   g. Site Plan – Kings Highway Commerce Park – 2496 S. Kings Highway

   h. Site Plan and Conditional Use - Ft. Pierce Self Storage - 481 Ohio Avenue

4. **Public Comments**

5. **Staff Comments**

6. **Adjournment**

Technical Review Committee **3. a.**

Meeting Date: 05/20/2021

REQUESTED ACTION

Annexation – 1701 Woodward Drive

LOCATION

1701 Woodward Drive

RESPONSIBLE STAFF

Brandon C. Creagan, MCRP, LEED Green Associate, Planner

RECOMMENDATION

Review & Provide Comments

Attachments

TRC Packet

Form Review

Form Started By: Brandon Creagan Started On: 04/30/2021 09:00 PM

Final Approval Date: 05/01/2021

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO: JACK ANDREWS, PE, CITY ENGINEER
MIKE REALS, FP PUBLIC WORKS MANAGER
CHIEF HOBLEY-BURNEY, FP POLICE DEPARTMENT
PAUL THOMAS, FP BUILDING OFFICIAL
JAMES CARNES, PE, FPUA ENGINEERING (WATER/WASTEWATER)
PAUL LAGUERRE, PE, FPUA ENGINEERING (ELECTRIC)
ROD REED, PLS, SLC SURVEYING
GRANT CHAMBERS, PE, SLC ENGINEERING
LESLIE OLSON, AICP, SLC PLANNING & DEVELOPMENT DIRECTOR
DIVISION CHIEF PAUL LANGEL, SLC FIRE DISTRICT
PEGGY ARRAIZ, FP CODE ENFORCEMENT
PETER BUCHWALD, AICP, SLC TRANSPORTATION PLANNING ORGANIZATION
MURRIAH DECKLE, AICP, SLC TRANSIT SERVICES

FROM: BRANDON CREAGAN, LEED GREEN ASSOCIATE, PLANNER

RE: TECHNICAL REVIEW PROJECT# 21-02000005

DATE: APRIL 30, 2021

Annexation – 1701 Woodward Drive

Attached is an Application for Voluntary Annexations for a property located at 1701 Woodward Drive. The property is approximately 0.42 acres and currently has a St. Lucie County Zoning of Residential Single Family, 4 Dwelling Units/Acre (RS-4), it also has a St. Lucie County Future Land Use of Residential Urban 5 du/ac (RU). Once annexed the City would assign a Zoning of Single Family Low Density (R-1) and assign a Future Land Use of Low Density Residential (RL). The parcel ID for the property is 1433-701-0519-000-6

Please review and provide comments on the project. Please send all comments to my email Bcreagan@cityoffortpierce.com or through interoffice mail to the Planning Department. If you have comments, please respond by May 18, 2021.

Please do not hesitate to contact me should you require any additional information at 772-467-3742.

Thank you.

Brandon Creagan

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

APPLICATION FOR ANNEXATION

Annexation applications will require the adoption of an ordinance which will require a public meeting before the Planning Board and two public hearings before the City Commission.

Application submission shall include the following:

- **TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.
- **Planning Board**: One (1) original and (16) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.
- **City Commission**: One (1) original and (11) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

In addition to a complete application, packets shall include:

- Warranty Deed
- Current Survey (completed within the last 12 months)

1. Address: 1701 Woodward Dr. Fort Pierce, FL. 34946
2. Legal description of real property for which annexation is being requested:
   Lot 1, Block 31, PARADISE PARK, according to the map or plat thereof as recorded in Plat Book 8, Page 17, Public Records of Saint Lucie County, Florida
   Property Tax ID: Parcel #: 1433-701-0519-000-6
3. Size of described property: 18,295 sqft, .42 Acres
4. Project description: single family home, looking to annex this into the city of Fort Pierce.
5. Current St. Lucie County Future Land Use Designation: RU
6. Current St. Lucie County Zoning: RS-4
7. Is this a Historic property? I don't believe so.
8. Appraised value: $200,000
9. Name of Owner(s): Daniel A. Ramirez
   Signature of Owner(s): D. A. R.
   Mailing Address: 302 HOLLY AVE.
   City PORT ST. LUCIE State FL. Zip 34952
   Phone 772-573-2729 Fax

10. Name of Representative: _____

Signature of representative: _____
Mailing Address: _____
City) _____ State _____ Zip _____
Phone _____ Fax _____
E-mail: _____

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

OFFICE USE:

DATE RECEIVED: _____ Signed: _____

File Number: _____ Check No: _____ Receipt No: _____

TRC Review: _____ Planning Board Review: _____ City Commission: _____

Ordinance No: _____ Date Approved: _____

This Instrument Prepared by and Return to:

Charles F. Posess, Esq.
Patch Reef Title Company, Inc.
9702 Reserve Boulevard
Port St. Lucie, FL 34986
Our File No.: **921132MK**
Property Appraisers Parcel Identification (Folio) Number: **1433-701-0519-000-6**

_____ Space above this line for Recording Data _____

WARRANTY DEED

THIS WARRANTY DEED, made the 24 day of **March, 2021** by **Keron R. Belgraves and Myrna I. Tamar, husband and wife**, whose post office address is **1592 SW Fortune Road, Port Saint Lucie , FL 34953** herein called the Grantors, to **Daniel A. Ramirez and Diane Ramirez, husband and wife,** whose post office address is **302 Holly Avenue, Port Saint Lucie. FL 34952**, hereinafter called the Grantee:
(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

W I T N E S S E T H: That the Grantors, for and in consideration of the sum of TEN AND 00/100'S ($10.00) Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee all that certain land situate in ST. LUCIE County, State of Florida, viz.:

Lot 1, Block 31, PARADISE PARK, according to the map or plat thereof as recorded in Plat Book 8, Page 17, Public Records of Saint Lucie County, Florida

Subject to easements, restrictions and reservations of record and taxes for the year 2021 and thereafter.

TOGETHER, with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND, the Grantors hereby covenant with said Grantee that the Grantors are lawfully seized of said land in fee simple; that the Grantors have good right and lawful authority to sell and convey said land, and hereby warrant the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2021.

IN WITNESS WHEREOF, the said Grantors have signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in the presence of:

Witness #1 Signature

MICHELLE L. KINCH

Witness #1 Printed Name

Witness #2 Signature

Sherri Sullivan

Witness #2 Printed Name

_____ (Seal)
Keron R. Belgraves

_____ (Seal)
Myrna I. Tamar

State of Florida
County of St. Lucie

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 25 day of March, 2021, by Keron R. Belgraves and Myrna I. Tamar, who are personally known to me or have produced DL as identification.

Notary Public

[SEAL]

Printed Notary Name
My Commission Expires:

MICHELLE L. KINCH
MY COMMISSION # GG 099102
EXPIRES: June 15, 2021
Bonded Thru Notary Public Underwriters

LEGAL DESCRIPTION:
LOT 1, BLOCK 31, PLAT OF PARADISE PARK, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 8, PAGE(S) 17, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

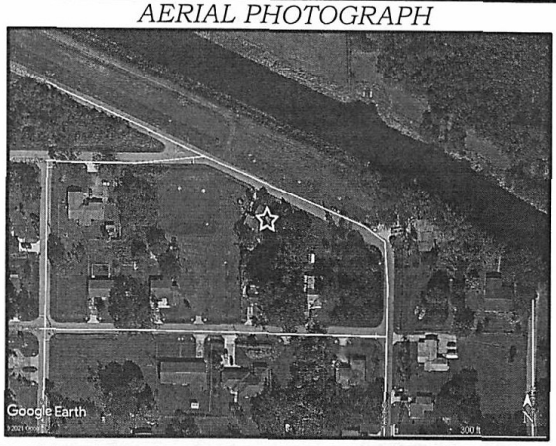
JOB NUMBER: 2103-138

FIELD WORK DATE: 03/18/2021

PROPERTY ADDRESS:
1701 WOODWARD DRIVE, FORT PIERCE, FL 34946

FLOOD INFORMATION:
PANEL NUMBER: 12111C0177K
FIRM DATE: FEBRUARY 19, 2020
FLOOD ZONE: X
BASE FLOOD ELEVATION: NA
COMMUNITY NAME: ST. LUCIE COUNTY
COMMUNITY NUMBER: 120285

AERIAL PHOTOGRAPH



SURVEYOR'S LEGEND

A/C = AIR CONDITIONING
BB = BEARING BASIS
BFP = BACKFLOW PREVENTER
BLDG = BUILDING
BLK = BLOCK
BM = BENCHMARK
C = CURVE
CATV = CABLE T.V. RISER
CB = CATCH BASIN
CL = CENTERLINE
CLF = CHAIN LINK FENCE
CLP = CONCRETE LIGHT POLE
CONC = CONCRETE
CP = CONTROL POINT
CPP = CONCRETE POWER POLE
D = DEED
DF = DRAINFIELD
ELEV = ELEVATION
EM = ELECTRIC METER
EOW = EDGE OF WATER
EP = EDGE OF PAVEMENT
F = FIELD
FCM = FOUND CONCRETE MONUMENT
FDH = FOUND DRILL HOLE
FFE = FINSHED FLOOR ELEVATION
FIP = FOUND IRON PIPE
FIPC = FOUND IRON PIPE AND CAP
FIR = FOUND IRON ROD
FIRC = FOUND IRON ROD AND CAP
FN = FOUND NAIL
FN&D = FOUND NAIL AND DISC
FND = FOUND
FPK = FOUND PK NAIL
FPKD = FOUND PK NAIL AND DISC
FRRSPK = FOUND RAILROAD SPIKE
GAR = GARAGE
HYD = FIRE HYDRANT
ID = IDENTIFICATION
L = LENGTH
LB # = LICENSED BUSINESS
LS # = LICENSED SURVEYOR
M = MEARSURED
MB = MAP BOOK
MES = MITERED END SECTION
MH = MANHOLE
MLP = METAL LIGHT POLE
OHW = OVERHEAD WIRES
P = PLAT
PB = PLAT BOOK
PC = POINT OF CURVATURE
PCC = POINT OF COMPOUND CURVATURE
PCP = PERMANENT CONTOL POINT
POB = POINT OF BEGINNING
POC = POINT OF COMMENCEMENT
PP = POOL PUMP
PRC = POINT OF REVERSE CURVATURE
PRM = PERMANENT REFERENCE MONUMENT
PT = POINT OF TANGENCY
R = RADIUS
RNG = RANGE
R/W = RIGHT OF WAY
S = SEPTIC
SEC = SECTION
SIR = SET IRON ROD AND CAP
SPKD = SET PK NAIL AND DISC
SV = SEWER VALVE
TBM = TEMPORARY BENCHMARK
TOB = TOP OF BANK
TWP = TOWNSHIP
TR = TELEPHONE RISER
TYP = TYPICAL
WIT = WITNESS
WLP = WOOD LIGHT POLE
WM = WATER METER
WPP = WOOD POWER POLE
WV = WATER VALVE

LINETYPES

= BOUNDARY LINE
= STRUCTURE LINE
= CENTERLINE
= EASEMENT LINE
= FENCE LINE
= OLD LOT LINE

SYMBOLS

= FIRE HYDRANT
= CATCH BASIN
= WATER METER
= SANITARY MANHOLE
= POWER POLE
= CABLE T.V. SERVICE
= GAS SERVICE
= ELECTRIC SERVICE
= LIGHT POLE
= TELEPHONE SERVICE
= WELL
= DRAINAGE MANHOLE
= BENCHMARK
= SANITARY SERVICE

SURVEYOR'S NOTES

1. THIS SURVEY DOES NOT DETERMINE OR INDICATE LAND OWNERSHIP.
2. THE SURVEYOR DID NOT RESEARCH OR ABSTRACT THE LAND RECORDS FOR RIGHTS-OF-WAY, EASEMENTS, RESERVATIONS, DEED RESTRICTIONS, ZONING REGULATIONS, SETBACKS, LAND USE PLAN DESIGNATIONS, ADJOINING DEEDS, LIENS, MURPHY ACT RIGHTS-OF-WAY, AREAS OF LOCAL CONCERN, OR OTHER SIMILAR JURISDICTIONAL DETERMINATIONS. TO THE EXTENT THAT THIS TYPE OF INFORMATION IS SHOWN, IT IS SHOWN SOLELY ON THE BASIS OF INFORMATION PROVIDED BY THE CLIENT OR INFORMATION OTHERWISE KNOWN TO THE SURVEYOR AND MAY NOT BE COMPLETE.
3. UNDERGROUND UTILITIES, BUILDING FOUNDATIONS, AND OTHER UNDERGROUND FIXED IMPROVEMENTS WERE NOT LOCATED, UNLESS OTHERWISE INDICATED. TO THE EXTENT THAT THIS TYPE OF INFORMATION IS SHOWN, IT IS SHOWN SOLELY ON THE BASIS OF SURFACE INDICATIONS OBSERVED BY THE SURVEYOR AND MAY NOT BE COMPLETE.
4. JURISDICTIONAL WETLANDS AND ENDANGERED OR THREATENED SPECIES HABITAT, IF ANY, THAT MAY EXIST ON OR AROUND THE SURVEY SITE WERE NOT DETERMINED OR LOCATED.
5. THE SURVEY DATE IS THE FIELD DATE SHOWN IN THE TITLE BLOCK, NOT THE SIGNATURE DATE.
6. THIS SURVEY MAP OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ELECTRONIC OR ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
7. FENCES SHOWN ON SURVEY ARE FOR ILLUSTRATIVE PURPOSES ONLY. FENCE TIES SHOWN ARE RELATIVE TO THE CENTER OF SAID FENCE. THE SURVEYOR WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM THE REMOVAL AND/OR CHANGES TO ANY FENCES UNLESS THE SURVEY WAS PROVIDED SPECIFICALLY FOR FENCE LOCATION PURPOSES.
8. PROPERTY LINES AND OR IMPROVEMENTS SHOWN WERE PHYSICALLY LOCATED BY FIELD SURVEY.
9. MONUMENTS FOUND OR SET ARE SHOWN, CALCULATED LINES AND INFORMATION IS NOTED BY (C).
10. COMPUTATIONS OF LINES AND OR DATA NOT FOUND ARE SHOWN AS (C).
11. ACCURACIES OBTAINED IN THIS SURVEY IS GREATER THAN (RURAL) 1' IN 5000', (SUBURBAN) 1' IN 7500', (COMMERCIAL) 1' IN 10,000'.
12. PRIOR TO SURVEY INFORMATION OBTAINED WAS LEGAL DESCRIPTION FROM CLIENT OR FROM PUBLICLY PUBLISHED COUNTY TAX COLLECTOR SITE, RECORDED PLATS AND OR SECTION CORNER RECORDS IF APPLICABLE.
13. IF ONLY A DIGITAL SURVEY COPY IS REQUIRED A SURVEY REPORT WILL BE PLACED IN FILE. THE DIGITAL SURVEY IS NOT FULL AND COMPLETE WITHOUT THE SURVEY REPORT FILE.

SURVEYOR'S SIGNATURE

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OR ELECTRONIC SEAL OF THE FLORIDA LICENSED SURVEYOR BELOW. THE SURVEYOR HEREBY CERTIFIES THAT THE ELECTRONIC SIGNATURE AND SEAL HEREON MEETS PROCEDURES SET FORTH IN CHAPTER 5J-17.062 OF THE FLORIDA ADMINISTATIVE CODE, PURSUANT TO SECTION 472.025, FLORIDA STATUTES. THE SURVEYOR HEREBY CERTIFIES THAT THIS SURVEY MEETS THE STANDARDS OF PRACTICE FOR SURVEYS, SET FORTH BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS IN CHAPTER 5J-17.051 AND 5J-17.052 OF THE FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

BILL H. HYATT, JR. CERTIFICATE No. 4636 STATE OF FLORIDA LAND SURVEYOR

3.18.21
DATE

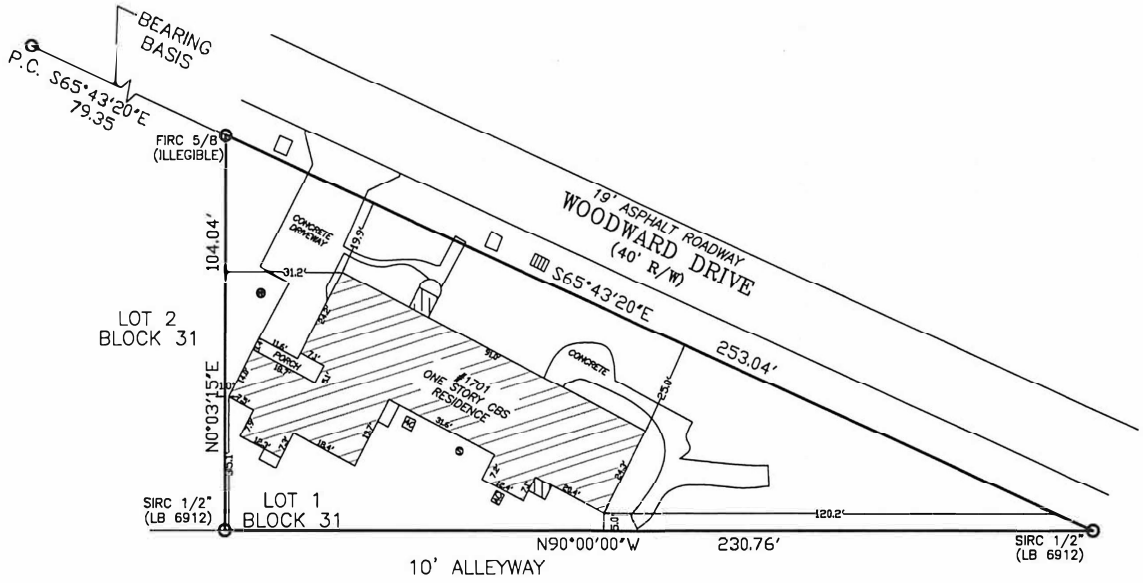
BILL HYATT
SURVEYOR AND MAPPER #4636
STATE OF FLORIDA

FLORIDA BUSINESS CERTIFICATE OF AUTHORIZATION NUMBER LB 6912

CERTIFIED TO:
DANIEL A. RAMIREZ
SUCCESS MORTGAGE PARTNERS, INC., ISAOA/ATIMA
PATCH REEF TITLE COMPANY, INC.
OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

KNOW IT NOW, INC.
PROFESSIONAL SURVEYING AND MAPPING
5220 US HIGHWAY 1, #104
VERO BEACH, FL 32967
PHONE - (888) 396-7770
WWW.KINSURVEY.COM

MAP OF BOUNDARY SURVEY PREPARED FOR DANIEL A. RAMIREZ



NOTABLE CONDITIONS:

PROPERTY APPEARS TO BE SERVICED BY PUBLIC UTILITIES.

NOTES:

ALL BEARINGS AND DISTANCES SHOWN ARE RECORD AND MEASURED, UNLESS OTHERWISE SHOWN.
BEARINGS ARE BASED UPON THE RECORD BEARING FOR THE SOUTHERLY RIGHT OF WAY LINE OF WOODWARD DRIVE..

NORTH ARROW & GRAPHIC SCALE

0' 40'
1" = 40'

JOB # - 2103-138	REVISION -
FIELD DATE - 03/18/2021	REVISION -
DRAWN BY - J.M.	REVISION -
REVISION -	REVISION -
REVISION -	REVISION -
REVISION -	REVISION -

FLORIDA BUSINESS CERTIFICATE OF AUTHORIZATION NUMBER LB 6912

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WWW.KINSURVEY.COM

Technical Review Committee **3. b.**

Meeting Date: 05/20/2021

REQUESTED ACTION

Future Land Use Map Amendment and Rezoning - RV Storage - 2192 Copenhaver Road

LOCATION

2192 Copenhaver Road

RESPONSIBLE STAFF

Brandon C. Creagan, MCRP, LEED Green Associate, Planner

RECOMMENDATION

Review & Provide Comments

Attachments

TRC Packet

Form Review

Form Started By: Brandon Creagan Started On: 04/30/2021 09:13 PM

Final Approval Date: 05/01/2021

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO: JACK ANDREWS, PE, CITY ENGINEER
MIKE REALS, FP PUBLIC WORKS MANAGER
CHIEF HOBLEY-BURNEY, FP POLICE DEPARTMENT
PAUL THOMAS, FP BUILDING OFFICIAL
JAMES CARNES, PE, FPUA ENGINEERING (WATER/WASTEWATER)
PAUL LAGUERRE, PE, FPUA ENGINEERING (ELECTRIC)
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PETER BUCHWALD, AICP, SLC TRANSPORTATION PLANNING ORGANIZATION
MURRIAH DECKLE, AICP, SLC TRANSIT SERVICES

FROM: BRANDON CREAGAN, LEED GREEN ASSOCIATE, PLANNER

RE: TECHNICAL REVIEW PROJECT# 21-06000007

DATE: APRIL 30, 2021

Rezoning and Future Land Use – RV Storage – 2192 Copenhaver Road

Application for a Zoning Atlas Map Amendment and a Future Land Use Map Amendment. The property is zoned County Residential Single Family 2 du/acre (RS-2) with a Future Land Use of County Residential Urban 5 du/ac (RU). The property size is approximately 17.83 acres. The amendments would seek to change the zoning to General Commercial (C-3) and change the Future Land Use to General Commercial (GC). The applicant would like to get the Zoning & Future Land Use in place before moving forward to the Cities Development Review process. The property is currently going through the Cities Annexation process. The parcel ID is 2313-432-0000-000-4.

Please review and provide comments on the project. Please send all comments to my email Bcreagan@cityoffortpierce.com or through interoffice mail to the Planning Department. If you have comments, please respond by May 18, 2021.

Please do not hesitate to contact me should you require any additional information at 772-467-3742.

Thank you.

Brandon Creagan

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Application for Future Land Use Map Amendment

☒ Future Land Use Map Amendment – Large Scale (>10 acres)

☐ Future Land Use Map Amendment – Small Scale (<10 acres)

In accordance with Chapter 163.3187, Florida Statutes, The City of Fort Pierce will consider applications for land use changes on parcels in excess of 10 aces ("Large Scale Amendments") only twice each calendar year. The City Commission will consider applications for land use changes on parcels less than or equal to 10 acres with a maximum density of 10 units per acres or less at any time during the calendar year. You are encouraged to schedule a pre-application meeting with the planning staff and to submit your application up to three months in advance of the application deadline.

Application submission shall include the following:

•**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**Planning Board**: One (1) original and (13) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**City Commission**: One (1) original and (11) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

In addition to a complete application, packets shall include:

- ☐ Warranty Deed & Legal Description
- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: 2192 Copenhaver Rd (SE Corner of Graham Rd. and Copenhaver Rd.)
2. Property Tax ID(s): 2313-432-0000-000-4
3. Total Acreage: 17.83
4. Existing Future Land Use Designation: RU - Residential Urban, St.Lucie County FLU
5. Existing Zoning Classification: RS-2 - Single Family, St.Lucie County Zoning
6. Proposed Zoning Classification: C-3
7. Other applications being submitted concurrent with this application, if any: Zoning Atlas Map Ammendment
   Annexation has already been applied for
8. Describe the existing uses, improvements and structures on the amendment lands:
   Currently a vacant site being used for agricultural cow grazing, proposing to develop into an RV storage site.
9. Are there any identified or possible historical structures on the amendment lands? No
10. The reason for making this request: Currently the site is Zoned RS2 with a Future Land Use of RU and is part of St.Lucie County. It is being annexed into the City.
11. **Capacity Analysis:**

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Single Family Residential	Single Family Residential	SLC - RS-2, Single Family, 2 DU/AC
South	Agricultural Land	Mixed Use	SLC - RS-2, Single Family, 2 DU/AC
East	Commercial	Commericial	FORT PIERCE - GENERAL COMMERCIAL
West	Agricultural Land	Residential Urban	SLC - AR-1, AGRICULTURAL RESIDENTIAL, 1 DU/AC

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	RU - Residential Urban	RS-2 Single Family	2 DU/AC	17.83	X
Proposed	GC	C-3	466,005 SF	17.83	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 9,100
Proposed Zoning	Total gallons per day 58.251
Change in Demand	**Total gallons per day** 49,151

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 9,100
Proposed Zoning	Total gallons per day 46,601
Change in Demand	**Total gallons per day** 37,501

C. Parks and Recreation (Residential Classifications Only): N/A
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	0		
Urban District	5 acres per 1,000 people	0		
Community	2.5 acres per 1,000 people	0		
Neighborhood	1.36 acres per 1,000 people	0		

D. Public Schools (Residential Classifications Only): N/A
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name		
City		
Distance		
Current Zoning Enrollment Demand		
Proposed Zoning Enrollment Demand		
Change in Demand		

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	6 yards
Proposed Zoning	4 yards
Change in Demand	-2 yards

F. Stormwater: Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)	
Impact	The impervious area will be increased but the 25 year 3 day will be less in the post development than it is in the pre development

G. Transportation Analysis: Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning	331	35
Proposed Zoning	91	5
Change in Demand	Trips -240	Trips -30
Impact to Capacity		

12. Name of Owner(s): R V Development, LLC
Mailing Address: 547 Wash Roberts Lane
City MC Minnville State TN Zip 37110
Phone # 954-214-4553
E-mail:

13. Name of Applicant: Macritchie Storage Ventures, LLC
Mailing Address: 715 5th Avenue, SW, Suite 1700
City Calgary AB T2P 2X6 State Zip
Phone # 403-973-4882 Fax #
E-mail: blokhorst@macritchie.biz

14. Name of Representative: Blaine Bergstresser, P.E.
Mailing Address: 445 24th Street, Suite 200
City Vero Beach State FL Zip 32960
Phone # 772-794-4061 Fax #
E-mail: Blaine.Bergstresser@Kimley-Horn.com

15. Applicant Acknowledgements (Owner's signature must be notarized)

I certify that: (Check One)

☐ I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

☑ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

Applicant's Signature Date

715 5th Avenue, SW, Suite 1700
Address State Calgary AB T2P 2X6 Zip

403-973-4882 blokhorst@macritchie.biz
Phone Fax E-mail Address

16. Property Owners Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application for a change in zoning classification. The property owner's signature(s) below shall also authorize the Applicant (if other than the property owner) and/or Agent to act in his/her behalf for the purposes of seeking this change to the City' Land Development Regulations for the property described herein.

954-214-4553
Property Owner's Name (Please Print) Phone

547 Wash Roberts Lane TN 37110
Address State Zip

James A Wynne
Property Owner's Signature Date

STATE OF FLORIDA)
ST LUCIE COUNTY)

The foregoing instrument was acknowledged before me this 31ST day of March, 2021, by James A Wynne who is personally known to me or has produced in person as identification.

Sheila Butcher
Signature of Notary (seal)

SHEILA BUTCHER STATE OF TENNESSEE NOTARY PUBLIC WARREN COUNTY

expires 7.27.21 SB

OFFICE USE:

DATE RECEIVED:_____ Signed:_____

File Number:_____ Check No: _____ Receipt No: _____

TRC Review:_____ Planning Board Review: _____ City Commission: _____

Ordinance No:_____ Date Approved: _____

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Application for Zoning Atlas Map Amendment

Application submission shall include the following:

•**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**Planning Board**: One (1) original and (16) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**City Commission**: One (1) original and (11) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

In addition to a complete application, packets shall include:

- ☐ Warranty Deed & Legal Description
- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: 2192 Copenhaver Rd (SE Croner of Graham Rd and Copenhaver Rd.)
2. Property Tax ID(s): 2313-432-0000-000-4
3. Total Acreage: 17.83 Acres
4. Existing Future Land Use Designation: RU - Residential Urban
5. Existing Zoning Classification: RS-2 - Single Family, 2du/ac
6. Proposed Zoning Classification: C-3
7. Other applications being submitted concurrent with this application, if any: Future Land Use Amend

8. Describe the existing uses, improvements and structures on the amendment lands: Currently a vacant site, proposing to develop into an RV Storage site.

9. Are there any identified or possible historical structures on the amendment lands? No

10. The reason for making this request: Currently the site is Zoned RS-2 with a Future Land Use of RU and is partof St.Lucie County. It is being annexed into the City.

11. CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Single Family Res	Single Family Residential	SLC - RS-2, SINGLE FAMILY, 2 DU/AC
South	Agricultural Land	Mixed Use	SLC- RS-2, SINGLE FAMILY, 2 DU/AC
East	Commercial	Commercial	FORT PIERCE - GENERAL COMMERCIAL
West	Agricultural Land	Residential Urban	SLC - AR-1, AGRICULTURE RESIDENTIAL, 1 DU/AC

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	RU - Residential Urban	RS-2-Single Family	2 DU/AC	17.83	X
Proposed	GC	C-3	466,005 SF	17.83	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6 = persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 9,100
Proposed Zoning	Total gallons per day 58.251
Change in Demand	**Total gallons per day** 49,151

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 9,100
Proposed Zoning	Total gallons per day 46,601
Change in Demand	**Total gallons per day** 37,501

C. Parks and Recreation (Residential Classifications Only): N/A
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people			
Urban District	5 acres per 1,000 people			
Community	2.5 acres per 1,000 people			
Neighborhood	1.36 acres per 1,000 people			

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High) N/A

	K-8	High
School Name		
City		
Distance		
Current Zoning Enrollment Demand		
Proposed Zoning Enrollment Demand		
Change in Demand		

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	6 yards
Proposed Zoning	4 yards
Change in Demand	-2 yards

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	The impervious area will be increased but the 25 year 3 day will be less in the post development than it is in the pre development

III. Transportation Analysis

G. Traffic Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning	331	35
Proposed Zoning	91	5
Change in Demand	Trips -240	Trips -30
Impact to Capacity		

12. Name of Owner(s): R V Development, LLC
Mailing Address: 547 Wash Roberts Lane
City MC Minnville State TN Zip 37110
Phone # 954-214-4553
E-mail:

13. Name of Applicant: Macritchie Storage Ventures, LLC
Mailing Address: 715 5th Avenue, SW, Suite 1700
City Calgary AB T2P 2X6 State Zip
Phone # 403-973-4882 Fax #
E-mail: blokhorst@macritchie.biz

14. Name of Representative: Blaine Bergstresser, P.E.
Mailing Address: 445 24th Street, Suite 200
City Vero Beach State FL Zip 32960
Phone # 772-794-4061 Fax #
E-mail: Blaine.Bergstresser@Kimley-Horn.com

15. Applicant Acknowledgements (Owner's signature must be notarized)

I certify that: (Check One)

☐ I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

☑ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

Applicant's Signature Date

715 5th Avenue, SW, Suite 1700		Calgary AB T2P 2X6
Address		State Zip
403-973-4882		blokhorst@macritchie.biz
Phone	Fax	E-mail Address

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	954-214-4553	
Property Owner's Name (Please Print)	Phone	
547 Wash Roberts Lane	TN	37110
Address	State	Zip
James A Wynne III		
Property Owner's Signature		Date

STATE OF FLORIDA)
ST LUCIE COUNTY)

The foregoing instrument was acknowledged before me this 31ST day of March, 2021, by James A. Wynne who is personally known to me or has produced in person as ide

Sheila Butcher
Signature of Notary

(seal) SHEILA BUTCHER STATE OF TENNESSEE NOTARY PUBLIC WARREN COUNTY

expires 7-27-21 SB

OFFICE USE:

DATE RECEIVED:_____ Signed:_____

File Number:_____ Check No: _____ Receipt No: _____

TRC Review:_____ Planning Board Review: _____ City Commission: _____

Ordinance No:_____ Date Approved: _____

Stanaro & Hurrell
Box 34

JOANNE HOLMAN, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
File Number: 2294957 OR BOOK 1828 PAGE 2810
Recorded:10/24/03 16:00

* Doc Assump: $ 0.00
* Doc Tax : $ 12,250.70
* Int Tax : $ 0.00

Prepared by and return to:
Chester B. Griffin, Esquire
Neill Griffin Fowler Tierney Neill & Marquis - Chartered
Post Office Box 1270
Fort Pierce, Florida 34954
Courthouse Box #50
Parcel ID Number: 2324-122-0001-0003 ; 2313-432-0000-000/4
2324-121-0000-000/3 [Space Above for Recording]

WARRANTY DEED

This Warranty Deed made this 24th day of ~~October~~ Sept, 2003, by **CHESTER B. GRIFFIN and RICHARD V. NEILL**, hereinafter called the grantor, to **R. V. DEVELOPMENT, LLC, a Florida limited liability corporation**, hereinafter called the grantee, whose address is: **2560 SE 12th Street, Pompano Beach, Florida 33062.**

Wherever used herein, the terms "grantor" and "grantee" shall include singular and plural, heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, wherever the context so admits or requires.

WITNESSETH: That the said grantor, for and in consideration of the sum of $10.00, in hand paid by the said grantee, the receipt whereof is hereby acknowledged, does hereby grant, bargain, sell, alien, remise, release, convey and confirm unto the said grantee, and the grantee's heirs and assigns forever, the following described land, situated, lying, and being in St. Lucie County, Florida, to wit:

SEE EXHIBIT "A" ATTACHED HERETO

THE PROPERTY BEING CONVEYED HEREIN DOES NOT CONSTITUTE THE HOMESTEAD PROPERTY OF ANY OF THE GRANTORS.

Subject to restrictions, reservations and easements of record, if any, and taxes subsequent to 2002.

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land; that the Grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2002; zoning ordinances and rights of way for public roads.

In Witness Whereof, the Grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered
in our presence:

Susan G. Spee
Print Name of Witness: Susan G. Spee
Witness as to Both

Marcia L Heffelfinger
Print Name of Witness: MARCIA L. HEFFELFINGER
Witness as to Both

CHESTER B. GRIFFIN

RICHARD V. NEILL

STATE OF FLORIDA
COUNTY OF ST. LUCIE

The foregoing was acknowledged before me this 24th day of ~~October~~ Sept, 2003, by **CHESTER B. GRIFFIN and RICHARD V. NEILL,** [✓] who are personally known to me or [ ] who produced their drivers license as identification.

MARCIA L. HEFFELFINGER
MY COMMISSION # CC 905632
EXPIRES: April 15, 2004
Bonded Thru Notary Public Underwriters

Marcia L. Heffelfinger
Print Name of Notary: MARCIA L. HEFFELFINGER
NOTARY PUBLIC - STATE OF FLORIDA
MY COMMISSION EXPIRES:

Exhibit "A"

That portion of theWest 1/2 of the SW 1/4 of the SE 1/4, lying West of the Westerly right of way line of I-95, of Section 13, Township 35 South, Range 39 East,lying and being in St. Lucie County, Florida, less and except road rights of way for I-95; Graham Road; Copenhaver Road and less canal rights of way for NSLRDD Canal No. 37 on South line.

AND

The West 3/4 of the North Half of the Northwest Quarter of the Northeast Quarter, Less road and canal rights of way for I-95; White Road, AND ALSO, the Southwest Quarter of the Northwest Quarter of the Northeast Quarter, Less road rights of way for I-95 and Less the South 125 feet of the West 375 feet thereof, all lying and being in Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida.

Kimley»Horn

April 6, 2021

Jennifer Hofmeister, ACIP
Planning Director
City of Ft. Pierce
100 N. U.S. Highway 1
Ft. Pierce, FL 34950
772-467-3737

RE: Ft. Pierce RV Storage- 2192 Copenhaver Road

Dear Ms. Hofmeister,

We are proposing a Future Land Use Map Amendment and Zoning Atlas Map Amendment for parcel # 2313-432-0000-000-4 at 2192 Copenhaver Road. Currently the property is part of unincorporated St. Lucie County and is being annexed into the City of Ft. Pierce. The property has a current zoning of Rs-2 with a future land use of Residential Urban. We are proposing a zoning classification of C-3 with a future land use of General Commercial (GC). The current zoning allows for two(2) units per acre. The property is bordered by I-95 to the east and Graham Road to the North.

The Comprehensive Plan's goal for a General Commercial (GC) future land use is for commercial developments with higher intensity to be fronting major roadway corridors. The property's location along I-95 meets this goal and matches the intensity of the recently constructed Gander RV project east of I-95 that is less than 0.5 miles away.

The change of zoning and future land use will have less of a traffic impact than the existing single-family zoning. It will result in a reduction of 240 daily trips and 30 peak PM trips on the surrounding roadways. The change from residential to commercial will also reduce the demand on the parks and recreation, the public schools, and the solid waste demand. The only proposed increase in demand will be for water and wastewater. However, that is based off the maximum allowable square footage of the rezoning and future land use. Based off the submitted site plan the demand on the water and wastewater will be minimal. A storage facility will have less impact on water and wastewater than single-family homes.

The proposed zoning change from RS-2 to C-3 and the future land use change from Residential Urban to General Commercial meets the Comprehensive Plan's goal of commercial development along the I-95 corridor. The proposed RV Storage site will also have less demand for traffic, parks and recreation, public schools, solid waste, and water/wastewater than the existing single-family classification.

Should you have any additional questions please do not hesitate to contact me at (772) 794-4061 or Blaine.Bergstresser@kimley-horn.com.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Blaine Bergstresser P.E

ALTA/NSPS LAND TITLE SURVEY

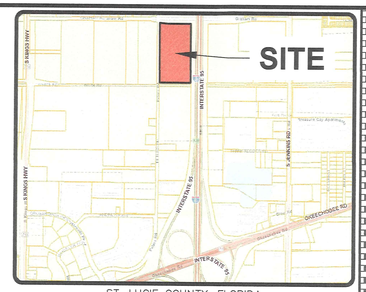
FOR: R.V. DEVELOPMENT, LLC

SURVEYORS NOTES AND REPORT:

1. REPRODUCTIONS OF THIS MAP ARE NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. THIS SURVEY CANNOT BE TRANSFERRED OR ASSIGNED WITHOUT THE SPECIFIC WRITTEN PERMISSION OF ENGINEERING, DESIGN AND CONSTRUCTION, INC. IT IS A VIOLATION OF CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, TO ALTER THIS SURVEY WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF THE SURVEYOR. ADDITIONS AND/OR DELETIONS MADE TO THE FACE OF THIS SURVEY WILL MAKE THIS SURVEY INVALID.
2. THE LAST DATE OF FIELD WORK WAS JANUARY 5, 2021.
3. SITE ADDRESS: 2192 COPENHAVER ROAD, FORT PIERCE, FLORIDA.
4. CURRENT DESCRIPTION(S) SHOWN HEREON PROVIDED BY: THE CLIENT. ALL MATTERS OF RECORD SHOWN HEREON ARE SHOWN IN REFERENCE TO TITLE COMMITMENT PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NUMBER 2140–2672737, DATED DECEMBER 4, 2020.
5. PARCELS CONTAIN A TOTAL OF 17.45 ACRES ACRES, MORE OR LESS.
6. THE EXPECTED USE OF THE LAND, AS CLASSIFIED IN THE MINIMUM TECHNICAL STANDARDS (61G17–6 F.A.C.), IS "RESIDENTIAL." THE MINIMUM RELATIVE DISTANCE ACCURACY FOR THIS TYPE OF BOUNDARY SURVEY IS 1 FOOT IN 10,000 FEET. THIS SURVEY EXCEEDS THE REQUIRED DISTANCE ACCURACY.
7. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON NGS CONTROL MONUMENT DESIGNATED 195 F 14, HAVING A PUBLISHED ELEVATION OF 46.99 FEET.
8. THIS BOUNDARY SURVEY HAS BEEN REFERENCED TO THE FLORIDA STATE PLANE BOUNDARY SYSTEM–EAST ZONE, NAD 83 (1990).
9. SUB–SURFACE IMPROVEMENTS INCLUDING UNDERGROUND UTILITIES, UTILITY SERVICES, WERE NOT LOCATED AS PART OF THIS SURVEY.
10. REVISIONS SHOWN HEREON DO NOT REPRESENT A "FIELD SURVEY UPDATE" UNLESS OTHERWISE NOTED.
11. BEARINGS SHOWN HERON ARE BASED UPON THE WEST LINE OF THE NORTHEAST 1/4 OF SECTION 24, ST. LUCIE COUNTY, FLORIDA PER THE LINE LABELED HEREON AS (BEARING BASIS) AND ALL OTHER BEARINGS ARE RELATIVE THERETO. DISTANCES ARE IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
12. IN SOME INSTANCES, GRAPHIC REPRESENTATIONS AND SYMBOLS SHOWN HAVE BEEN EXAGGERATED TO MORE CLEARLY ILLUSTRATE THE RELATIONSHIP BETWEEN PHYSICAL IMPROVEMENTS AND/OR LOT LINES. THE DIMENSIONS SHOWN SHALL CONTROL THE LOCATION OF THE IMPROVEMENTS, OVER THE SCALED POSITIONS.
13. THE OWNERSHIP OF PERIMETER FENCES, WALLS, HEDGES AND LANDSCAPING, IF ANY, SHOWN HEREON ARE NOT KNOWN AND ARE NOT LISTED AS ENCROACHMENTS. THEIR RELATIVE LOCATION IS SHOWN IN RELATION TO THE BOUNDARY LINES SHOWN.
14. THE SURVEY MAP SHOWN HEREON DOES NOT NECESSARILY CONTAIN ALL OF THE INFORMATION OBTAINED OR DEVELOPED BY THE UNDERSIGNED SURVEYOR IN HIS FIELD WORK, OFFICE WORK OR RESEARCH.
15. THE PROPERTY WHICH IS THE SUBJECT OF THIS SURVEY APPEARS TO BE SITUATE IN AN AREA OF MINIMAL FLOOD HAZARD AT THIS TIME PURSUANT TO F.E.M.A. FIRM NUMBER 12111C0167J, HAVING AN EFFECTIVE DATE OF FEBRUARY 16, 2012. FOR APPROXIMATE DELINEATION OF THE FLOOD ZONE LIMITS, REFER TO AFOREMENTIONED FIRM PANELS.
16. AT THE LOCATION SHOWN AS THE NORTHWEST CORNER OF THE NORTHWEST 1/4 OF THE SECTION HAS EVIDENCE OF PREVIOUS CONTROL/OCCUPATION. A #5 IRON ROD HAS BEEN RESET IN IT'S PLACE.

SYMBOL & ABBREVIATION LEGEND:

Ⓐ	AIR RELEASE VALVE		CONCRETE SIGNAL LIGHT POLE	FIBER RISER	FIBER OPTIC RISER	IP	IRON PIPE	No.	NUMBER	RWV	RECLAIMED WATER VALVE	TOB	TOP OF BANK/BERM
AL	ARC LENGTH	CMP	CORRUGATED METAL PIPE	(M)	FIELD MEASURED	IR	IRON ROD	O.R.B.	OFFICIAL RECORDS BOOK	RLS	REGISTERED LAND SURVEYOR	T.O.N.	TOP OF NUT
ASPH	ASPHALT		CURB INLET	F.F.E.	FINISHED FLOOR ELEVATION	IR/C	IRON ROD AND CAP	OHW	OVER HEAD WIRES		REINFORCED CONCRETE PIPE	X 0.0	TOPOGRAPHIC DATA (SOFT SURFACE)
BFP	BACK FLOW PREVENTER		DECORATIVE LIGHT POST	FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION		IRRIGATION CONTROL VALVE	PG	PAGE	RCP	RIGHT–OF–WAY	X 0.00	TOPOGRAPHIC DATA (HARD SURFACE)
	BENCHMARK (BM)	(D)	DEED	FPL	FLORIDA POWER AND LIGHT	L	LENGTH	PCN	PARCEL CONTROL NUMBER	R/W	ROD AND CAP	TWNSHP	TOWNSHIP
	BIKE RACK	D.B.	DEED BOOK	FT	FOOT		LIGHT POST	PK NAIL	PARKER–KALON NAIL	R/C	SANITARY MANHOLE	T	TRAFFIC HANDHOLD
CATV	CABLE RISER	ø	DIAMETER (DIA.)	FM	FORCE MAIN	MAG/D	MAG NAIL MAG BRAND NAIL	PK/D	PARKER–KALON NAIL & DISK	S	SANITARY VALVE	TSCB	TRAFFIC SIGNAL CONTROL BOX
(C)	CALCULATED	D	DRAINAGE MANHOLE	FND	FOUND	M	MAILBOX	PCP	PERMANENT CONTROL POINT	SV	SECTION	TYP	TYPICAL
	CATCH BASIN	DIP	DUCTILE IRON PIPE	F	FPL MANHOLE	M.C.	MARTIN COUNTY	PRM	PERMANENT REFERENCE MONUMENT	SEC	PROPERTY CORNER	UNK	UNKNOWN
℄	CENTERLINE	E	EAST/EASTING	SQ. FT.	SQUARE FEET	MHWL	MEAN HIGH WATER LINE	P.B.	PLAT BOOK		RIGHT–OF–WAY CONTROL	RISER	UNKNOWN HANDHOLD
CCR	CERTIFIED CORNER RECORD	EOW	EDGE OF WATER	GAS	GAS VALVE	MLWL	MEAN LOWER WATER LINE	PLAT	PLAT DATA		SIGN	BOX	UNKNOWN RISER BOX
CLF	CHAIN LINK FENCE	EB	ELECTRIC BOX	GIS	GEOGRAPHIC INFORMATION SYSTEMS		METAL LIGHT POST	P.O.B.	POINT OF BEGINNING	S	SOUTH	U	UNKNOWN TYPE MANHOLE
CHD.	CHORD	EHH	ELECTRIC HAND HOLE (EHH)	GND	GROUND	MP	METAL PIPE	P.O.C.	POINT OF COMMENCEMENT		SPIGOT	VCP	VITRIFIED CLAY PIPE
CO	CLEAN OUT	EM	ELECTRIC METER		GROUND LIGHT	MON	MONITORING WELL	P.C.C.	POINT OF COMPOUND CURVE		SPRINKLER VALVE	WM	WATER METER
COMM RISER	COMMUNICATION RISER	ELEC PANEL	ELECTRICAL PANEL		GUY WIRE ANCHOR	NGVD29	NATIONAL GEODETIC VERTICAL DATUM OF 1929	P.C.	POINT OF CURVATURE	S.L.C.	ST. LUCIE COUNTY	W	WATER METER SERVICE METER (WM)
CONC	CONCRETE	EL./ELEV.	ELEVATION		HANDICAP			P.T.	POINT OF TANGENCY	STA	STATION	WV	WATER VALVE (WV)
	CONCRETE LIGHT POST	FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY	HDPE	HIGH DENSITY POLYETHYLENE PIPE	N/D	NON DESCRIPT NAIL AND DISK	P.O.T.	POINT OF TERMINUS		STORMWATER DRAINAGE MANHOLE		
CM	CONCRETE MONUMENT	F.O.	FIBER OPTIC	HWF	HOG WIRE FENCE	N.R.	NON RADIAL	PVC	POLYVINYL CHLORIDE		STREET SIGN	W	WEST
CPP	CONCRETE POWER POLE (CPP)	FOHH	FIBER OPTIC HAND HOLE		HYDRANT	NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988	PSL	PORT SAINT LUCIE, FLORIDA			WF	WOOD FENCE
	CONCRETE POWER POLE W/STREET LIGHT		FIBER OPTIC MARKER	IN	INCH	N	NORTH OR NORTHING	PLS	PROFESSIONAL LAND SURVEYOR	R	RADIUS		WOOD POLE STREET LIGHT
				INV	INVERT			R	RADIUS	RGE	RANGE		WOOD POWER POLE
								RTK	REAL TIME KINEMATIC	TELE RISER	TELEPHONE RISER BOX		
										TOE	TOE OF SLOPE		



ST. LUCIE COUNTY, FLORIDA

VICINITY MAP

NO SCALE

Zoning District		Maximum Gross Density (Du/Ac)	Minimum Lot Size (sf)	Minimum Lot Width	Minimum Road Frontage	Minimum Yard				Max. Hht.	Max. Lot Coverage by Buildings
						Front	Rear	Side	Side @ corner		
RS–2	RESIDENTIAL, SINGLE–FAMILY – 2	2.00	15,000	100.00	30.00	25(I)	15(g)(I)	10(I)	20(I)	35.00	20%

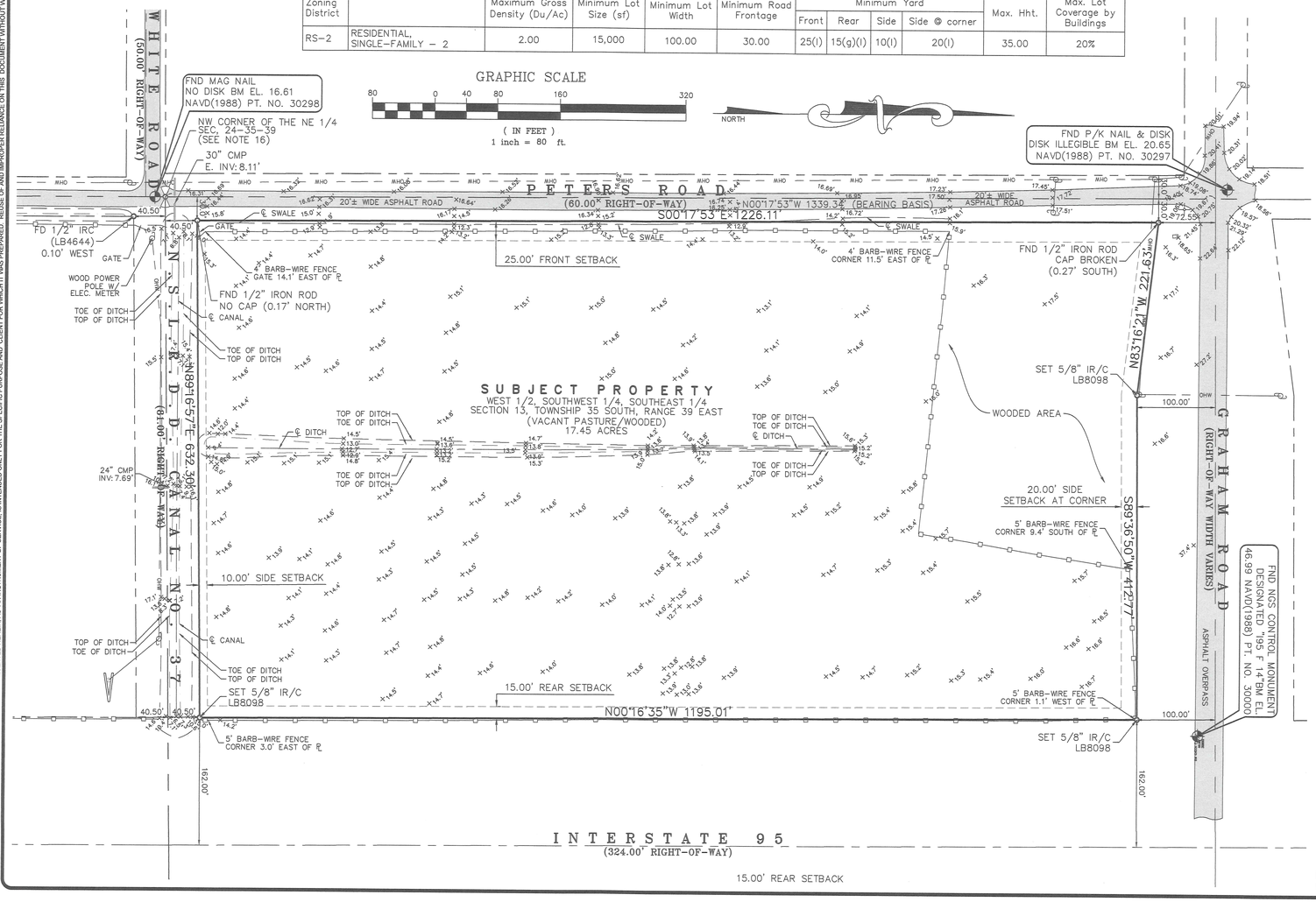
GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)

1 inch = 80 ft.

NORTH



LEGAL DESCRIPTION:

THAT PORTION OF THE WEST 1/2 OF THE SW 1/4 OF THE SE 1/4, LYING WEST OF THE WESTERLY RIGHT OF WAY LINE OF I–95, OF SECTION 13, TOWNSHIP 35 SOUTH, RANGE 39 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS AND EXCEPT ROAD RIGHTS OF WAY FOR I–95; GRAHAM ROAD; COPENHAVER ROAD AND LESS CANAL RIGHTS OF WAY FOR NSLRDD CANAL NO. 37 ON SOUTH LINE.

CONTAINING 17.45 ACRES ACRES, MORE OR LESS.

SCHEDULE B–II ITEMS

TITLE COMMITMENT PREPARED BY
FIRST AMERICAN TITLE INSURANCE COMPANY
COMMITMENT # 2140–2672737
COMMITMENT DATE: DECEMBER 4, 2020, AT 8:00 AM

1. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT.
   AFFECTS SUBJECT PROPERTY; NOT A SURVEY MATTER.
2. ANY RIGHTS, INTERESTS, OR CLAIMS OF PARTIES IN POSSESSION OF THE LAND NOT SHOWN BY THE PUBLIC RECORDS.
   AFFECTS SUBJECT PROPERTY; NOT A SURVEY MATTER.
3. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND.
   SHOWN HEREON.
4. ANY LIEN, FOR SERVICES, LABOR, OR MATERIALS IN CONNECTION WITH IMPROVEMENTS, REPAIRS OR RENOVATIONS PROVIDED BEFORE, ON, OR AFTER DATE OF POLICY, NOT SHOWN BY THE PUBLIC RECORDS.
   AFFECTS SUBJECT PROPERTY; NOT A SURVEY MATTER.
5. ANY DISPUTE AS TO THE BOUNDARIES CAUSED BY A CHANGE IN THE LOCATION OF ANY WATER BODY WITHIN OR ADJACENT TO THE LAND PRIOR TO DATE OF POLICY, AND ANY ADVERSE CLAIM TO ALL OR PART OF THE LAND THAT IS, AT DATE OF POLICY, OR WAS PREVIOUSLY UNDER WATER.
   AFFECTS SUBJECT PROPERTY; NOT A SURVEY MATTER.
6. TAXES OR SPECIAL ASSESSMENTS NOT SHOWN AS LIENS IN THE PUBLIC RECORDS OR IN THE RECORDS OF THE LOCAL TAX COLLECTING AUTHORITY, AT DATE OF POLICY.
   AFFECTS SUBJECT PROPERTY; NOT A SURVEY MATTER.
7. ANY MINERALS OR MINERAL RIGHTS LEASED, GRANTED OR RETAINED BY CURRENT OR PRIOR OWNERS.
   AFFECTS SUBJECT PROPERTY; NOT A SURVEY MATTER.
8. TAXES AND ASSESSMENTS FOR THE YEAR 2021 AND SUBSEQUENT YEARS, WHICH ARE NOT YET DUE AND PAYABLE.
   AFFECTS SUBJECT PROPERTY; NOT A SURVEY MATTER.
9. EASEMENT GRANTED TO FLORIDA POWER & LIGHT COMPANY RECORDED IN BOOK 452, PAGE 1600 AND IN BOOK 680, PAGE 1696.
   EASEMENTS DO NOT AFFECT SUBJECT PROPERTY.
10. NOTICE OF CONSENT ORDER RECORDED IN BOOK 3738, PAGE 2484.
    AFFECTS SUBJECT PROPERTY; NOT A SURVEY MATTER.
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ALTA CERTIFICATION:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 3, 4, 8, 11, 13, 14, 15, 16, & 19 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON JANUARY 5, 2021.

MICHAEL T. OWEN License Number 5556 STATE OF FLORIDA Professional Surveyor and Mapper

MICHAEL T. OWEN PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA REGISTRATION #5556

SIGNATURE DATE: 8-27-21

ENGINEERS ⊘ SURVEYORS ENVIRONMENTAL
10250 VILLAGE PARKWAY
UNIT 201
PORT ST. LUCIE, FL 34987
☎ 772-462-2455
www.edc-inc.com
F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

DATE	REVISION COMMENTS

SPT DRAWN BY
MTO CHECKED BY
RH FIELD CREW
20-426 ALTA.dwg FILENAME
LAYOUT1 LAYOUT
AS SHOWN SCALE
December 23, 2020 DATE

ALTA/NSPS LAND TITLE SURVEY

FOR: R.V. DEVELOPMENT

THE W. 1/2 OF THE S.E. 1/4 OF THE S.W. 1/4 OF SEC. 13, TWNSHP. 35 SOUTH, RGE. 39 EAST
ST. LUCIE COUNTY, FLORIDA

10250 VILLAGE PARKWAY
UNIT 201
PORT ST. LUCIE, FL 34987
☎ 772-462-2455

20-426

1 OF 1

Z:\EDC\2020\20-426 - MacRitchie - 2192 Copenhaver Rd FT&S\RVDWG\Dwg - PDP\Survey\20-426 ALTA.dwg, 1/8/2021 9:25 AM
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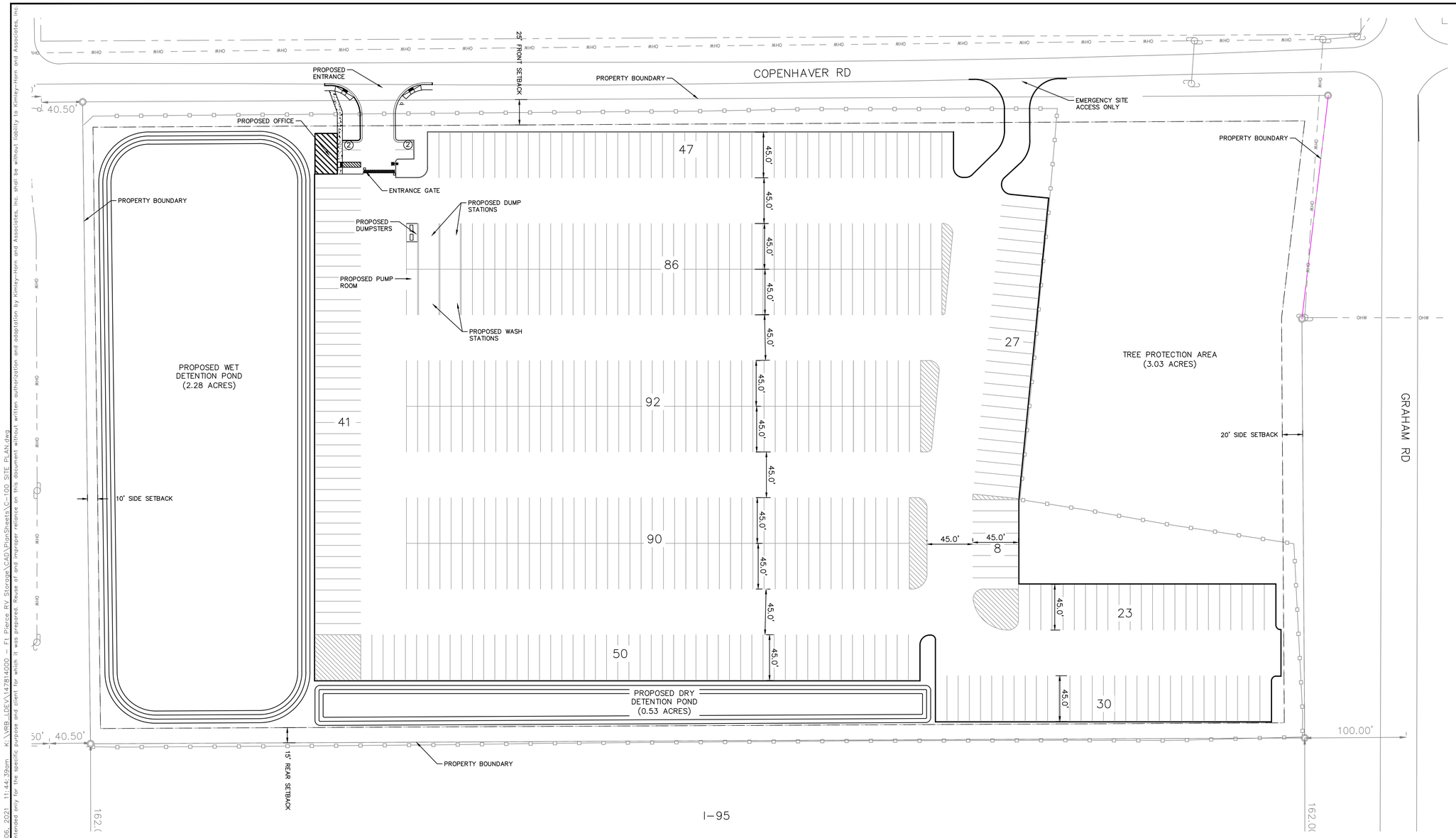


DEVELOPMENT DATA			
TAX PARCEL ID NO.	2313-432-0000-000-4		
ADDRESS	2192 COPENHAVER ROAD, FORT PIERCE, FL		
PROJECT USE	RV STORAGE FACILITY		
PROJECT ZONING	C-3		
RV SPACES PROPOSED	494 SPACES		
STANDARD SPACES PROPOSED	3 SPACES		
ACCESSIBLE SPACES PROPOSED	1 SPACE		
TOTAL AREA OF TRACT	760,033 SF	17.45 AC	100%
AREA OF PROPOSED BUILDINGS	880 SF	0.02 AC	0.12%
AREA OF PROPOSED PAVEMENT	414,267 SF	9.51 AC	54.51%
TOTAL PROPOSED IMPERVIOUS AREA	572,597 SF	12.34 AC	70.72%
AREA OF PROPOSED OPEN SPACE	222,374 SF	5.11 AC	29.26%
AREA OF PROPOSED POND	122,404 SF	2.81 AC	16.11%
OPEN SPACE REQUIRED	145,133 SF	3.33 AC	15%

OWNER
R V DEVELOPMENT, LLC
547 WASH ROBERTS LANE
MC MINNVILLE, TN, 37110

DEVELOPER
BEN LOKHORST
MACRITCHIE STORAGE VENTURES, LLC
715 5TH AVENUE, SW, SUITE 1700
CALGARY AB T2P 2X6
PHONE: 403-973-4882

FLOOD ZONE
PROPERTY LIES WITHIN FLOOD ZONE "X", ACCORDING TO THE F.I.R.M. MAP NO. 12111C0167J, DATE 02/16/2012.

LEGAL DESCRIPTION
THAT PORTION OF THE WEST 1/2 OF THE SW 1/4 OF THE SE 1/4 , LYING WEST OF THE WESTERLY RIGHT OF WAY LINE OF I-95, OF SECTION 13, TOWNSHIP 35 SOUTH, RANGE 39 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS AND EXCEPT ROAD RIGHTS OF WAY FOR I-95; GRAHAM ROAD; COPENHAVER ROAD AND LESS CANAL RIGHTS OF WAY FOR NSLRDD CANAL NO. 37 ON SOUTH LINE

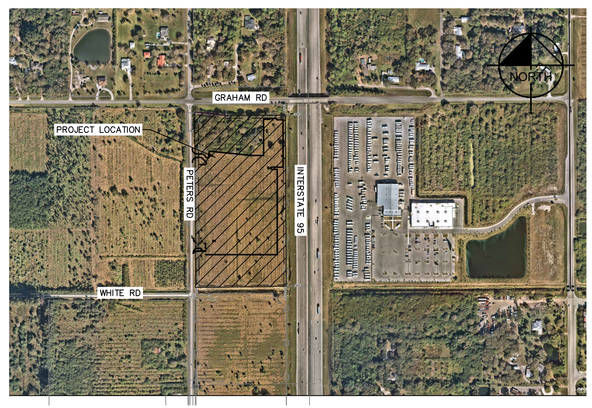
CONTAINING 17.45 ACRES ACRES, MORE OR LESS.

VERTICAL DATUM
THE ELEVATIONS SHOWN HERON ARE BASED ON THE NORTH AMERICAN DATUM OF 1988.

GENERAL NOTES:

1. HAZARDOUS WASTE DISPOSAL SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS
2. ALL LANDSCAPE AREAS ABUTTING VEHICULAR USE AREAS SHALL BE CURBED OR PROTECTED BY CURB STOPS.
3. ALL BUILDING, PARKING AND ACCESS AREAS SHALL DOCUMENT COMPLIANCE WITH THE REQUIREMENTS OF THE AMERICAN DISABILITIES ACT PRIOR TO THE ISSUANCE OF BUILDING PERMIT.
4. SOIL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE IN THE PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
5. LANDSCAPING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 153 OF THE LANDSCAPE CODE OF THE CITY OF PORT ST. LUCIE.
6. NO LANDSCAPING OTHER THAN GRASSES SHALL BE LOCATED WITHIN 10' OF A CITY UTILITY LINE OR APPURTENANCE. ALL OTHER UTILITIES SHALL BE A MINIMUM OF 5' HORIZONTAL SEPARATION FROM CITY UTILITY MAINS FOR PARALLEL INSTALLATIONS AND A MINIMUM 18" BELOW CITY MAINS. (ALL MEASUREMENTS ARE TAKEN FROM OUTSIDE TO OUTSIDE)
7. NO LANDSCAPING SHALL BE PLACED IN A MANNER THAT WOULD CREATE CONFLICTS WITH THE INTENDED OPERATION AND MAINTENANCE OF ANY EXISTING UTILITY.
8. THIS APPLICATION IS NOT VESTED FOR ANY MUNICIPAL FEES. ALL FEES ARE CALCULATED AT TIME OF PAYMENT. THIS INCLUDES SPECIFICALLY IMPACT FEES, UPLAND PRESERVE FEES AND ANY ADMINISTRATIVE REVIEW FEES FOR CITY DEPARTMENTS. NO FEES ARE VESTED BASED ON DATE OF CITY COUNCIL APPROVAL.
9. SIGNS ARE NOT PART OF THIS REVIEW AND SHALL BE PERMITTED SEPARATELY FROM THE APPLICATION. (SEE CHAPTER 155 (SIGN CODE) CITY OF PORT ST. LUCIE LAND DEVELOPMENT REGULATIONS.)
10. THE PROPERTY OWNER, CONTRACTOR, AND AUTHORIZED REPRESENTATIVES SHALL PROVIDE PICKUP, REMOVAL, AND DISPOSAL OF LITTER WITHIN THE PROJECT LIMITS AND SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE AREA FROM THE EDGE OF PAVEMENT TO THE PROPERTY LINE WITH IN THE CITY'S RIGHT-OF-WAY IN ACCORDANCE WITH CITY CODE, SECTION 41.08 (G)
11. FENCE POSTS SHOULD AVOID UTILITY SERVICE LINES AT ALL TIMES.
12. UTILITY SERVICES CAN BE CONNECTED ONLY AFTER THE MAINS ARE INSTALLED AND TURNED OVER TO THE CITY.

BUILDING SETBACKS	
	SETBACK
NORTH	20 FT
SOUTH	10 FT
EAST	15 FT
WEST	25 FT



LOCATION MAP
SCALE: 1"=1000'

No.	REVISIONS	DATE	BY

Kimley»Horn
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445 24TH STREET, SUITE 200, VERO BEACH, FL 32960
PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY BLAINE BERGSTRESSER, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

LICENSED PROFESSIONAL ENGINEER ROBERT BLAINE BERGSTRESSER LICENSE No. 84566 STATE OF FLORIDA PROFESSIONAL ENGINEER DATE: 10/1/2021

KHA PROJECT 147814000
DATE 04/06/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

SITE PLAN

FORT PIERCE RV STORAGE

FT. PIERCE, FL

SHEET NUMBER
C-100

Posted By:Enright, Tyler Sheet Set:FT PIERCE RV STORAGE Layout:C-100 SITE PLAN April 06, 2021 11:44:39am K:\VRB_LDEV\147814000 - Ft Pierce RV Storage\CAD\PlanSheets\C-100 SITE PLAN.dwg
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Natural Resource Assessment

RV Storage Ft. Pierce

St. Lucie County, Florida

Prepared for:
Macritchie Storage Ventures, LLC
715 5th Avenue, SW, Suite 1700
Calgary AB T2P 2X6, Canada

147814000
March 2021
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445 24th Street, Suite 200
Vero Beach, FL 32960

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APPENDIX D – SHPO FLORIDA MASTER SITE FILE REPORT

Natural Resource Assessment
Technical Memorandum

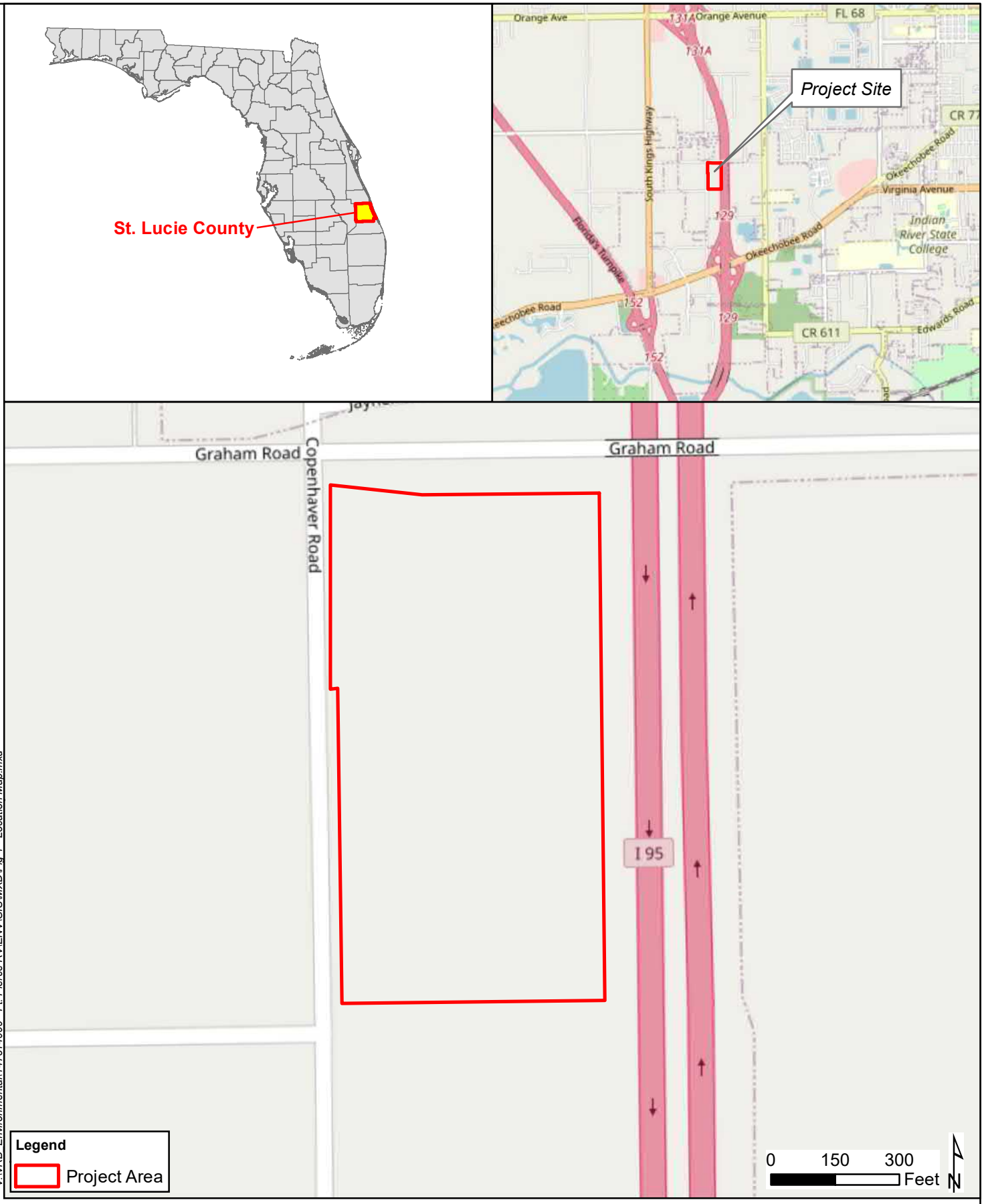
RV Storage Ft. Pierce
St. Lucie County, Florida

1.0 INTRODUCTION

The following technical memorandum summarizes a review of readily available documentation and the results of field reconnaissance conducted at the project site. The purpose of this Natural Resource Assessment was to characterize the existing conditions of the above-referenced project site relative to threatened and endangered species and their habitat, ecological communities, land cover and vegetation, wetlands, soils, hydrology, archaeological and historical resources, and floodplains.

The scope of this assessment included field reconnaissance to determine habitat present and to determine environmental regulatory constraints for this project site.

The project site is approximately 17 acres and is located in Fort Pierce, near the southeast corner of Graham Road and Copenhaver Road in Section 13, Township 35 South, Range 39 East, St. Lucie County, Florida. A location map is attached as ***Figure 1***. A portion of the U.S. Geological Service (USGS) 7.5-Minute Providence, Florida quadrangle map depicting the location of the project site is attached as ***Figure 2***. Based on review of the USGS quadrangle map, elevations on the project site are approximately 10 feet.



V:\VRB Environmental\147814000 - Ft. Pierce RV\ENV\GIS\MXD\Fig 1 - Location Map.mxd

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Project Location Map

Ft. Pierce RV Natural Resource Assessment
St. Lucie County, Florida

1 inch = 300 feet	PROJECT NUMBER: 147814000	FEBRUARY 2021	FIGURE 1



V:\VRB Environmental\147814000 - Ft. Pierce RV\ENV\GIS\MXD\Fig 2 - USGS Map.mxd

Source: ESRI, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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USGS 7.5 Minute Quadrangle Map

Ft. Pierce RV Natural Resource Assessment
St. Lucie County, Florida

1 inch = 1,000 feet	PROJECT NUMBER: 147814000	FEBRUARY 2021	FIGURE 2

2.0 METHODOLOGY

The methodology for this assessment included a review of the following resources:

- Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (http://www.fnai.org/biointro.cfm)
- Various Geographic Information System (GIS) data layers from the U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), Florida Fish and Wildlife Conservation Commission (FWC) [(https://public.myfwc.com/FWRI/EagleNests/nestlocator.aspx)]
- USFWS IPaC data [(https://ecos.fws.gov/ipac/)]
- U.S. Department of Agriculture (USDA)/Natural Resources Conservation Service (NRCS) Soil Survey of St. Lucie County, Florida (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx)
- State Historic Preservation Officer (SHPO), Florida Master Site File (http://www.flheritage.com/)
- USFWS National Wetlands Inventory (NWI) Maps (Web-based maps available from http://www.fws.gov/wetlands/Data/mapper.html)
- Federal Emergency Management Agency (FEMA) Digital Flood Insurance Rate Maps (FIRM; Web-based maps available from http://msc.fema.gov/)
- United States Geological Survey (USGS) Quadrangle Maps, Land Boundary Information System (LABINS; http://www.labins.org)
- South Florida Water Management District Interactive GIS Map (SFWMD.gov)
- Florida Department of Environmental Protection (FDEP) MapDirect GIS (https://floridadep.gov)
- St. Lucie County Land Development Code

On March 10, 2021 a field review of the project limits was conducted by environmental scientists to document the existing habitat conditions and determine potential wildlife utilization. The field review also included a 15% gopher tortoise survey.

3.0 EXISTING CONDITIONS

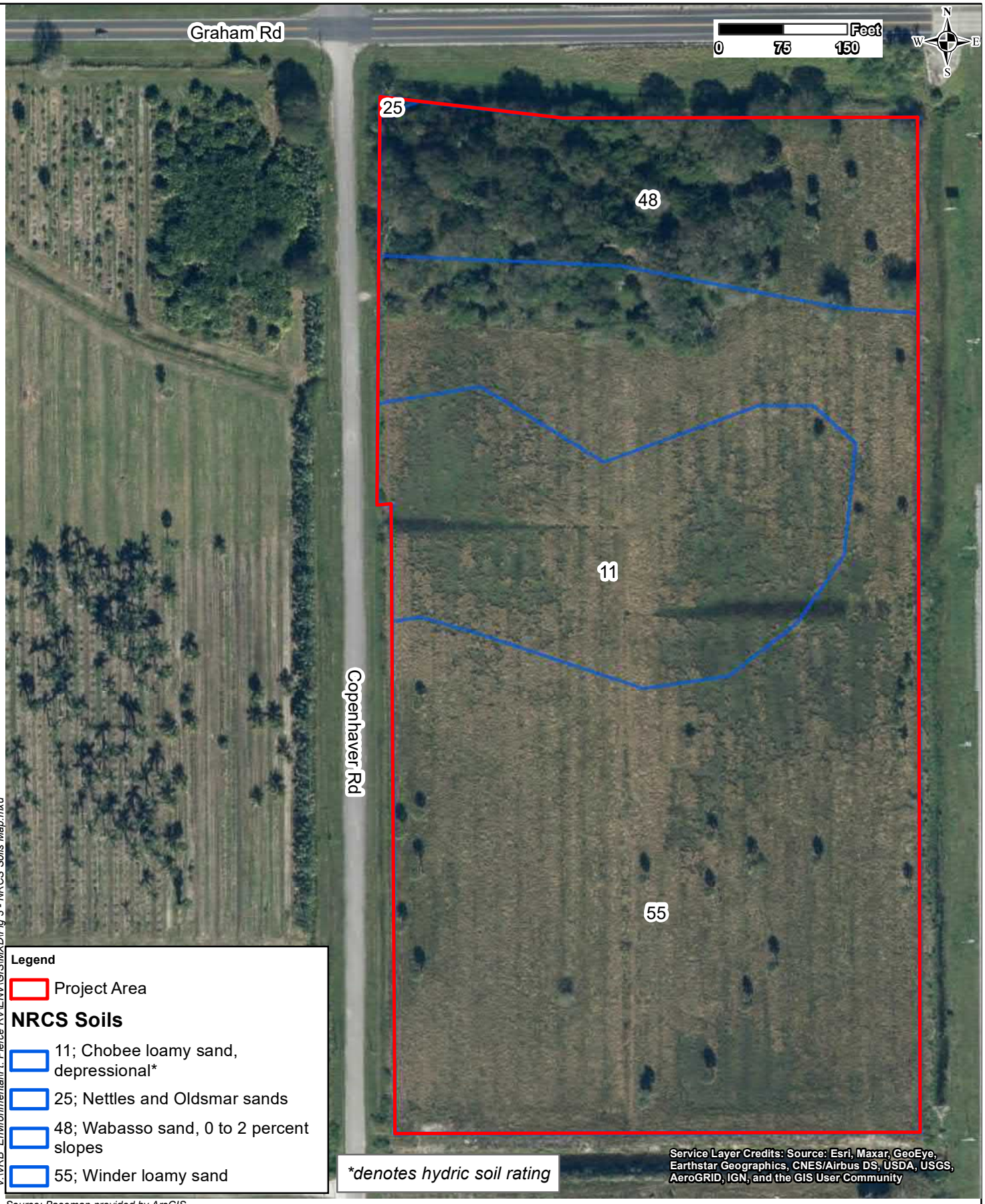
3.1 SOILS

The USDA/NRCS *Soil Survey of St. Lucie County, Florida,* maps the following soil on the property: (11) Chobee Loamy Sand, (25) Nettles and Oldsmar Sands, (48) Wabasso Sand, and (55) Winder Loamy Sand. A copy of the digital USDA/NRCS soils mapping data is illustrated in ***Figure 3*** and details regarding each soil are provided in ***Table 1***.

Table 1
NRCS Soils Identified Within Study Area

Soil ID Number[1]	Soil Name	Occurrence[2]	Characteristics	Drainage Class	Groundwater Depth	Hydric, Hydric Inclusions, or Non-hydric
11	Chobee Loamy Sand	Depressional areas	Moderately rapid to very slow permeability	Very poorly drained	Above surface to 10 inches	Hydric
25	Nettles and Oldsmar Sands	Broad flats and depressional areas	Very slow to slow	Poorly drained	10-40 inches	Non-hydric
48	Wabasso Sand	Flatwood areas	Rapid to moderately slow permeability	Poorly drained	10-40 inches	Non-hydric
55	Winder Loamy Sand	Depressional areas	Rapid to slow permeability	Poorly drained	10-40 inches	Non-hydric

[1] Reference: https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/florida/FL111/0/lucie.pdf
[2] Reference: https://soilseries.sc.egov.usda.gov/OSD_Docs/A/ANKONA.html



V:\VRB Environmental\Ft. Pierce RV\ENV\GIS\MXD\Fig 3 - NRCS Soils Map.mxd

Source: Basemap provided by ArcGIS

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NRCS Soils Map

Ft. Pierce RV Natural Resource Assessment
St. Lucie County, Florida

1 inch = 150 feet	PROJECT NUMBER: 147814000	FEBRUARY 2021	FIGURE 3

3.2 LAND COVER AND NATURAL COMMUNITIES

Vegetative communities on the project site were identified through pedestrian transects and aerial photograph interpretation. Vegetative communities were classified using the *Florida Land Use, Cover, and Forms Classification System* (FLUCFCS, Florida Department of Transportation, 1999). A FLUCFCS map of the project site is attached as ***Figure 4***. The description of the upland land cover provided below characterizes dominant vegetation observed along random pedestrian transects and does not represent an all-inclusive vegetative inventory.

FLUCFCS 211 – IMPROVED PASTURES

This cover type encompassed approximately 13.25 acres of the project site and was primarily made up of smut grass (*Sporobolus indicus*) with scattered cabbage palm (*Sabal palmetto*), laurel oak (*Quercus laurifolia*), live oak (*Quercus virginiana*), and Brazilian pepper (*Schinus terebinthifolius*).

FLUCFCS 420 – UPLAND HARDWOOD FOREST

This cover type encompassed approximately 2.74 acres of the project site. The canopy was primarily made up of mature live oak and laurel oak, and cabbage palm. The understory included Brazilian pepper, saw palmetto (*Serenoa repens*), lantana (*Lantana camara*), and clover (*Trifolium* spp.).

3.3 WETLANDS, TIDAL WATERS AND OTHER SURFACE WATERS

The presence of wetlands was evaluated based on the Florida unified wetland delineation methodologies in accordance with Chapter 62-340, Florida Administrative Code (FAC) and Chapter 62-331 FAC under the State 404 Program. These methods consider prevalence of wetland vegetation, hydric soil indicators, and wetland hydrology. Surface waters include both natural and manmade bodies of water, such as streams, lakes, ponds, canals, and ditches. Based on initial database review and subsequent assessment of the vegetative communities, hydrologic conditions, and soils observed during on-site reconnaissance, there appears to be approximately 0.96 acres of wetlands and surface waters on-site.

FLUCFCS 510 – STREAMS AND WATERWAYS

This cover type encompassed approximately 0.14 acres of the project site and encompasses a surface water through the central portion of the property, which does not appear to connect to any other waterways. This surface water feature appears to have been historically excavated.

FLUCFCS 643 – WET PRAIRIES

This cover type encompassed approximately 0.82 acres of the project site and was primarily made up of smartweed (*Persicaria setacea*), hydrocotyl (*Hydrocotyle vulgaris*), torpedo grass (*Panicum repens*), jointed spikerush (*Eleocharis interstincta*), pickerel weed (*Pontederia cordata*), beaksedge (*Rhynchospora spp*.), and occasional smut grass.

3.4 WILDLIFE UTILIZATION

Wildlife observed included the mourning dove (*Zenaida macroura*), black vulture (*Coragyps atratus*), great blue heron (*Ardea herodias*), and monarch butterfly (*Danaus plexippus*).

3.5 ENDANGERED, THREATENED, AND SPECIES OF SPECIAL CONCERN

A list of protected species potentially occurring within the project vicinity was generated using the databases described in Section 2.0 Methodology. Information regarding previously documented occurrences, on-site observations conducted as part of this assessment, and likelihood of occurrence is summarized below.

FNAI – The FNAI report includes data from FNAI Matrix Unit 65769 (***Appendix A***). Based on the FNAI report, there are no documented listed species within the vicinity of the site. FNAI lists wood storks (*Mycteria Americana*) as likely to occur within the matrix unit.

FWC – There are no known wading bird colonies on, or within one mile of, the project site. Additionally, no bald eagles (*Haliaeetus leucocephalus*) or evidence of bald eagles were observed on the project site and there are no documented occurrences of bald eagles or their nests within one mile of the project site. No further coordination is anticipated regarding these species.

USFWS Consultation Areas – The project site is in the below-listed USFWS Consultation Areas.

- Audubon's crested caracara
- Florida scrub-jay
- Everglade snail kite
- Grasshopper sparrow

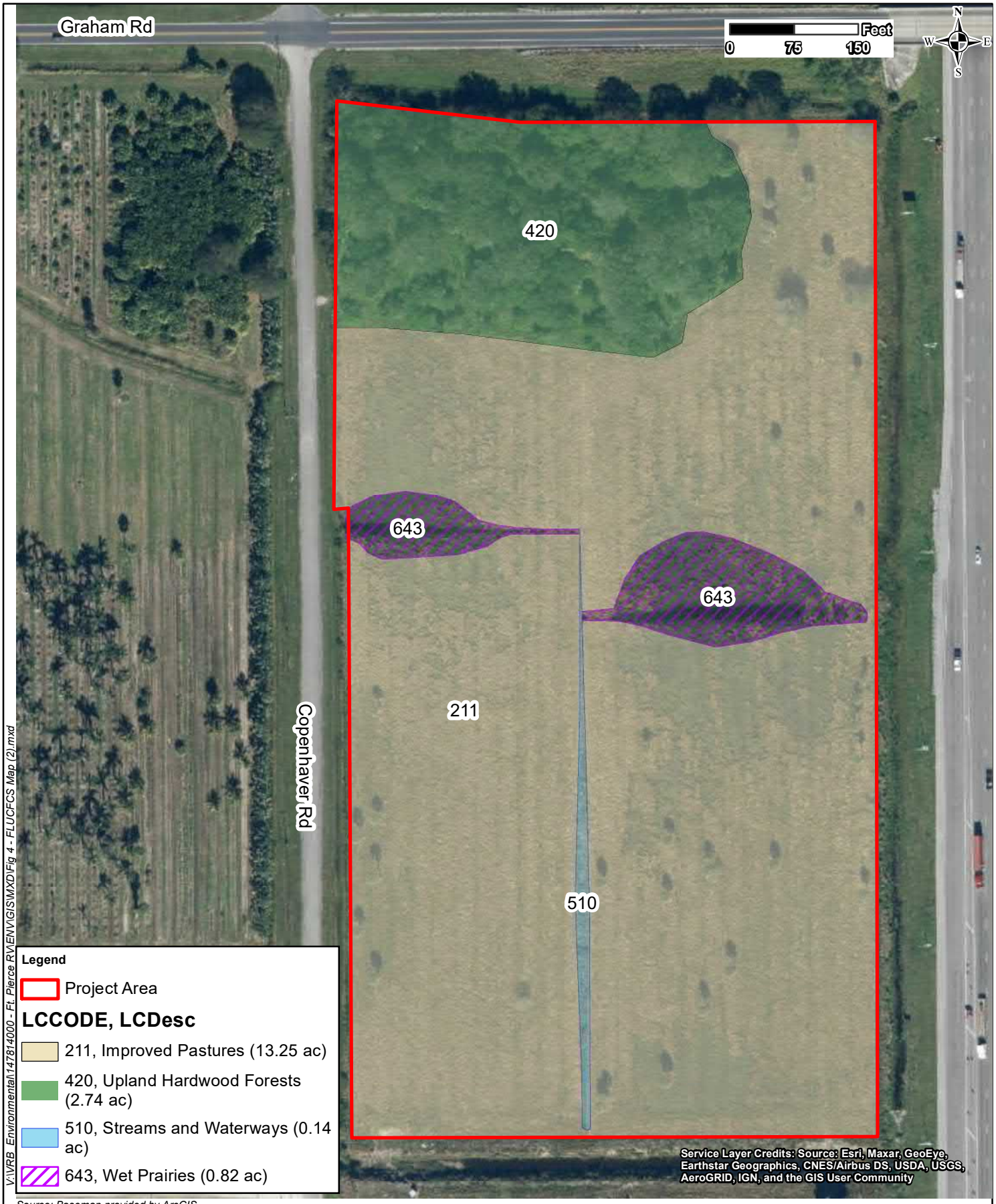
Habitat for the Florida scrub-jay, everglade snail kite, and grasshopper sparrow does not occur on-site, thus, no further coordination regarding these species is anticipated. Suitable habitat for the Audubon's crested caracara is present on-site, and the species is discussed further below.

USFWS Wood Stork Colonies – The project site is within the core foraging area (CFA) of two known wood stork colonies, North Fork St. Lucie River and Cypress Creek Bluefield Road. The CFA for an active wood stork colony is defined as a circular area within an 18.6-mile radius from the wood stork colony. Potential wood stork foraging habitat exists within the wetlands and surface water on-site. More on this is discussed below.

USFWS IPaC Data – The IPaC Trust Resources includes historical data in their reporting, which results in some species findings that do not reflect current on-site conditions. The following species are listed in the data and have suitable habitat within the project site: wood stork and Audubon's crested caracara. Species listed in the data that do not have suitable habitat on-site include: Everglade snail kite, Florida grasshopper sparrow, whooping crane, American alligator, hawksbill sea turtle, leatherback sea turtle, loggerhead sea turtle, Miami blue butterfly, Florida panther, and southeastern beach mouse. This dataset confirmed that the project site is not within any USFWS designated Critical Habitat (***Appendix A***).

Based on field reconnaissance and database reviews, a list of state and federally listed species potentially occurring on, or within the immediate vicinity of, the project site has been compiled. ***Table 2*** lists species that may occur and their likelihood of occurrence. Likelihood of occurrence is based on actual observation of the species, signs of the species (burrows, tracks, scat, etc.), observance of suitable habitat, or documented occurrences of the species within various databases.

Table 2						
Potential Listed Species Occurrence						
Common Name		Scientific Name	Federal Status	State Status	Comments	Likelihood of Occurrence
Birds	Wood Stork	*Mycteria americana*	T	FT	Observed On-site: No Observed in Proximity: No Habitat Present: Yes Habitat Type: Foraging	Moderate
	Audubon's Crested Caracara	*Polyborus plancus audubonii*	T	FT	Observed On-site: No Observed in Proximity: No Habitat Present: Yes Habitat Type: Nesting/foraging	Moderate
	Burrowing Owl	*Athene cunicularia*	NL	ST	Observed On-site: No Observed in Proximity: No Habitat Present: Marginal Habitat Type: Burrowing/foraging	Low
	Southeastern American Kestrel	*Falco sparverius paulus*	NL	ST	Observed On-site: No Observed in Proximity: No Habitat Present: Yes Habitat Type: Nesting/foraging	Moderate
	Florida Sandhill Crane	*Grus canadensis pratensis*	NL	ST	Observed On-site: No Observed in Proximity: No Habitat Present: Yes Habitat Type: Nesting/foraging	Moderate
Reptiles	Eastern Indigo Snake	*Drymarchon corais couperi*	T	FT	Observed On-site: No Observed in Proximity: No Habitat Present: Marginal Habitat Type: foraging	Low
	Gopher Tortoise	*Gopherus polyphemus*	C	ST	Observed On-site: No Observed in Proximity: No Habitat Present: Yes Habitat Type: Burrowing/foraging	Moderate
Federal Status: E = Endangered; T = Threatened; T(S/A) = Threatened due to Similarity of Appearance; C = Candidate Species; NL = Not Listed. State Status: FE- Federally Endangered; FT – Federally Threatened; FT(S/A) – Federally Threatened due to Similarity of Appearance; ST- State Threatened; SSC = Species of Special Concern. Note: Coordination is not required with FWC for Federally listed species.						



V:\VRB Environmental\147814000 - Ft. Pierce RV\ENV\GIS\MXD\Fig 4 - FLUCFCS Map (2).mxd

Source: Basemap provided by ArcGIS

Kimley»Horn

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

FLUCFCS Map

Ft. Pierce RV Natural Resource Assessment
St. Lucie County, Florida

1 inch = 150 feet	PROJECT NUMBER: 147814000	MARCH 2021	FIGURE 4

Based on the database review and field reconnaissance, the following species could occur on-site or require additional evaluation, survey, or permitting.

Eastern Indigo Snake

The eastern indigo snake occurs in a range of habitats, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats. The snake requires large tracts of land to survive and often winters in burrows of gopher tortoises, armadillos, cotton rats, and land crabs (in coastal areas) and forages in hydric habitats. No individuals were observed during field reconnaissance; however, marginal habitat for the eastern indigo snake does exist on-site. Thus, per the Eastern Indigo Snake Effect Determination Key (August 13, 2013), if the USFWS *Standard Protection Measures for the Eastern Indigo Snake* (***Appendix B***) are implemented during construction, impacts to the Eastern indigo snake are not anticipated to occur, and no further action is anticipated.

Audubon's Crested Caracara

The Audubon's crested caracara inhabits wet prairies with cabbage palms and may also be found in wooded areas with saw palmetto, pastures and farmlands, cypress, and scrub oaks. During field reconnaissance, potential nesting and foraging habitat for the caracara was observed on-site. Thus, consultation with USFWS and a crested caracara survey is recommended to determine the presence or absence of a nest onsite. Surveys must adhere to the *USFWS Crested Caracara Draft Survey Protocol Additional Guidance (2016-2017 Breeding Season)* (***Appendix C***) and begin no later than January 10 and continue through April 30.

Wood Stork

The wood stork inhabits both fresh and saltwater habitats, such as fresh and saltwater marshes, tidal flats, wet prairies, cypress swamps, and drainage features. As part of the Effect Determination Key for the Wood Stork in South Florida, 18.6-mile core foraging area (CFA) buffers were established around known wood stork colonies. These buffers monitor proposed impacts to suitable foraging habitats (SFH) for the wood stork, which include shallow-water areas containing relatively open (<25% aquatic vegetation) water with a permanent or seasonal water depth between 2 and 15 inches. No wood storks were observed during field reconnaissance; however, the surface water and wetlands on-site

provides SFH for wood storks. Therefore, if impacts to the surface water or wetlands are anticipated, coordination regarding the wood stork will be required with the SFWMD and a wood stork foraging assessment may be required. Further discussion is provided in Section 4.3 below.

Burrowing Owl

The Florida burrowing owl is a small, ground-dwelling owl that is boldly spotted and bared with brown and white. They often dig their own burrow and line the entrance with decorative materials prior to laying eggs at the bottom of the burrow. They inhabit high, sparsely vegetated, sandy ground and can be found in ruderal areas such as pastures, airports, ball fields, and road rights-of-ways. Burrowing owl habitat on-site is marginal, and no individuals or burrows were observed. No further action is required regarding this species.

Southeast American Kestrel

The southeast American Kestrel's range is limited by nest and perch site availability, foraging habitat and food supply all near one another. Kestrels utilize a wide variety of habitats and nest in open pine habitats, woodland edges, prairies, and pastures throughout much of Florida. Nest sites are in tall dead trees or utility poles generally with an unobstructed view of surroundings. No kestrels were observed within the project site, however, habitat is present on-site. A kestrel survey for the Florida subspecies (*Falco sparverius paulus*) is recommended before development occurs, which will need to be conducted during non-migratory periods when the northern kestrel would not be present. That survey can be conducted between May – August.

Sandhill Crane

The Florida sandhill crane is listed as threatened by the FWC and inhabits prairies, freshwater marshes, and pasture lands. This crane is known to forage within agricultural areas like feed lots and crop fields, golf courses and other open lawns. Potential foraging habitat occurs on-site; however, nesting habitat was marginal on-site and no sandhill cranes were observed. If Florida sandhill cranes are not nesting on-site, no further action is required.

Gopher Tortoise

The gopher tortoise is a burrowing tortoise that inhabits upland habitats such as pine flatwoods, xeric oak hammocks, and open sandy pastures, but can also often occur in disturbed areas. A 15% gopher tortoise burrow survey was conducted, and no gopher tortoises or their burrows were observed. Potential habitat for the gopher tortoise does occur on-site, and thus a 100% gopher tortoise survey will need to be completed no more than 90 days prior to construction. Impacts to or within 25 feet of gopher tortoise burrows require a relocation permit from FWC. This permit authorizes gopher tortoises to be relocated by an authorized agent off the development property to a protected certified recipient area.

Listed Plant Species

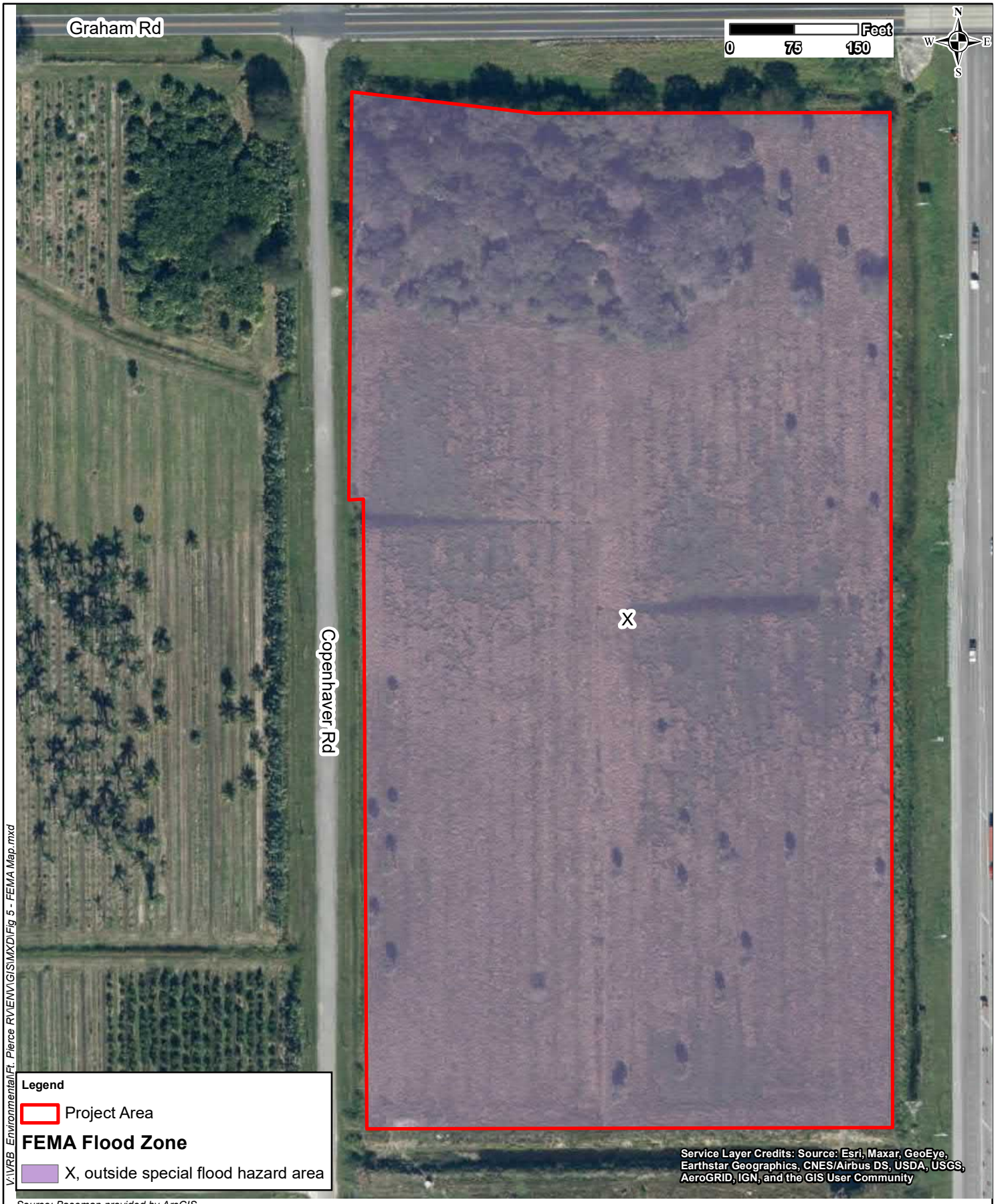
The Florida Department of Agriculture and Consumer Service's *Notes on Florida's Threatened and Endangered Plants*, and Richard Wunderlin's *Guide to Vascular Plants of Florida*, were consulted to assess habitat requirements for listed plant species. Although seven state-listed plants were noted by FNAI as possibly occurring in this area, none were observed during field reconnaissance. No further action is required regarding listed plant species.

3.6 HISTORIC AND ARCHAEOLOGICAL RESOURCES

Kimley-Horn requested an inquiry from the Department of State, State Historic Preservation Officer (SHPO) Division of Historical Resources Florida Master Site File (FMSF) regarding the presence of known historical or archaeological findings on the project site, or in the immediate vicinity (***Appendix D***). The FMSF lists two standing structures and one resource group within a 0.25-mile radius of the project area, however, none are within the project site, thus no historic or archaeological resources are anticipated to be impacted by development of the project site.

3.7 FLOODPLAIN INFORMATION

The FEMA FIRM panel [12061C0166E] indicates that the entirety of the project site is located within Flood Zone X – defined as areas determined to be outside of the special flood hazard area. A FEMA flood zone map is attached as ***Figure 5***. No required floodplain compensation is anticipated.



V:\IVRB Environmental\Ft. Pierce RV\ENV\GIS\MXD\Fig 5 - FEMA Map.mxd

Source: Basemap provided by ArcGIS

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Phone (772) 794-4100
www.kimley-horn.com

FEMA Flood Zone Map

Ft. Pierce RV Natural Resource Assessment
St. Lucie County, Florida

1 inch = 150 feet	PROJECT NUMBER: 147814000	FEBRUARY 2021	FIGURE 5

4.0 REGULATORY REQUIREMENTS

4.1 LOCAL ENVIRONMENTAL ORDINANCES

Based on a review of the municipal codes and ordinances for St. Lucie County, existing permitting requirements and regulations of state and federal regulatory agencies must be followed and applied. Additionally, per the Land Development Code of St. Lucie County, vegetation removal activities of native species in unincorporated areas requires a Vegetation Removal Permit from the Public Works Director. A tree survey will be required to determine status of trees on-site.

The St. Lucie County Land Development Code also gives St. Lucie County regulatory authority over all wetlands, however this authority is carried out via coordination with state and federal agencies. Thus, a state or federal permit required for construction, dredging, filling, or alteration within jurisdictional wetlands will supersede the county permitting mechanism. Mitigation must demonstrate no net losses due to impacts of these areas. Additionally, a minimum 10-foot buffer zone of native upland transitional vegetation is required around any isolated wetlands preserved on development sites.

4.2 STATE REGULATORY REQUIREMENTS

Environmental Resource Permit

An Environmental Resource Permit (ERP) will be required for the project if impacts to the on-site surface water or wetlands are proposed. The ERP evaluates the project impacts to wetlands, surface waters, and stormwater management design including floodplain impacts. An ERP may also be required from the SFWMD if any stormwater improvements are proposed as part of this project. Drainage design and stormwater management is not discussed further in this report as the scope was limited to natural resources.

It should be noted that the FDEP has assumed administration of the Clean Water Act (CWA) Section 404 program. FDEP will process Section 404 permits within State-assumed Waters of the US (WOTUS) rather than the US Army Corps of Engineers (USACE). Based on a preliminary review, there do not appear to be WOTUS present on-site, and therefore, authorization under Section 404 should not be required.

Listed Species Permitting

The following state-listed species may potentially occur on-site:

- Gopher tortoise
- Southeastern American kestrel

Gopher Tortoise

Based on the presence of potential gopher tortoise habitat on-site, a 100% gopher tortoise burrow survey is required to be conducted within 90 days prior to construction commencement, and a gopher tortoise relocation permit will be required from FWC if any relocation is required.

Southeastern American kestrel

Based on the on-site habitat suitable for the southeastern American kestrel, a kestrel survey is recommended for the Florida subspecies prior to site development. This will need to be conducted between May and August.

4.3 FEDERAL REGULATORY REQUIREMENTS

Section 404 Dredge and Fill Permitting

Please refer to State Regulatory Requirements above. Based on a preliminary review, WOTUS do not appear to be present on-site, and therefore, authorization under Section 404 is not required. This project is not within 300 ft. of a USACE retained water, so permitting under Section 404 can be authorized under the DEP State 404 Program.

Federal Listed Species

The following federally listed species were observed or potentially occur on-site:

- Wood Stork
- Eastern indigo snake
- Audubon's crested caracara

Wood Stork

The proposed project occurs within the CFA of two wood stork colonies. Foraging habitat is present in the surface water through the central portion of the property. In accordance with USFWS's 2010 South Florida Programmatic Concurrence and Key, a wood stork foraging analysis may be required if impacts to SFH are proposed. Mitigation requirements will be based on this analysis.

Eastern Indigo Snake

Per the Eastern Indigo Snake Effect Determination Key (August 13, 2013), if the USFWS Standard Protection Measures for the Eastern Indigo Snake (***Appendix B***) are implemented during construction, impacts to the Eastern indigo snake are not anticipated to occur, and no further action is anticipated to be required.

Audubon's Crested Caracara

Potential caracara habitat exists on-site. Therefore, consultation with USFWS and a crested caracara survey is recommendedto determine the presence or absence of a nest on-site. Surveys must adhere to the USFWS Crested Caracara Draft Survey Protocol Additional Guidance (2016-2017 Breeding Season) and begin no later than January 10 and continue through April 30.

5.0 SUMMARY AND RECOMMENDATIONS

- A tree survey and Vegetation Removal Permit from St. Lucie County may be required for tree removal prior to development.
- An ERP from SFWMD will be required to authorize stormwater improvements and any wetland or surface water impacts as part of site development. Based on the FMSF, there were no historic or archaeological resources within the study area.
- The site does not appear to contain jurisdictional WOTUS, so authorization under Section 404 will not be required through a State 404 Program permit.
- The following state and federally listed species were observed or potentially occur on-site: Audubon's crested caracara, wood stork, gopher tortoise, Southeastern American kestrel, and Eastern indigo snake. Additional surveys and permits may be required for the crested caracara, gopher tortoise, kestrel, and wood stork. Implementation of the Standard Protection Measures is recommended for the eastern indigo snake.

- The project site is not within a FEMA designated floodplain, and additional engineering analysis regarding the floodplain is not anticipated. This topic will be evaluated during civil engineering design and permitting with the SFWMD.

APPENDIX A
FNAI BIODIVERSITY MATRIX
IPAC SPECIES LIST

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
850-681-9364 fax
www.fnai.org

Florida Natural Areas Inventory

Biodiversity Matrix Query Results

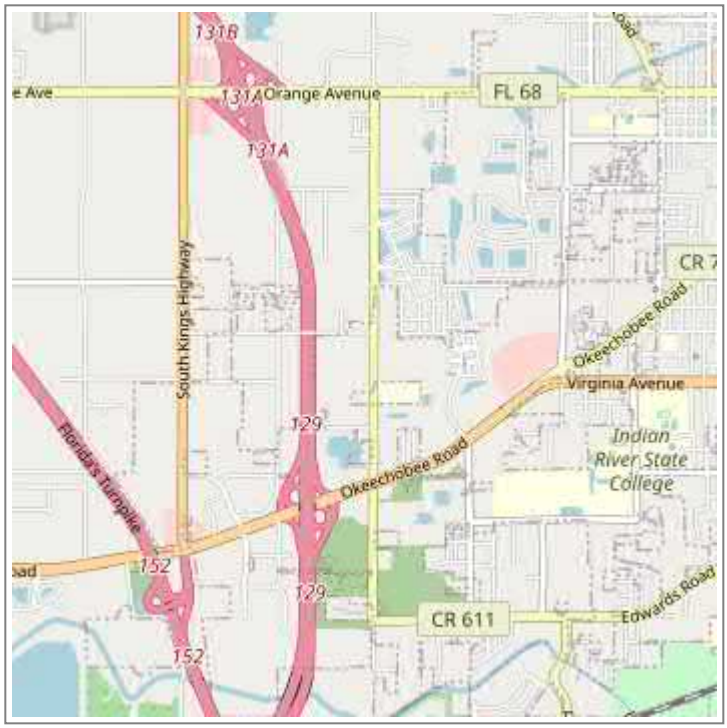
UNOFFICIAL REPORT

Created 3/15/2021

(Contact the FNAI Data Services Coordinator at 850.224.8207 or kbrinegar@fnai.fsu.edu for information on an official Standard Data Report)

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 1 Matrix Unit: 65769



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

1. documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; *or*
2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 65769

0 **Documented** Elements Found

0 **Documented-Historic** Elements Found

2 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Mesic flatwoods	G4	S4	N	N
Mycteria americana Wood Stork	G4	S2	LT	FT

Matrix Unit ID: 65769

13 **Potential** Elements for Matrix Unit 65769

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing

Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	SSC
Coelorachis tuberculosa Piedmont Jointgrass	G3	S3	N	T
Conradina grandiflora Large-flowered Rosemary	G3	S3	N	T
Drymarchon couperi Eastern Indigo Snake	G3	S3	LT	FT
Eudocimus albus White Ibis	G5	S4	N	SSC
Glandularia maritima Coastal Vervain	G3	S3	N	E
Gopherus polyphemus Gopher Tortoise	G3	S3	C	ST
Lechea cernua Nodding Pinweed	G3	S3	N	T
Linum carteri var. smallii Small's Flax	G2T2	S2	N	E
Nemastylis floridana Celestial Lily	G2	S2	N	E
Pteroglossaspis ecristata Giant Orchid	G2G3	S2	N	T
Sceloporus woodi Florida Scrub Lizard	G2G3	S2S3	N	N
Sciurus niger shermani Sherman's Fox Squirrel	G5T3	S3	N	SSC

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a Standard Data Request option for those needing certifiable data.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960-3559
Phone: (772) 562-3909 Fax: (772) 562-4288
http://fws.gov/verobeach

In Reply Refer To: March 18, 2021
Consultation Code: 04EF2000-2021-SLI-0510
Event Code: 04EF2000-2021-E-01258
Project Name: Ft. Pierce RV

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960-3559
(772) 562-3909

Project Summary

Consultation Code: 04EF2000-2021-SLI-0510
Event Code: 04EF2000-2021-E-01258
Project Name: Ft. Pierce RV
Project Type: DEVELOPMENT
Project Description: NRA
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@27.42731565,-80.38981320093714,14z



Counties: St. Lucie County, Florida

Endangered Species Act Species

There is a total of 16 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Florida Panther *Puma (=Felis) concolor coryi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1763	Endangered
Puma (=mountain Lion) *Puma (=Felis) concolor (all subsp. except coryi)* Population: FL No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6049	Similarity of Appearance (Threatened)
Southeastern Beach Mouse *Peromyscus polionotus niveiventris* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3951	Threatened

Birds

NAME	STATUS
Audubon's Crested Caracara *Polyborus plancus audubonii* Population: FL pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8250	Threatened
Everglade Snail Kite *Rostrhamus sociabilis plumbeus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7713	Endangered
Florida Grasshopper Sparrow *Ammodramus savannarum floridanus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/32	Endangered
Whooping Crane *Grus americana* Population: U.S.A. (CO, ID, FL, NM, UT, and the western half of Wyoming) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential
Wood Stork *Mycteria americana* Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

NAME	STATUS
American Alligator *Alligator mississippiensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/776	Similarity of Appearance (Threatened)
Hawksbill Sea Turtle *Eretmochelys imbricata* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered
Leatherback Sea Turtle *Dermochelys coriacea* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle *Caretta caretta* Population: Northwest Atlantic Ocean DPS There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

Insects

NAME	STATUS
Miami Blue Butterfly *Cyclargus (=Hemiargus) thomasi bethunebakeri*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/3797

Flowering Plants

NAME	STATUS
Fragrant Prickly-apple *Cereus eriophorus var. fragrans*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/982

Lakela's Mint *Dicerandra immaculata*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6390

Tiny Polygala *Polygala smallii*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/996

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX B

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

August 1, 2017

Donnie Kinard
U.S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Subject: Consultation Key for the Eastern Indigo Snake – Revised

Dear Mr. Kinard:

This letter revises and replaces the January 25, 2010, and August 13, 2013, letters to the U.S. Army Corps of Engineers (Corps) regarding the use of the eastern indigo snake programmatic effect determination key (Key) for projects occurring within the South Florida Ecological Service's Office (SFESO) jurisdiction. This revision supersedes all prior versions of the Key in the SFESO area. The purpose of this revision is to clarify portions of the previous keys based on questions we have been asked, specifically related to habitat and refugia used by eastern indigo snakes (*Drymarchon corais couperi*), in the southern portion of their range and within the jurisdiction of the SFESO. This Key is provided pursuant to the Service's authorities under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C.1531 *et seq.*). This Key revision has been assigned Service Consultation Code: 41420-2009-I-0467-R001.

The purpose of this Key is to assist the Corps (or other Federal action agency) in making appropriate effects determinations for the eastern indigo snake under section 7 of the Act, and streamline informal consultation with the SFESO for the eastern indigo snake when the proposed action can be walked through the Key. The Key is a tool available to the Corps (or other Federal action agency) for the purposes of expediting section 7 consultations. There is no requirement to use the Key. There will be cases when the use of the Key is not appropriate. These include, but are not limited to: where project specific information is outside of the scope of the Key or instances where there is new biological information about the species. In these cases, we recommend the Corps (or other Federal action agency) initiates traditional consultation pursuant to section 7 of the Act, and identify that consultation is being requested outside of the Key.

This Key uses project size and home ranges of eastern indigo snakes as the basis for making determinations of "may affect, but is not likely to adversely affect" (NLAA) and "may affect. and is likely to adversely affect" (may affect). Suitable habitat for the eastern indigo snake consists of a mosaic of habitats types, most of which occur throughout South Florida. Information on home ranges for individuals is not available in specific habitats in South Florida. Therefore, the SFESO uses the information from a 26-year study conducted by Layne and Steiner (1996) at Archbold Biological Station, Lake Placid, Florida, as the best available

information. Layne and Steiner (1996) determined the average home range size for a female eastern indigo snake was 46 acres and 184 acres for a male.

Projects that would remove/destroy less than 25 acres of eastern indigo snake habitat are expected to result in the loss of a portion of an eastern indigo snakes home range that would not impair the ability of the individual to feed, breed, and shelter. Therefore, the Service finds that take would not be reasonably certain to occur due to habitat loss. However, these projects have the potential to injure or kill an eastern indigo snake if the individual is crushed by equipment during site preparation or other project aspects. The Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013 or most current version) and the excavation of underground refugia (where a snake could be buried, trapped and/or injured), when implemented, are designed to avoid these forms of take. Consequently, projects less than 25 acres that include the Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013 or most current version) and a commitment to excavate underground refugia as part of the proposed action would be expected to avoid take and thus, may affect, but are not likely to adversely affect the species.

If a proposed project would impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, the Key should not be used. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range.

Projects that would remove 25 acres or more of eastern indigo snake habitat could remove more than half of a female eastern indigo snakes home range. This loss of habitat within a home range would be expected to significantly impair the ability of that individual to feed, breed, and shelter. Therefore, the Service finds take through habitat loss would be reasonably certain to occur and formal consultation is appropriate. Furthermore, these projects have the potential to injure or kill an eastern indigo snake if the individual is crushed by equipment during site preparation or other project aspects. The Service's *Standard Protection Measures* for the *Eastern Indigo Snake* (Service 2013 or most current version) and the excavation of underground refugia (where a snake could be buried, trapped and/or injured), when implemented, are designed to avoid these forms of take.

Eastern indigo snakes use a variety of habitat and are difficult to detect. Therefore, site specific information on the land use, observations of eastern indigo snakes within the vicinity, as well as other factors, as appropriate, will all be considered by the Service when making a final recommendation on the appropriate effects determination and whether it is appropriate to conclude consultation with the Corps (or other Federal action agency) formally or informally for projects that will impact 25 acres or more of habitat. Accordingly, when the use of the Key results in a determination of "may affect," the Corps (or other Federal action agency) is advised that consultation may be concluded informally or formally, depending on the project specific effects to eastern indigo snakes. Technical assistance from the Service can assist you in making a determination prior to submitting a request for consultation. In circumstances where the Corps (or other Federal action agency) desires to proceed with a consultation request prior to receiving

additional technical assistance from the Service, we recommend the agency documents the biological rationale for their determination and proceed with a request accordingly.

If the use of the Key results in a determination of "no effect," no further consultation is necessary with the SFESO. If the use of the Key results in a determination of "NLAA," the SFESO concurs with this determination based on the rationale provide above, and no further consultation is necessary for the effects of the proposed action on the eastern indigo snake. For "no effect" or "NLAA" determinations, the Service recommends that the Corps (or other Federal action agency) documents the pathway used to reach your no effect or NLAA determination in the project record and proceed with other species analysis as warranted.

Eastern Indigo Snake Programmatic Effect Determination Key
Revised July 2017
South Florida Ecological Service Office

Scope of the Key

This Key should be used only in the review of permit applications for effects determinations for the eastern indigo snake (*Drymarchon corais couperi*) within the South Florida Ecological Service's Office (SFESO) area (Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Lee, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, and St. Lucie Counties). There is no designated critical habitat for the eastern indigo snake.

This Key is subject to revision as the Corps (or other Federal action agency) and Service deem necessary and in particular whenever there is new information on eastern indigo snake biology and effects of proposed projects.

The Key is a tool available to the Corps (or other Federal action agency) for the purposes of expediting section 7 consultations. There is no requirement to use the Key. There will be cases when the use of the Key is not appropriate. These include, but are not limited to: where project specific information is outside of the scope of the Key or instances where there is new biological information about the species. In these cases, we recommend the Corps (or other Federal action agency) initiates traditional consultation pursuant to section 7 of the Act, and identify that consultation is being requested outside of the Key.

Habitat

Habitat use varies seasonally between upland and wetland areas, especially in the more northern parts of the species' range. In southern parts of their range eastern indigo snakes are habitat generalists which use most available habitat types. Movements between habitat types in northern areas of their range may relate to the need for thermal refugia (protection from cold and/or heat).

In northern areas of their range eastern indigo snakes prefer an interspersion of tortoise-inhabited sandhills and wetlands (Landers and Speake 1980). In these northern regions eastern indigo

snakes most often use forested areas rich with gopher tortoise burrows, hollowed root channels, hollow logs, or the burrows of rodents, armadillos, or land crabs as thermal refugia during cooler seasons (Lawler 1977; Moler 1985a; Layne and Steiner 1996). The eastern indigo snake in the northern region is typically classified as a longleaf pine savanna specialist because here, in the northern four-fifths of its range, the eastern indigo snake is typically only found in vicinity of xeric longleaf pine–turkey oak sandhills inhabited by the gopher tortoise (Means 2006).

In the milder climates of central and southern Florida, comprising the remaining one fifth of its range, thermal refugia such as those provided by gopher tortoise burrows may not be as critical to survival of indigo snakes. Consequently, eastern indigo snakes in these regions use a more diverse assemblage of habitats such as pine flatwoods, scrubby flatwoods, floodplain edges, sand ridges, dry glades, tropical hammocks, edges of freshwater marshes, muckland fields, coastal dunes, and xeric sandhill communities; with highest population concentrations of eastern indigo snakes occurring in the sandhill and pineland regions of northern and central Florida (Service 1999). Eastern indigo snakes have also been found on agricultural lands with close proximity to wetlands (Zeigler 2006).

In south Florida, agricultural sites (*e.g.*, sugar cane fields and citrus groves) are occupied by eastern indigo snakes. The use of sugarcane fields by eastern indigo snakes was first documented by Layne and Steiner in 1996. In these areas there is typically an abundance of wetland and upland ecotones (due to the presence of many ditches and canals), which support a diverse prey base for foraging. In fact, some speculate agricultural areas may actually have a higher density of eastern indigo snakes than natural communities due to the increased availability of prey. Gopher tortoise burrows are absent at these locations but there is an abundance of both natural and artificial refugia. Enge and Endries (2009) reporting on the status of the eastern indigo snake included sugarcane fields and citrus groves in a Global Information Systems (GIS)-base map of potential eastern indigo snake habitat. Numerous sightings of eastern indigo snakes within sugarcane fields have been reported within south Florida (Florida Fish and Wildlife Conservation Commission Indigo Snake Database [Enge 2017]). A recent study associated with the Comprehensive Everglades Restoration Plan (CERP) (A-1 FEB Project formerly A-1 Reservoir; Service code: 41420-2006-F-0477) documented eastern indigo snakes within sugarcane fields. The snakes used artificial habitats such as piles of limerock, construction debris, and pump stations. Recent studies also associated with the CERP at the C-44 Project (Service code: 41420-2009-FA-0314), and C-43 Project (Service code: 41420-2007-F-0589) documented eastern indigo snakes within citrus groves. The snakes used artificial habitats such as boards, sheets of tin, construction debris, pipes, drain pipes in abandoned buildings and septic tanks.

In extreme south Florida (*i.e.*, the Everglades and Florida Keys), eastern indigo snakes also utilize tropical hardwood hammocks, pine rocklands, freshwater marshes, abandoned agricultural land, coastal prairie, mangrove swamps, and human-altered habitats. Though eastern indigo snakes have been found in all available habitats of south Florida it is thought they prefer hammocks and pine forests since most observations occur there and use of these areas is disproportionate compared to the relatively small total area of these habitats (Steiner *et al.* 1983).

Even though thermal stress may not be a limiting factor throughout the year in south Florida, eastern indigo snakes still seek and use underground refugia. On the sandy central ridge of central Florida, eastern indigo snakes use gopher tortoise burrows more (62 percent) than other underground refugia (Layne and Steiner 1996). Other underground refugia used include armadillo (*Dasypus novemcinctus*) burrows near citrus groves, cotton rat (*Sigmodon hispidus*) burrows, and land crab (*Cardisoma guanhumi*) burrows in coastal areas (Layne and Steiner 1996; Wilson and Porras 1983). Natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and crevices of rock-lined ditch walls are also used (Layne and Steiner 1996). These refugia are used most frequently where tortoise burrows are not available, principally in low-lying areas off the central and coastal ridges.

Minimization Measures

The Service developed protection measures for the eastern indigo snake "Standard Protection Measures for the Eastern Indigo Snake" (Service 2013) located at: https://www.fws.gov/verobeach/ReptilesPDFs/20130812_EIS%20Standard%20Protection%20Measures_final.pdf. These protections measures (or the most updated version) are considered a minimization measure for projects proposed within eastern indigo snake habitat.

Determinations

If the use of this Key results in a determination of "**no effect**," no further consultation is necessary with the SFESO.

If the use of this Key results in a determination of "**NLAA**," the SFESO concurs with this determination and no further consultation is necessary for the effects of the proposed action on the eastern indigo snake.

For no effect or NLAA determinations, the Corps (or other Federal action agency) should make a note in the project file indicating the pathway used to reach your no effect or NLAA determination.

If a proposed project would impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, the subsequent Key should not be used. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range.

If the use of this Key results in a determination of "**may affect**," consultation may be concluded informally or formally depending on project effects to eastern indigo snakes. Technical assistance from the Service can assist you in making a determination prior to submitting a request for consultation. In circumstances where the Corps desires to proceed with a consultation request prior to receiving additional technical assistance from the Service, we recommend the Corps document the biological rationale for their determination and proceed with a request accordingly.

A. Project is not located in open water or salt marsh.....go to B

Project is located solely in open water or salt marsh.....**no effect**

B. Permit will be conditioned for use of the Service's most current guidance for Standard Protection Measures For The Eastern Indigo Snake (currently 2013) during site preparation and project construction.....go to C

Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested.....**may affect**

C. The project will impact less than 25 acres of eastern indigo snake habitat (*e.g.*, sandhill, scrub, pine flatwoods, pine rocklands, scrubby flatwoods, high pine, dry prairie, coastal prairie, mangrove swamps, tropical hardwood hammocks, hydric hammocks, edges of freshwater marshes, agricultural fields [including sugar cane fields and active, inactive, or abandoned citrus groves], and coastal dunes).....go to D

The project will impact 25 acres or more of eastern indigo snake habitat (*e.g.*, sandhill, scrub, pine flatwoods, pine rocklands, scrubby flatwoods, high pine, dry prairie, coastal prairie, mangrove swamps, tropical hardwood hammocks, hydric hammocks, edges of freshwater marshes, agricultural fields [including sugar cane fields and active, inactive, or abandoned citrus groves], and coastal dunes).....**may affect**

D. The project has no known holes, cavities, active or inactive gopher tortoise burrows, or other underground refugia where a snake could be buried, trapped and/or injured during project activities.....**NLAA**

The project has known holes, cavities, active or inactive gopher tortoise burrows, or other underground refugia where a snake could be buried, trapped and /or injured.....go to E

E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be excavated prior to site manipulation in the vicinity of the burrow[1]. If an eastern indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an eastern indigo snake, no work will commence until the snake has vacated the vicinity of proposed work.....**NLAA**[2]

Permit will not be conditioned as outlined above.....**may affect**

End Key

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[1] If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a Florida Fish and Wildlife Conservation Commission Authorized Gopher Tortoise Agent permit. The excavation method selected should also minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the most current Gopher Tortoise Permitting Guidelines found at http://myfwc.com/gophertortoise.

[2] Please note, if the proposed project will impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, NLAA is not the appropriate conclusion. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range

Working with the Fish and Wildlife Foundation of Florida, the Service has established a fund to support conservation and recovery for the eastern indigo snake. Any project that has the potential to affect the eastern indigo snake and/or its habitat is encouraged to make a voluntary contribution to this fund. If you would like additional information about how to make a contribution and how these monies are used to support eastern indigo snake recovery please contact Ashleigh Blackford, Connie Cassler, or José Rivera at 772-562-3559.

This revised Key is effective immediately upon receipt by the Corps. Should circumstances change or new information become available regarding the eastern indigo snake and/or implementation of the Key, the determinations herein may be reconsidered and this Key further revised or amended.

Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. If you have any questions or comments regarding this Key, please contact the SFESO at 772-562-3909.

Sincerely,

Roxanna Hinzman
Field Supervisor
South Florida Ecological Services

Cc:
Corps, Jacksonville, Florida (Dale Beter, Muriel Blaisdell, Ingrid Gilbert, Angela Ryan, Irene Sadowski, Victoria White, Alisa Zarbo)
Service, Athens, Georgia (Michelle Elmore)
Service, Jacksonville, Florida (Annie Dziergowski)
Service, Panama City, Florida (Sean Blomquist)

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STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or "approval" from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or "approval" from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11" x 17" or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A <u>LIVE</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A <u>DEAD</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.

2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.

3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).

2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.

3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.

APPENDIX C

USFWS CRESTED CARACARA DRAFT SURVEY PROTOCOL ADDITIONAL GUIDANCE

USFWS Crested Caracara Draft Survey Protocol – Additional Guidance (2016-2017 Breeding Season)

The northern crested caracara (*Caracara cheriway*) is a resident, diurnal, and non-migratory raptor that occurs primarily in Florida, Texas, Arizona, Cuba, Mexico, Central America, and the northern portions of South America (Morrison and Dwyer 2012). Only the Florida population, which is isolated from the remainder of the species, is listed as threatened under the Endangered Species Act.

In order to avoid the potential for unauthorized take, future project sites within the caracara consultation area (Figure 1) containing habitats (same or similar) as described below should undergo a formal caracara survey to determine site utilization by caracaras. The intent of caracara surveys is three-fold: (1) to determine the location(s) of active caracara nest(s) that could be adversely affected by the proposed project; (2) to determine the presence and use of the project area by breeding and non-breeding caracaras, including the approximate boundaries of breeding territories, if possible; and (3) to determine the fate and productivity of any caracara nest found.

We recommend coordinating with the U.S. Fish and Wildlife Service (Service) prior to conducting surveys, including submittal of a proposed survey plan and list of observers which follows the guidance below. Following the guidance will ensure that the surveys are timed during the period of greatest detection to document caracaras within or adjacent to the proposed project. The Service has caracara observation and nest location data as well as designated caracara congregation areas that may be of use for planning surveys. For project consultations under the Endangered Species Act, surveys must follow this protocol and must be no older than the previous caracara nesting season (January – April) in order to be considered valid. In the event that construction or vegetation clearing activity will occur more than one year after permitting is completed, contact the Service to discuss the need for follow-up surveys.

Foraging and Nesting Habitat

The Florida caracara population commonly occurs on dry or wet prairies with scattered cabbage palms (*Sabal palmetto*). It may also be found in lightly wooded areas. Scattered saw palmetto (*Serenoa repens*), scrub oaks (*Quercus geminata, Q. minima, Q. pumila*), and cypress (*Taxodium* spp.) may also be present. Widespread changes in land use may have caused a change in habitat use in this species. Morrison and Humphrey (2001) found a strong association of caracara home ranges with improved pasture. The presence of seasonal wetlands, which may serve as foraging habitat, is an important factor in the attractiveness of these pastures to caracaras (Service 1999). Therefore, today we recognize caracara foraging habitat (and nesting territories) as those areas with short herbaceous vegetation. This includes native wet and dry prairies, but also improved, unimproved, and woodland pastures, sod farms, row crops, levees, and rangeland. Juvenile caracaras may also use citrus and tree farms.

The primary nesting substrate is cabbage palm, although there have been rare reports of nesting in slash pine (pers. obs.), cypress, oak, red cedar (Morrison 2007), Australian pine

(*Casuarina* sp.), saw palmetto, and black gum (*Nyssa sylvatica*), and even more atypical locations such as an electrical substation, radio tower, and billboard (Dwyer and DallaRosa 2015).

Survey Design and Planning

The protective area for a caracara nest is a radius of about 1,500 meters (m) (4,920 feet) from the nest. Therefore, the survey area should include the project area and a 1,500-m buffer zone around the perimeter of the project area (including access roads) to account for off-site nest trees in territories that might overlap onto the project area. A recent aerial photograph depicting the project boundary and buffer zone should be used to identify all areas of suitable habitat and to preliminarily map observation blocks. An observation block is defined as an area easily observable from one vantage point. Enough observation blocks must be identified to cover all suitable habitats within the project boundary and 1,500-m buffer. Surveyors should try to obtain legal access to non-project property within the survey area where suitable habitat exists; these efforts should be documented (e.g., copy of letter, email, etc.). If permission cannot be obtained, contact the Service for additional guidance prior to initiating surveys.

Prior to the first survey, a site visit should be conducted to confirm suitable habitat and the location of observation blocks. Based on this site assessment (*e.g.*, presence of visual obstructions), observation blocks may need to be revised. During the site visit, also identify observer survey stations (at least one per observation block). Survey stations should be located to allow full, unobstructed view of the observation block – strategic points are those where caracaras are more likely to be seen going to and from potential nesting or foraging sites. Based on the site assessment, update the aerial photo to show suitable habitat, and labeled observation blocks and their respective survey stations. The location of survey stations may be adjusted if needed based on initial survey results in order to obtain a different/better view of caracara activity. Any adjustments to the survey design should be documented via revised maps.

Observer Qualifications

Information from a recent study (Dwyer *et al.* 2012) suggested that the probability that a visit or series of visits (*i.e.*, a survey) would lead to the discovery of an existing caracara nest increases with an experienced observer. Due to their cryptic nest site locations and unorthodox method of foraging (walking on the ground), successful nest site surveys require a specific skillset acquired by conducting numerous surveys under the supervision of an experienced caracara surveyor. In addition, caracaras can be hard to find and identify at long distances, especially under low-light conditions. Caracaras may also be wary of humans and will change their behavior in the presence of people, which can make locating nests extremely difficult for less experienced observers. Due to these factors, surveys must be conducted by a qualified biologist having at least two years of experience conducting bird surveys and at least 40 hours of caracara survey experience (i.e., equivalent to one survey season) under the supervision of an experienced caracara surveyor. If an observer does not meet these minimum qualifications,

the observer should be accompanied by a qualified observer who will serve as the primary observer. Even in cases of qualified observers, and where staff resources allow it, having two observers at the same station can increase the probability of finding a nest.

Conducting Foraging and Nesting Surveys

The highest probability of success in finding caracara nests is during the period of January through March. This period covers the time when adult caracaras are foraging to feed nestlings and therefore, become more visible to observers. As such, surveys must start no later than January 10 and continue through April 30 to provide adequate data to conclude whether or not the site contains an active caracara nest and/or foraging habitat. If the survey starts after January 10, and no nest are found, the survey may not be considered valid by the Service. Surveys considered invalid should be repeated the following nesting season using the latest Service protocol to ensure that early nesting birds were not missed. Surveys should not be conducted in November or December without additional coordination with the Service to avoid disturbing nesting caracaras during nest initiation or incubation, when they are more prone to disturbance.

A complete survey of the project area consists of one survey session every two weeks of each observation block within the project area and the 1,500-m buffer from early January (i.e., Jan 1 - 10) through April 30 (unless a nest is found within the observation block prior to April 30; in that event, begin Productivity Surveys as described below). A survey session is defined as a single survey within an identified observation block initiated at least 15 minutes prior to sunrise and lasting 3 hours (Dwyer et al. 2012). The entire 3-hour survey session must be spent viewing the one observation block – observers cannot rotate between stations, cruise roads, or leave the observation block unless following a flying caracara. If the survey area is large or includes obstructed views, and multiple observation blocks are required, then multiple observers (preferred) or additional survey sessions will be needed to complete the survey of the entire project area. Afternoon or evening surveys are optional, but cannot be substituted for early morning surveys (in the event of not finding a nest). More frequent morning surveys (i.e., more than one during any two-week period) of an observation block are also optional, and can increase the probability of finding a nest, but cannot replace the subsequent “once per two-week surveys” through April 30 (in the event of not finding a nest).

Surveys should be conducted from inside a vehicle (best option is a truck or similar vehicle to maximize height and minimize view obstructions) or an appropriate wildlife blind using high-power binoculars. This minimizes caracara disturbance and behavior alteration, and increases the probability of finding nest locations. Depending on the distance being surveyed, or the proximity of the caracara/nest being observed, it may also be acceptable for the observer to be adjacent to the vehicle if that affords better viewing. A spotting scope is essential when documenting behavior of caracaras and confirming nest tree locations that are far away. If this cannot be accomplished (e.g., due to visibility or vehicle access restrictions), the Service should be contacted to provide site-specific guidance.

Weather conditions must be adequate to clearly view the whole area. Surveys should not be conducted when it is rainy or foggy (Dwyer *et al*. 2012). Wind speed should be less than 12 miles per hour (19 kilometers per hour; Beaufort Number 3). Weather conditions and other important information must be recorded on field data sheets as itemized below (see Reporting).

During the survey, from a stationary position, search for caracara activity, including birds perched in trees or on sentinel posts, flying along roads or levees, or carrying nesting material or food. Watch for other birds, such as American crows (*Corvus brachyrhynchos*), red-tailed hawks (*Buteo jamaicensis*), red-shouldered hawks (*Buteo lineatus*), bald eagles (*Haliaeetus leucocephalus*), and turkey vultures (*Cathertes aura*), that might elicit an aggressive response from caracaras. Nesting caracaras will often chase potential predators away from the nest, thus revealing their presence. Also, vultures can indicate the presence of carrion that may attract caracaras. If the observer is near or on a road, pay attention to road-killed animals that may serve as forage for caracaras. If in a pasture, look for cow or calf carcasses on which caracaras may forage.

If a caracara is sighted, document its activity (*i.e.*, foraging, roosting, preening, territorial behavior, etc.) and location on an aerial map. If a caracara is in flight, document on the aerial map the direction the bird came from, the direction it is flying in, and if it is carrying nesting material or food. Make all reasonable efforts to track the bird to a potential nest location. If a potential nest tree is detected, then the observer can reposition to improve observation of the bird's behavior. All observer locations during a survey should be marked on the aerial. All caracara observations must be recorded on the field data sheets, including time of observation, number of birds, plumage (adult/juvenile), activity/behavior (*e.g.*, perching, foraging, feeding, preening, courtship or territorial display, etc.), and nest stage (building, incubating, nestlings, fledglings), if applicable. Corresponding caracara locations and flight paths must be marked and labeled on the aerial map. Also mark any potential or confirmed nest tree locations on the aerial photo, with GPS coordinates of the observation site and an estimate of the direction and distance of the nest from the observation point (a rangefinder may help to measure distance). Do not try to approach the nest as this may cause the caracara to abandon their nesting attempt. It may be possible to use a compass bearing from two different locations to triangulate the location of a nest tree that may be too far away and not near recognizable landmarks.

Survey sessions of each observation block must be repeated at two week intervals. Once a nest tree location is confirmed, report the location to the Service and transition to Productivity Surveys. In addition to location of nest trees, the survey data described above can be used to understand the use of the survey area (*e.g.*, as foraging or roosting habitat) by both breeding and non-breeding caracaras. Non-breeding caracaras can include both juveniles and adults. Detailed survey data are also useful in approximating boundaries of breeding territories, which is typically important to identifying the number of territories that may be impacted by a proposed project and the anticipated effect that proposed activities may have on a breeding

caracara pair. This is especially true for projects which are large in size or include habitat conversion. For more details on caracaras, see Service (1999) and Morrison and Dwyer (2012).

Conducting Productivity Surveys

Once a nest tree is confirmed or highly suspected, begin productivity surveys. These surveys involve the same repeated, two-week visits, but the surveyor need only observe the nest for the amount of time necessary to determine nest status (*i.e.,* incubating, nestlings, fledglings, or failed) and may survey the nest tree at any time during the day (assuming the weather conditions are appropriate). This will likely require much less effort per day than nest surveys. Many times, a spotting scope can be more useful than binoculars in observing activity in the nest that will indicate the nest status. As nesting progresses, the nestlings will become more active and easier to observe. Record the bird activity and number of nestlings. Record the fledging date and number of fledglings. From the fledging date, and previous observations, estimate the egg-laying date. If the nest appears to fail, continue surveying the nest tree area until April 30 as re-nesting may occur. If nests are deemed active on April 30, continue surveying those nest trees until they are either successful or have failed.

Reporting

An example field data sheet is provided at the end of this document, but observers may use their own data sheet format as long as the required information is collected. Requirements for final reports are as follows:

1. Map of field-verified habitat types within the project area and 1,500-m buffer;
2. Copies of marked aerial photo(s) showing all suitable habitat, with labeled observation blocks and their respective survey stations (including any alternate station locations used);
3. For each survey station, copies of any photos taken that document the field of view, nest tree or caracaras;
4. Documentation of efforts to contact adjacent landowners, and copies of access agreements, if applicable;
5. A summary table with the following information for each observer: name, hours of experience conducting caracara surveys (as of January 1), approximate number of caracara nests previously found, and whether the observer served as a primary or secondary observer;
6. Copies of all individual field data sheets which include the following information for each survey:
    - observation block/survey station identification,
    - survey date,
    - observer name(s),
    - observer location (*e.g.*, in a vehicle, blind, on foot),
    - start and end times,

- start and end weather conditions (temperature, wind speed and direction, cloud cover, visibility, and precipitation),
- caracara location/activity details including (for each observation):
  - time of observation,
  - number of birds,
  - plumage,
  - activity/behavior, and
  - nesting stage, if applicable, and
- an aerial map showing all observed caracara locations and flight paths (labeled to correspond with activity details) and any potential/confirmed nest tree locations; and

7. Location data (*e.g.*, latitude/longitude) for all caracara observations and potential/confirmed nest trees in Excel, projected shapefile (the preferred projection is Florida Albers NAD83 in meters), or .kml/.kmz format and attributed to include the information in (6) above.

Additional survey or reporting requirements may exist if the caracara surveys are required by a Service Biological Opinion (BO)(in this event, refer to the Terms and Conditions of the BO). For questions or additional guidance regarding the above survey protocol, please contact the Service's caracara lead biologist, Steve Schubert, at 772-469-4249 or 772-562-3909.

Literature Cited

Dwyer, J.F., and J.P. Dalla Rosa. 2015. Use of anthropogenic nest substrates by crested caracaras. Southeastern Naturalist 12(1):N10-N15.

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U.S. Fish and Wildlife Service (Service). 1999. South Florida multi-species recovery plan. Atlanta, Georgia. http://www.fws.gov/verobeach/MSRPPDFs/AudubonsCrestedCaracara.pdf

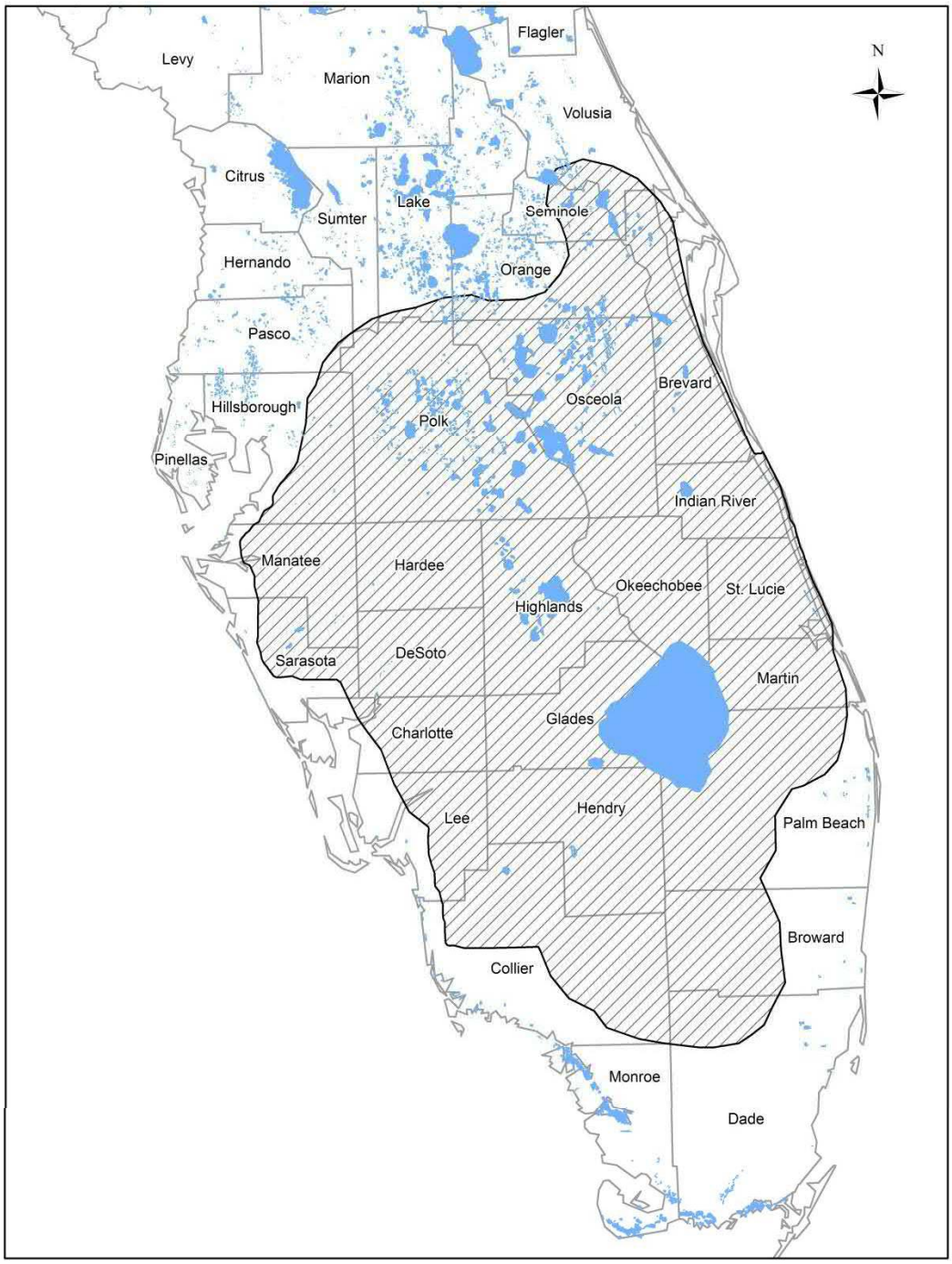


Figure 1. USFWS consultation area for crested caracara.

USFWS Crested Caracara Draft Survey Protocol –
Additional Guidance (2016-2017 Breeding Season)

Caracara Survey Form (updated 12/9/2016)

Project Name: _____

Location/Observation Block/Lat-Long:_____

Date	Start Time	Stop Time	Observer Name(s) and Experience Level(s)

Weather

Time	Air Temp	Wind Speed and Direction	% Cloud Cover	Cloud Type	Rain/Fog
Start:					
Finish:					

Observation Point Information

General Site and Habitat Conditions; Other Activities in the Area

Observations

(flight data, perching, preening, courtship, feeding, nest building, incubation, head throwback, diving, reaction to passing planes/traffic/pedestrians, other bird species, etc)

Observer Location	Age A/Im	Time	Description of behavior, flight path, etc

APPENDIX D

SHPO FLORIDA MASTER SITE FILE REPORT

This record search is for informational purposes only and does NOT constitute a project review. This search only identifies resources recorded at the Florida Master Site File and does NOT provide project approval from the Division of Historical Resources. Contact the Compliance and Review Section of the Division of Historical Resources at CompliancePermits@dos.MyFlorida.com for project review information.

March 15, 2021

Chloe Gossett
Kimley-Horn | 1920 Wekiva Way, Suite 200, West Palm Beach, FL 33411
Direct: 561 840 0217 | Mobile: 816 916 2233

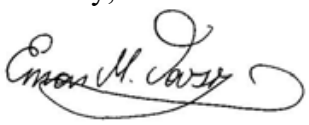
In response to your request on March 15, 2021, the Florida Master Site File lists two standing structures and one resource group recorded within 0.25 miles of the project area in St. Lucie County.

When interpreting the results of our search, please consider the following information:

- **This search area may contain *unrecorded* archaeological sites, historical structures or other resources even if previously surveyed for cultural resources.**
- **Because vandalism and looting are common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.**
- **While many of our records document historically significant resources, the documentation of a resource at the Florida Master Site File does not necessarily mean the resource is historically significant.**
- **Federal, state and local laws require formal environmental review for most projects. This search DOES NOT constitute such a review. If your project falls under these laws, you should contact the Compliance and Review Section of the Division of Historical Resources at** CompliancePermits@dos.MyFlorida.com

Please do not hesitate to contact us if you have any questions regarding the results of this search.

Sincerely,



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Florida Master Site File
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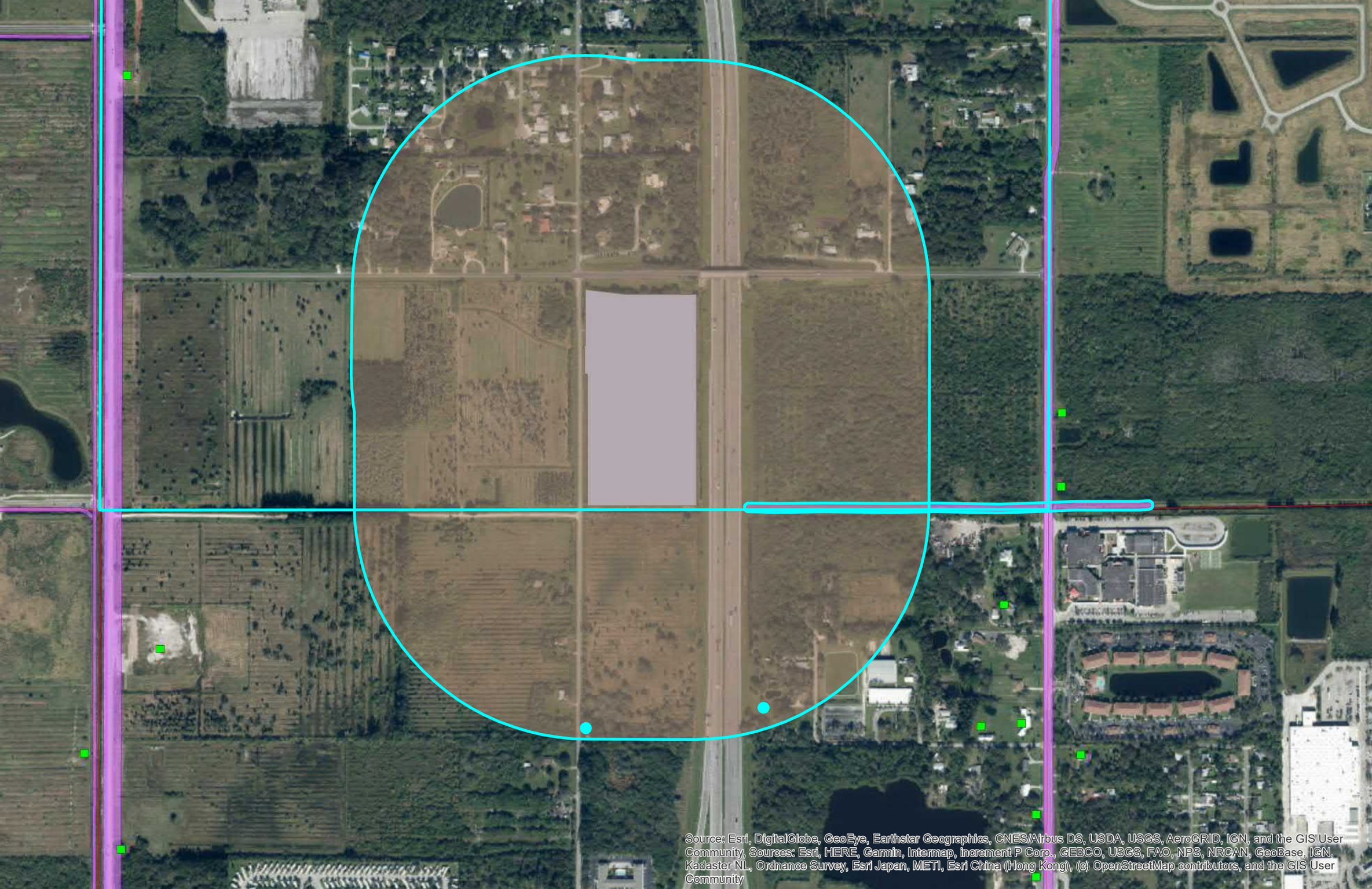
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

AR=0
SS=2
CM=0
RG=1
BR=0
Total=3

Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
SL01399	SS	2398 Peter Road	2398 Peter RD, Fort Pierce G.V.	1941 Masonry Vernacular		
SL01774	SS	6105 Tedder Road	6105 Tedder RD W, Ft Pierce	c1958 Masonry Vernacular	Not Eligible	
SL03140	RG	Canal No. 37	Fort Pierce	Linear Resource - 1 Contrib Resources	Not Eligible	

TRAFFIC IMPACT ANALYSIS

FORT PIERCE RV STORAGE

CITY OF FORT PIERCE, FL

Prepared for:

MACRITCHIE, INC.

Prepared by:

KIMLEY-HORN AND ASSOCIATES, INC.

MARCH 2021

Kimley»Horn

TRAFFIC IMPACT ANALYSIS

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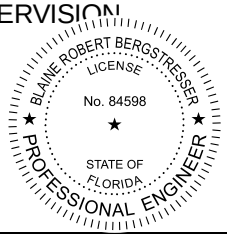
147814000
March 2021
© Kimley-Horn and Associates, Inc.
445 24th Street, Suite 200
Vero Beach, FL 32960

Kimley»Horn

THIS IS TO CERTIFY THAT THE ENCLOSED CALCULATIONS WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.



Blaine Bergstresser, P.E.

Florida Registration #84598

Kimley-Horn Registry #696

Date: _____

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APPENDIX A: Conceptual Site Plan

APPENDIX B: GTCRPM Model Output

APPENDIX C: Turning Movement Counts

APPENDIX D: Intersection Volume Development Worksheets

APPENDIX E: Synchro (v10) Output

- AM Peak Hour
  - 2021 Existing Traffic Conditions
  - 2024 Future Year Background Traffic Conditions
  - 2024 Future Buildout Conditions
- PM Peak Hour
  - 2021 Existing Traffic Conditions
  - 2024 Future Year Background Traffic Conditions
  - 2024 Future Buildout Conditions

APPENDIX F: NCHRP Report 457 Output

INTRODUCTION

Kimley-Horn performed a traffic impact analysis (TIA) to support a Recreational Vehicle (RV) storage facility generally located on the south side of Graham Road, east of Copenhaver Road, and west of I-95 Turnpike in St. Lucie County, Florida. The project property is currently vacant and is in the process of being annexed into the City of Fort Pierce. The development is proposed to consist of ±503 RV storage spaces and anticipated to have a buildout year of 2024.

The TIA evaluates traffic operational conditions and identifies transportation improvement needs within the study area under existing, future background, and future buildout traffic conditions. The analysis has been performed in accordance with St. Lucie County *Land Development Code Section 11.02.09* as adjacent roadway segments to the development are maintained by St. Lucie County.

Access to the site will be provided via one full-access driveway onto Copenhaver Road. There will also be an emergency exit north of the main entrance on Copenhaver Road, but it will not be evaluated because it will not be used in typical conditions. The access points are shown on the conceptual site plan provided in **Appendix A**.

This traffic analysis is based on traffic data collected in the field and supplemented by information obtained from St. Lucie County and Florida Department of Transportation (FDOT) sources. The study observed the established procedures found in Institute of Transportation Engineers (ITE) sources, FDOT sources, and the *Highway Capacity Manual 6* (HCM 6).

PROJECT TRIP GENERATION

Trip generation for the development was determined using data found in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, Tenth Edition. ITE land use code (LUC) 151 (Mini-Warehouse) was applied in the trip generation calculations using storage units as the independent variable.

The trip generation for the development is anticipated to be 91 daily net existing trips, 6 AM (3 in, 3 out) peak hour net new external trips, and 10 PM (5 in, 5 out) peak hour trips upon buildout. **Table 1** illustrates the trip generation calculations for the site.

Table 1 - Trip Generation of Proposed Development

Land Use	Intensity	Daily Trips	AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
			Total	In	Out	Total	In	Out
Proposed Development Mini-Warehouse (RV Storage)	503 Units	91	6	3	3	10	5	5
TOTAL NET EXISTING TRIPS		91	6	3	3	10	5	5

Trip Generation was calculated using the data from ITE's Trip Generation Manual, 10th Edition

Mini-Warehouse [ITE 151]

Daily	T = 18.86(x) - 4.09 (X/100 is number of storage units)
AM Peak Hour of Adjacent Street	T = 1.98(X) - 3.79; (X/100 is number of storage units); (51% in/49% out)
PM Peak Hour of Adjacent Street	T = 1.52(X) + 2.02; (X/100 is number of storage units); (50% in/50% out)

TRIP DISTRIBUTION, ASSIGNMENT, AND STUDY AREA

Projected traffic demand of project trips on study roadways was derived with use of the adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the Greater Treasure Coast Regional Planning Model (GTCRPM) set and situated within the existing roadway network to appropriately represent project access. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project buildout year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic. The resulting model plots showing percent of daily project distribution are provided in **Appendix B**.

The study area was determined based on the St. Lucie County *Land Development Code Section 11.02.09*, which states that the study area should include all major roadways within 2.0-mile radius of the site. To determine roadway segments to be included in the TIA, a 1.0% significance test was performed for all major roadway segments within a 1.0-mile radius of the project site. Roadway segments that have less than 1.0% impact from the proposed development would be considered deminimis and will not be included within the roadway study area. The percent significance for project trips was determined by comparing the maximum directional peak hour project trips to the directional peak hour service capacity as provided the latest St. Lucie Transportation Planning Organization (TPO) Traffic Counts and Level of Service Report. Therefore, the following roadway segments were included within the project's study area:

- Copenhaver Road, from Graham Road to White Road

In addition to the above noted roadway segments, the following intersections are included within the study area:

- Graham Road & Copenhaver Road (unsignalized)
- Copenhaver Road & Project Driveway (unsignalized)

Table 2 illustrates the project impacts on roadways within a 2-mile radius per St. Lucie County Land Development Code 11.02.09 and the proposed study area. The site location, trip distribution, and study area for the traffic analysis is illustrated in **Figure 1**.

Table 2 – Study Area Determination

Roadway		Roadway Attributes [1]				Peak Hour Directional Maximum Service Volume [2]	PM Peak Hour Project Traffic				Significant Impact? [5]	Include In Study Area? [6]
From	To	Functional Classification	Area Type	Adopted LOS	Number of Lanes		% Assign [3]	NB / EB	SB / WB	Max % Impact [4]		
Copenhaver Road												
Graham Road	White Road	Local	U	D	2U	675	70.0%	4	4	0.59%	No	Yes [7]
Crossroads Parkway												
Okeechobee Road	Kings Highway	Local	U	D	2U	790	2.0%	0	0	0.00%	No	No
Delaware Avenue												
Hartman Road	S 33rd Street	Minor Collector	U	D	2U	600	2.0%	0	0	0.00%	No	No
Florida's Turnpike (SR 91)												
Orange Avenue	Okeechobee Road	Expressway	U	B	4D	2,260	6.0%	0	0	0.00%	No	No
Okeechobee Road	Glades Cut-Off Road	Expressway	U	D	4D	3,660	8.0%	0	0	0.00%	No	No
Graham Road												
Kings Highway	Jenkins Road	Local	U	D	2U	630	44.0%	2	2	0.32%	No	No
Hartman Road												
Okeechobee Road	Peterson Road	Minor Arterial	U	D	2U	750	0.0%	0	0	0.00%	No	No
Peterson Road	Deleware Avenue	Minor Arterial	U	D	2U	540	0.0%	0	0	0.00%	No	No
Deleware Avenue	Orange Avenue	Minor Arterial	U	D	2U	790	2.0%	0	0	0.00%	No	No
I-95												
Midway Road	Okeechobee Road	Interstate	U	C	6D	4,580	12.0%	1	1	0.02%	No	No
Okeechobee Road	Orange Avenue	Interstate	U	D	8D	7,320	0.0%	0	0	0.00%	No	No
Jenkins Road												
Edwards Road	Okeechobee Road	Minor Arterial	U	D	2U	880	15.0%	1	1	0.11%	No	No
Okeechobee Road	Graham Road	Minor Arterial	U	D	2U	920	27.0%	1	1	0.11%	No	No
Graham Road	Peterson Road	Minor Arterial	U	D	2U	630	17.0%	1	1	0.16%	No	No
Peterson Road	Orange Avenue	Minor Arterial	U	D	2U	920	14.0%	1	1	0.11%	No	No
Kings Highway												
Okeechobee Road	Crossroads Parkway	Principal Arterial	U	D	2U	830	0.0%	0	0	0.00%	No	No
Crossroads Parkway	Graham Road	Principal Arterial	U	D	2U	660	2.0%	0	0	0.00%	No	No
Graham Road	Picos Road	Principal Arterial	U	D	2U	660	24.0%	1	1	0.15%	No	No
Picos Road	Orange Avenue	Principal Arterial	U	D	2U	830	23.0%	1	1	0.12%	No	No
Orange Avenue	Angle Road	Principal Arterial	U	D	2U	870	9.0%	0	0	0.00%	No	No
Kirby Loop Road												
Edwards Road	35th Street	Minor Collector	U	D	2U	630	0.0%	0	0	0.00%	No	No
McNeil Road												
Okeechobee Road	Kirby Loop Road	Major Collector	U	D	2U	790	1.0%	0	0	0.00%	No	No
Kirby Loop Road	Edwards Road	Major Collector	U	D	2U	540	0.0%	0	0	0.00%	No	No
Okeechobee Road												
McCarty Road	Florida's Turnpike	Principal Arterial	R	B	4D	1,810	2.0%	0	0	0.00%	No	No
Florida's Turnpike	Kings Highway	Principal Arterial	U	C	4D	2,010	2.0%	0	0	0.00%	No	No
Kings Highway	Crossroads Parkway	Principal Arterial	U	D	6D	4,170	17.0%	1	1	0.02%	No	No
Crossroads Parkway	I-95	Principal Arterial	U	D	6D	4,170	6.0%	0	0	0.00%	No	No
I-95	Jenkins Road	Principal Arterial	U	D	6D	4,240	0.0%	0	0	0.00%	No	No
Jenkins Road	McNeil Road	Principal Arterial	U	D	6D	4,040	12.0%	1	1	0.02%	No	No
McNeil Road	Virginia Avenue	Principal Arterial	U	D	6D	3,170	12.0%	1	1	0.03%	No	No
Virginia Avenue	Hartman Road	Minor Arterial	U	D	4D	2,100	1.0%	0	0	0.00%	No	No
Hartman Road	35th St	Minor Arterial	U	D	4D	1,630	0.0%	0	0	0.00%	No	No
35th St	33rd St	Minor Arterial	U	D	4D	1,630	1.0%	0	0	0.00%	No	No
Orange Avenue												
Campbell Road	Kings Highway	Minor Arterial	R	D	2U	1,070	2.0%	0	0	0.00%	No	No
Kings Highway	I-95	Principal Arterial	U	D	4D	2,000	6.0%	0	0	0.00%	No	No
I-95	Jenkins Road	Principal Arterial	U	D	4D	2,000	0.0%	0	0	0.00%	No	No
Jenkins Road	Hartman Road	Principal Arterial	U	D	4D	2,000	14.0%	1	1	0.05%	No	No
Peters Road												
White Road	Crossroads Parkway	Local	U	D	2U	675	30.0%	2	2	0.30%	No	No
Picos Road												
Campbell Road	Kings Highway	Major Collector	U	D	2U	540	1.0%	0	0	0.00%	No	No
S 33rd Street												
Okeechobee Road	Deleware Avenue	Major Collector	U	D	2U	750	1.0%	0	0	0.00%	No	No
Deleware Avenue	Orange Avenue	Major Collector	U	D	2U	790	0.0%	0	0	0.00%	No	No
S 35th Street												
Kirby Loop Road	Cortez Boulevard	Minor Collector	U	D	2U	540	0.0%	0	0	0.00%	No	No
Cortez Boulevard	Virginia Avenue	Major Collector	U	D	2U	790	0.0%	0	0	0.00%	No	No
Virginia Avenue	Okeechobee Road	Major Collector	U	D	2U	750	1.0%	0	0	0.00%	No	No
Virginia Avenue												
Okeechobee Road	Hartman Road	Principal Arterial	U	D	6D	3,020	11.0%	1	1	0.03%	No	No
Hartman Road	S 35th Street	Principal Arterial	U	D	6D	3,020	10.0%	1	1	0.03%	No	No
S 35th Street	S 25th Street	Principal Arterial	U	D	6D	3,020	9.0%	0	0	0.00%	No	No

Notes:

1. The roadway attributes were obtained from the latest St. Lucie County Level of Service Report (Fall/Winter 2019/2020), 2010 FDOT St. Lucie County Federal Functional Classification Map, City of Fort Pierce Transportation Element, and supplemented with the 2020 FDOT Quality/LOS Tables.
2. Peak Hour Directional Maximum Service Volumes were determined using the sources listed in Note 1.
3. Percent project traffic assignment was calculated based on Greater Treasure Coast Regional Plannig Model (GTCRPM) Plots.
4. Percent impact was calculated as the maximum PM peak hour directional project traffic divided by the directional service volume.
5. A 1% significance test was perfomed for all major roadway segments within 1.0-mile radius of the project site.
6. The study area includes all roadway segments impacted by 1.0% or more of project traffic within 1.0-mile radius of the project site. Roadway segments that experience less than 1.0% impact from project traffic are considered deminimis impacts and are not included within the roadway study area.
7. The adjacent roadway segment of Copenhaver Road from Graham Road to White Road will be included within the study area as this the first accessed roadway from the site.

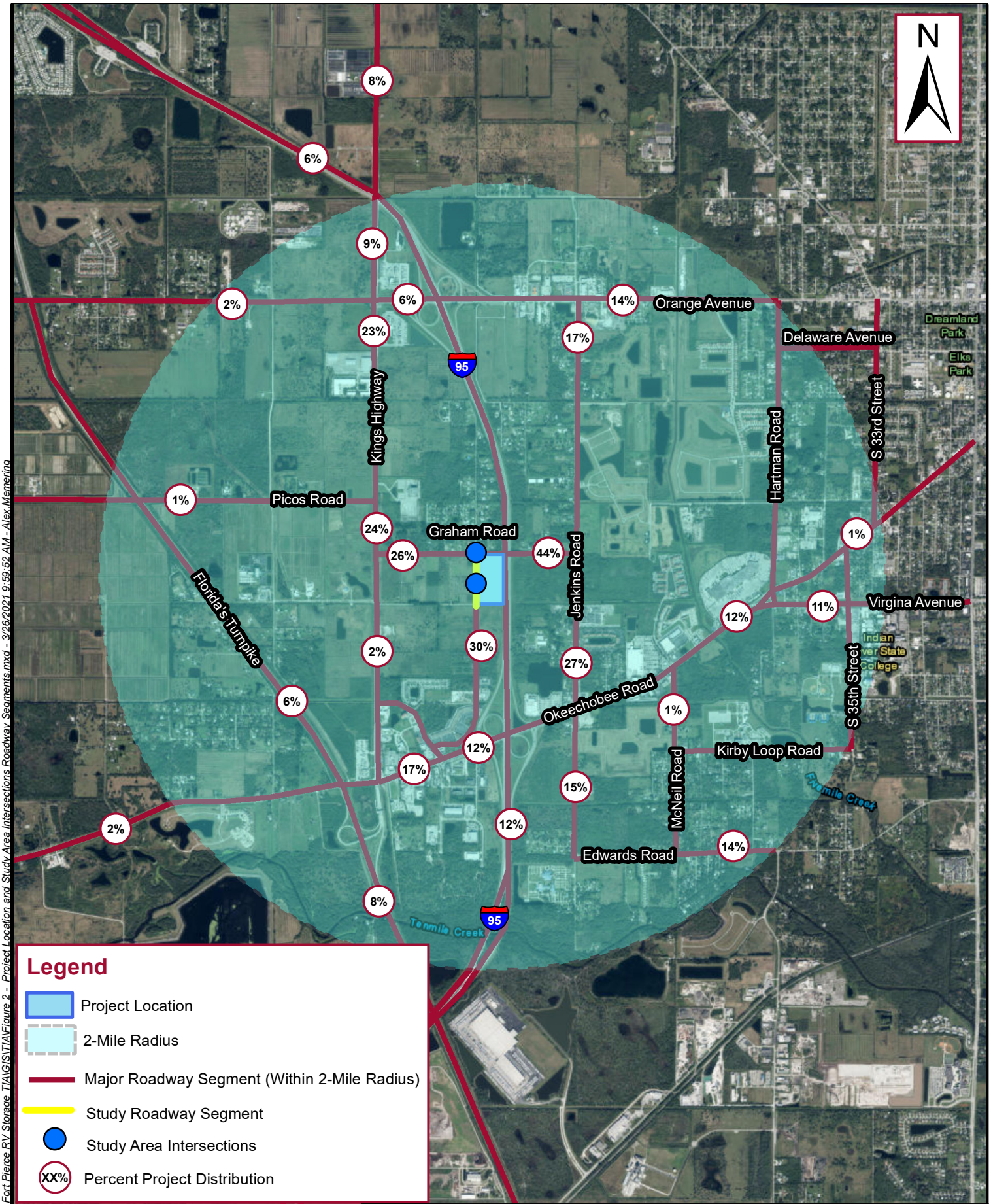

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FIGURE 1 - STUDY AREA, PROJECT LOCATION, AND TRIP DISTRIBUTION

FORT PIERCE RV STORAGE
CITY OF FORT PIERCE, FLORIDA

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Z:\OCA_Civil\147814000 - Fort Pierce RV Storage TIA\GIS\TIA\Figure 2 - Project Location and Study Area Intersections Roadway Segments.mxd - 3/26/2021 9:59:52 AM - Alex.Memering

HISTORICAL GROWTH RATE

The University of Florida's Bureau of Economic and Business Research (BEBR) analyzes population growth trends in counties throughout the state, along with other statistical metrics. To determine a reasonable background growth rate for the study area, the medium BEBR growth rate for St. Lucie County was calculated.

The medium BEBR growth rate for Year 2025 is approximately 1.55%. Therefore, a 1.55% annual background growth rate was applied for use on all roadway segments in this analysis to provide conservative results. Table 3 illustrates the growth rate calculations per BEBR population trends. Growth rate calculations are provided in **Table 3**.

Table 3 – Growth Rate Calculations

County	BEBR Pop Estimate	BEBR Population Projections (April 1)		
	Apr 1, 2019	Range	2025	2025
St. Lucie County	309,359	Low	319,300	0.46%
		Medium	342,900	1.55%
		High	364,600	2.55%

Source: Bureau of Economic and Business Research (BEBR) *Projections of Florida*

COMMITTED IMPROVEMENTS

Based on the St. Lucie Transportation Planning Organization (TPO) 2045 Long Range Transportation Plan (LRTP), the TPO's Transportation Improvement Program (TIP), and the Florida Department of Transportation (FDOT) 5-year work program, no improvements were located within the study area of the development.

ROADWAY SEGMENT ANALYSIS

The study area roadway segments were evaluated for level of service (LOS) and volume-to-capacity (v/c) ratios based on 2021 existing, 2024 future background, and 2024 future buildout conditions during both the AM and PM peak hours. AM peak hour (7AM-9AM) and PM (4PM-6PM) peak hour turning movement counts were performed at the study area intersections in March 2021. The turning movement counts were adjusted to peak season using adjustment factors published by FDOT. A peak season correctional factor from 2019 Florida Traffic Online was applied to the turning movement counts in order to grow the counts to typical peak season traffic conditions. The turning movement counts are provided in **Appendix C**.

AM and PM peak hour directional traffic volumes on the study area roadway segments were compared to the adopted LOS standard obtained from St. Lucie County and roadway service volumes from the 2020 FDOT Quality and Level of Service Handbook.

Based on 2021 existing conditions roadway segment analysis, all study area roadway segments are shown to operate acceptably during both the AM and PM peak hour. The existing AM and PM peak hour traffic conditions is provided in **Table 4** and **Table 5**, respectively.

FUTURE 2024 BACKGROUND TRAFFIC CONDITIONS ANALYSIS

The 2024 future background (without project) traffic volumes were developed by calculating the existing peak season traffic volumes and anticipated background growth applied through year 2024. An annual background growth rate of 1.55% was applied to the existing roadway segment volumes as previously calculated.

AM and PM peak hour directional traffic volumes on the study area roadway segments were compared to the adopted LOS standard as obtained from St. Lucie County guidelines and roadway service volumes from the 2020 FDOT Quality and Level of Service Handbook.

Table 6 and **Table 7** illustrate the 2024 future background (without project) traffic volumes and LOS analysis during AM and PM peak hour traffic conditions. The study area roadway segments are shown to operate acceptably during 2024 future background (without project) AM and PM peak hour traffic conditions.

FUTURE 2024 BUILDOUT TRAFFIC CONDITIONS ANALYSIS

The 2024 buildout (with project) traffic volumes were calculated as the sum of the background traffic volumes and project traffic. AM and PM peak hour directional traffic volumes on the study area roadway segments were compared to the adopted LOS standard as obtained from St. Lucie County guidelines and roadway service volumes from the 2020 FDOT Quality and Level of Service Handbook.

Table 8 and **Table 9** illustrate the 2024 buildout (with project) traffic volumes and LOS analysis during AM and PM peak hour traffic conditions. The study area roadway segments are shown to operate acceptably during 2024 buildout (with project) AM and PM peak hour traffic conditions.

Table 4 - Existing PM peak Hour Roadway Conditions

Roadway From	To	Roadway Attributes [1] Functional Classification	Area Type	Adopted LOS	Number of Lanes	Peak Hour Directional Maximum Service Volume [2]	Existing Peak Season Traffic Conditions Volumes [3] NB/EB	SB/WB	Max V/C Ratio	LOS
Copenhaver Road Graham Road	White Road	Local	U	D	2U	675	43	27	0.06	C

Notes:

1. The roadway attributes were obtained from the 2010 FDOT St. Lucie County Federal Functional Classification Map, St. Lucie County Transportation Element, and supplemented with the 2020 FDOT Quality/LOS Tables.
2. Peak Hour Directional Maximum Service Volumes were determined using the sources listed in Note 1.
3. Existing Peak Season Traffic Volumes obtained from turning movement counts performed in March 2021.

Table 5 - Existing PM peak Hour Roadway Conditions

Roadway From	To	Roadway Attributes [1] Functional Classification	Area Type	Adopted LOS	Number of Lanes	Peak Hour Directional Maximum Service Volume [2]	Existing Peak Season Traffic Conditions Volumes [3] NB/EB	SB/WB	Max V/C Ratio	LOS
Copenhaver Road Graham Road	White Road	Local	U	D	2U	675	41	47	0.07	C

Notes:

1. The roadway attributes were obtained from the 2010 FDOT St. Lucie County Federal Functional Classification Map, St. Lucie County Transportation Element, and supplemented with the 2020 FDOT Quality/LOS Tables.
2. Peak Hour Directional Maximum Service Volumes were determined using the sources listed in Note 1.
3. Existing Peak Season Traffic Volumes obtained from turning movement counts performed in March 2021.

Table 6 – Future Buildout AM Peak Hour Roadway Conditions

Roadway		Peak Hour Directional Maximum Service Volume [1]	Applied Growth Rate [2]	Future Background Peak Hour Traffic Conditions				AM Peak Hour Project Traffic			Future Buildout Peak Hour Traffic Conditions			
				Volumes [2]		Max V/C Ratio	LOS				Volumes [4]		Max V/C Ratio	LOS
From	To			NB / EB	SB / WB			% Assign [3]	NB / EB	SB / WB	NB / EB	SB / WB		
Copenhaver Road														
Graham Road	Project Driveway	675	1.55%	45	28	0.07	C	70.0%	2	2	47	30	0.07	C
Project Driveway	White Road	675	1.55%	45	28	0.07	C	30.0%	1	1	46	29	0.07	C

Notes:

1. The roadway attributes were obtained from the latest 2010 FDOT St. Lucie County Federal Functional Classification Map, St. Lucie County Transportation Element, and supplemented with the 2020 FDOT Quality/LOS Tables.

2. Peak Hour Directional Maximum Service Volumes were determined using the sources listed in Note 1.
3. Percent project traffic assignment was calculated as the maximum across roadway segment.
4. Buildout project traffic volumes are the summation of future background traffic and project traffic.

Table 7 – Future Buildout PM Peak Hour Roadway Conditions

Roadway		Peak Hour Directional Maximum Service Volume [1]	Applied Growth Rate [2]	Future Background Peak Hour Traffic Conditions				PM Peak Hour Project Traffic			Future Buildout Peak Hour Traffic Conditions			
				Volumes [2]		Max V/C Ratio	LOS				Volumes [4]		Max V/C Ratio	LOS
From	To			NB / EB	SB / WB			% Assign [3]	NB / EB	SB / WB	NB / EB	SB / WB		
Copenhaver Road														
Graham Road	Project Driveway	675	1.55%	43	49	0.07	C	70.0%	4	4	47	53	0.08	C
Project Driveway	White Road	675	1.55%	43	49	0.07	C	30.0%	2	2	45	51	0.08	C

Notes:

1. The roadway attributes were obtained from the latest 2010 FDOT St. Lucie County Federal Functional Classification Map, St. Lucie County Transportation Element, and supplemented with the 2020 FDOT Quality/LOS Tables.

2. Peak Hour Directional Maximum Service Volumes were determined using the sources listed in Note 1.
3. Percent project traffic assignment was calculated as the maximum across roadway segment.
4. Buildout project traffic volumes are the summation of future background traffic and project traffic.

INTERSECTION CAPACITY ANALYSIS

Intersection analyses was performed for the intersections within the project's study area. The intersection was evaluated for 2021 existing, 2024 future background (without project), and 2024 future buildout (with project) traffic conditions during both the AM and PM peak hour. AM peak hour (7AM-9AM) and PM (4PM-6PM) peak hour turning movement counts were performed at the study area intersections in March 2021. The turning movement counts were adjusted to peak season using adjustment factors published by FDOT. The turning movement counts are provided in **Appendix C**.

Intersection volume development worksheets detailing the future traffic development at the intersections are provided in **Appendix D**. The AM and PM peak hour intersection turning movement volumes at buildout for the study area intersections are illustrated in **Figure 2**.

2021 EXISTING TRAFFIC CONDITIONS ANALYSIS

Synchro (v10) software, which is based on *Highway Capacity Manual (2010*) was utilized to perform the intersection evaluations. Existing intersection geometry, peak hour factor and percent heavy vehicles (as obtained from the traffic counts) were input into Synchro (v10) for the analysis.

Table 8 details the intersection LOS results for 2021 existing traffic conditions. The study area intersection is shown to operate with an acceptable overall LOS and v/c ratio less than 1.0. Synchro 10 output is provided within **Appendix E**.

Table 8 – 2021 Existing Traffic Conditions Intersection Summary

Intersection	2021 Existing Conditions		
	Inter-section LOS	Inter-section Delay (S)	Max Movement V/C
AM Peak Hour Traffic			
Unsignalized[1] Graham Road & Copenhaver Road	B/B	10.7/11.2	0.07/0.07
PM Peak Hour Traffic			
Unsignalized[1] Graham Road & Copenhaver Road	B/B	10.2/11.0	0.06/0.03

Notes:
1. Intersection LOS and delay at unsignalized intersections are reported for the stop-controlled approaches only.

2024 FUTURE BACKGROUND TRAFFIC CONDITIONS ANALYSIS

The intersection of Graham Road and Copenhaver Road within the study area was evaluated for 2024 future background (without project) traffic conditions. An annual background growth rate of 1.55% was applied to the existing peak season volumes as outlined previously. **Table 9** details the results of the intersection analysis considering 2024 future background (without project) traffic volumes. The study area intersection is shown to operate with acceptable LOS, delays, and v/c ratios less than 1.0. Synchro 10 output is provided within **Appendix E**.

Table 9 – 2024 Future Background Traffic Conditions Intersection Summary

Intersection	2024 Future Background Conditions		
	Inter-section LOS	Inter-section Delay (S)	Max Movement V/C
AM Peak Hour Traffic			
Unsignalized[1]			
Graham Road & Copenhaver Road	B/B	10.8/11.4	0.08/0.08
PM Peak Hour Traffic			
Unsignalized[1]			
Graham Road & Copenhaver Road	B/B	10.2/11.1	0.06/0.03

Notes:
1. Intersection LOS and delay at unsignalized intersections are reported for the stop-controlled approaches only.

2024 FUTURE BUILDOUT TRAFFIC CONDITIONS ANALYSIS

The intersection and driveway within the study area was evaluated for 2024 buildout (with project) traffic conditions. Project traffic from the proposed development was added to the future background traffic volumes to calculate future buildout traffic volumes.

Table 10 details the results of the intersection analysis considering 2024 buildout (with project) traffic volumes. The study area intersection and project driveway are shown to operate with an acceptable level LOS and v/c ratio less than 1.0 upon buildout. Synchro 10 output is provided within **Appendix E**.

Table 10 – 2024 Future Buildout Traffic Conditions Intersection Summary

Intersection	2024 Future Buildout Conditions		
	Inter-section LOS	Inter-section Delay (S)	Inter-section V/C
AM Peak Hour Traffic			
Unsignalized[1]			
Graham Road & Copenhaver Road	B/B	10.9/11.5	0.08/0.08
Copenhaver Road & Project Driveway	A	9.7	0.01
PM Peak Hour Traffic			
Unsignalized[1]			
Graham Road & Copenhaver Road	B/B	10.5/11.2	0.08/0.03
Copenhaver Road & Project Driveway	A	9.7	0.01

Notes:
1. Intersection LOS and delay at unsignalized intersections are reported for the stop-controlled approaches only.

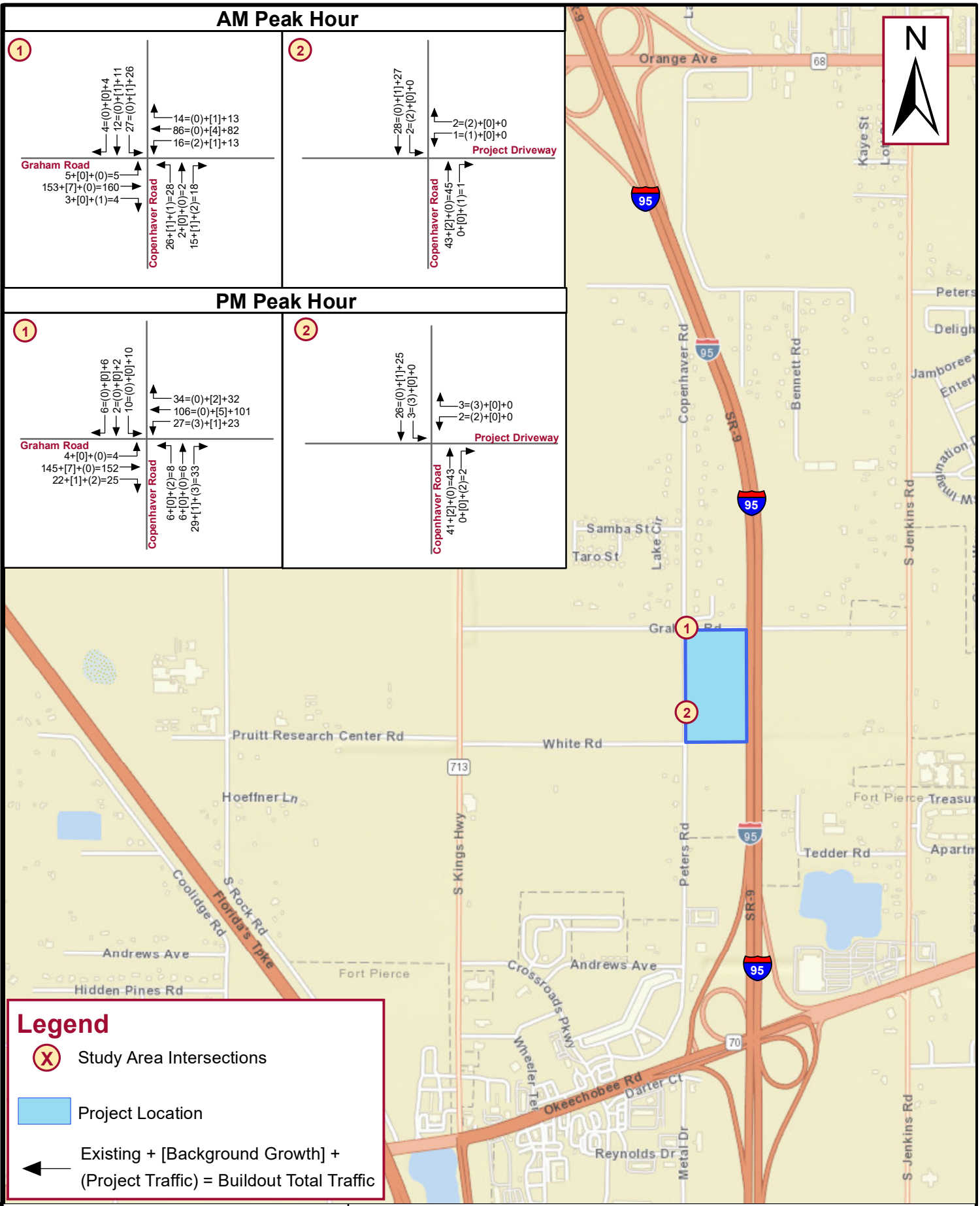

FIGURE 2 - AM & PM PEAK HOUR BUILDOUT TRAFFIC VOLUMES

FORT PIERCE RV STORAGE
CITY OF FORT PIERCE, FLORIDA

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Z:\OCA_Civil\147814000 - Fort Pierce RV Storage TIA\GIS\TIA\Figure 2 - AM PM Peak Hour Buildout Traffic Volumes.mxd - 3/26/2021 10:02:24 AM - Alex.Memering

SITE ACCESS ANALYSIS

Access to the site will be provided via one full-access driveway onto Copenhaver Road. There will also be an emergency exit north of the main entrance on Copenhaver Road, but it was not be evaluated because it will not be used in typical conditions.

PROJECT DRIVEWAY AT PROPOSED FULL ACCESS DRIVEWAY

The observed traffic volumes on Copenhaver Road, as well as the projected ingress turning volumes at the proposed project driveway, were compared to the thresholds of the National Cooperative of Highway Research Programs (NCHRP) Report 457 for determination of whether a major road left-turn lane is required at a stop-controlled minor street intersection. Report NCHRP 457 compares the major street speed, approach volume, opposing volume, and left-turning volume to determine whether a dedicated left-turn lane is warranted on the major street approach. Based on the low ingress left-turn volumes projected at the project driveway, and the low existing traffic volumes on Copenhaver Road during the AM and PM peak hours, an exclusive southbound left-turn lane at the project driveway is not warranted based on the criteria within the NCHRP 457 analysis.

The observed traffic volumes on Copenhaver Road, as well as the projected ingress turning volumes at the proposed project driveway, were compared to the thresholds of the NCHRP Report 457 for determination of whether a major road right-turn lane is required at a stop-controlled minor street intersection. Report NCHRP 457 compares the major street speed, approach volume, and right-turning volume to determine whether a dedicated right-turn lane is warranted on the major street approach. Based on the low ingress right-turn volumes projected at the project driveway, and the low existing traffic volumes on Copenhaver Road during the AM and PM peak hours, an exclusive northbound right-turn lane at the project driveway is not warranted based on the criteria within the NCHRP 457 analysis.

The NCRHP Report 457 output for the southbound left-turn lane and northbound right-turn lane during the AM and PM peak hour are provided within **Appendix F**.

CONCLUSION

This traffic impact analysis was prepared to support the proposed Recreational Vehicle (RV) storage facility generally located on the south side of Graham Road, east of Copenhaver Road, and west of I-95 Turnpike in City of Fort Pierce, Florida. The project property is currently vacant and is in the process of being annexed into the City of Fort Pierce. The development is proposed to consist of ±503 RV storage spaces and anticipated to have a buildout year of 2024.

The analysis concludes that all road segments and intersections within the study area are anticipated to operate with acceptable LOS during both AM and PM peak hour 2021 existing, 2024 future background (without project), and 2024 future buildout traffic conditions.

Access to the site will be provided via one full-access driveway onto Copenhaver Road. There will also be an emergency exit north of the main entrance on Copenhaver Road, but it was not be evaluated because it will not be used in typical conditions. Based on the low ingress projected volumes at the project driveway on Copenhaver Road, no ingress turn lanes are warranted at the proposed project driveway.

The results within this report satisfy the requirements set forth by St. Lucie County for evaluating proposed development impacts.

APPENDICES

APPENDIX A:
Conceptual Site Plan

PRE-APP QUESTIONS:

1. WOULD THIS DEVELOPMENT TRIGGER A TRAFFIC STUDY?
2. WHAT ARE THE FIRE / LIFE SAFETY REQUIREMENTS? IN PARTICULAR, FOR SPRINKLERING OF THE CANOPIES OR IF FIRE HYDRANTS ARE REQUIRED AROUND THE SITE.
3. ARE THERE ANY OFF-SITE IMPROVEMENTS THAT ARE EXPECTED AS PART OF THIS DEVELOPMENT?
4. WHAT ARE THE SITE SCREENING AND SIGNAGE REQUIREMENTS. IN PARTICULAR, WE WOULD REQUEST VISIBILITY FROM I-95.

PROPOSED ENTRANCE
COPENHAVER RD
EMERGENCY SITE ACCESS ONLY
PROPOSED OFFICE
PROPOSED DUMP STATIONS
PROPOSED DUMPSTERS
PROPOSED PUMP ROOM
PROPOSED WASH STATIONS
PROPOSED DETENTION POND
TREE PROTECTION AREA
GRAHAM RD
PROPOSED SWALE
I-95

49
85
92
40
26
8
28
51
32

45.0'
40.0'

CANOPY SAMPLE



SITE DATA
SITE ADDRESS: 2192 COPENHAVER RD, FT PIERCE, FL
PARCEL ID: 2313432000000004

TOTAL SITE AREA: 17.375 AC
45' RV STORAGE: 443 SPACES
40' RV STORAGE: 60 SPACES
TOTAL RV STORAGE: 503 SPACES

ASSUMED ZONING: C-3 (GENERAL COMMERCIAL)

STORMWATER FACILITIES: ~3.74 AC
10-YR, 24-HOUR ASSUMED VOLUME: ≈8.57 AC-FT
25-YR, 72-HOUR ASSUMED VOLUME: ≈14.09 AC-FT

TREE PROTECTION AREA: ~3.03 AC

RV STORAGE - FT. PIERCE - CONCEPTUAL SITE PLAN

9 CANOPIES:
443 (11'X45') STALLS; 60 (11'X40' STALLS)

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

DATE: 11/30/2020

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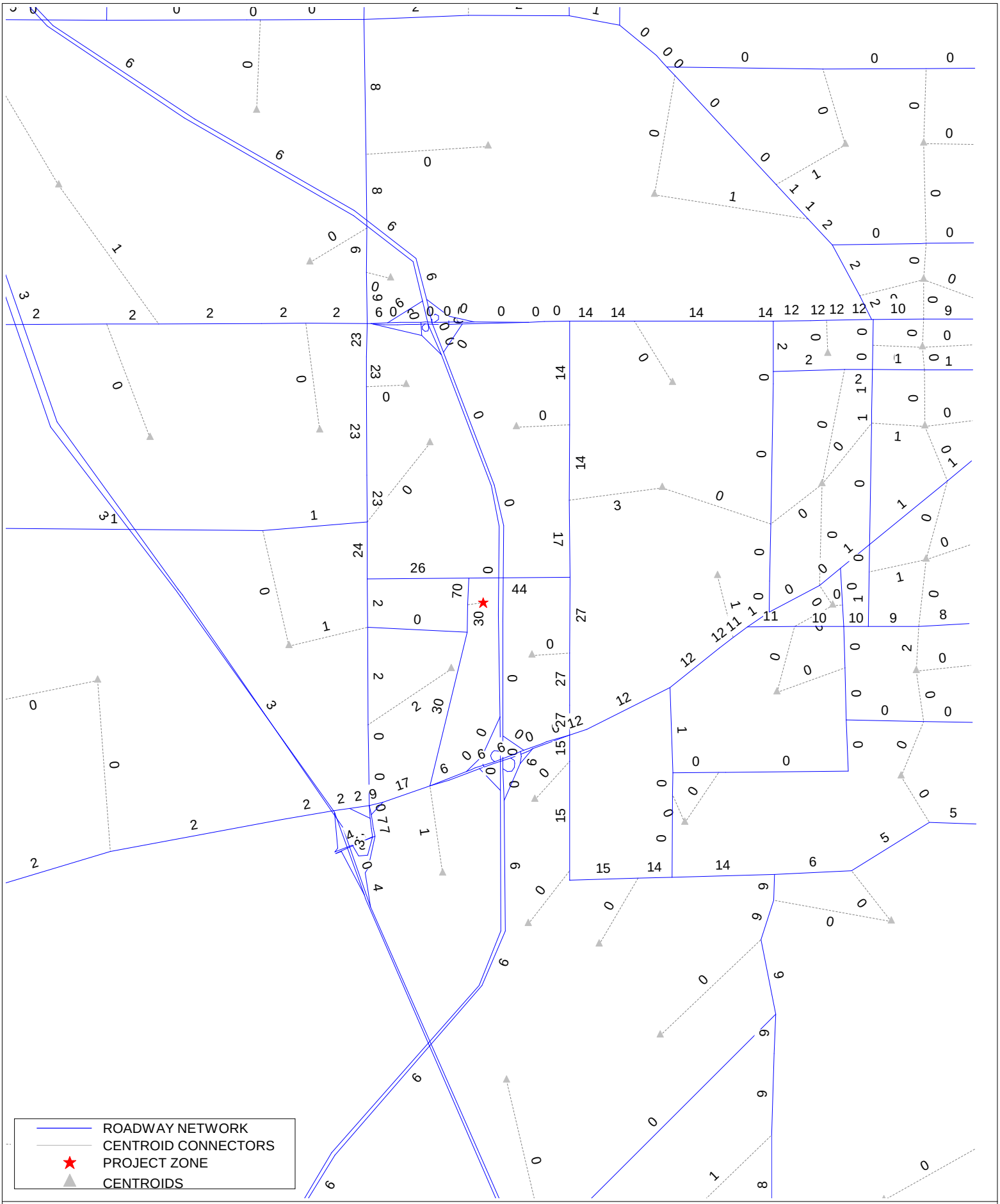
APPENDIX B:
GTCRPM Model Output



MODEL RUN - FORT PIERCE RV STORAGE
TRAFFIC DISTRIBUTION (PERCENTAGES)
3/1/2021
C:\FSUTMS\D4\GTCRPM\NGTC33\Base\minor mods\OUTPUT\FINAL_LOADED_A05.NET

cube

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APPENDIX C:
Turning Movement Counts

AM and PM peak hour turning movement counts were performed on March 11, 2021.

		Graham Road & Copenhaver Road (AM Peak Hour)											
		Northbound			Southbound			Eastbound			Westbound		
Interval	Time	L	T	R	L	T	R	L	T	R	L	T	R
1	7:00	1	0	2	8	0	1	0	28	1	3	16	2
2	7:15	2	0	5	5	3	1	0	44	0	4	15	1
3	7:30	9	1	3	8	3	1	0	41	0	5	26	1
4	7:45	7	0	4	2	3	2	4	38	1	0	20	8
5	8:00	8	1	3	11	2	0	1	30	2	4	21	3
6	8:15	0	0	5	3	0	0	0	29	1	8	21	2
7	8:30	5	0	2	4	0	2	0	25	1	3	16	2
8	8:45	1	0	7	9	1	0	0	19	1	3	13	5
AM Peak Hour: 7:15AM - 8:15AM				PHF	0.90								
	PH Vol.	26	2	15	26	11	4	5	153	3	13	82	13

		Graham Road & Copenhaver Road (PM Peak Hour)											
		Northbound			Southbound			Eastbound			Westbound		
Interval	Time	L	T	R	L	T	R	L	T	R	L	T	R
1	16:00	1	0	2	3	2	1	2	37	3	3	24	3
2	16:15	2	1	2	3	1	2	0	27	4	4	23	7
3	16:30	2	3	5	1	0	4	3	34	7	5	37	7
4	16:45	1	1	10	5	1	2	1	38	7	7	16	7
5	17:00	3	2	6	2	0	0	0	28	4	7	21	8
6	17:15	0	0	8	2	1	0	0	45	4	4	27	10
7	17:30	2	1	6	2	0	2	2	31	4	10	26	8
8	17:45	3	0	10	6	0	2	1	23	2	8	25	4
PM Peak Hour: 4:30PM - 5:30PM				PHF	0.89								
	PH Vol.	6	6	29	10	2	6	4	145	22	23	101	32

		Project Driveway & Copenhaver Road (AM Peak Hour)											
		Northbound			Southbound			Eastbound			Westbound		
Interval	Time	L	T	R	L	T	R	L	T	R	L	T	R
1	7:00	0	3	0	0	4	0	0	0	0	0	0	0
2	7:15	0	7	0	0	7	0	0	0	0	0	0	0
3	7:30	0	13	0	0	8	0	0	0	0	0	0	0
4	7:45	0	11	0	0	4	0	0	0	0	0	0	0
5	8:00	0	12	0	0	8	0	0	0	0	0	0	0
6	8:15	0	5	0	0	9	0	0	0	0	0	0	0
7	8:30	0	7	0	0	4	0	0	0	0	0	0	0
8	8:45	0	8	0	0	5	0	0	0	0	0	0	0
AM Peak Hour: 7:15AM - 8:15AM													
	PH Vol.	0	43	0	0	27	0	0	0	0	0	0	0

		Project Driveway & Copenhaver Road (PM Peak Hour)											
		Northbound			Southbound			Eastbound			Westbound		
Interval	Time	L	T	R	L	T	R	L	T	R	L	T	R
1	16:00	0	3	0	0	8	0	0	0	0	0	0	0
2	16:15	0	5	0	0	8	0	0	0	0	0	0	0
3	16:30	0	10	0	0	4	0	0	0	0	0	0	0
4	16:45	0	12	0	0	8	0	0	0	0	0	0	0
5	17:00	0	11	0	0	9	0	0	0	0	0	0	0
6	17:15	0	8	0	0	4	0	0	0	0	0	0	0
7	17:30	0	9	0	0	5	0	0	0	0	0	0	0
8	17:45	0	13	0	0	0	0	0	0	0	0	0	0
PM Peak Hour: 4:30PM - 5:30PM													
	PH Vol.	0	41	0	0	25	0	0	0	0	0	0	0

APPENDIX D:
Intersection Volume Development Worksheets

INTERSECTION VOLUME DEVELOPMENT

Graham Road & Copenhaver Road

AM PEAK HOUR	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 3/11/2021	26	2	15	26	11	4	5	153	3	13	82	13
Peak Season Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2021 Peak Season Volumes	26	2	15	26	11	4	5	153	3	13	82	13
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2024 Background Growth	1	0	1	1	1	0	0	7	0	1	4	1
Traffic % Assignment	26%		44%						26%	44%		
Project Traffic Direction	OUT		OUT						IN	IN		
Project Traffic	1		2						1	2		
2024 Background Traffic	27	2	16	27	12	4	5	160	3	14	86	14
2024 Total Traffic	28	2	18	27	12	4	5	160	4	16	86	14

PM PEAK HOUR	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 3/11/2021	6	6	29	10	2	6	4	145	22	23	101	32
Peak Season Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2021 Peak Season Volumes	6	6	29	10	2	6	4	145	22	23	101	32
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2024 Background Growth	0	0	1	0	0	0	0	7	1	1	5	2
Traffic % Assignment	26%		44%						26%	44%		
Project Traffic Direction	OUT		OUT						IN	IN		
Project Traffic	2		3						2	3		
2024 Background Traffic	6	6	30	10	2	6	4	152	23	24	106	34
2024 Total Traffic	8	6	33	10	2	6	4	152	25	27	106	34

INTERSECTION VOLUME DEVELOPMENT

Copenhaver Road & Project Driveway

AM PEAK HOUR	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 3/11/2021	0	43	0	0	27	0	0	0	0	0	0	0
Peak Season Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2021 Peak Season Volumes	0	43	0	0	27	0	0	0	0	0	0	0
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2024 Background Growth	0	2	0	0	1	0	0	0	0	0	0	0
Traffic % Assignment			30%	70%						30%		70%
Project Traffic Direction			IN	IN						OUT		OUT
Project Traffic			1	2						1		2
2024 Background Traffic	0	45	0	0	28	0	0	0	0	0	0	0
2024 Total Traffic	0	45	1	2	28	0	0	0	0	1	0	2

PM PEAK HOUR	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 3/11/2021	0	41	0	0	25	0	0	0	0	0	0	0
Peak Season Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2021 Peak Season Volumes	0	41	0	0	25	0	0	0	0	0	0	0
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2024 Background Growth	0	2	0	0	1	0	0	0	0	0	0	0
Traffic % Assignment			30%	70%						30%		70%
Project Traffic Direction			IN	IN						OUT		OUT
Project Traffic			2	3						2		3
2024 Background Traffic	0	43	0	0	26	0	0	0	0	0	0	0
2024 Total Traffic	0	43	2	3	26	0	0	0	0	2	0	3

APPENDIX E:
Synchro (v10) Output

AM Peak Hour

2021 Existing Traffic Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	153	3	13	82	13	26	2	15	26	11	4
Future Volume (vph)	5	153	3	13	82	13	26	2	15	26	11	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	170	3	14	91	14	29	2	17	29	12	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	179	0	0	119	0	0	48	0	0	45	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary
Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	153	3	13	82	13	26	2	15	26	11	4
Future Vol, veh/h	5	153	3	13	82	13	26	2	15	26	11	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	170	3	14	91	14	29	2	17	29	12	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	173	0	0	318	317	172	319	311	98
Stage 1	-	-	-	-	-	-	184	184	-	126	126	-
Stage 2	-	-	-	-	-	-	134	133	-	193	185	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1404	-	-	635	599	872	634	604	958
Stage 1	-	-	-	-	-	-	818	747	-	878	792	-
Stage 2	-	-	-	-	-	-	869	786	-	809	747	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1486	-	-	1404	-	-	615	590	872	613	595	958
Mov Cap-2 Maneuver	-	-	-	-	-	-	615	590	-	613	595	-
Stage 1	-	-	-	-	-	-	815	744	-	874	783	-
Stage 2	-	-	-	-	-	-	842	777	-	788	744	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.9	10.7	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	684	1486	-	-	1404	-	-	630
HCM Lane V/C Ratio	0.07	0.004	-	-	0.01	-	-	0.072
HCM Control Delay (s)	10.7	7.4	0	-	7.6	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

2024 Future Year Background Traffic Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	160	3	14	86	14	27	2	16	27	12	4
Future Volume (vph)	5	160	3	14	86	14	27	2	16	27	12	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	178	3	16	96	16	30	2	18	30	13	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	187	0	0	128	0	0	50	0	0	47	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary
Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	160	3	14	86	14	27	2	16	27	12	4
Future Vol, veh/h	5	160	3	14	86	14	27	2	16	27	12	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	178	3	16	96	16	30	2	18	30	13	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	181	0	0	337	336	180	338	329	104
Stage 1	-	-	-	-	-	-	192	192	-	136	136	-
Stage 2	-	-	-	-	-	-	145	144	-	202	193	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1478	-	-	1394	-	-	617	585	863	616	590	951
Stage 1	-	-	-	-	-	-	810	742	-	867	784	-
Stage 2	-	-	-	-	-	-	858	778	-	800	741	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1478	-	-	1394	-	-	595	575	863	594	580	951
Mov Cap-2 Maneuver	-	-	-	-	-	-	595	575	-	594	580	-
Stage 1	-	-	-	-	-	-	806	738	-	863	775	-
Stage 2	-	-	-	-	-	-	829	769	-	777	737	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.9	10.8	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	668	1478	-	-	1394	-	-	611
HCM Lane V/C Ratio	0.075	0.004	-	-	0.011	-	-	0.078
HCM Control Delay (s)	10.8	7.4	0	-	7.6	0	-	11.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

2024 Future Buildout Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	160	3	16	86	14	28	2	18	27	12	4
Future Volume (vph)	5	160	3	16	86	14	28	2	18	27	12	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	25%	13%	2%	2%	4%	2%	11%	2%	2%	2%
Adj. Flow (vph)	6	178	3	18	96	16	31	2	20	30	13	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	187	0	0	130	0	0	53	0	0	47	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	160	3	16	86	14	28	2	18	27	12	4
Future Vol, veh/h	5	160	3	16	86	14	28	2	18	27	12	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	25	13	2	2	4	2	11	2	2	2
Mvmt Flow	6	178	3	18	96	16	31	2	20	30	13	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	181	0	0	341	340	180	343	333	104
Stage 1	-	-	-	-	-	-	192	192	-	140	140	-
Stage 2	-	-	-	-	-	-	149	148	-	203	193	-
Critical Hdwy	4.12	-	-	4.23	-	-	7.14	6.52	6.31	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.317	-	-	3.536	4.018	3.399	3.518	4.018	3.318
Pot Cap-1 Maneuver	1478	-	-	1331	-	-	609	582	840	611	587	951
Stage 1	-	-	-	-	-	-	805	742	-	863	781	-
Stage 2	-	-	-	-	-	-	849	775	-	799	741	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1478	-	-	1331	-	-	587	571	840	586	576	951
Mov Cap-2 Maneuver	-	-	-	-	-	-	587	571	-	586	576	-
Stage 1	-	-	-	-	-	-	801	738	-	859	770	-
Stage 2	-	-	-	-	-	-	819	764	-	774	737	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.1	10.9	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	661	1478	-	-	1331	-	-	605
HCM Lane V/C Ratio	0.081	0.004	-	-	0.013	-	-	0.079
HCM Control Delay (s)	10.9	7.4	0	-	7.7	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	2	45	1	2	28
Future Volume (vph)	1	2	45	1	2	28
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	100%	100%	2%	100%	100%	2%
Adj. Flow (vph)	1	2	50	1	2	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	0	51	0	0	33
Sign Control	Stop		Free			Free

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	45	1	2	28
Future Vol, veh/h	1	2	45	1	2	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	100	100	2	100	100	2
Mvmt Flow	1	2	50	1	2	31

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	86	51	0	0	51	0
Stage 1	51	-	-	-	-	-
Stage 2	35	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	722	797	-	-	1104	-
Stage 1	771	-	-	-	-	-
Stage 2	785	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	721	797	-	-	1104	-
Mov Cap-2 Maneuver	721	-	-	-	-	-
Stage 1	771	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	770	1104	-
HCM Lane V/C Ratio	-	-	0.004	0.002	-
HCM Control Delay (s)	-	-	9.7	8.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

PM Peak Hour

2021 Existing Traffic Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	145	22	23	101	32	6	6	29	10	2	6
Future Volume (vph)	4	145	22	23	101	32	6	6	29	10	2	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	4	163	25	26	113	36	7	7	33	11	2	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	192	0	0	175	0	0	47	0	0	20	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary
Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	145	22	23	101	32	6	6	29	10	2	6
Future Vol, veh/h	4	145	22	23	101	32	6	6	29	10	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	163	25	26	113	36	7	7	33	11	2	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	149	0	0	188	0	0	372	385	176	387	379	131
Stage 1	-	-	-	-	-	-	184	184	-	183	183	-
Stage 2	-	-	-	-	-	-	188	201	-	204	196	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1432	-	-	1386	-	-	585	549	867	572	553	919
Stage 1	-	-	-	-	-	-	818	747	-	819	748	-
Stage 2	-	-	-	-	-	-	814	735	-	798	739	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1432	-	-	1386	-	-	568	536	867	535	540	919
Mov Cap-2 Maneuver	-	-	-	-	-	-	568	536	-	535	540	-
Stage 1	-	-	-	-	-	-	816	745	-	817	732	-
Stage 2	-	-	-	-	-	-	789	720	-	759	737	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.1	10.2	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	743	1432	-	-	1386	-	-	622
HCM Lane V/C Ratio	0.062	0.003	-	-	0.019	-	-	0.033
HCM Control Delay (s)	10.2	7.5	0	-	7.6	0	-	11
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

2024 Future Year Background Traffic Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	152	23	24	106	34	6	6	30	10	2	6
Future Volume (vph)	4	152	23	24	106	34	6	6	30	10	2	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	4	171	26	27	119	38	7	7	34	11	2	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	201	0	0	184	0	0	48	0	0	20	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary
Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.1

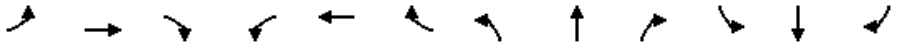
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	152	23	24	106	34	6	6	30	10	2	6
Future Vol, veh/h	4	152	23	24	106	34	6	6	30	10	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	171	26	27	119	38	7	7	34	11	2	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	157	0	0	197	0	0	389	403	184	405	397	138
Stage 1	-	-	-	-	-	-	192	192	-	192	192	-
Stage 2	-	-	-	-	-	-	197	211	-	213	205	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1423	-	-	1376	-	-	570	536	858	556	540	910
Stage 1	-	-	-	-	-	-	810	742	-	810	742	-
Stage 2	-	-	-	-	-	-	805	728	-	789	732	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1423	-	-	1376	-	-	553	523	858	519	527	910
Mov Cap-2 Maneuver	-	-	-	-	-	-	553	523	-	519	527	-
Stage 1	-	-	-	-	-	-	808	740	-	808	726	-
Stage 2	-	-	-	-	-	-	779	712	-	749	730	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.1	10.2	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	733	1423	-	-	1376	-	-	607
HCM Lane V/C Ratio	0.064	0.003	-	-	0.02	-	-	0.033
HCM Control Delay (s)	10.2	7.5	0	-	7.7	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

2024 Future Buildout Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	152	25	27	106	34	8	6	33	10	2	6
Future Volume (vph)	4	152	25	27	106	34	8	6	33	10	2	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	8%	11%	2%	2%	25%	2%	9%	2%	2%	2%
Adj. Flow (vph)	4	171	28	30	119	38	9	7	37	11	2	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	203	0	0	187	0	0	53	0	0	20	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	152	25	27	106	34	8	6	33	10	2	6
Future Vol, veh/h	4	152	25	27	106	34	8	6	33	10	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	8	11	2	2	25	2	9	2	2	2
Mvmt Flow	4	171	28	30	119	38	9	7	37	11	2	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	157	0	0	199	0	0	396	410	185	413	405	138
Stage 1	-	-	-	-	-	-	193	193	-	198	198	-
Stage 2	-	-	-	-	-	-	203	217	-	215	207	-
Critical Hdwy	4.12	-	-	4.21	-	-	7.35	6.52	6.29	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.35	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.35	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.299	-	-	3.725	4.018	3.381	3.518	4.018	3.318
Pot Cap-1 Maneuver	1423	-	-	1321	-	-	525	531	840	549	535	910
Stage 1	-	-	-	-	-	-	759	741	-	804	737	-
Stage 2	-	-	-	-	-	-	749	723	-	787	731	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1423	-	-	1321	-	-	508	516	840	508	520	910
Mov Cap-2 Maneuver	-	-	-	-	-	-	508	516	-	508	520	-
Stage 1	-	-	-	-	-	-	757	739	-	802	719	-
Stage 2	-	-	-	-	-	-	723	705	-	743	729	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.3	10.5	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	705	1423	-	-	1321	-	-	598
HCM Lane V/C Ratio	0.075	0.003	-	-	0.023	-	-	0.034
HCM Control Delay (s)	10.5	7.5	0	-	7.8	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	3	43	2	3	26
Future Volume (vph)	2	3	43	2	3	26
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	100%	100%	2%	100%	100%	2%
Adj. Flow (vph)	2	3	48	2	3	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	5	0	50	0	0	32
Sign Control	Stop		Free			Free

Intersection Summary
Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	3	43	2	3	26
Future Vol, veh/h	2	3	43	2	3	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	100	100	2	100	100	2
Mvmt Flow	2	3	48	2	3	29

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	84	49	0	0	50	0
Stage 1	49	-	-	-	-	-
Stage 2	35	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	724	800	-	-	1105	-
Stage 1	773	-	-	-	-	-
Stage 2	785	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	722	800	-	-	1105	-
Mov Cap-2 Maneuver	722	-	-	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	767	1105	-
HCM Lane V/C Ratio	-	-	0.007	0.003	-
HCM Control Delay (s)	-	-	9.7	8.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

APPENDIX F:
NCHRP Report 457 Output

NCHRP 457 - Graham Rd Copenhaver Rd
Southbound Left-Turn Lane
AM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

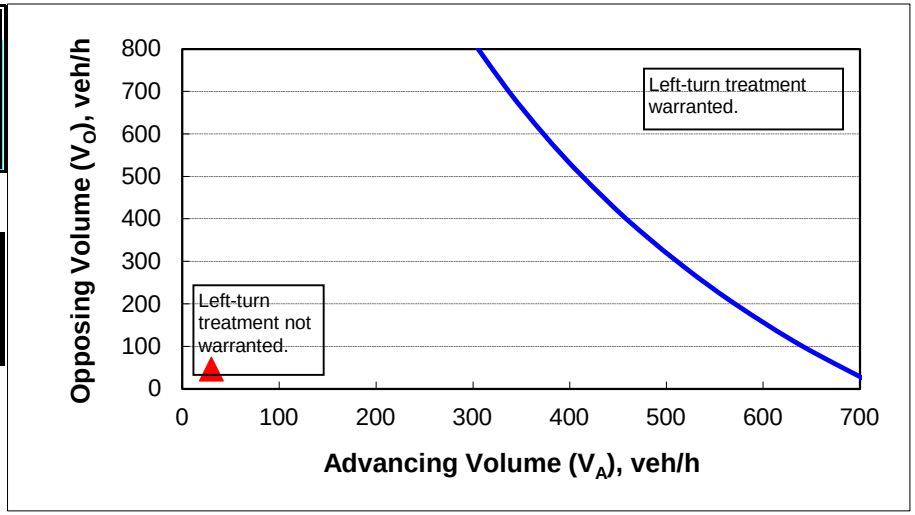
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	7%
Advancing volume (V_A), veh/h:	30
Opposing volume (V_O), veh/h:	46

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	684
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

NCHRP 457 - Graham Rd Copenhaver Rd
Southbound Left-Turn Lane
PM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

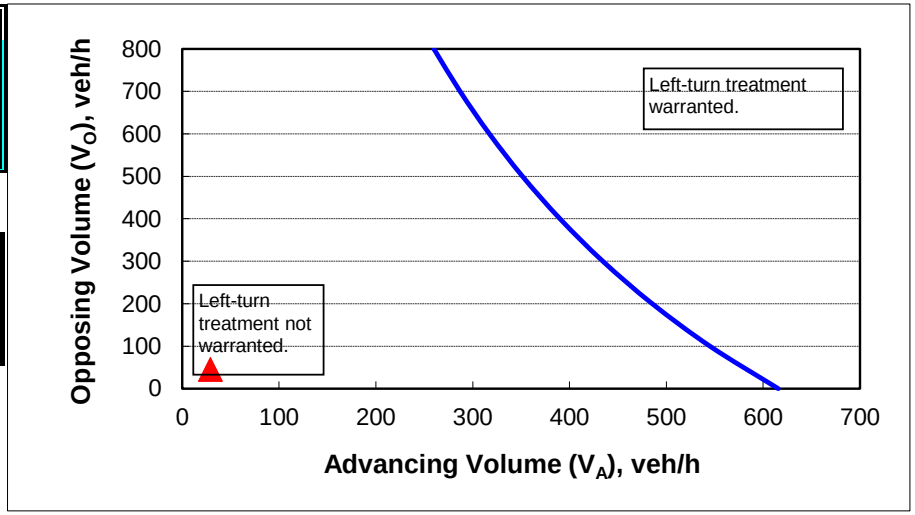
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	10%
Advancing volume (V_A), veh/h:	29
Opposing volume (V_O), veh/h:	45

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	582
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

NCHRP 457 - Copenhaver Road Project Driveway
Northbound Right-Turn Lane
AM Peak Hour

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

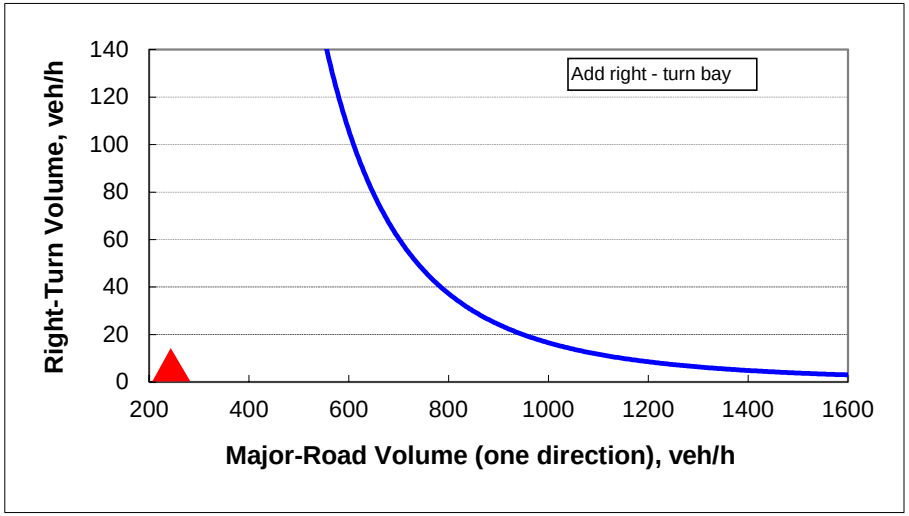
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	45
Right-turn volume, veh/h:	1

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1304659
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



NCHRP 457 - Copenhaver Road Project Driveway
Northbound Right-Turn Lane
PM Peak Hour

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

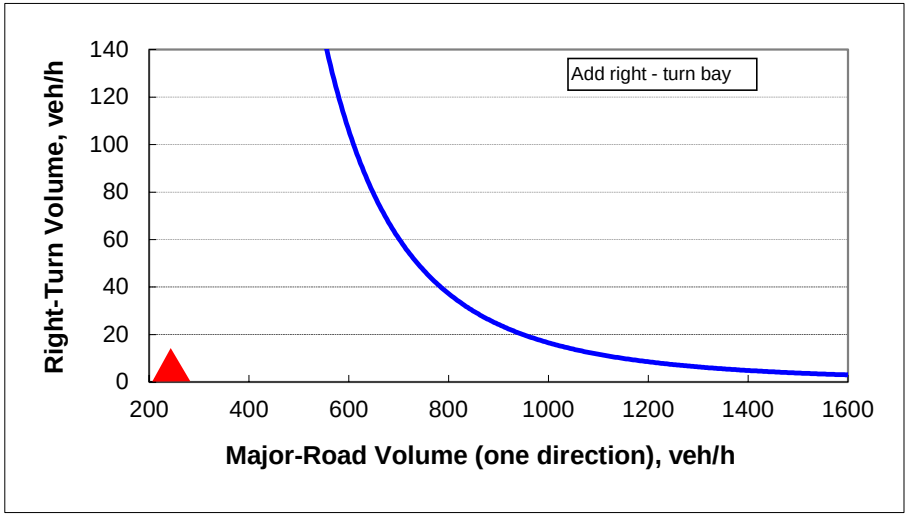
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	43
Right-turn volume, veh/h:	2

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1539188
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Fort Pierce RV Storage
CONCEPTUAL Drainage Report
Fort Pierce, FL
Drainage Report
KHA No: 147814000

Prepared For:
SFWMD
NSLWCD
City of Fort Pierce

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

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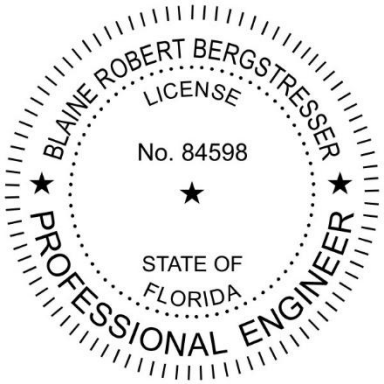
Kimley-Horn Project #: 147814000

FORT PIERCE RV STORAGE
FORT PIERCE, FL
DRAINAGE SUMMARY

Prepared For:
SFWMD
NSLWCD
City of Fort Pierce

Prepared By:
Kimley-Horn and Associates, Inc.
445 24st Street, Suite 200
Vero Beach, Florida 32962

This item has been digitally signed and sealed by Blaine Bergstresser, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



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APPENDIX

A. VICINITY MAPS

- General Location Map
- NRCS Soil Resource Report
- FEMA F.I.R.M.
- SFWMD Rainfall Maps

B. PRE-DEVELOPMENT CALCULATIONS

- Curve Number Calculations
- Time of Concentration Calculations
- Runoff Calculations
- Stage Storage Calculations
- Water Quality and Treatment Volume

C. POST-DEVELOPMENT CALCULATIONS

- Estimated Curve Number Calculations
- Estimated Runoff Calculations

D. SUPPORTING DOCUMENTATION

- Existing SFWMD ERP #56-100483-P

Kimley»Horn

FORT PIERCE RV STORAGE
Drainage Summary

INTRODUCTION

The drainage report is prepared to present the design of the storm water management system to serve the proposed Fort Pierce RV Storage project in Fort Pierce, FL.

The subject site consists of 756,855 square feet (approx. 17.38 acres) of undeveloped land. The site was originally used as pastureland for cattle, now the site contains agricultural pastures and woodlands. The proposed development consists of approximately 503 total RV storage spaces and 3.03 acres of proposed tree protection area at the Northwest corner of the site.

All elevations shown herein are shown in NAVD 88 unless otherwise noted.

SITE LOCATION

The general location of the proposed project site in Section 13, Township 35 South, Range 39 East in the City of Fort Pierce, St. Lucie County, Florida. The site is located at the corner of Peters Road and Graham Road to the west of Interstate 95. See **Appendix A** for General Location Map.

EXISTING SITE DESCRIPTION

A. EXISTING SITE AREA SUMMARY

The subject site consists of 756,855 square feet (approx. 17.38 acres) of undeveloped land that contains woodlands and agricultural pastures.

Below is the summary of the pre-development impervious and pervious areas:

Table 1:

Pre-Development Site:	**Onsite**
Pavement	0.00 ac
Total Impervious area (A)	**0.00 ac**
Pervious Area	17.38 ac
Total Pervious area (B)	**17.38 ac**
Total Site Area (A + B)	**17.38 ac**
% Total Impervious	**0.00%**
% Pervious	**100.00%**

B. TOPOGRAPHY

Survey data shows average existing site grades range from approximately +/- 13.0 ft to +/- 18.0 ft. with an average existing site grade of approximately +/- 14.0 ft. The sight slopes south with the high points on site being located to the north by the existing wooded area. There is a an existing swale located in the center of the site approximately

100 feet south of the wooded area border that runs south through the property and into the bordering canal (NSLRWCD Canal No. 37).

C. EXISTING LAND USE

The total land area of the project is +/- 17.38 acres and the vacant land consists of undeveloped gently sloping woodlands and agricultural pastures.

D. SOILS

The Soil Survey for this site located within Fort Pierce, Florida, as prepared by the United States Department of Agriculture (USDA), Natural Resource Conversation Service (NRCS), indicates the near surface soils consist of the following soils. Andreyev Engineering, Inc. (AEI) performed a geotechnical engineering investigation for the proposed site. See **Appendix G** for geotechnical report.

- Chobee Loamy Sand (#11) – Hydrologic Group C/D
- Wabasso Sand (#48) – Hydrologic Group C/D
- Winder Loamy Sand (#55) – Hydrologic Group C/D

E. EXISTING DRAINAGE PATTERN

The undeveloped site has one distinct drainage pattern, a large swale in the center of the site. The onsite runoff and discharge are collected via the onsite swale and ultimately discharged into the bordering NSLRWCD Canal No. 37. There is also a portion of the western portion of the site that discharges into the surrounding offsite swales along Peters Road, but these onsite swales ultimately discharge into the canal as well. Please refer to **Appendix C** for the Basin Map.

F. CURVE NUMBER

The site primarily contains Hydrologic Type “C/D” soil. A CN value of 80 was assumed for pervious areas and a CN value of 98 was assumed for impervious areas. Weighted CN values were calculated for each drainage basin as shown in Table 2 below. The CN calculations for the pre-development conditions can be found in **Appendix B**

G. TIME OF CONCENTRATION

The time of concentration (Tc) for the onsite basin was determined using the TR-55 method. A maximum sheet flow of 300 feet and shallow concentrated flow were calculated to determine the times as shown in Table 2 below. The Tc calculations for the pre-development conditions can be found in **Appendix B**.

Table 3:

Pre-Development Site:	Basin Area (ac)	Tc (min)	CN
Onsite	17.448	70.18	80

H. FLOOD PLAIN COMPENSATION

The site is in Flood Zone X per FEMA. Flood Zone X states that the area was determined to be outside the 0.2% annual chance floodplain.

PROPOSED SITE DESCRIPTION

A. PROPOSED SITE AREA SUMMARY

The proposed site shall consist of a 503 RV storage spaces with canopies, a small office building, a fenced tree protection area, one dry detention pond and one wet detention pond. The stormwater design implemented for the site shall consist of a dry pond located along the eastern border that collects the stormwater from the site and channels it into the southern wet detention pond. The wet detention pond will consist of approximately 3.52 acres and will contain a control structure to limit discharge into the bordering NSLRWCD Canal 37.

The post-development discharge rates for the proposed site will not exceed more than 2.0 inches of depth over the area served for any 24-hour period from the 10-year frequency, 72-hour duration rainfall event. For the proposed site, this comes out to 7.65 ac-ft in any 24-hour period. The criteria for the limited discharge rates was based on the drainage connection requirements set forth by North St. Lucie River Water Canal District.

Below are the estimates of the post-development impervious and pervious areas:

Table 4:

Post-Development Site:	**Onsite Basin**
Pavement	9.51 ac
Building	0.02 ac
Water Surface (Top of Bank)	3.615 ac
Total Impervious Area (A)	**13.145 ac**
Pervious Area	4.30 ac
Total Pervious Area (B)	**4.30 ac**
Total Site Area (A+B)	**17.45 ac**
% Total Impervious	**75.34%**
% Pervious	**24.66%**

B. POST DEVELOPMENT BASINS

The post development site can be described as having one distinct drainage basin. The existing basin pattern is consistent with the proposed post development drainage basin pattern, where the onsite runoff will discharge into the dry/wet ponds before ultimately discharging into the adjacent NSLRWCD Canal 37.

C. CURVE NUMBER

The post-development consists of a "full buildout" of the site. A CN value of 98 was used for all impervious area. A CN value of 80 was used for all pervious area. Please see attached CN calculations in **Appendix D**.

D. TIME OF CONCENTRATION

Time of concentration (Tc) for the onsite area was determined using the TR-55 method. A maximum sheet flow of 300 feet and shallow concentrated flow were calculated to determine the times as shown in Table 4 below. The Tc value was less than the minimum allowable Tc, therefore a Tc value of 10 minutes was used for the onsite and offsite roadway. Please see attached Tc calculations in **Appendix D**.

E. REQUIRED TREATMENT VOLUME (TV)

The proposed system is to provide sufficient water quality treatment per the City of Fort Pierce and SFWMD ERP criteria. The proposed stormwater design is to provide storage for the greater of 1 inch of runoff for the total drainage area or 2.5 inches for the total impervious area. This was determined to be 2.511 ac-ft for the onsite basin based on an overall site basin area of 17.45 acres with an estimated 69% impervious area.

Per SFWMD OFW criteria, the design water quality retention volume is to be 150% of the required treatment volume, which gives the proposed site a total required treatment volume of 3.767 ac-ft for the onsite basin.

The site is also required to provide 0.50 inches of dry pre-treatment over the site area for commercial development per SFWMD. Based on a total site area of 17.45 acres and estimated wet pond area of 3.52 acres, 0.57 acres of dry pre-treatment will be required for the site.

Table 6:

Post-Development:	Required TV	150% of TV (OFW)
Onsite	2.511 ac-ft	3.767 ac-ft

F. DISCHARGE RATES

The post-development discharge rates for the proposed site will not exceed more than 2.0 inches of depth over the area served for any 24-hour period from the 10-year frequency, 72-hour duration rainfall. For the proposed site, this comes out to 7.65 acft in any 24-hour period. This limited discharge criteria are based on the drainage connection

requirements set forth by North St. Lucie River Water Canal District and is what the closest permitted existing site was approved at.

G. NSLWCD REQUIREMENTS

The project site discharges to a NSLRWCD canal that ultimately contributes drainage to the North Fork of the St. Lucie River. The North Fork is a verified impaired waterbody for nutrients. As such, the system will be required to demonstrate that the average annual nutrient load in the post-development will not exceed that of the pre-development condition.

The proposed system will be designed to meet the treatment and attenuation design criteria for the South Florida Water Management District (SFWMD), the North St. Lucie River Water Control District (NSLRWCD), and the City of Fort Pierce. This includes an additional 50% water quality and net improvement provisions for sites with discharge to the South Fork of the St Lucie River Basin (verified impaired).

CONCLUSION

Post-development offsite discharge rates are limited by the NSLRWCD criteria of 2.0 inches of depth over the area served for any 24-hour period from the 10 year-72-hour storm event for allowable discharge in to the bordering NSLRWCD Canal 37. A limited discharge rate of 7.65 ac-ft is required for a 17.38-acre site.

The proposed development is to provide sufficient water quality treatment in accordance with all requirements set forth by City of Fort Pierce, North St. Lucie River Water Control District, and South Florida Water Management District. The total required treatment volume is to be an estimated 3.767 ac-ft for the overall onsite basin, with 0.57 acres of the required pre-treatment being dry pre-treatment.

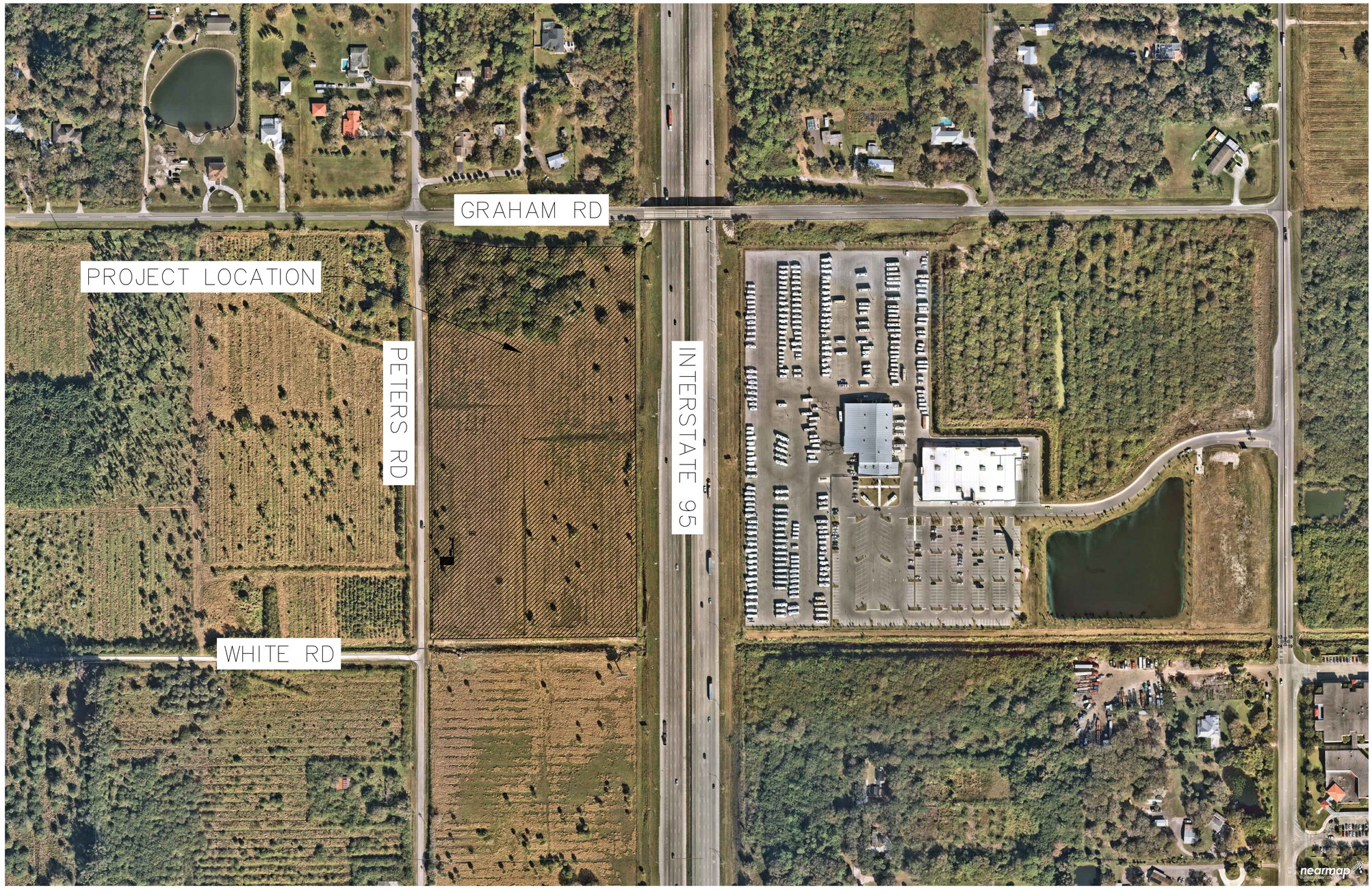
The proposed development is designed to maintain and improve the currently existing pre-development drainage pattern and will have an ultimate outfall to NSLRWCD Canal 37. All drainage design is to be in accordance with the requirements set forth by NSLRWCD, SFWMD, and the City of Fort Pierce.

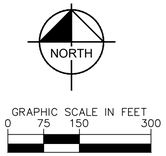
APPENDICES

APPENDIX A

VICINITY MAPS

Location Map





OWNER
R V DEVELOPMENT, LLC
547 WASH ROBERTS LANE
MC MINNVILLE, TN, 37110

DEVELOPER
BEN LOKHORST
MACRITCHIE STORAGE VENTURES, LLC
715 5TH AVENUE, SW, SUITE 1700
CALGARY AB T2P 2X6
PHONE: 403-973-4882

FLOOD ZONE
PROPERTY LIES WITHIN FLOOD ZONE "X", ACCORDING TO THE F.I.R.M. MAP NO. 12111C0167J, DATE 02/16/2012.

LEGAL DESCRIPTION
THAT PORTION OF THE WEST 1/2 OF THE SW 1/4 OF THE SE 1/4 , LYING WEST OF THE WESTERLY RIGHT OF WAY LINE OF I-95, OF SECTION 13, TOWNSHIP 35 SOUTH, RANGE 39 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS AND EXCEPT ROAD RIGHTS OF WAY FOR I-95; GRAHAM ROAD; COPENHAVER ROAD AND LESS CANAL RIGHTS OF WAY FOR NSLRDD CANAL NO. 37 ON SOUTH LINE

CONTAINING 17.45 ACRES ACRES, MORE OR LESS.

No.	REVISIONS	DATE	BY

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY BLAINE BERGSTRESSER, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Kimley»Horn
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
445 24TH STREET, SUITE 200, VERO BEACH, FL 32960
PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

LICENSED PROFESSIONAL ENGINEER
BLAINE ROBERT BERGSTRESSER
LICENSE No. 84598
STATE OF FLORIDA
DATE: 02/16/2021

KHA PROJECT 147814000
DATE 02/25/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

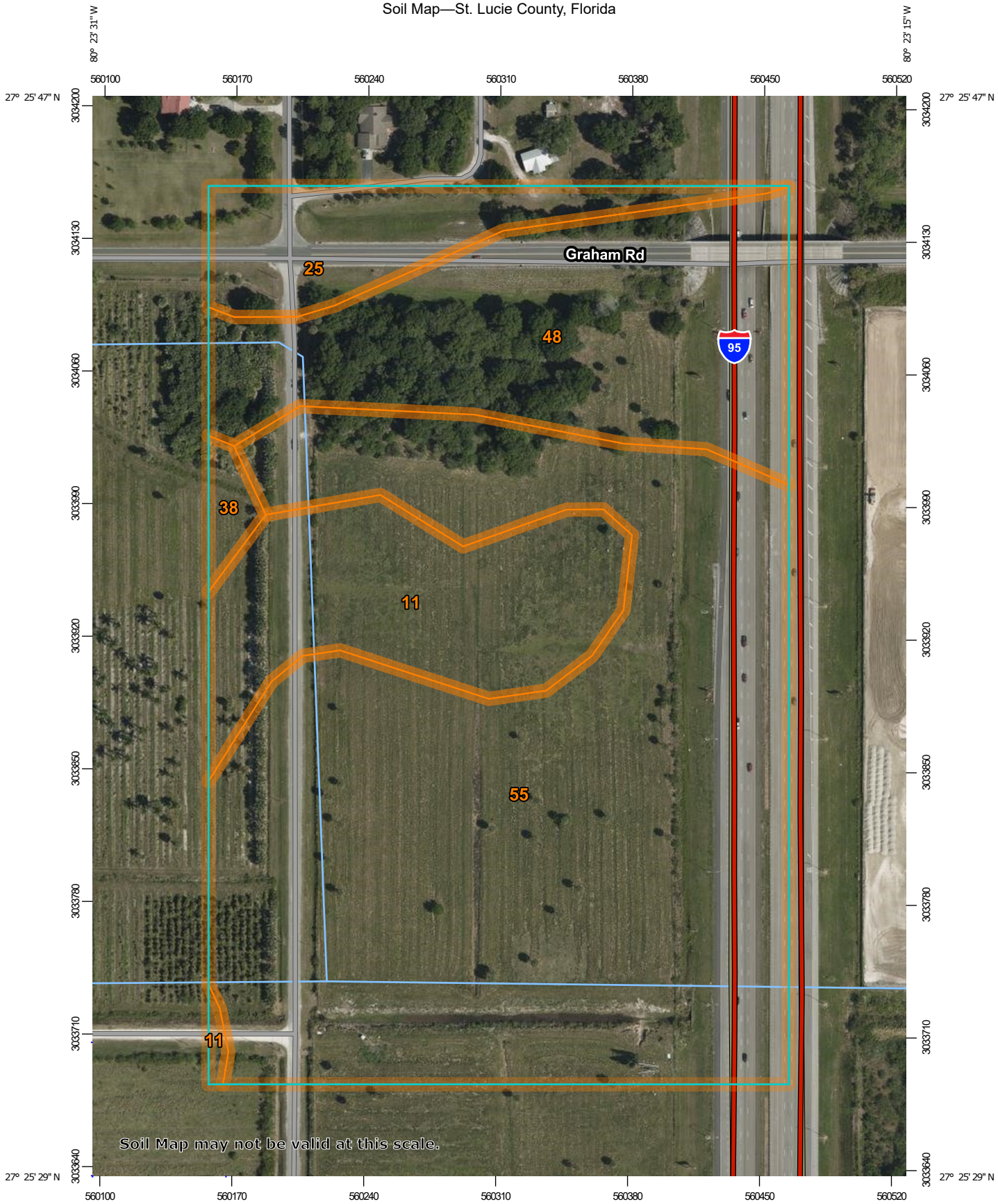
LOCATION MAP

FORT PIERCE RV
PREPARED FOR
MACRITCHIE, INC
FORT PIERCE FLORIDA

SHEET NUMBER
EX-01

Plotted By:Enright, Tyler Sheet Set:Kha Layout:Layout1 April 06, 2021 11:08:22am K:\VRB_LDEV\147814000 - Ft Pierce RV Storage\CAD\Exhibits\LOCATION MAP EXHIBIT.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

NRCS Soil Resource Report for Fort Pierce, Florida



Map Scale: 1:2,780 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 14, Jun 9, 2020

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

Date(s) aerial images were photographed: Mar 6, 2019—Mar 23, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

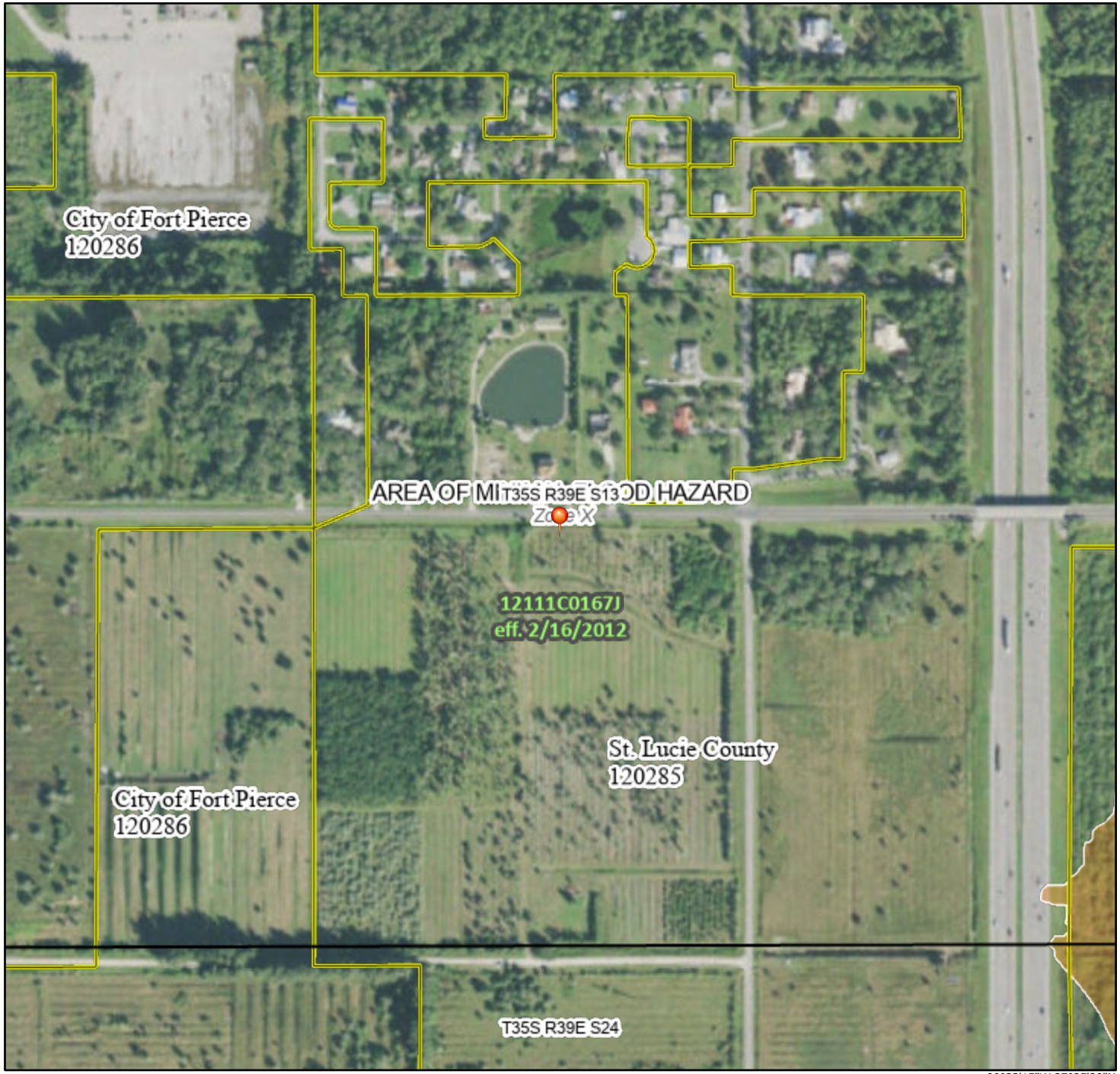
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11	Chobee loamy sand, frequently ponded, 0 to 1 percent slopes	4.7	13.0%
25	Nettles and Oldsmar sands	2.6	7.1%
38	Riviera fine sand, 0 to 2 percent slopes	0.4	1.0%
48	Wabasso sand, 0 to 2 percent slopes	7.3	20.2%
55	Winder loamy sand	21.3	58.7%
Totals for Area of Interest		**36.2**	**100.0%**

FEMA Floodplain Maps

National Flood Hazard Layer FIRMette

FEMA

80°23'52"W 27°26'N



80°23'15"W 27°25'28"N

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

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

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 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 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 3/4/2021 at 8:35 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.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations (BFEs) shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Transverse Mercator State Plane Florida East FIPS 0901. The **horizontal datum** was NAD83 HARN, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was provided in digital format by St. Lucie County and the Florida Geographic Data Library.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

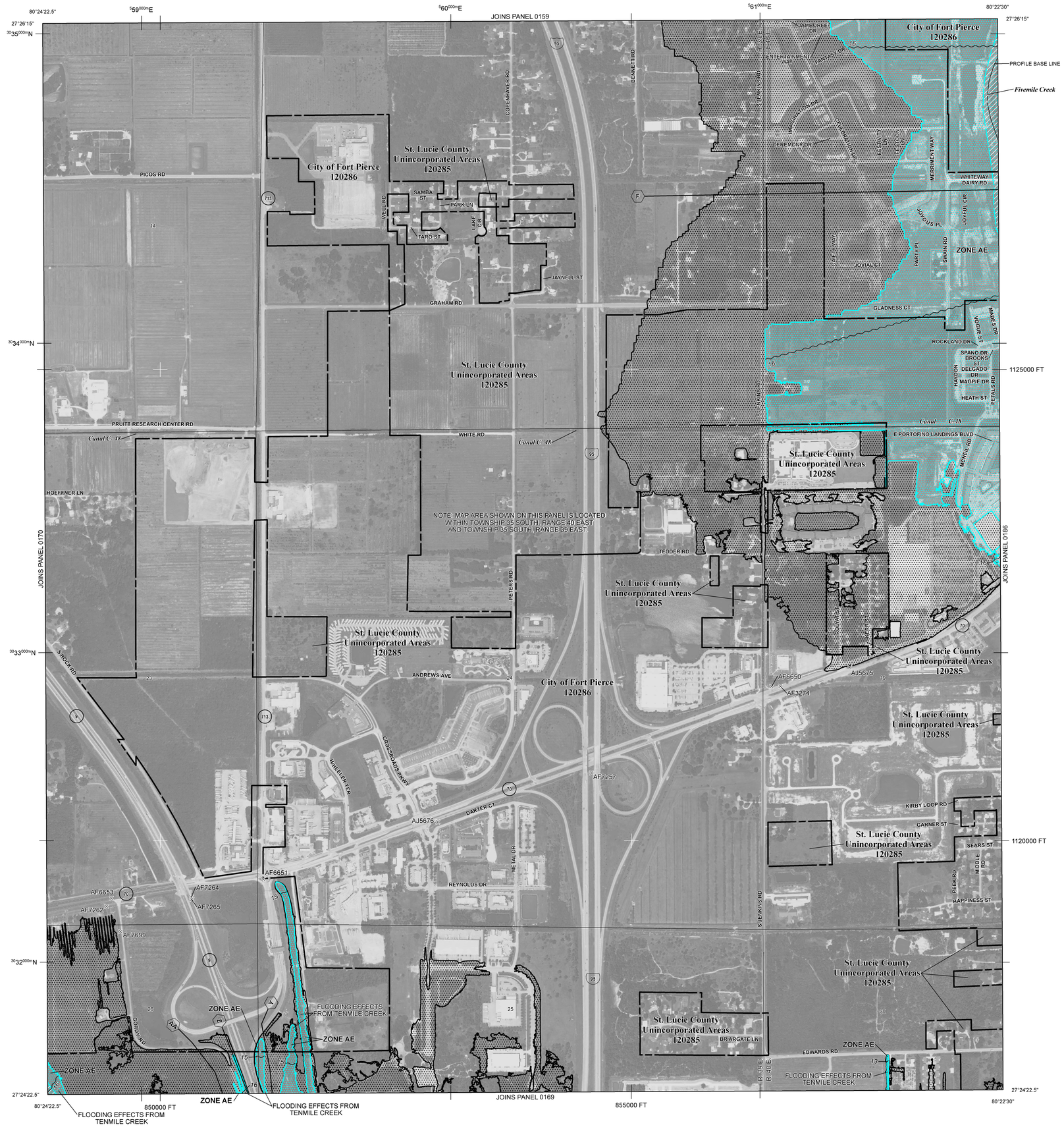
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Information eXchange (FMIX)** at 1-877-336-2627 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FMIX may also be reached at its website at http://msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip/.

The **"profile base lines"** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the "profile base line", in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4275000mE — 1000-meter Universal Transverse Mercator grid ticks, zone 17
- 6000000 FT — 5000-foot grid values: Florida State Plane coordinate system, East Zone (FIPSZONE = 0901), Transverse Mercator projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories List on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 19, 1991

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
November 4, 1992

June 30, 1999

February 16, 2012 - to update corporate limits, to add Base Flood Elevations, to add Special Flood Hazard Areas, to change Special Flood Hazard Areas, to add roads and road names, to update the effects of wave action, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 250 500 750 1,000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0167J

FIRM

FLOOD INSURANCE RATE MAP

ST. LUCIE COUNTY, FLORIDA AND INCORPORATED AREAS

PANEL 167 OF 420

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FORT PIERCE, CITY OF	120286	0167	J
ST. LUCIE COUNTY	120285	0167	J

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
12111C0167J

MAP REVISED
FEBRUARY 16, 2012

Federal Emergency Management Agency

SFWMD Rainfall Maps

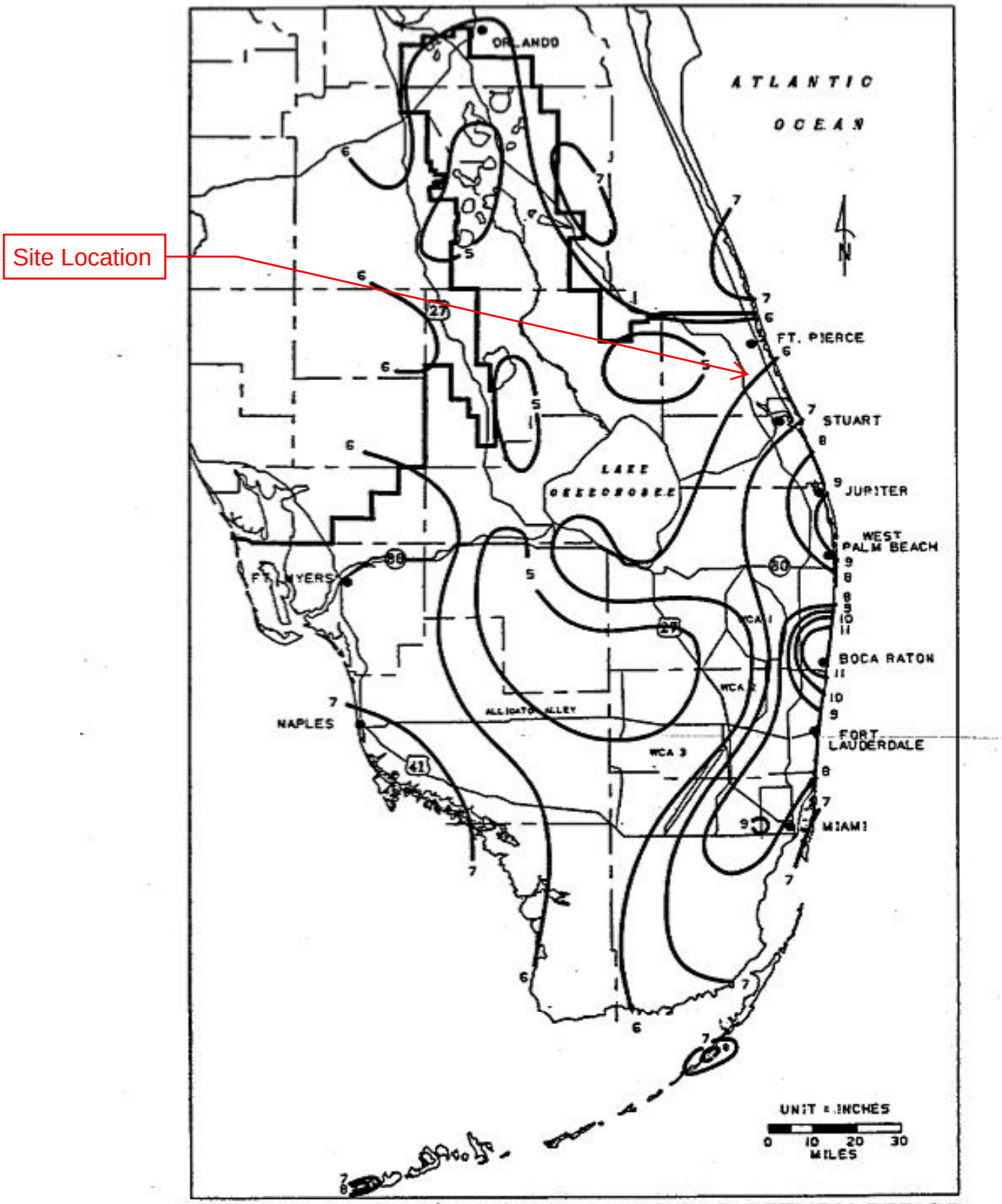


FIGURE C-4. 1-DAY RAINFALL: 10-YEAR RETURN PERIOD

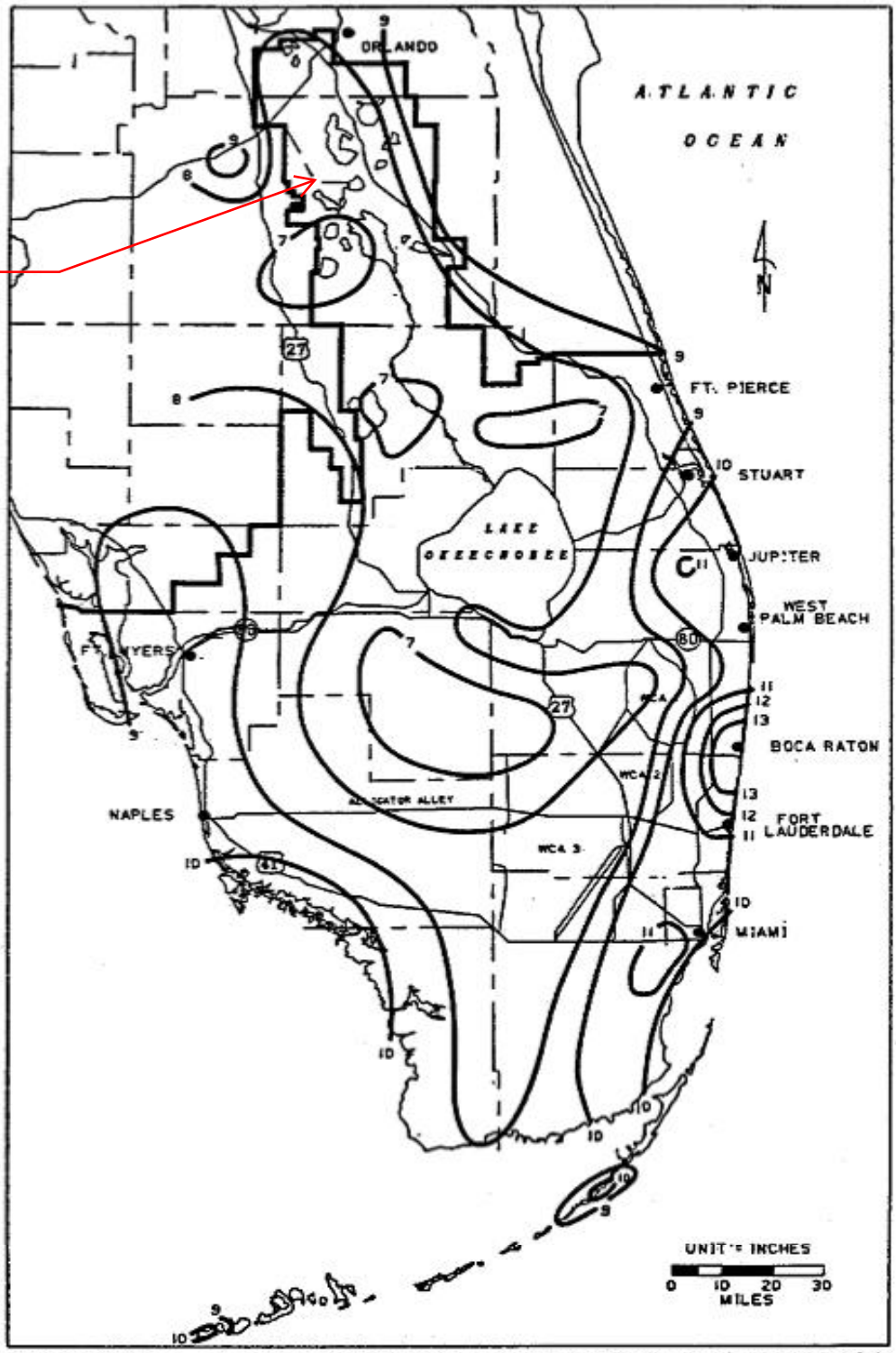


FIGURE C-7. 3-DAY RAINFALL: 10-YEAR RETURN PERIOD

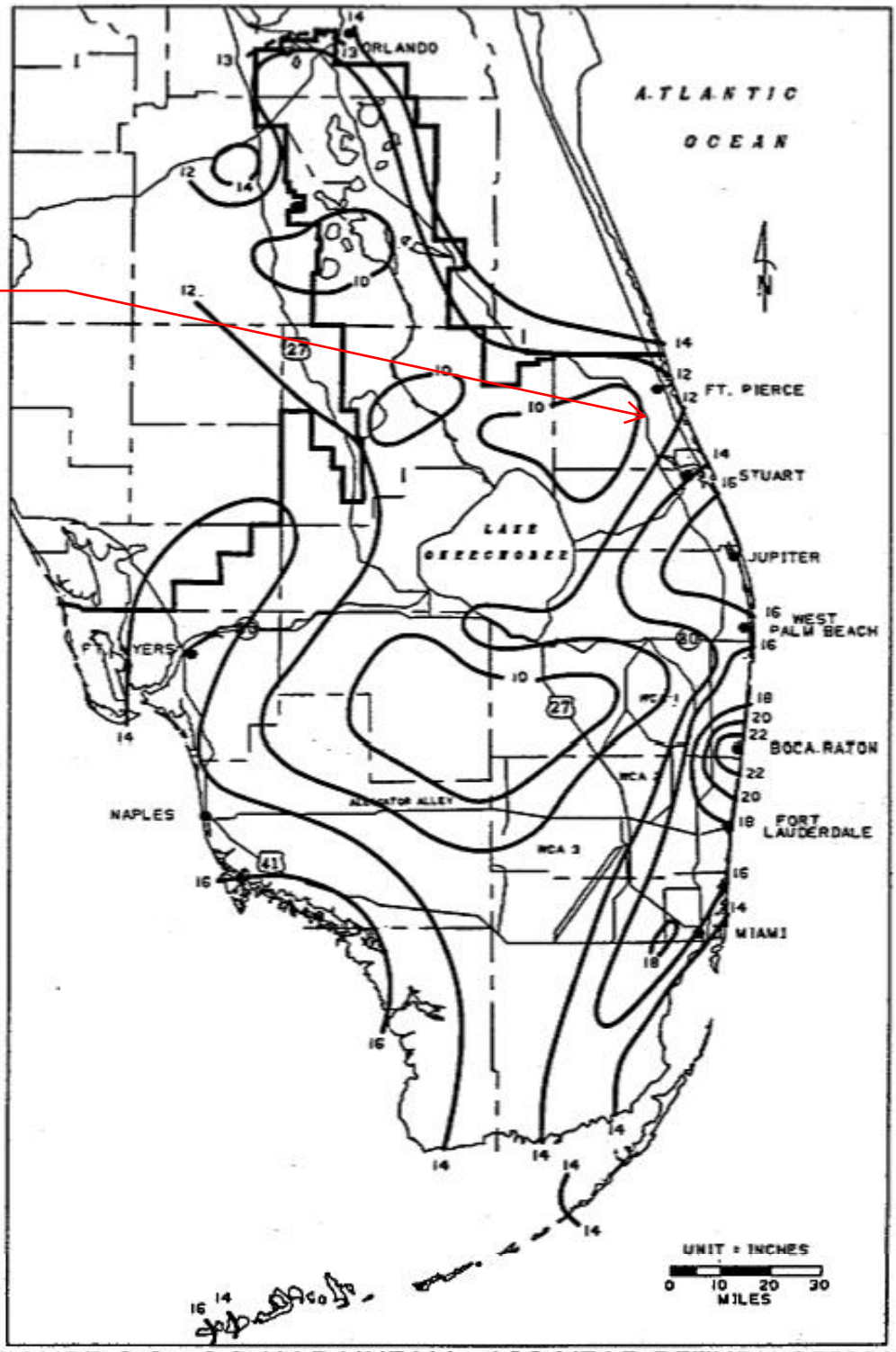


FIGURE C-9. 3-DAY RAINFALL: 100-YEAR RETURN PERIOD

APPENDIX B

Pre-Development Calculations

Pre-Development

Curve Number Calculations

Pre-Development Curve Number
TR-55 Methodology - Pre-Conditions

Pre-Development
Curve Number

Project Name: Fort Pierce RV Storage
Calculated By: TJE
Calculated Date: 4/6/2021

Basin Name: Undeveloped Onsite

Site	Description	Area (SF)	Area (AC)	% of Total	Surface	CN	CN x
	Impervious						
Undeveloped Onsite	Pavement	0	0.00	0.00%		98	0.00
	Building	0	0.00	0.00%		98	0.00
		0	0.00	0.00%		98	0.00
	Water Surface (Top of Bank)		0.00	0.00%		98	0.00
	Impervious Total =	*0*	*0.00*				
	Pervious						
	Group (D)	756,855	17.38	100.00%	Open, Good	80	80.00
	Total Basin Area =	***756,855***	***17.38***	***100.00%***	***CN =***	***80.00***	

Pre-Development

Time of Concentration Calculations

Pre-Development

Time of Concentration

Project Name: **Fort Pierce RV Storage**
Computed by: TJE
Date: 4/6/2021

Basin: **Onsite**

	Segment ID		
Sheet Flow	1	-	
1. Surface Description (Table 3-1)	Unpaved	-	TR-55
2. Manning's roughness coeff., n (Table 3-1)	0.4	-	TR-55
3. Flow Length, L (total <= 300 ft) (feet)	300	-	
4. 2-year 24-hour rainfall, P_2 (inches)	4.80	-	FDOT Fig. 5-13
5. Land slope, s (ft/ft)	0.0067	-	**Sub-total**
6. Tt =(0.007 * (nL)^0.8)/((P_2^0.5)*(s^0.4)) (hr)	1.09	-	1.09

	Segment ID		
Shallow Concentrated Flow	2	-	
7. Surface description (paved or unpaved)	unpaved	-	
8. Flow length, L (feet)	200	-	
9. Watercourse slope, s (ft/ft)	0.010	-	
10. Average velocity, V (TR-55 figure 3-1) (ft/s)	1.61	-	**Sub-total**
11. Tt = (L/(3600*V) (hr)	0.03	-	0.03

	Segment ID		
Channel Flow	3	-	
12. Cross section flow area, a (ft^2)	15.9	-	
13. Wetted perimeter, Pw (ft)	16.4	-	
14. Hydraulic radius, r = a/Pw (ft)	0.97	-	
15. Channel slope, s (ft/ft)	0.001	-	
16. Manning/s roughness coeff., n	0.013	-	
17. V = (1.49*($r^{2/3}$)*($s^{1/2}$))/n (ft/s)	2.94	-	
18. Flow length, L (ft)	480	-	**Sub-total**
19. Tt = (L/3600*V) (hr)	0.045	-	0.05

Total	**Total**	
20. Total Tc (hr)	1.17	hrs
21. Total Tc (min)	70.18	mins

Notes:

1. Methodology used in calculating Time of Concentration is as specified in US Department of Agriculture Technical Release 55, June 1986

Pre-Development

Runoff Calculations

Pre-Development

Runoff Volume Calculator

Based on the Soil Conservation Service Technical Release 55
***Urban Hydrology for Small Watersheds*, June 1986**

Project Name: Fort Pierce RV Storage
Calculated By: TJE
Calculated 4/6/2021

10 Year 24 Hour - Minimum Parking Lot Design Storm Event
10 Year 72 Hour - Allowable Discharge Design Storm Event
25 Year 72 Hour - Perimeter Berm Design Storm Event
100 Year 72 Hour - Finished Floor Elevation Design Storm Event

[Eq. 2-4] $S = \frac{1000}{CN} - 10$

[Eq. 2-3] $Q = \frac{(P - 0.2S)^2}{(P + 0.8S)}$

SFWMD

10 Year 24 Hour

INPUT:					
	P = Rainfall Depth:	6.00	inches		
	CN = Curve Number:	80.00			
	A = Basin Area:	17.38	acres		
	S = Potential Maximum Retention After Runoff Begins:	2.50			
	Q = Runoff:	3.78	inches =	0.32	feet
OUTPUT:					
	V = Runoff Volume:	***5.47***	***acre-feet***		

10 Year 72 Hour

INPUT:					
	P = Rainfall Depth:	8.50	inches		
	CN = Curve Number:	80.00			
	A = Basin Area:	17.38	acres		
	S = Potential Maximum Retention After Runoff Begins:	2.50			
	Q = Runoff:	6.10	inches =	0.51	feet
OUTPUT:					
	V = Runoff Volume:	***8.83***	***acre-feet***		

25 Year 72 Hour

INPUT:					
	P = Rainfall Depth:	9.50	inches		
	CN = Curve Number:	80.00			
	A = Basin Area:	17.38	acres		
	S = Potential Maximum Retention After Runoff Begins:	2.50			
	Q = Runoff:	7.04	inches =	0.59	feet
OUTPUT:					
	V = Runoff Volume:	***10.20***	***acre-feet***		

100 Year 72 Hour

INPUT:					
	P = Rainfall Depth:	12.23	inches		
	CN = Curve Number:	80.00			
	A = Basin Area:	17.38	acres		
	S = Potential Maximum Retention After Runoff Begins:	2.50			
	Q = Runoff:	9.67	inches =	0.81	feet
OUTPUT:					
	V = Runoff Volume:	***14.00***	***acre-feet***		

Pre-Development

Stage Storage Calculations

Pre-Development

Site Stage Storage Volume

Project Name: Fort Pierce Storage
Calculated By: TJE
Calculated Date 4/6/2021

ALL ELEVATIONS LISTED IN NAVD '88

ONSITE BASIN

Sub-Area	Area at Control Elevation		Total Storage
Low El.	10.00		
High El.	20.00		
Area (ft^2)	756855		
Area (acres)	17.37500		
Stage (NAVD)	Area (sf)	Volume (cf)	(ac-ft)
10.00	0.00	0.00	0.0000
10.20	219.97	79.85	0.0018
10.40	291.09	123.84	0.0028
10.60	372.42	182.06	0.0042
10.80	463.96	256.54	0.0059
11.00	565.71	349.34	0.0080
11.20	678.53	462.48	0.0106
11.40	815.95	598.19	0.0137
11.60	997.01	761.37	0.0175
11.80	1,252.66	960.78	0.0221
12.00	1,589.25	1,211.31	0.0278
12.20	1,969.70	1,529.16	0.0351
12.40	2,385.57	1,923.10	0.0441
12.60	2,864.45	2,400.21	0.0551
12.80	3,667.33	2,973.10	0.0683
13.00	5,099.80	3,706.57	0.0851
13.20	9,771.48	4,726.53	0.1085
13.40	17,249.76	6,680.83	0.1534
13.60	29,098.31	10,130.78	0.2326
13.80	62,373.21	15,950.44	0.3662
14.00	117,929.22	28,425.08	0.6526
14.20	175,501.88	52,010.93	1.1940
14.40	268,553.22	87,111.30	1.9998
14.60	384,963.29	140,821.94	3.2328
14.80	454,455.20	217,814.60	5.0003
15.00	501,314.98	308,705.64	7.0869
15.20	528,555.36	408,968.64	9.3886
15.40	553,468.35	514,679.71	11.8154
15.60	575,885.18	625,373.38	14.3566
15.80	600,627.97	740,550.42	17.0007
16.00	623,872.30	860,676.01	19.7584
16.20	643,721.47	985,450.47	22.6228
16.40	659,480.63	1,114,194.76	25.5784
16.60	670,775.89	1,246,090.89	28.6063
16.80	682,565.04	1,380,246.07	31.6861
17.00	694,590.94	1,516,759.08	34.8200
17.20	705,368.83	1,655,677.27	38.0091
17.40	711,795.93	1,796,751.03	41.2477
17.60	712,599.38	1,939,110.22	44.5158
17.80	712,601.93	2,081,630.09	47.7877
18.00	712,601.94	2,224,150.48	51.0595
18.20	712,601.94	2,366,670.87	54.3313
18.40	712,601.93	2,509,191.25	57.6031
18.60	712,601.94	2,651,711.64	60.8749
18.80	712,601.94	2,794,232.03	64.1467
19.00	712,601.93	2,936,752.42	67.4186
19.20	712,601.94	3,079,272.80	70.6904
19.40	712,601.94	3,221,793.19	73.9622
19.60	712,601.93	3,364,313.58	77.2340
19.80	712,601.94	3,506,833.96	80.5058
20.00	712,601.94	3,649,354.35	83.7776

TOTAL ONSITE

Sub-Area	Total Storage
Low El.	
High El.	
Area (ft^2)	
Area (acres)	
Stage (NAVD)	(ac-ft)
10.00	0.0000
10.20	0.0018
10.40	0.0028
10.60	0.0042
10.80	0.0059
11.00	0.0080
11.20	0.0106
11.40	0.0137
11.60	0.0175
11.80	0.0221
12.00	0.0278
12.20	0.0351
12.40	0.0441
12.60	0.0551
12.80	0.0683
13.00	0.0851
13.20	0.1085
13.40	0.1534
13.60	0.2326
13.80	0.3662
14.00	0.6526
14.20	1.1940
14.40	1.9998
14.60	3.2328
14.80	5.0003
15.00	7.0869
15.20	9.3886
15.40	11.8154
15.60	14.3566
15.80	17.0007
16.00	19.7584
16.20	22.6228
16.40	25.5784
16.60	28.6063
16.80	31.6861
17.00	34.8200
17.20	38.0091
17.40	41.2477
17.60	44.5158
17.80	47.7877
18.00	51.0595
18.20	54.3313
18.40	57.6031
18.60	60.8749
18.80	64.1467
19.00	67.4186
19.20	70.6904
19.40	73.9622
19.60	77.2340
19.80	80.5058
20.00	83.7776

APPENDIX C

Post-Development Calculations

Estimated Post-Development

Curve Number Calculations

Post-Development Curve Number
TR-55 Methodology - Post Conditions

Post-Development

Estimated Curve Number

Project Name: Fort Pierce RV Storage
Calculated By: TJE
Calculated Date: 4/6/2021

Basin Name: Onsite

Site	Description	Area (SF)	Area (AC)	% of Total	Surface	CN	CN x Area(%)
	Impervious						
Developed Onsite	Pavement	411,198	*9.440*	54.33%		98	53.24
	Building	880	*0.020*	0.12%		98	0.11
			0.000				
	Water Surface (Top of Bank)	122,404	*2.810*	16.17%		98	15.85
	Impervious Total =	*534,482*	*12.270*				
	Pervious						
	Group (D)	222,374	5.11	29.38%	Open, Good	80	23.51

Total Area =	***756,855***	***17.38***	***100.00%***	***CN =***	***92.71***

	Area (SF)	Area (AC)	% of Total			
Total Pavement =	***411,198***	9.44	***54.33%***		98	53.24
Total Building =	***880***	0.02	***0.12%***		98	0.11
Total Water Surface =	***122,404***	2.81	***16.17%***		98	15.85
Total Pervious =	***222,374***	5.105	***29.38%***		80	23.51

Total Project Area =	***756,855***	***17.38***	***100.00%***	***CN =***	***92.71***

Estimated Post-Development

Runoff Calculations

Post-Development
Runoff Volume Calculator

Based on the Soil Conservation Service Technical Release 55
***Urban Hydrology for Small Watersheds*, June 1986**

Project Name: Fort Pierce RV Storage
Calculated By: TJE
Calculated 4/6/2021

10 Year 24 Hour - Minimum Parking Lot Design Storm Event
10 Year 72 Hour - Minimum Pond Berm Design Storm Event
- Off-site Discharge Rates Design Storm Event
100 Year 72 Hour - Finished Floor Elevation Design Storm Event

[Eq. 2-4] $S = \frac{1000}{CN} - 10$

[Eq. 2-3] $Q = \frac{(P - 0.2S)^2}{(P + 0.8S)}$

SFWMD

10 Year 24 Hour

INPUT:					
	P = Rainfall Depth:	6.00	inches		
	CN = Curve Number:	95.00			
	A = Basin Area:	19.00	acres		
	S = Potential Maximum Retention After Runoff Begins:	0.53			
	Q = Runoff:	5.41	inches =	0.45	feet
OUTPUT:					
	V = Runoff Volume:	***8.57***	***acre-feet***		

10 Year 72 Hour

INPUT:					
	P = Rainfall Depth:	8.50	inches		
	CN = Curve Number:	95.00			
	A = Basin Area:	19.00	acres		
	S = Potential Maximum Retention After Runoff Begins:	0.53			
	Q = Runoff:	7.90	inches =	0.66	feet
OUTPUT:					
	V = Runoff Volume:	***12.51***	***acre-feet***		

25 Year 72 Hour

INPUT:					
	P = Rainfall Depth:	9.50	inches		
	CN = Curve Number:	95.00			
	A = Basin Area:	19.00	acres		
	S = Potential Maximum Retention After Runoff Begins:	0.53			
	Q = Runoff:	8.90	inches =	0.74	feet
OUTPUT:					
	V = Runoff Volume:	***14.09***	***acre-feet***		

100 Year 72 Hour

INPUT:					
	P = Rainfall Depth:	12.23	inches		
	CN = Curve Number:	95.00			
	A = Basin Area:	19.00	acres		
	S = Potential Maximum Retention After Runoff Begins:	0.53			
	Q = Runoff:	11.62	inches =	0.97	feet
OUTPUT:					
	V = Runoff Volume:	***18.40***	***acre-feet***		

Estimated Post-Development

Water Quality and Treatment Volume

Post-Development

Water Quality and Treatment Volume

Project Name: Fort Pierce RV Storage
Calculated By: TJE
Calculated Date: 4/6/2021

TREATMENT

	Basin Area	Required Pre-Treatment (1.0 in over Site Area)	Provided Treatment	Type of Treatment Provided
	(ac)	(ac-ft)	(ac-ft)	
SITE	17.375	3.826	4.000	Wet Detention Pond

WATER QUALITY

Site Area (ac)	17.380
Building Area* (ac)	0.020
Wet Detention Pond Area (ac)	2.810
Impervious Area (ac)	13.145
Pervious Area (ac)	4.300

Area Required for Dry Pretreatment (Total Site - Lake Area)	14.570
Required Dry Pretreatment (0.5" X Treatment Area)	0.607

Site Area for Water Quality = Site Area - Building Area - Pond	14.550
Site Area for Water Quality - Pervious =	10.250
Percentage Impervious for Water Quality =	70.4%

1" x Site Area (ac-ft)	1.448
2.5" x Percentage Impervious for Water Quality (ac-ft)	2.551
Treatment Required for Site (ac-ft)	2.551

Net Required Treatment (ac-ft) (150% for OFW)	3.826
Treatment Provided (ac-ft)	4.000

APPENDIX D

Supporting Documentation

Conceptual SFWMD ERP

Permit No. #56-100483-P

Drainage Calculations

for

Camping World Mass Grading
Fort Pierce, FL

Prepared By:

Engineering Design & Construction, Inc.
10250 SW Village Parkway, Suite 201
Port St. Lucie, FL 34987
Board of Professional Engineers Certificate of Authorization Number 9935

June 2018

R.J. Kennedy, P.E. #56218 Date
10250 SW Village Parkway, Suite 201
Port St. Lucie, FL 34987
(772) 462-2455

Drainage Calculation Summary

Project Description

The project consists of mass grading and construction of a stormwater water management system to serve a proposed outdoor recreation development (commercial/retail). The final development will see the construction of a 47,456 SF Gander Outdoors retail building, a 17,750 SF Camping World retail & sales building, a 15,035 SF service area, utilities, and the associated parking area. The project will mass grade a 28.97 acre portion of the larger 45.00 acre property. Of the 28.97 acres to be mass graded during this phase 26.53 acres will consist of the outdoor recreation facility and 2.44 acres will consist of a future commercial outparcel ("Outparcel 2"). The remaining 16.03 acres of the property will remain in its existing condition (agricultural). The stormwater management system will provide treatment and attenuation for 28.97 acres of development. Dry pre-treatment will be provided under this phase for the 26.53 acres of the outdoor recreation facility. The future outparcel will be required to provide for its own dry pre-treatment during its respective permitting & construction. There are 0.46 acres of man-made agricultural ditches (other surface waters) to be impacted by the project. The site will be served by the Fort Pierce Utilities Authority (FPUA) for water and wastewater.

The project is located north of Okeechobee Road (SR-70), east of Interstate 95, on Jenkins Road in the City of Fort Pierce. The parcel ID numbers are 2313-431-0000-000-1, 2313-441-0000-000-2, 2313-444-0040-000-3, 2313-443-0000-000-7, and 2313-434-0001-000-8. The project is located in Section 13, Township 35 South, and Range 39 East.

Please see the enclosed plans and appendices for more detailed site information.

Existing Drainage Conditions

The existing site consists of 45.00 acres of agricultural land (citrus groves). Drainage from the groves is conveyed overland by beds and furrows to a series of primary ditches. The ditches convey drainage south to an existing 36" flashboard riser structure that outfalls into the North St. Lucie River Water Control District (NSLRWCD) Canal 37. The existing outfall pipe is cantilevered above the normal control elevation (dry season 7.78 NAVD, wet season 4.53 NAVD) of Canal 37. The 36" flashboard riser structure does not have any weir plates or boards in place. During a June 2018 site visit an old tire was observed immediately in front of the structure. It did not appear to be acting as a weir or causing appreciable staging. As such, any water collected into the ditch is currently discharged into Canal 37 at the structure invert (8.65 NAVD). This free discharge condition appears to have persisted for a long time based on stain lines observed by EDC during the recent site visit.

There is not currently any comingle of runoff outside of the property boundaries. The eastern and northern boundaries drain into roadside swales. The western boundary drains into the Interstate 95 stormwater system. The southern boundary is divided by elevated banks along the NSLRWCD Canal 37 right-of-way.

Soils

Please see the enclose soils map. The majority of the site consists of Wabasso sand, 0 to 2 percent slopes and Winder loamy sand. A minor coverage of Hilolo loamy sand exists at the center of the site.

Control Elevation

As previously noted in the existing drainage section of this report, the site is currently controlled by a freely discharging pipe at elevation 8.65 NAVD. Water and stain lines were observed at the invert of this pipe during a June 2018 site visit.

There is an existing culvert pipe within the swale along Jenkins Road that outfalls directly to NSLRWD Canal 37. The culvert is at invert 11.19 NAVD. During the June 2018 site visit the invert of the pipe was observed to be dry.

NSLRWCD Canal 37 was observed to have a water level near the invert of a 60” culvert beneath Jenkins Road (elevation 5.60 NAVD).

It is important to note that the above observations were made following above average wet season rainfall during the last half of May. Based on SFWMD records the month of May experienced 448% of its average monthly rainfall.

Please see the following exhibits below.



Exhibit 1. Existing Site Control Structure



Exhibit 2. Existing Culvert in Jenkins Road Swale

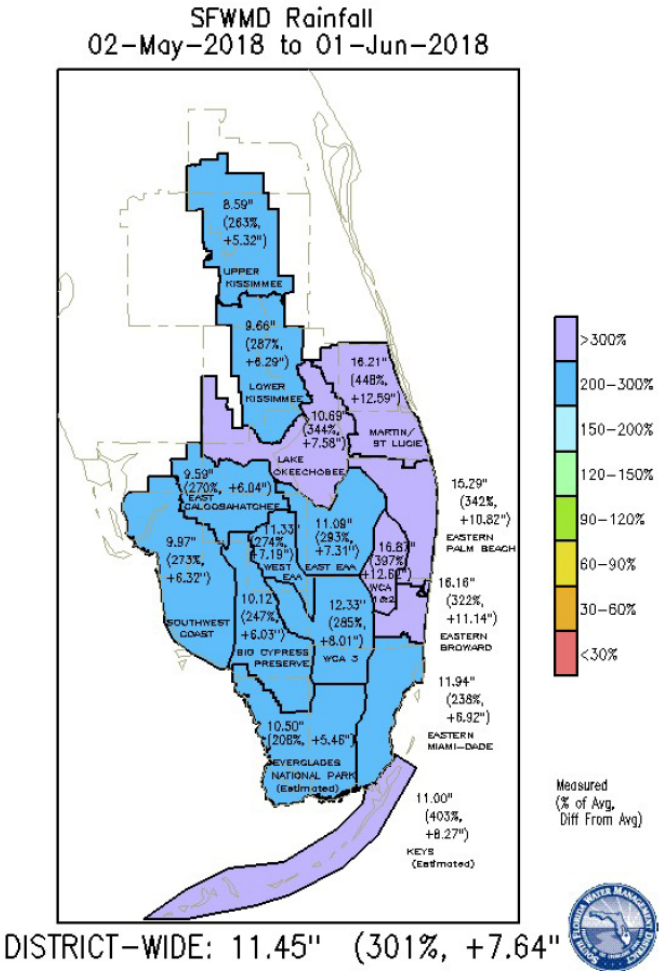


Exhibit 3. SFWMD Rainfall Map

Based on the above referenced information the following design control elevation has been determined to be 10.00 NAVD.

Tailwater

The proposed project will discharge to North St. Lucie River Water Control District (NSLRWCD) Canal No. 37. EDC obtained the drainage permit files for existing projects along this reach of canal. The adjacent Jenkins Road K-8 School (ERP 56-02469-P) and Portofino Landings (ERP 56-00577-S) developments have both historically been designed to the same tailwater condition. As such, the permitted tailwater condition has been adopted for the design of the Camping World stormwater management system. Please see the enclosed Appendix F for the associated supplemental information.

Proposed Drainage Conditions

The proposed project has been designed to maintain the existing drainage pattern and outfall location to NSLRWCD Canal 37. In the post-development condition there will be two (2) primary drainage basins within the overall 45.00 acre property.

Camping World and Outparcel

Drainage from the 26.53 acre outdoor recreation facility (“Camping World”) and 2.44 acre future outparcel (“Outparcel 2”) will be routed to a proposed wet detention lake system. The propose site plan for Camping World has been used for land use coverage. Land use coverage assumptions of 60% impervious, 20% building, and 20% pervious have been assumed for future Outparcel 2. Prior to discharge into the lake system Camping World will be routed through a dry detention area for pre-treatment. The future outparcel will be required to provide its own dry pre-treatment at its respective time for permitting and construction. The lake will outfall via a modified Type E control structure and the existing 36” pipe.

Existing Off-site (Remaining) 16.03 Acres

The remaining 16.03 acres of the property will remain in its existing condition until it is developed in the future. In order to not adversely affect existing drainage patterns, the proposed stormwater system has been designed to provide pass-through for the 16.03 acres. This also allows for future routing to the sites outfall location when this portion of the site is eventually developed. A directly connected pipe will be installed between the proposed wet detention lake and an existing ditch to remain. EDC has performed two (2) modeling scenarios in order to demonstrate that the stormwater system will function accordingly for pass through of the existing condition and future development of this area.

Please see the enclose construction plans and appendices for additional information.

Design Criteria

The system will be designed to satisfy the treatment and attenuation design criteria for the South Florida Water Management District (SFWMD), the North St. Lucie River Water Control District (NSLRWCD), and the City of Fort Pierce. This includes an additional 50% water quality and net improvement provisions for sites with discharge to the South Fork of the St Lucie River Basin (verified impaired).

Water Quality Treatment

The proposed system will provide water quality treatment in excess of the City of Fort Pierce and SFWMD ERP criteria. Water quality will be provided for the Camping World and Outparcel 2 in the proposed system. The remaining 16.03 acres is routed as pass through, thus treatment will not be provided at this time. Future development of the 16.03 acres will require construction of additional stormwater management facilities in order to provide the required water quality volume.

The site is required to meet additional water quality criteria for discharge to the St. Lucie Basin. The proposed system provides a net improvement for the average annual nutrient loads leaving the site. The design water quality retention volume is in excess of 150% of the SFWMD design volume (OFW criteria).

The stormwater management system will provide a mix of wet dry detention and wet to satisfy the above criteria. For these calculations please see the enclosed Appendices A and D.

Dry Pre-Treatment

Per the South Florida Water Management District, 0.50 inches of dry pre-treatment is required over the site for a commercial development. Please note, dry pre-treatment will be provided for only the Camping World portion of development. The future outparcel will be required to provide its own dry pre-treatment prior to discharging into the lake system. This will be provided at the time of permitting and development of the outparcel.

Camping World Development Area = 26.53 ac
Wet Detention Lake @ Control Elevation = 3.19 ac
0.5”/12 x (26.53 ac – 3.19 ac) = 0.97 acft of dry pre-treatment is required.

In order to provide the required dry pre-treatment the applicant proposes to construct two dry detention swales. The dry detention swales will capture runoff behind two modified Type E structures with horizontal weirs and provide pre-treatment prior to discharge into the wet detention lake. Minimum sized bleeders (3) will be installed on the structures.

Provided dry pre-treatment = 1.01 acft

Please note that the 1.01 acft of dry detention provided by swale system is credited towards the 6.31 acft of total water quality treatment required for the project. Thus, the remaining 5.30 acft is required to be provided in the wet detention lake. Please see Appendix A for the drainage calculations.

Net Improvement – Nutrient Loading Analysis

The project site discharges to a NSLRWCD canal that ultimately contributes drainage to the North Fork of the St. Lucie River. The North Fork is a verified impaired waterbody for nutrients. As such, the applicant is required to demonstrate that the average annual nutrient load in the post-development will not exceed that of the pre-development condition. The wet detention lake will provide sufficient residence time in the permanent pool volume to achieve the necessary level of nutrient removal. Please see Appendix D for the associated net improvement calculations.

Water Quantity

The proposed system is required to satisfy the attenuation and flood control criteria of the SFWMD and NSLRWCD. In order to account for both proposed and future condition EDC has provided two (2) ICPR modeling scenarios of the site.

Allowable Discharge

The allowable discharge for the receiving water (NSLRWCD Canal 37) is limited to 2” of depth over the area served for any 24 hour period from the 10-year, 72-hour duration rainfall.

Total site = 45.00 acres

Total Allowable Rate = 2”/12 x 45.00 acres = 7.65 acft in any 24-hour period

Scenario 1 – Developed Condition Model

The proposed stormwater system accounts for all future development of Camping World (26.53 acres), future Outparcel 2 (2.44 acres), and future off-site development of the remaining 16.03 acres. Camping World and Outparcel 2 are modeled as direct basin discharge to the proposed wet detention system. The future development of the 16.03 acres is uncertain at this time. As such, the ICPR model makes the following assumptions for this:

- The future development will construct its own stormwater management system and control structure.
- Discharge from the future system that will continue to pass through the Camping World lake.
- Discharge from the future system will be limited to the allowable NSLRWCD rate for its share of acreage.
- Allowable discharge from the future system has been routed as a rating curve.

Scenario 2 - Existing Off-Site Condition Model

As discussed in previous sections of this report the total contributing drainage area is 45.00 acres. The entire site drains south via ditches to an existing 36" flashboard riser structure into NSLRWCD Canal 37. The property is not currently controlled at the allowable NSLRWCD rate (free discharge, no weir, directly piped). Only 28.97 acres will be developed under this phase. The remaining 16.03 acres will remain in its existing condition. A direct piped connection to the Camping World system will be installed in order to maintain existing drainage patterns to the south (pass through). As such, the applicant has also provided a separate ICPR model that incorporates the storage and runoff from remaining 16.03 acres in its current condition. This analysis is provided to demonstrate that the proposed system will satisfy the applicable water quantity criteria during the time period that the 16.03 acres remains undeveloped. Drainage is sufficiently maintained on-site below existing elevations and adjacent properties will not be affected. Please see the below summary table and Appendix C for additional information.

Bleeder Orifice

The wet detention bleeder orifice shall be sized such that discharge is limited to 0.50" per day. The proposed bleeder orifice will be 4" in diameter. Please see Appendix A for bleeder sizing calculations.

Minimum Road and Parking

The minimum parking lot and driveway elevations are required to be set above the 10-year, 24-hour storm event stage. See the enclosed appendices and the summary table below for further details.

Minimum Perimeter Berm

The minimum perimeter berm elevation is required to be set above the 25-year, 72-hour storm event stage. See the enclosed appendices and the summary table below for further details.

Minimum Finished Floor

The minimum finished floor elevation is required to be set above the 100-year, 72-hour storm event with no discharge. See the enclosed appendices and the summary table below for further details.

Initial Storm Event Summary

CRITERIA	Rainfall Amount	Minimum/Required	Provided/Results
Minimum Road 10-year, 24-hour event	6.00 in	13.28 NAVD	16.00 NAVD
Allowable Discharge 10-year, 72-hour event	8.50 in	No more than 7.65 acft in any 24-hour period	7.27 acft max 24-hour discharge
Perimeter Berm 25-year, 72-hour event	9.50 in	15.45 NAVD	15.75 NAVD
Minimum FFE 100-year, 72-hour event	12.23 in	16.35 NAVD	18.50 NAVD

Recovery Storm Event Summary

Per SFWMD criteria, the system is required to recover to the proposed bleeder invert within 12-days after the design storm event. Due to the allowable discharge rate of the NSLRWCD the proposed system does not recovery entirely to the wet detention bleeder invert. As such, the applicant has run a back-to-back analysis of the stormwater management system with the model start elevation at the 12-day stage of the initial routing analysis. The proposed system continues to provide reasonable assurance of the required water quantity criteria. Please see Appendix C for this ICPR analysis.

CRITERIA	Rainfall Amount	Minimum/Required	Provided/Results
Minimum Road 10-year, 24-hour event	6.00 in	13.98 NAVD	16.00 NAVD
Allowable Discharge 10-year, 72-hour event	8.50 in	No more than 7.65 acft in any 24-hour period	7.54 acft max 24-hour discharge
Perimeter Berm 25-year, 72-hour event	9.50 in	15.55 NAVD	15.75 NAVD
Minimum FFE 100-year, 72-hour event	12.23 in	16.68 NAVD	18.50 NAVD

Existing Off-Site Condition Storm Event Summary

CRITERIA	Rainfall Amount	Minimum/Required	Provided/Results
Minimum Road 10-year, 24-hour event	6.00 in	13.20 NAVD	16.00 NAVD
Allowable Discharge 10-year, 72-hour event	8.50 in	No more than 7.65 acft in any 24-hour period	6.49 acft max 24-hour discharge
Perimeter Berm 25-year, 72-hour event	9.50 in	14.71 NAVD	15.75 NAVD 14.87 NAVD*
Minimum FFE 100-year, 72-hour event	12.23 in	15.57 NAVD	18.50 NAVD

*The minimum perimeter berm elevation of the 16.03 acre portion to remain is 14.87 NAVD.

Jenkins Road Turn Lane

A new right-turn lane and driveway will be constructed at the eastern boundary of the subject site within the Jenkins Road right-of-way. There is no existing ERP or associated drainage permit for this portion of Jenkins Road. This portion of Jenkins Road is crowned at the centerline. The southbound lane currently drains to a roadside swale along the eastern boundary of the subject site. All drainage collected by the swale is conveyed south to an existing culvert pipe that outfalls directly into NSLRWCD Canal 37 (no treatment or attenuation). Existing drainage patterns will be maintained for construction of the proposed turn lane and driveway. The turn lane will be sloped to the west in order to drain into the existing swale. South flowing conveyance in the swale will be maintained by a proposed 24” culvert beneath the driveway. All construction activities within the right-of-way are safety related improvements for access. The turn lane is less than 0.25 miles in length. As such, this portion of the project qualifies for an exemption under 62-330.051(4)c F.A.C.

Datum

All elevations included on the project construction plans are in reference to the North American Vertical Datum 1929. The vertical datum conversion was confirmed using Corpscon 6 software and was found to be 1.475 feet in the project area. This is used to convert NGVD to NAVD, in other words NGVD elevation minus 1.475 feet = NAVD elevation.

SFWMD Water Use Permitting

The proposed project will require dewatering for the construction of the lake and underground piping. As such, an individual permit for dewatering is being submitted concurrently with this application.

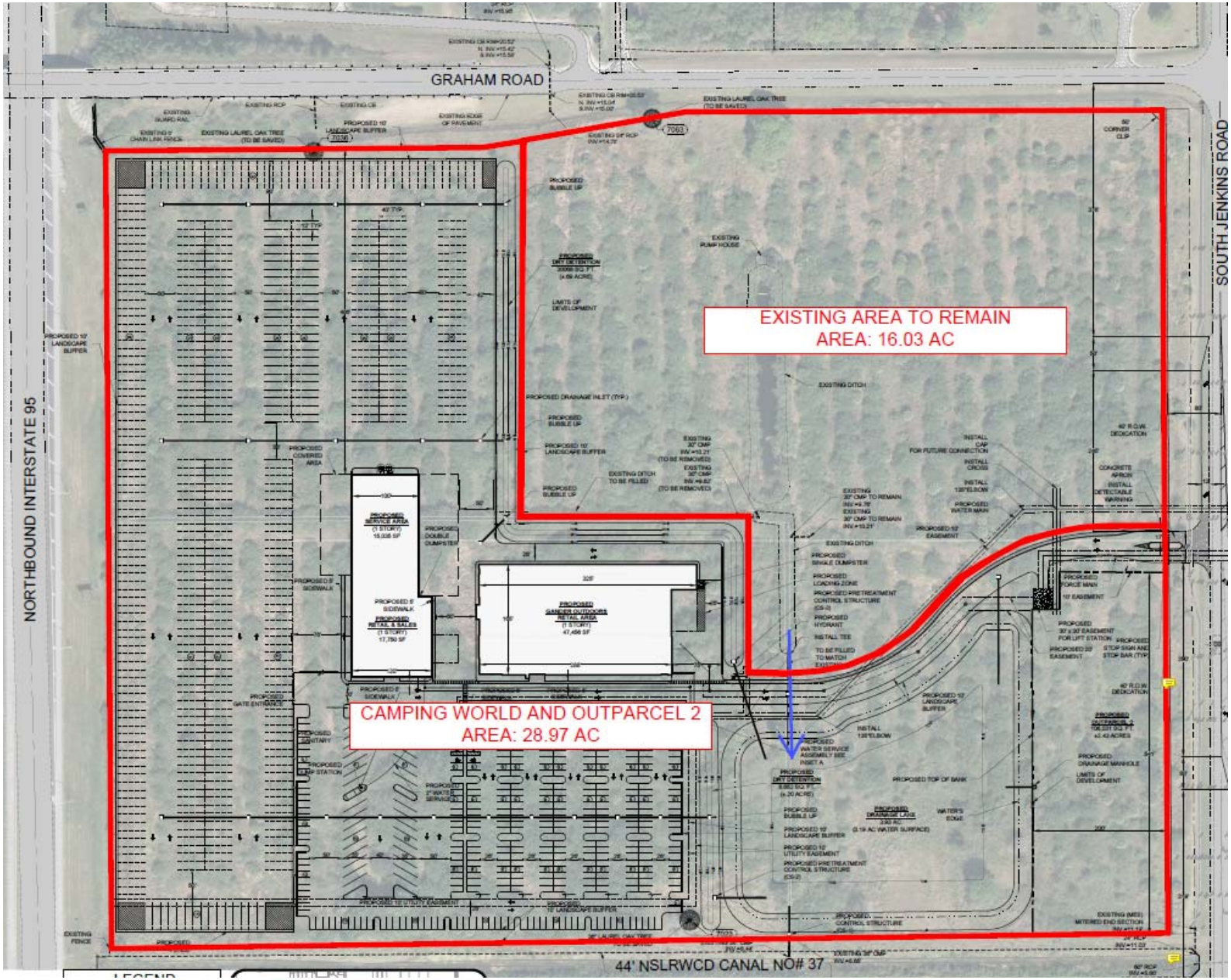
The proposed project is for mass grading only. Irrigation will not be constructed at this time. Upon permitting of the detailed construction plans a water use permit application for an irrigation well will be submitted.

Appendix A - Drainage Calculations

ENGINEERING DESIGN & CONSTRUCTION, INC
CIVIL ENGINEERS & SURVEYORS SPECIALIZING IN LAND DEVELOPMENT

10250 SW Village Parkway, Suite 201
Port St. Lucie, FL 34987
772-462-2455

Basin Map Exhibit



ENGINEERING DESIGN & CONSTRUCTION, INC
CIVIL ENGINEERS & SURVEYORS SPECIALIZING IN LAND DEVELOPMENT

10250 SW Village Parkway, Suite 201
Port St. Lucie, FL 34987
772-462-2455

Camping World and Outparcel - Post Development Stormwater Calculations

Project: Camping World
Project #: 16-225
Engineer: DCB
Date: 6/15/2018
Revised:

Land Use Table

Use	Imp. (ac)	Pervious (ac)	Total (ac)
Buildings =	1.84	0.00	1.84
*Future Building (Assume 20%) =	0.49	0.00	0.49
Impervious =	16.90	0.00	16.90
Future Impervious (Assume (60%) =	1.46	0.00	1.46
Dry Detention Area =	0.00	0.89	0.89
Wet Detention Area =	3.19	0.74	3.93
Pervious =	0.00	2.98	2.98
*Future Pervious =	0.00	0.49	0.49
Undeveloped or Preserve Land =	0.00	0.00	0.00
TOTAL =	23.88	5.09	28.97

*Future Outparcel Development Area = 2.44 ac
**Does not include off-site undeveloped site to be routed as pass through

Stage-Area Table

:see stage-storage chart for information.

Find Curve Number:

Avg. Pervious Ground El. = 15.00
Control Elevation = 10.00
Distance to Water Table = 4.00

Soil Storage Table

Depth to W.T. (ft)	Coastal Storage (in)	Flatwoods Storage (in)	Depression Storage (in)
1.0	0.6	0.6	0.6
1.5	1.6	1.6	1.4
2.0	2.5	2.5	2.1
2.5	4.6	4.0	3.3
3.0	6.6	5.4	4.4
3.25	7.7	6.3	5.0
3.5	8.8	7.2	5.6
4.0	10.9	9.0	6.8

Find the basin's soil classification and input below as "Soil Storage" using the above "Depth to W.T.".

Developed Compacted Pervious Area = 3.46 *Does not include BMP area
Undeveloped Pervious Area = 0.00
Soil Storage = 6.80
Soil Moisture Storage (S) = 0.61 inches
Curve Number = **94** inches

Time of Concentration

The following formulas are per the SCS "Urban Hydrology for Small Watersheds" Technical Publication-55.

Sheet flow occurs over plane surfaces.

$$T_{sf} = \frac{.007 * (n * L)^{.8}}{(P_2)^{.5} * (s)^{.4}}$$

T_{sf} = Time of Sheet Flow (hour)
n = Mannings Roughness Coefficient
P_2 = 2-year 24-hour Rainfall (inches)
s = Slope of Hydraulic Grade (feet/feet)
L = Flow Length (feet)

After 300-feet sheet flow usually becomes shallow concentrated flow.

(Unpaved) $V = 16.1345 * (s)^{.5}$
(Paved) $V = 20.3282 * (s)^{.5}$

T_{cf} = Time of Concentrated Flow (hour)
s = Slope of Hydraulic Grade (feet/feet)
V = Average Velocity (feet/second)

Use the velocity to solve for travel time.

$$T_t = \frac{L}{3600 * V}$$

T_t = Travel Time (hour)
L = Flow Length (feet)
V = Average Velocity (feet/second)

When determining flows in open channels use Manning's equation.

$$V = \frac{1.49 * r^{.67} * s^{.5}}{n}$$

r = Hydraulic Radius (feet) equal to a/p_w
s = Slope of Hydraulic Grade (feet/feet)
V = Average Velocity (feet/second)
n = Mannings Roughness Coefficient
a = cross sectional area (sq.ft.)
p_w = wetted perimeter (feet)

* Use the velocity to solve for travel time with the formula above.

This following calculations for the project have a segmented travel flow line.

T_1 = On site (sheet flow).

Parameters for T_{1A} :	n =	0.012	coefficient	
	P_2 =	5.00	inches	
	s =	0.001	foot/foot	
	L =	0	feet	
T_{1A} =	0.0000	hour =	0.00	minutes
T_t =	0.0000	hour =	0.0	
Parameters for T_{1b} :	n =	0.011	coefficient	
	P_2 =	5.00	inches	
	s =	0.020	foot/foot	
	L =	0	feet	
T_{1B} =	0.0000	hour =	0.00	minutes
T_t =	0.0000	hour =	0.0	

Parameter for T2:

V= 0.51021769

V=	0.16		
s =	0.005	foot/foot	
L =	0	feet	

T_1 =	0.0000	hour =	0.00	minutes
T_t =	0.0000	hour =	0.0	

used 10 minutes

TC= total T1A+T1B+T2 0.0

Camping World and Outparcel - Post-Development Water Quality Calculations

Project:	Camping World	**Engineer:**	DCB
Project #:	16-225	**Date:**	6/15/2018

1-inch Over the Project Area - per SFWMD

(Treated Volume) 1-inch * 1-ft/12-in * 28.970 (PROJECT AREA) = 2.41 (TREATED VOLUME) ac-ft

2.5-inches Times the Percent Impervious - per SFWMD

(Site Area) 28.970 (PROJECT AREA (AC)) - (3.189 (LAKES (AC)) + 2.329 (ROOFS (AC))) = 23.453 (SITE AREA) ac

(Impervious Area) 23.453 (SITE AREA (AC)) - 5.091 (PERVIOUS AREA (AC)) = 18.361 (IMPERVIOUS AREA) ac

(% Impervious) IMPERVIOUS AREA * 100% / SITE AREA (AC) = 78.29%

(2.5-in * % Imp.) 2.5-inches * 78.29% (PERCENT IMPERVIOUS) = 1.96 (INCHES TO BE TREATED)

(Treated Volume) 1.96 (TREATED (IN)) * 1-ft/12-in * 25.78 (PROJECT AREA - LAKES (AC)) = 4.21

	SFWMD - STD	SFWMD - OFW
Required Wet Detention (100%) =	**4.21**	**6.31**
Required Dry Detention (75%) =	**3.15**	**4.73**
Required Retention (50%) =	**2.10**	**3.15**

* An additional 0.5-inch of pretreatment for industrial or commercial projects will be needed.
** OFW volume is 150% of the standard SFWMD criteria

Camping World and Outparcel - Post Development Bleeder Size Calculations

Project: Camping World | **Engineer:** DCB
Project #: 16-225 | **Date:** 6/15/2018

Allowed discharge in the first 24-hours is .5-inches of the required detention.

(Discharge Volume) 0.5-inch * 1-ft/12-in * 25.782 (PROJECT AREA - LAKES (AC)) = 1.074 (TREATED VOLUME) ac-ft

(Conversion) 1-day / 86,400-sec. * 43,560-sf / 1-acre * 1.074 (VOLUME (AC-FT)) = 0.542 (DISCHARGE) cfs

Basin Area = 28.970 ac

Lake Area = 3.189 ac

Bleeder Elevation = 10.00 ft

Bleeder Size (dia) = 4.00 in * First iteration use 3-inch diameter bleeder.

Number of bleeders = 1.00 * Enter the number of bleeders.

Water Quality Stage = 11.60 ft * Enter water quality staqe elevation from the stage-storage table spread sheet.

Bleeder Sizing:

Size bleeder to discharge at a rate of 0.5 in/day for the contributing area.

For circular orifice use the following equation.

$$A = \frac{Q}{4.8 * (H)^{.5}}$$

Q = Maximum Flow (cfs)
A = Cross Sectional Area (sq.ft.)
H = Head above bleeder centroid (ft)

Results, Q = 0.542 cfs
H = 1.433 feet

A = 0.0942 sq.ft.

For diameter of the circular orifice use the following equation.

$$d = \left(\frac{4 * A}{Pi}\right)^{.5}$$

d = diameter (ft)
A = Cross Sectional Area (sq.ft.)

Results, A = 0.0942 sq.ft.

d = 0.3464 feet

Finally, the diameter in inches

d = 4.16 inches — Use 4.00" Bleeder

* If diameter is larger than 3-inches than "Bleeder Size" input information needs to be revised until bleeder input size and output diameter equal each other.

Note: add bleeder diameter to control elevation. Ensure that its less than weir elevation by three inches

Camping World and Outparcel - Post Development Stage Storage Calculations

Land use Category	Storage Type	Area (ac.)	From Elev.	To Elev.	Cumulative Stage-Storage (ac-ft)											
					10.00	10.50	11.00	11.50	12.00	12.50	13.50	14.50	15.50	16.50	17.50	18.50
Dry Detention Area																
Dry Detention Bottom - North	Vertical	0.1943	14.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.29	0.49	0.68	0.87
Dry Detention Slopes - North	Linear	0.4959	14.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.28	0.74	1.24	1.74
Dry Detention Bottom - South	Vertical	0.0539	13.50		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.11	0.16	0.22	0.27
Dry Detention Slopes - South	Linear	0.1448	13.50	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.12	0.25	0.40	0.54
DRY WATER QUALITY					**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.21**	**0.79**	**1.64**	**2.53**	**3.42**
Wet Dentention Area																
Wet Detention at C.E.	Vertical	3.1887	10.00		0.00	1.59	3.19	4.78	6.38	7.97	11.16	14.35	17.54	20.73	23.92	27.10
Wet Detention Slopes	Linear	0.7387	10.00	15.00	0.00	0.02	0.07	0.17	0.30	0.46	0.90	1.50	2.22	2.95	3.69	4.43
WET WATER QUALITY					**0.00**	**1.61**	**3.26**	**4.95**	**6.67**	**8.43**	**12.07**	**15.85**	**19.75**	**23.68**	**27.61**	**31.54**
Asphalt & Concrete	Linear	16.9001	16.00	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	7.61	21.13
Open Space	Linear	2.9764	15.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	1.12	3.10	5.95
Future Asphalt & Concrete	Linear	1.4614	16.50	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	1.46
Future Open Space	Linear	0.4871	15.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.18	0.51	0.97
	Sub-Total:	26.64		**Totals:**	**0.00**	**1.61**	**3.26**	**4.95**	**6.67**	**8.43**	**12.07**	**16.06**	**20.69**	**27.47**	**41.72**	**64.47**
Building Pads		1.84	*Not included in Stage-storage calculations													
Future Building Pad		0.49	*Future outparcel, see post development basin assumptions. Not included in Stage-storage calculations.													
	Total:	28.97														

ICPR Volume to Area Conversion

$A_2 = 2((V_2-V_1)/(S_2-S_1)) - A1$

Stage	Volume	Area
10.00	**0.00**	**0.194**
10.50	**1.61**	**6.257**
11.00	**3.26**	**0.000**
11.50	**4.95**	**6.747**
12.00	**6.67**	**0.000**
12.50	**8.43**	**7.042**
13.50	**12.07**	**0.000**
14.50	**16.06**	**7.981**
15.50	**20.69**	**0.000**
16.50	**27.47**	**13.555**
17.50	**41.72**	**14.946**
18.50	**64.47**	**0.000**

Set Water Quality Elevation

Total Water Quality Volume Required:	**6.31**	ac-ft	<---	See Water Quality Volume Calculation Sheet
Required Dry Detention Pre-Treatment:	**0.97**	ac-ft	<---	0.5"/12 x Camping World Project Area (26.53 ac - Lake)
Required Water Quality Dry Pre-Treatment Stage:	**15.71**		<---	Per Stage Storage in Dry Detention Area Only
Proposed Dry Pre-Treatment Weir Elevation:	**15.75**			
Dry Pre-Treatment Detention Volume Provided:	**1.01**			
Wet Detention Water Quality Volume Remaining:	**5.30**	ac-ft	<---	Total Required WQTV - Provided Dry Pre-Treatment
Required Water Quality Wet Detention Stage:	**11.60**	NAVD	<---	Per Stage Storage in Wet Detention Area Only
Proposed Wet Water Quality Weir Elevation:	**11.60**	NAVD		
Wet Water Quality Detention Volume Provided:	**5.30**	ac-ft	<---	Provided Wet Detention Volume between Bleeder and Weir
Total Water Quality Volume Provided:	**6.31**	ac-ft	<---	= Provided Dry Pre-Treatment + Provided Wet Detention

Sufficient Water Quality Treatment Provided

Existing Off-Site Basin Stormwater Calculations

Project: Camping World
Project #: 16-225
Engineer: DCB
Date: 6/15/2018
Revised:

Land Use Table

Use	Imp. (ac)	Pervious (ac)	Total (ac)
Buildings =	0.000	0.000	0.000
Impervious =	0.000	0.000	0.000
Dry Detention Area =	0.000	0.000	0.000
Existing Ditch Area =	0.662	0.000	0.662
Developed Compacted Open Space =	0.000	0.000	0.000
Undeveloped or Preserve Land =	0.000	15.368	15.368
TOTAL =	0.662	15.368	16.030

Stage-Area Table

:see stage-storage chart for information.

Find Curve Number:

Avg. Pervious Ground El. = 15.00
Control Elevation = 10.00
Distance to Water Table = 4.00

Soil Storage Table

Depth to W.T. (ft)	Coastal Storage (in)	Flatwoods Storage (in)	Depression Storage (in)
1.0	0.6	0.6	0.6
1.5	1.6	1.6	1.4
2.0	2.5	2.5	2.1
2.5	4.6	4.0	3.3
3.0	6.6	5.4	4.4
3.25	7.7	6.3	5.0
3.5	8.8	7.2	5.6
4.0	10.9	9.0	6.8

Find the basin's soil classification and input below as "Soil Storage" using the above "Depth to W.T.".

Developed Compacted Pervious Area = 7.68
Undeveloped Pervious Area = 7.68
Soil Storage = 6.80
Soil Moisture Storage (S) = 5.70 inches
Curve Number = **64** inches

Time of Concentration

The following formulas are per the SCS "Urban Hydrology for Small Watersheds" Technical Publication-55.

Sheet flow occurs over plane surfaces.

$$T_{sf} = \frac{.007 * (n * L)^{.8}}{(P_2)^{.5} * (s)^{.4}}$$

T_{sf} = Time of Sheet Flow (hour)
n = Mannings Roughness Coefficient
P_2 = 2-year 24-hour Rainfall (inches)
s = Slope of Hydraulic Grade (feet/feet)
L = Flow Length (feet)

After 300-feet sheet flow usually becomes shallow concentrated flow.

(Unpaved) $V = 16.1345 * (s)^{.5}$
(Paved) $V = 20.3282 * (s)^{.5}$

T_{cf} = Time of Concentrated Flow (hour)
s = Slope of Hydraulic Grade (feet/feet)
V = Average Velocity (feet/second)

Use the velocity to solve for travel time.

$$T_t = \frac{L}{3600 * V}$$

T_t = Travel Time (hour)
L = Flow Length (feet)
V = Average Velocity (feet/second)

When determining flows in open channels use Manning's equation.

$$V = \frac{1.49 * r^{.67} * s^{.5}}{n}$$

r = Hydraulic Radius (feet) equal to a/p_w
s = Slope of Hydraulic Grade (feet/feet)
V = Average Velocity (feet/second)
n = Mannings Roughness Coefficient
a = cross sectional area (sq.ft.)
p_w = wetted perimeter (feet)

* Use the velocity to solve for travel time with the formula above.

This following calculations for the project have a segmented travel flow line.

T_1 = On site (sheet flow).

Parameters for T_{1A} :	n =	0.012	coefficient
	P_2 =	5.00	inches
	s =	0.001	foot/foot
	L =	0	feet

T_{1A} =	0.0000	hour	=	0.00 minutes
T_t =	0.0000	hour	=	0.0

Parameters for T_{1b} :	n =	0.011	coefficient
	P_2 =	5.00	inches
	s =	0.020	foot/foot
	L =	0	feet

T_{1B} =	0.0000	hour	=	0.00 minutes
T_t =	0.0000	hour	=	0.0

Parameter for T2:

V= 0.51021769

V=	0.16	
s =	0.005	foot/foot
L =	0	feet

T_1 =	0.0000	hour	=	0.00 minutes
T_t =	0.0000	hour	=	0.0

used 10 minutes

TC= total T1A+T1B+T2 0.0

Existing Off-Site Basin-Stage Storage Calculations for Camping World

Land use Category	Storage Type	Area (ac.)	From Elev.	To Elev.	Cumulative Stage-Storage (ac-ft)											
					10.00	10.50	11.00	11.50	12.00	12.50	13.50	14.50	15.50	16.50	17.50	18.50
Existing Ditch @ C.E.	Vertical	0.6620	10.00		0.00	0.33	0.66	0.99	1.32	1.65	2.32	2.98	3.64	4.30	4.96	5.63
Existign Ditch Slopes	Linear	0.0000	10.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WATER QUALITY					**0.00**	**0.33**	**0.66**	**0.99**	**1.32**	**1.65**	**2.32**	**2.98**	**3.64**	**4.30**	**4.96**	**5.63**
Asphalt & Concrete	Linear	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Open Space	Linear	15.3680	13.50	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56	10.25	23.05	38.42	53.79
	Sub-Total:	16.03		**Totals:**	**0.00**	**0.33**	**0.66**	**0.99**	**1.32**	**1.65**	**2.32**	**5.54**	**13.89**	**27.35**	**43.38**	**59.41**
Building Pads		0.00	*Not included in Stage-storage calculations													
	Total:	16.03														

ICPR Volume to Area Conversion

$A_2 = 2((V_2-V_1)/(S_2-S_1)) - A1$

Stage	Volume	Area
10.00	0.00	0.662
10.50	0.33	0.000
11.00	0.66	1.324
11.50	0.99	0.000
12.00	1.32	1.324
12.50	1.65	0.000
13.50	2.32	1.324
14.50	5.54	5.123
15.50	13.89	11.569
16.50	27.35	15.368
17.50	43.38	0.000
18.50	59.41	0.000

Appendix B - ICPR Routing Developed Condition Model Initial Storm Events

ENGINEERING DESIGN & CONSTRUCTION, INC
CIVIL ENGINEERS & SURVEYORS SPECIALIZING IN LAND DEVELOPMENT

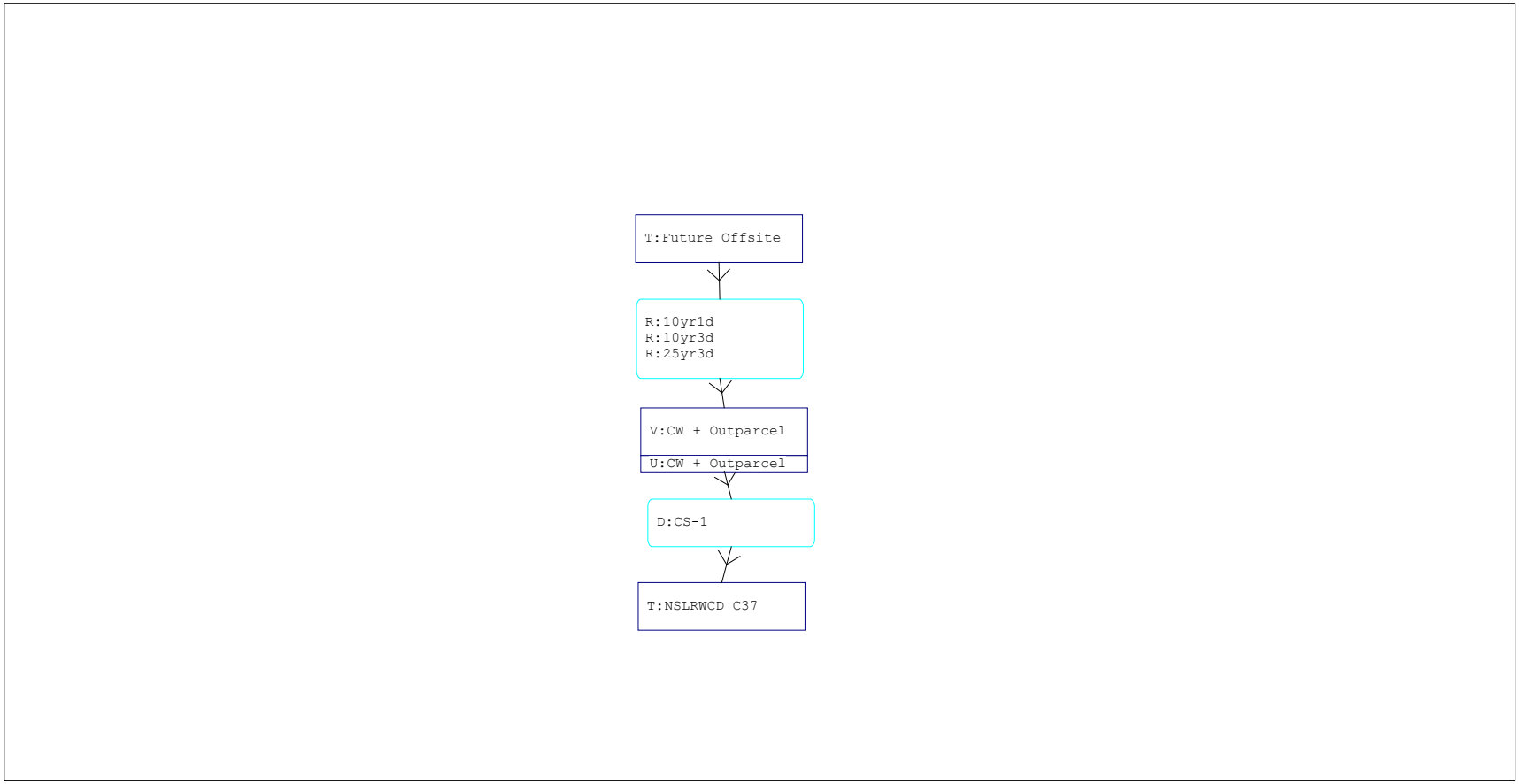
10250 SW Village Parkway, Suite 201
Port St. Lucie, FL 34987
772-462-2455

16-225 Camping World - Initial Storm Routing
Nodal Diagram

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc.

==========
==== Basins ====
==========

Name: CW + Outparcel Node: CW + Outparcel Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
Area(ac): 28.970 Time Shift(hrs): 0.00
Curve Number: 94.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

==========
==== Nodes ====
==========

Name: CW + Outparcel Base Flow(cfs): 0.000 Init Stage(ft): 10.000
Group: BASE Warn Stage(ft): 18.500
Type: Stage/Volume

Stage(ft)	Volume(af)
10.000	0.0000
10.500	1.6100
11.000	3.2600
11.500	4.9500
12.000	6.6700
12.500	8.4300
13.500	12.0700
14.500	16.0600
15.500	20.6900
16.500	27.4700
17.500	41.7200
18.500	64.4700

Name: Future Offsite Base Flow(cfs): 0.000 Init Stage(ft): 13.000
Group: Offsite Warn Stage(ft): 18.500
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	13.000
62.00	13.000
360.00	13.000

Name: NSLRWCD C37 Base Flow(cfs): 0.000 Init Stage(ft): 7.780
Group: BASE Warn Stage(ft): 18.500
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	7.780
62.00	7.780
360.00	7.780

==========
==== Operating Tables ====
==========

Name: 10yr1d Group: 10yr1d
Type: Rating Curve
Function: Time vs. Discharge

Time(hrs)	Discharge(cfs)
0.00	0.00
24.00	1.00
120.00	0.00

Name: 10yr3d Group: 10yr3d
Type: Rating Curve

Function: Time vs. Discharge

Time(hrs)	Discharge(cfs)
0.00	0.00
62.00	1.41
360.00	0.00

Name: 25yr3d Group: 25yr3d
Type: Rating Curve
Function: Time vs. Discharge

Time(hrs)	Discharge(cfs)
0.00	0.00
62.00	1.58
360.00	0.00

==========

Drop Structures

==========

Name: CS-1 From Node: CW + Outparcel Length(ft): 35.00
Group: Outfalls To Node: NSLRWCD C37 Count: 1

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Friction Equation:	Automatic
Span(in):	36.00	36.00	Solution Algorithm:	Most Restrictive
Rise(in):	36.00	36.00	Flow:	Both
Invert(ft):	8.650	8.440	Entrance Loss Coef:	0.000
Manning's N:	0.012000	0.012000	Exit Loss Coef:	1.000
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
			Solution Incs:	10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

*** Weir 1 of 4 for Drop Structure CS-1 ***

TABLE

Count: 1 Bottom Clip(in): 0.000
Type: Vertical: Mavis Top Clip(in): 0.000
Flow: Both Weir Disc Coef: 3.200
Geometry: Circular Orifice Disc Coef: 0.600

Span(in): 4.00 Invert(ft): 10.000
Rise(in): 4.00 Control Elev(ft): 10.000

*** Weir 2 of 4 for Drop Structure CS-1 ***

TABLE

Count: 1 Bottom Clip(in): 0.000
Type: Vertical: Mavis Top Clip(in): 0.000
Flow: Both Weir Disc Coef: 3.200
Geometry: Rectangular Orifice Disc Coef: 0.600

Span(in): 8.00 Invert(ft): 11.600
Rise(in): 6.00 Control Elev(ft): 11.600

*** Weir 3 of 4 for Drop Structure CS-1 ***

TABLE

Count: 1 Bottom Clip(in): 0.000
Type: Vertical: Mavis Top Clip(in): 0.000
Flow: Both Weir Disc Coef: 3.200
Geometry: Rectangular Orifice Disc Coef: 0.600

Span(in): 54.00 Invert(ft): 15.250
Rise(in): 6.00 Control Elev(ft): 15.250

*** Weir 4 of 4 for Drop Structure CS-1 ***

TABLE

Count: 1 Bottom Clip(in): 0.000
Type: Horizontal Top Clip(in): 0.000
Flow: Both Weir Disc Coef: 3.200
Geometry: Rectangular Orifice Disc Coef: 0.600

Span(in): 54.00 Invert(ft): 15.750
Rise(in): 18.00 Control Elev(ft): 15.750

```
================================================================================
==== Rating Curves =============================================================
================================================================================

         Name: 10yr1d              From Node: Future Offsite          Count: 1
        Group: 10yr1d                To Node: CW + Outparcel          Flow: Both

               TABLE           ELEV ON(ft)     ELEV OFF(ft)
           #1: 10yr1d          13.000          13.000
           #2:                 0.000           0.000
           #3:                 0.000           0.000
           #4:                 0.000           0.000



--------------------------------------------------------------------------------------------------------
         Name: 10yr3d              From Node: Future Offsite          Count: 1
        Group: 10yr3d                To Node: CW + Outparcel          Flow: Both

               TABLE           ELEV ON(ft)     ELEV OFF(ft)
           #1: 10yr3d          13.000          13.000
           #2:                 0.000           0.000
           #3:                 0.000           0.000
           #4:                 0.000           0.000



--------------------------------------------------------------------------------------------------------
         Name: 25yr3d              From Node: Future Offsite          Count: 1
        Group: 25yr3d                To Node: CW + Outparcel          Flow: Both

               TABLE           ELEV ON(ft)     ELEV OFF(ft)
           #1: 25yr3d          13.000          13.000
           #2:                 0.000           0.000
           #3:                 0.000           0.000
           #4:                 0.000           0.000



================================================================================
==== Hydrology Simulations =====================================================
================================================================================

          Name: 100yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\100yr3d.R32

       Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Sfwmd72
    Rainfall Amount(in): 12.23

Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         5.00

--------------------------------------------------------------------------------------------------------
          Name: 10yr1d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr1d.R32

       Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 6.00

Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         5.00

--------------------------------------------------------------------------------------------------------
          Name: 10yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr3d.R32

       Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Sfwmd72
    Rainfall Amount(in): 8.50

Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         5.00

--------------------------------------------------------------------------------------------------------
          Name: 25yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\25yr3d.R32

       Override Defaults: Yes
```

```
    Storm Duration(hrs): 72.00
          Rainfall File: Sfwmd72
    Rainfall Amount(in): 9.50

Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         5.00

================================================================================
==== Routing Simulations ======================================================
================================================================================

         Name: 100yr3d             Hydrology Sim: 100yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\100yr3d.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 360.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         15.000

Group           Run
--------------- -----
BASE            Yes
Offsite         Yes


--------------------------------------------------------------------------------------------------------
         Name: 10yr1d              Hydrology Sim: 10yr1d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr1d.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 360.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages: 10yr1d                  Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         15.000

Group           Run
--------------- -----
10yr1d          Yes
BASE            Yes
Offsite         Yes
Outfalls        Yes


--------------------------------------------------------------------------------------------------------
         Name: 10yr3d              Hydrology Sim: 10yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr3d.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 360.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages: 10yr3d                  Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         15.000

Group           Run
--------------- -----
10yr3d          Yes
BASE            Yes
Offsite         Yes
```

Outfalls Yes

Name: 25yr3d Hydrology Sim: 25yr3d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\25yr3d.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 360.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: 10yr3d Boundary Flows:

Time(hrs)	Print Inc(min)
360.000	15.000

Group	Run
25yr3d	Yes
BASE	Yes
Offsite	Yes
Outfalls	Yes

==== Boundary Conditions ====

Name: 10yr1d Node: NSLRWCD C37 Type: Stage

Time(hrs)	Stage(ft)
0.000	7.780
1.330	9.420
2.670	9.730
4.000	10.770
5.330	10.140
6.670	9.590
8.000	9.420
9.330	9.530
10.670	9.770
12.000	11.060
13.330	10.300
14.670	9.650
16.000	9.450
17.330	9.650
18.670	10.010
20.000	11.950
21.330	10.810
22.670	9.830
24.000	9.530
360.000	7.780

Name: 10yr3d Node: NSLRWCD C37 Type: Stage

Time(hrs)	Stage(ft)
0.000	7.780
4.000	10.580
8.000	10.950
12.000	12.060
16.000	11.360
20.000	10.760
24.000	10.580
28.000	10.700
32.000	10.960
36.000	12.390
40.000	11.540
44.000	10.830
48.000	10.610
52.000	10.830
56.000	11.230
60.000	13.370
64.000	12.110
68.000	11.020
72.000	10.700
360.000	7.780

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
CW + Outparcel	BASE	100yr3d	73.00	16.35	18.50	0.0050	425735	60.00	156.04	0.00	0.00
CW + Outparcel	BASE	10yr1d	23.67	13.28	18.50	0.0050	163956	12.25	101.27	23.67	2.66
CW + Outparcel	BASE	10yr3d	68.41	15.17	18.50	0.0050	228225	60.00	109.14	72.01	3.79
CW + Outparcel	BASE	25yr3d	68.01	15.45	18.50	0.0050	245420	60.00	122.26	68.03	5.20
Future Offsite	Offsite	100yr3d	0.00	13.00	18.50	0.0000	0	0.00	0.00	0.00	0.00
Future Offsite	Offsite	10yr1d	0.00	13.00	18.50	0.0000	0	0.00	0.00	24.01	1.00
Future Offsite	Offsite	10yr3d	0.00	13.00	18.50	0.0000	0	0.00	0.00	62.01	1.41
Future Offsite	Offsite	25yr3d	0.00	13.00	18.50	0.0000	0	0.00	0.00	62.01	1.58
NSLRWCD C37	BASE	100yr3d	0.00	7.78	18.50	0.0000	0	0.00	0.00	0.00	0.00
NSLRWCD C37	BASE	10yr1d	20.01	11.94	18.50	0.0243	0	23.67	2.66	0.00	0.00
NSLRWCD C37	BASE	10yr3d	60.00	13.37	18.50	0.0117	0	72.01	3.79	0.00	0.00
NSLRWCD C37	BASE	25yr3d	60.00	13.37	18.50	0.0117	0	68.03	5.20	0.00	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	0.00	7.78	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	0.26	7.96	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	0.50	8.13	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	0.77	8.32	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	1.02	8.49	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	1.27	8.67	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	1.52	8.84	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	1.77	9.02	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	2.02	9.19	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	2.27	9.37	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	2.52	9.54	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	2.77	9.72	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	3.02	9.89	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	3.27	10.07	18.50	0	-0.01	0.00	-0.00	0.00
10yr3d	NSLRWCD C37	BASE	3.52	10.24	18.50	0	-0.10	0.00	-0.00	0.00
10yr3d	NSLRWCD C37	BASE	3.77	10.42	18.50	0	-0.21	0.00	-0.00	0.00
10yr3d	NSLRWCD C37	BASE	4.02	10.58	18.50	0	-0.27	0.00	-0.01	0.00
10yr3d	NSLRWCD C37	BASE	4.27	10.60	18.50	0	-0.28	0.00	-0.01	0.00
10yr3d	NSLRWCD C37	BASE	4.52	10.63	18.50	0	-0.28	0.00	-0.02	0.00
10yr3d	NSLRWCD C37	BASE	4.77	10.65	18.50	0	-0.29	0.00	-0.03	0.00
10yr3d	NSLRWCD C37	BASE	5.02	10.67	18.50	0	-0.30	0.00	-0.03	0.00
10yr3d	NSLRWCD C37	BASE	5.27	10.70	18.50	0	-0.31	0.00	-0.04	0.00
10yr3d	NSLRWCD C37	BASE	5.52	10.72	18.50	0	-0.31	0.00	-0.05	0.00
10yr3d	NSLRWCD C37	BASE	5.77	10.74	18.50	0	-0.32	0.00	-0.05	0.00
10yr3d	NSLRWCD C37	BASE	6.02	10.77	18.50	0	-0.32	0.00	-0.06	0.00
10yr3d	NSLRWCD C37	BASE	6.27	10.79	18.50	0	-0.33	0.00	-0.07	0.00
10yr3d	NSLRWCD C37	BASE	6.52	10.81	18.50	0	-0.34	0.00	-0.07	0.00
10yr3d	NSLRWCD C37	BASE	6.77	10.84	18.50	0	-0.34	0.00	-0.08	0.00
10yr3d	NSLRWCD C37	BASE	7.02	10.86	18.50	0	-0.35	0.00	-0.09	0.00
10yr3d	NSLRWCD C37	BASE	7.27	10.88	18.50	0	-0.35	0.00	-0.09	0.00
10yr3d	NSLRWCD C37	BASE	7.52	10.91	18.50	0	-0.36	0.00	-0.10	0.00
10yr3d	NSLRWCD C37	BASE	7.77	10.93	18.50	0	-0.37	0.00	-0.11	0.00
10yr3d	NSLRWCD C37	BASE	8.02	10.95	18.50	0	-0.37	0.00	-0.12	0.00
10yr3d	NSLRWCD C37	BASE	8.27	11.02	18.50	0	-0.39	0.00	-0.12	0.00
10yr3d	NSLRWCD C37	BASE	8.52	11.09	18.50	0	-0.40	0.00	-0.13	0.00
10yr3d	NSLRWCD C37	BASE	8.77	11.16	18.50	0	-0.42	0.00	-0.14	0.00
10yr3d	NSLRWCD C37	BASE	9.02	11.23	18.50	0	-0.43	0.00	-0.15	0.00
10yr3d	NSLRWCD C37	BASE	9.27	11.30	18.50	0	-0.45	0.00	-0.16	0.00
10yr3d	NSLRWCD C37	BASE	9.52	11.37	18.50	0	-0.46	0.00	-0.17	0.00
10yr3d	NSLRWCD C37	BASE	9.77	11.44	18.50	0	-0.47	0.00	-0.18	0.00
10yr3d	NSLRWCD C37	BASE	10.02	11.51	18.50	0	-0.49	0.00	-0.19	0.00
10yr3d	NSLRWCD C37	BASE	10.27	11.58	18.50	0	-0.50	0.00	-0.20	0.00
10yr3d	NSLRWCD C37	BASE	10.52	11.65	18.50	0	-0.53	0.00	-0.21	0.00
10yr3d	NSLRWCD C37	BASE	10.77	11.72	18.50	0	-0.61	0.00	-0.22	0.00
10yr3d	NSLRWCD C37	BASE	11.02	11.79	18.50	0	-0.70	0.00	-0.23	0.00
10yr3d	NSLRWCD C37	BASE	11.27	11.86	18.50	0	-0.81	0.00	-0.25	0.00
10yr3d	NSLRWCD C37	BASE	11.52	11.93	18.50	0	-0.94	0.00	-0.27	0.00
10yr3d	NSLRWCD C37	BASE	11.77	12.00	18.50	0	-1.07	0.00	-0.29	0.00
10yr3d	NSLRWCD C37	BASE	12.02	12.06	18.50	0	-1.21	0.00	-0.31	0.00
10yr3d	NSLRWCD C37	BASE	12.27	12.01	18.50	0	-1.11	0.00	-0.34	0.00
10yr3d	NSLRWCD C37	BASE	12.52	11.97	18.50	0	-1.02	0.00	-0.36	0.00
10yr3d	NSLRWCD C37	BASE	12.77	11.93	18.50	0	-0.93	0.00	-0.38	0.00
10yr3d	NSLRWCD C37	BASE	13.02	11.88	18.50	0	-0.84	0.00	-0.40	0.00
10yr3d	NSLRWCD C37	BASE	13.27	11.84	18.50	0	-0.76	0.00	-0.41	0.00
10yr3d	NSLRWCD C37	BASE	13.52	11.79	18.50	0	-0.69	0.00	-0.43	0.00
10yr3d	NSLRWCD C37	BASE	13.77	11.75	18.50	0	-0.63	0.00	-0.44	0.00
10yr3d	NSLRWCD C37	BASE	14.02	11.71	18.50	0	-0.57	0.00	-0.45	0.00
10yr3d	NSLRWCD C37	BASE	14.27	11.66	18.50	0	-0.52	0.00	-0.46	0.00
10yr3d	NSLRWCD C37	BASE	14.52	11.62	18.50	0	-0.48	0.00	-0.47	0.00
10yr3d	NSLRWCD C37	BASE	14.77	11.58	18.50	0	-0.47	0.00	-0.48	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	15.02	11.53	18.50	0	-0.46	0.00	-0.49	0.00
10yr3d	NSLRWCD C37	BASE	15.27	11.49	18.50	0	-0.45	0.00	-0.50	0.00
10yr3d	NSLRWCD C37	BASE	15.52	11.44	18.50	0	-0.43	0.00	-0.51	0.00
10yr3d	NSLRWCD C37	BASE	15.77	11.40	18.50	0	-0.42	0.00	-0.52	0.00
10yr3d	NSLRWCD C37	BASE	16.02	11.36	18.50	0	-0.41	0.00	-0.53	0.00
10yr3d	NSLRWCD C37	BASE	16.27	11.32	18.50	0	-0.40	0.00	-0.54	0.00
10yr3d	NSLRWCD C37	BASE	16.52	11.28	18.50	0	-0.39	0.00	-0.55	0.00
10yr3d	NSLRWCD C37	BASE	16.77	11.25	18.50	0	-0.38	0.00	-0.55	0.00
10yr3d	NSLRWCD C37	BASE	17.02	11.21	18.50	0	-0.37	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	17.27	11.17	18.50	0	-0.36	0.00	-0.57	0.00
10yr3d	NSLRWCD C37	BASE	17.52	11.13	18.50	0	-0.35	0.00	-0.58	0.00
10yr3d	NSLRWCD C37	BASE	17.77	11.10	18.50	0	-0.33	0.00	-0.58	0.00
10yr3d	NSLRWCD C37	BASE	18.02	11.06	18.50	0	-0.32	0.00	-0.59	0.00
10yr3d	NSLRWCD C37	BASE	18.27	11.02	18.50	0	-0.31	0.00	-0.60	0.00
10yr3d	NSLRWCD C37	BASE	18.52	10.98	18.50	0	-0.30	0.00	-0.60	0.00
10yr3d	NSLRWCD C37	BASE	18.77	10.95	18.50	0	-0.28	0.00	-0.61	0.00
10yr3d	NSLRWCD C37	BASE	19.02	10.91	18.50	0	-0.27	0.00	-0.62	0.00
10yr3d	NSLRWCD C37	BASE	19.27	10.87	18.50	0	-0.25	0.00	-0.62	0.00
10yr3d	NSLRWCD C37	BASE	19.52	10.83	18.50	0	-0.23	0.00	-0.63	0.00
10yr3d	NSLRWCD C37	BASE	19.77	10.80	18.50	0	-0.21	0.00	-0.63	0.00
10yr3d	NSLRWCD C37	BASE	20.02	10.76	18.50	0	-0.19	0.00	-0.63	0.00
10yr3d	NSLRWCD C37	BASE	20.27	10.75	18.50	0	-0.18	0.00	-0.64	0.00
10yr3d	NSLRWCD C37	BASE	20.52	10.74	18.50	0	-0.17	0.00	-0.64	0.00
10yr3d	NSLRWCD C37	BASE	20.77	10.73	18.50	0	-0.16	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	21.02	10.71	18.50	0	-0.15	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	21.27	10.70	18.50	0	-0.14	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	21.52	10.69	18.50	0	-0.13	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	21.77	10.68	18.50	0	-0.11	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	22.02	10.67	18.50	0	-0.09	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	22.27	10.66	18.50	0	-0.07	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	22.52	10.65	18.50	0	-0.04	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	22.77	10.64	18.50	0	0.04	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	23.02	10.62	18.50	0	0.07	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	23.27	10.61	18.50	0	0.09	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	23.52	10.60	18.50	0	0.11	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	23.77	10.59	18.50	0	0.12	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	24.02	10.58	18.50	0	0.14	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	24.27	10.59	18.50	0	0.14	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	24.52	10.60	18.50	0	0.14	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	24.77	10.60	18.50	0	0.14	0.00	-0.64	0.00
10yr3d	NSLRWCD C37	BASE	25.02	10.61	18.50	0	0.14	0.00	-0.64	0.00
10yr3d	NSLRWCD C37	BASE	25.27	10.62	18.50	0	0.15	0.00	-0.64	0.00
10yr3d	NSLRWCD C37	BASE	25.52	10.63	18.50	0	0.15	0.00	-0.63	0.00
10yr3d	NSLRWCD C37	BASE	25.77	10.63	18.50	0	0.15	0.00	-0.63	0.00
10yr3d	NSLRWCD C37	BASE	26.02	10.64	18.50	0	0.15	0.00	-0.63	0.00
10yr3d	NSLRWCD C37	BASE	26.27	10.65	18.50	0	0.15	0.00	-0.63	0.00
10yr3d	NSLRWCD C37	BASE	26.52	10.66	18.50	0	0.16	0.00	-0.62	0.00
10yr3d	NSLRWCD C37	BASE	26.77	10.66	18.50	0	0.16	0.00	-0.62	0.00
10yr3d	NSLRWCD C37	BASE	27.02	10.67	18.50	0	0.16	0.00	-0.62	0.00
10yr3d	NSLRWCD C37	BASE	27.27	10.68	18.50	0	0.16	0.00	-0.61	0.00
10yr3d	NSLRWCD C37	BASE	27.52	10.69	18.50	0	0.16	0.00	-0.61	0.00
10yr3d	NSLRWCD C37	BASE	27.77	10.69	18.50	0	0.17	0.00	-0.61	0.00
10yr3d	NSLRWCD C37	BASE	28.02	10.70	18.50	0	0.17	0.00	-0.60	0.00
10yr3d	NSLRWCD C37	BASE	28.27	10.72	18.50	0	0.17	0.00	-0.60	0.00
10yr3d	NSLRWCD C37	BASE	28.52	10.73	18.50	0	0.16	0.00	-0.60	0.00
10yr3d	NSLRWCD C37	BASE	28.77	10.75	18.50	0	0.16	0.00	-0.59	0.00
10yr3d	NSLRWCD C37	BASE	29.02	10.77	18.50	0	0.16	0.00	-0.59	0.00
10yr3d	NSLRWCD C37	BASE	29.27	10.78	18.50	0	0.16	0.00	-0.59	0.00
10yr3d	NSLRWCD C37	BASE	29.52	10.80	18.50	0	0.15	0.00	-0.58	0.00
10yr3d	NSLRWCD C37	BASE	29.77	10.81	18.50	0	0.15	0.00	-0.58	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	30.02	10.83	18.50	0	0.15	0.00	-0.58	0.00
10yr3d	NSLRWCD C37	BASE	30.27	10.85	18.50	0	0.14	0.00	-0.57	0.00
10yr3d	NSLRWCD C37	BASE	30.52	10.86	18.50	0	0.14	0.00	-0.57	0.00
10yr3d	NSLRWCD C37	BASE	30.77	10.88	18.50	0	0.14	0.00	-0.57	0.00
10yr3d	NSLRWCD C37	BASE	31.02	10.90	18.50	0	0.14	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	31.27	10.91	18.50	0	0.13	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	31.52	10.93	18.50	0	0.13	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	31.77	10.94	18.50	0	0.13	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	32.02	10.97	18.50	0	0.12	0.00	-0.55	0.00
10yr3d	NSLRWCD C37	BASE	32.27	11.06	18.50	0	0.04	0.00	-0.55	0.00
10yr3d	NSLRWCD C37	BASE	32.52	11.14	18.50	0	-0.11	0.00	-0.55	0.00
10yr3d	NSLRWCD C37	BASE	32.77	11.23	18.50	0	-0.16	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	33.02	11.32	18.50	0	-0.19	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	33.27	11.41	18.50	0	-0.23	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	33.52	11.50	18.50	0	-0.25	0.00	-0.57	0.00
10yr3d	NSLRWCD C37	BASE	33.77	11.59	18.50	0	-0.28	0.00	-0.57	0.00
10yr3d	NSLRWCD C37	BASE	34.02	11.68	18.50	0	-0.35	0.00	-0.58	0.00
10yr3d	NSLRWCD C37	BASE	34.27	11.77	18.50	0	-0.47	0.00	-0.59	0.00
10yr3d	NSLRWCD C37	BASE	34.52	11.86	18.50	0	-0.62	0.00	-0.60	0.00
10yr3d	NSLRWCD C37	BASE	34.77	11.95	18.50	0	-0.79	0.00	-0.61	0.00
10yr3d	NSLRWCD C37	BASE	35.02	12.04	18.50	0	-0.98	0.00	-0.63	0.00
10yr3d	NSLRWCD C37	BASE	35.27	12.13	18.50	0	-1.18	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	35.52	12.22	18.50	0	-1.36	0.00	-0.68	0.00
10yr3d	NSLRWCD C37	BASE	35.77	12.31	18.50	0	-1.49	0.00	-0.71	0.00
10yr3d	NSLRWCD C37	BASE	36.02	12.39	18.50	0	-1.59	0.00	-0.74	0.00
10yr3d	NSLRWCD C37	BASE	36.27	12.33	18.50	0	-1.52	0.00	-0.77	0.00
10yr3d	NSLRWCD C37	BASE	36.52	12.28	18.50	0	-1.44	0.00	-0.81	0.00
10yr3d	NSLRWCD C37	BASE	36.77	12.23	18.50	0	-1.35	0.00	-0.83	0.00
10yr3d	NSLRWCD C37	BASE	37.02	12.17	18.50	0	-1.25	0.00	-0.86	0.00
10yr3d	NSLRWCD C37	BASE	37.27	12.12	18.50	0	-1.13	0.00	-0.89	0.00
10yr3d	NSLRWCD C37	BASE	37.52	12.07	18.50	0	-1.00	0.00	-0.91	0.00
10yr3d	NSLRWCD C37	BASE	37.77	12.01	18.50	0	-0.87	0.00	-0.93	0.00
10yr3d	NSLRWCD C37	BASE	38.02	11.96	18.50	0	-0.74	0.00	-0.94	0.00
10yr3d	NSLRWCD C37	BASE	38.27	11.91	18.50	0	-0.62	0.00	-0.96	0.00
10yr3d	NSLRWCD C37	BASE	38.52	11.86	18.50	0	-0.51	0.00	-0.97	0.00
10yr3d	NSLRWCD C37	BASE	38.77	11.80	18.50	0	-0.40	0.00	-0.98	0.00
10yr3d	NSLRWCD C37	BASE	39.02	11.75	18.50	0	-0.30	0.00	-0.99	0.00
10yr3d	NSLRWCD C37	BASE	39.27	11.70	18.50	0	-0.20	0.00	-0.99	0.00
10yr3d	NSLRWCD C37	BASE	39.52	11.64	18.50	0	-0.11	0.00	-0.99	0.00
10yr3d	NSLRWCD C37	BASE	39.77	11.59	18.50	0	0.07	0.00	-0.99	0.00
10yr3d	NSLRWCD C37	BASE	40.02	11.54	18.50	0	0.14	0.00	-0.99	0.00
10yr3d	NSLRWCD C37	BASE	40.27	11.49	18.50	0	0.18	0.00	-0.99	0.00
10yr3d	NSLRWCD C37	BASE	40.52	11.45	18.50	0	0.22	0.00	-0.98	0.00
10yr3d	NSLRWCD C37	BASE	40.77	11.40	18.50	0	0.25	0.00	-0.98	0.00
10yr3d	NSLRWCD C37	BASE	41.02	11.36	18.50	0	0.29	0.00	-0.97	0.00
10yr3d	NSLRWCD C37	BASE	41.27	11.32	18.50	0	0.32	0.00	-0.97	0.00
10yr3d	NSLRWCD C37	BASE	41.52	11.27	18.50	0	0.35	0.00	-0.96	0.00
10yr3d	NSLRWCD C37	BASE	41.77	11.23	18.50	0	0.38	0.00	-0.95	0.00
10yr3d	NSLRWCD C37	BASE	42.02	11.18	18.50	0	0.41	0.00	-0.95	0.00
10yr3d	NSLRWCD C37	BASE	42.27	11.14	18.50	0	0.44	0.00	-0.94	0.00
10yr3d	NSLRWCD C37	BASE	42.52	11.09	18.50	0	0.47	0.00	-0.93	0.00
10yr3d	NSLRWCD C37	BASE	42.77	11.05	18.50	0	0.50	0.00	-0.92	0.00
10yr3d	NSLRWCD C37	BASE	43.02	11.00	18.50	0	0.53	0.00	-0.91	0.00
10yr3d	NSLRWCD C37	BASE	43.27	10.96	18.50	0	0.56	0.00	-0.90	0.00
10yr3d	NSLRWCD C37	BASE	43.52	10.92	18.50	0	0.59	0.00	-0.88	0.00
10yr3d	NSLRWCD C37	BASE	43.77	10.87	18.50	0	0.62	0.00	-0.87	0.00
10yr3d	NSLRWCD C37	BASE	44.02	10.83	18.50	0	0.65	0.00	-0.86	0.00
10yr3d	NSLRWCD C37	BASE	44.27	10.82	18.50	0	0.67	0.00	-0.84	0.00
10yr3d	NSLRWCD C37	BASE	44.52	10.80	18.50	0	0.69	0.00	-0.83	0.00
10yr3d	NSLRWCD C37	BASE	44.77	10.79	18.50	0	0.72	0.00	-0.82	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	45.02	10.77	18.50	0	0.74	0.00	-0.80	0.00
10yr3d	NSLRWCD C37	BASE	45.27	10.76	18.50	0	0.76	0.00	-0.78	0.00
10yr3d	NSLRWCD C37	BASE	45.52	10.75	18.50	0	0.78	0.00	-0.77	0.00
10yr3d	NSLRWCD C37	BASE	45.77	10.73	18.50	0	0.81	0.00	-0.75	0.00
10yr3d	NSLRWCD C37	BASE	46.02	10.72	18.50	0	0.83	0.00	-0.74	0.00
10yr3d	NSLRWCD C37	BASE	46.27	10.71	18.50	0	0.85	0.00	-0.72	0.00
10yr3d	NSLRWCD C37	BASE	46.52	10.69	18.50	0	0.88	0.00	-0.70	0.00
10yr3d	NSLRWCD C37	BASE	46.77	10.68	18.50	0	0.90	0.00	-0.68	0.00
10yr3d	NSLRWCD C37	BASE	47.02	10.66	18.50	0	0.92	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	47.27	10.65	18.50	0	0.95	0.00	-0.64	0.00
10yr3d	NSLRWCD C37	BASE	47.52	10.64	18.50	0	0.97	0.00	-0.62	0.00
10yr3d	NSLRWCD C37	BASE	47.77	10.62	18.50	0	0.99	0.00	-0.60	0.00
10yr3d	NSLRWCD C37	BASE	48.02	10.61	18.50	0	1.02	0.00	-0.58	0.00
10yr3d	NSLRWCD C37	BASE	48.27	10.62	18.50	0	1.04	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	48.52	10.64	18.50	0	1.06	0.00	-0.54	0.00
10yr3d	NSLRWCD C37	BASE	48.77	10.65	18.50	0	1.08	0.00	-0.52	0.00
10yr3d	NSLRWCD C37	BASE	49.02	10.67	18.50	0	1.10	0.00	-0.50	0.00
10yr3d	NSLRWCD C37	BASE	49.27	10.68	18.50	0	1.12	0.00	-0.47	0.00
10yr3d	NSLRWCD C37	BASE	49.52	10.69	18.50	0	1.14	0.00	-0.45	0.00
10yr3d	NSLRWCD C37	BASE	49.77	10.71	18.50	0	1.16	0.00	-0.43	0.00
10yr3d	NSLRWCD C37	BASE	50.02	10.72	18.50	0	1.18	0.00	-0.40	0.00
10yr3d	NSLRWCD C37	BASE	50.27	10.73	18.50	0	1.21	0.00	-0.38	0.00
10yr3d	NSLRWCD C37	BASE	50.52	10.75	18.50	0	1.23	0.00	-0.35	0.00
10yr3d	NSLRWCD C37	BASE	50.77	10.76	18.50	0	1.26	0.00	-0.33	0.00
10yr3d	NSLRWCD C37	BASE	51.02	10.78	18.50	0	1.28	0.00	-0.30	0.00
10yr3d	NSLRWCD C37	BASE	51.27	10.79	18.50	0	1.30	0.00	-0.27	0.00
10yr3d	NSLRWCD C37	BASE	51.52	10.80	18.50	0	1.32	0.00	-0.25	0.00
10yr3d	NSLRWCD C37	BASE	51.77	10.82	18.50	0	1.35	0.00	-0.22	0.00
10yr3d	NSLRWCD C37	BASE	52.02	10.83	18.50	0	1.37	0.00	-0.19	0.00
10yr3d	NSLRWCD C37	BASE	52.27	10.86	18.50	0	1.40	0.00	-0.16	0.00
10yr3d	NSLRWCD C37	BASE	52.52	10.88	18.50	0	1.42	0.00	-0.13	0.00
10yr3d	NSLRWCD C37	BASE	52.77	10.91	18.50	0	1.44	0.00	-0.10	0.00
10yr3d	NSLRWCD C37	BASE	53.02	10.93	18.50	0	1.46	0.00	-0.07	0.00
10yr3d	NSLRWCD C37	BASE	53.27	10.96	18.50	0	1.48	0.00	-0.04	0.00
10yr3d	NSLRWCD C37	BASE	53.52	10.98	18.50	0	1.51	0.00	-0.01	0.00
10yr3d	NSLRWCD C37	BASE	53.77	11.01	18.50	0	1.53	0.00	0.02	0.00
10yr3d	NSLRWCD C37	BASE	54.02	11.03	18.50	0	1.55	0.00	0.05	0.00
10yr3d	NSLRWCD C37	BASE	54.27	11.06	18.50	0	1.58	0.00	0.08	0.00
10yr3d	NSLRWCD C37	BASE	54.52	11.08	18.50	0	1.60	0.00	0.12	0.00
10yr3d	NSLRWCD C37	BASE	54.77	11.11	18.50	0	1.63	0.00	0.15	0.00
10yr3d	NSLRWCD C37	BASE	55.02	11.13	18.50	0	1.65	0.00	0.18	0.00
10yr3d	NSLRWCD C37	BASE	55.27	11.16	18.50	0	1.68	0.00	0.22	0.00
10yr3d	NSLRWCD C37	BASE	55.52	11.18	18.50	0	1.71	0.00	0.25	0.00
10yr3d	NSLRWCD C37	BASE	55.77	11.21	18.50	0	1.73	0.00	0.29	0.00
10yr3d	NSLRWCD C37	BASE	56.02	11.24	18.50	0	1.76	0.00	0.33	0.00
10yr3d	NSLRWCD C37	BASE	56.27	11.37	18.50	0	1.77	0.00	0.36	0.00
10yr3d	NSLRWCD C37	BASE	56.52	11.51	18.50	0	1.78	0.00	0.40	0.00
10yr3d	NSLRWCD C37	BASE	56.77	11.64	18.50	0	1.79	0.00	0.44	0.00
10yr3d	NSLRWCD C37	BASE	57.02	11.77	18.50	0	1.79	0.00	0.47	0.00
10yr3d	NSLRWCD C37	BASE	57.27	11.91	18.50	0	1.74	0.00	0.51	0.00
10yr3d	NSLRWCD C37	BASE	57.52	12.04	18.50	0	1.62	0.00	0.54	0.00
10yr3d	NSLRWCD C37	BASE	57.77	12.17	18.50	0	1.50	0.00	0.58	0.00
10yr3d	NSLRWCD C37	BASE	58.02	12.31	18.50	0	1.37	0.00	0.61	0.00
10yr3d	NSLRWCD C37	BASE	58.27	12.44	18.50	0	1.23	0.00	0.63	0.00
10yr3d	NSLRWCD C37	BASE	58.52	12.58	18.50	0	1.09	0.00	0.66	0.00
10yr3d	NSLRWCD C37	BASE	58.77	12.71	18.50	0	0.93	0.00	0.68	0.00
10yr3d	NSLRWCD C37	BASE	59.02	12.84	18.50	0	0.76	0.00	0.69	0.00
10yr3d	NSLRWCD C37	BASE	59.26	12.98	18.50	0	0.60	0.00	0.71	0.00
10yr3d	NSLRWCD C37	BASE	59.50	13.10	18.50	0	0.45	0.00	0.72	0.00
10yr3d	NSLRWCD C37	BASE	59.75	13.24	18.50	0	0.86	0.00	0.73	0.00

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	60.00	13.37	18.50	0	1.50	0.00	0.76	0.00
10yr3d	NSLRWCD C37	BASE	60.25	13.29	18.50	0	2.08	0.00	0.79	0.00
10yr3d	NSLRWCD C37	BASE	60.50	13.21	18.50	0	2.36	0.00	0.84	0.00
10yr3d	NSLRWCD C37	BASE	60.76	13.13	18.50	0	2.54	0.00	0.89	0.00
10yr3d	NSLRWCD C37	BASE	61.00	13.05	18.50	0	2.65	0.00	0.94	0.00
10yr3d	NSLRWCD C37	BASE	61.25	12.98	18.50	0	2.75	0.00	1.00	0.00
10yr3d	NSLRWCD C37	BASE	61.51	12.90	18.50	0	2.84	0.00	1.06	0.00
10yr3d	NSLRWCD C37	BASE	61.76	12.82	18.50	0	2.92	0.00	1.12	0.00
10yr3d	NSLRWCD C37	BASE	62.01	12.74	18.50	0	2.99	0.00	1.18	0.00
10yr3d	NSLRWCD C37	BASE	62.26	12.66	18.50	0	3.06	0.00	1.24	0.00
10yr3d	NSLRWCD C37	BASE	62.51	12.58	18.50	0	3.13	0.00	1.31	0.00
10yr3d	NSLRWCD C37	BASE	62.76	12.50	18.50	0	3.19	0.00	1.37	0.00
10yr3d	NSLRWCD C37	BASE	63.01	12.42	18.50	0	3.25	0.00	1.44	0.00
10yr3d	NSLRWCD C37	BASE	63.26	12.34	18.50	0	3.31	0.00	1.51	0.00
10yr3d	NSLRWCD C37	BASE	63.51	12.27	18.50	0	3.36	0.00	1.57	0.00
10yr3d	NSLRWCD C37	BASE	63.76	12.19	18.50	0	3.42	0.00	1.64	0.00
10yr3d	NSLRWCD C37	BASE	64.01	12.11	18.50	0	3.47	0.00	1.72	0.00
10yr3d	NSLRWCD C37	BASE	64.26	12.04	18.50	0	3.52	0.00	1.79	0.00
10yr3d	NSLRWCD C37	BASE	64.51	11.97	18.50	0	3.56	0.00	1.86	0.00
10yr3d	NSLRWCD C37	BASE	64.76	11.90	18.50	0	3.60	0.00	1.93	0.00
10yr3d	NSLRWCD C37	BASE	65.01	11.84	18.50	0	3.64	0.00	2.01	0.00
10yr3d	NSLRWCD C37	BASE	65.26	11.77	18.50	0	3.65	0.00	2.08	0.00
10yr3d	NSLRWCD C37	BASE	65.51	11.70	18.50	0	3.67	0.00	2.16	0.00
10yr3d	NSLRWCD C37	BASE	65.76	11.63	18.50	0	3.68	0.00	2.24	0.00
10yr3d	NSLRWCD C37	BASE	66.01	11.56	18.50	0	3.69	0.00	2.31	0.00
10yr3d	NSLRWCD C37	BASE	66.26	11.50	18.50	0	3.70	0.00	2.39	0.00
10yr3d	NSLRWCD C37	BASE	66.51	11.43	18.50	0	3.71	0.00	2.47	0.00
10yr3d	NSLRWCD C37	BASE	66.76	11.36	18.50	0	3.72	0.00	2.54	0.00
10yr3d	NSLRWCD C37	BASE	67.01	11.29	18.50	0	3.73	0.00	2.62	0.00
10yr3d	NSLRWCD C37	BASE	67.26	11.22	18.50	0	3.74	0.00	2.70	0.00
10yr3d	NSLRWCD C37	BASE	67.51	11.15	18.50	0	3.75	0.00	2.77	0.00
10yr3d	NSLRWCD C37	BASE	67.76	11.09	18.50	0	3.76	0.00	2.85	0.00
10yr3d	NSLRWCD C37	BASE	68.01	11.02	18.50	0	3.77	0.00	2.93	0.00
10yr3d	NSLRWCD C37	BASE	68.26	11.00	18.50	0	3.77	0.00	3.01	0.00
10yr3d	NSLRWCD C37	BASE	68.51	10.98	18.50	0	3.77	0.00	3.09	0.00
10yr3d	NSLRWCD C37	BASE	68.76	10.96	18.50	0	3.78	0.00	3.16	0.00
10yr3d	NSLRWCD C37	BASE	69.01	10.94	18.50	0	3.78	0.00	3.24	0.00
10yr3d	NSLRWCD C37	BASE	69.26	10.92	18.50	0	3.78	0.00	3.32	0.00
10yr3d	NSLRWCD C37	BASE	69.51	10.90	18.50	0	3.78	0.00	3.40	0.00
10yr3d	NSLRWCD C37	BASE	69.76	10.88	18.50	0	3.78	0.00	3.48	0.00
10yr3d	NSLRWCD C37	BASE	70.01	10.86	18.50	0	3.78	0.00	3.55	0.00
10yr3d	NSLRWCD C37	BASE	70.26	10.84	18.50	0	3.79	0.00	3.63	0.00
10yr3d	NSLRWCD C37	BASE	70.51	10.82	18.50	0	3.79	0.00	3.71	0.00
10yr3d	NSLRWCD C37	BASE	70.76	10.80	18.50	0	3.79	0.00	3.79	0.00
10yr3d	NSLRWCD C37	BASE	71.01	10.78	18.50	0	3.79	0.00	3.87	0.00
10yr3d	NSLRWCD C37	BASE	71.26	10.76	18.50	0	3.79	0.00	3.94	0.00
10yr3d	NSLRWCD C37	BASE	71.51	10.74	18.50	0	3.79	0.00	4.02	0.00
10yr3d	NSLRWCD C37	BASE	71.76	10.72	18.50	0	3.79	0.00	4.10	0.00
10yr3d	NSLRWCD C37	BASE	72.01	10.70	18.50	0	3.79	0.00	4.18	0.00
10yr3d	NSLRWCD C37	BASE	72.26	10.70	18.50	0	3.79	0.00	4.26	0.00
10yr3d	NSLRWCD C37	BASE	72.51	10.69	18.50	0	3.79	0.00	4.34	0.00
10yr3d	NSLRWCD C37	BASE	72.76	10.69	18.50	0	3.78	0.00	4.41	0.00
10yr3d	NSLRWCD C37	BASE	73.01	10.69	18.50	0	3.78	0.00	4.49	0.00
10yr3d	NSLRWCD C37	BASE	73.26	10.69	18.50	0	3.77	0.00	4.57	0.00
10yr3d	NSLRWCD C37	BASE	73.51	10.68	18.50	0	3.77	0.00	4.65	0.00
10yr3d	NSLRWCD C37	BASE	73.76	10.68	18.50	0	3.76	0.00	4.73	0.00
10yr3d	NSLRWCD C37	BASE	74.01	10.68	18.50	0	3.76	0.00	4.80	0.00
10yr3d	NSLRWCD C37	BASE	74.26	10.68	18.50	0	3.75	0.00	4.88	0.00
10yr3d	NSLRWCD C37	BASE	74.51	10.67	18.50	0	3.75	0.00	4.96	0.00
10yr3d	NSLRWCD C37	BASE	74.76	10.67	18.50	0	3.74	0.00	5.04	0.00

Max Discharge Volume in 24-hrs = 7.27 acft
Less than Allowable 2" over 45 ac = 7.65 acft

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	75.01	10.67	18.50	0	3.74	0.00	5.11	0.00
10yr3d	NSLRWCD C37	BASE	75.26	10.67	18.50	0	3.73	0.00	5.19	0.00
10yr3d	NSLRWCD C37	BASE	75.51	10.66	18.50	0	3.73	0.00	5.27	0.00
10yr3d	NSLRWCD C37	BASE	75.76	10.66	18.50	0	3.72	0.00	5.35	0.00
10yr3d	NSLRWCD C37	BASE	76.01	10.66	18.50	0	3.72	0.00	5.42	0.00
10yr3d	NSLRWCD C37	BASE	76.26	10.66	18.50	0	3.71	0.00	5.50	0.00
10yr3d	NSLRWCD C37	BASE	76.51	10.65	18.50	0	3.71	0.00	5.58	0.00
10yr3d	NSLRWCD C37	BASE	76.76	10.65	18.50	0	3.70	0.00	5.65	0.00
10yr3d	NSLRWCD C37	BASE	77.01	10.65	18.50	0	3.70	0.00	5.73	0.00
10yr3d	NSLRWCD C37	BASE	77.26	10.65	18.50	0	3.69	0.00	5.81	0.00
10yr3d	NSLRWCD C37	BASE	77.51	10.64	18.50	0	3.69	0.00	5.88	0.00
10yr3d	NSLRWCD C37	BASE	77.76	10.64	18.50	0	3.68	0.00	5.96	0.00
10yr3d	NSLRWCD C37	BASE	78.01	10.64	18.50	0	3.68	0.00	6.03	0.00
10yr3d	NSLRWCD C37	BASE	78.26	10.64	18.50	0	3.67	0.00	6.11	0.00
10yr3d	NSLRWCD C37	BASE	78.51	10.63	18.50	0	3.67	0.00	6.19	0.00
10yr3d	NSLRWCD C37	BASE	78.76	10.63	18.50	0	3.66	0.00	6.26	0.00
10yr3d	NSLRWCD C37	BASE	79.01	10.63	18.50	0	3.66	0.00	6.34	0.00
10yr3d	NSLRWCD C37	BASE	79.26	10.63	18.50	0	3.65	0.00	6.41	0.00
10yr3d	NSLRWCD C37	BASE	79.51	10.62	18.50	0	3.65	0.00	6.49	0.00
10yr3d	NSLRWCD C37	BASE	79.76	10.62	18.50	0	3.64	0.00	6.56	0.00
10yr3d	NSLRWCD C37	BASE	80.01	10.62	18.50	0	3.64	0.00	6.64	0.00
10yr3d	NSLRWCD C37	BASE	80.26	10.62	18.50	0	3.63	0.00	6.71	0.00
10yr3d	NSLRWCD C37	BASE	80.51	10.61	18.50	0	3.62	0.00	6.79	0.00
10yr3d	NSLRWCD C37	BASE	80.76	10.61	18.50	0	3.62	0.00	6.86	0.00
10yr3d	NSLRWCD C37	BASE	81.01	10.61	18.50	0	3.61	0.00	6.94	0.00
10yr3d	NSLRWCD C37	BASE	81.26	10.61	18.50	0	3.61	0.00	7.01	0.00
10yr3d	NSLRWCD C37	BASE	81.51	10.60	18.50	0	3.60	0.00	7.09	0.00
10yr3d	NSLRWCD C37	BASE	81.76	10.60	18.50	0	3.60	0.00	7.16	0.00
10yr3d	NSLRWCD C37	BASE	82.01	10.60	18.50	0	3.59	0.00	7.24	0.00
10yr3d	NSLRWCD C37	BASE	82.26	10.60	18.50	0	3.59	0.00	7.31	0.00
10yr3d	NSLRWCD C37	BASE	82.51	10.59	18.50	0	3.58	0.00	7.38	0.00
10yr3d	NSLRWCD C37	BASE	82.76	10.59	18.50	0	3.58	0.00	7.46	0.00
10yr3d	NSLRWCD C37	BASE	83.01	10.59	18.50	0	3.57	0.00	7.53	0.00
10yr3d	NSLRWCD C37	BASE	83.26	10.59	18.50	0	3.56	0.00	7.61	0.00
10yr3d	NSLRWCD C37	BASE	83.51	10.58	18.50	0	3.56	0.00	7.68	0.00
10yr3d	NSLRWCD C37	BASE	83.76	10.58	18.50	0	3.55	0.00	7.75	0.00
10yr3d	NSLRWCD C37	BASE	84.01	10.58	18.50	0	3.55	0.00	7.83	0.00
10yr3d	NSLRWCD C37	BASE	84.26	10.58	18.50	0	3.54	0.00	7.90	0.00
10yr3d	NSLRWCD C37	BASE	84.51	10.57	18.50	0	3.54	0.00	7.97	0.00
10yr3d	NSLRWCD C37	BASE	84.76	10.57	18.50	0	3.53	0.00	8.05	0.00
10yr3d	NSLRWCD C37	BASE	85.01	10.57	18.50	0	3.52	0.00	8.12	0.00
10yr3d	NSLRWCD C37	BASE	85.26	10.57	18.50	0	3.52	0.00	8.19	0.00
10yr3d	NSLRWCD C37	BASE	85.51	10.56	18.50	0	3.51	0.00	8.26	0.00
10yr3d	NSLRWCD C37	BASE	85.76	10.56	18.50	0	3.51	0.00	8.34	0.00
10yr3d	NSLRWCD C37	BASE	86.01	10.56	18.50	0	3.50	0.00	8.41	0.00
10yr3d	NSLRWCD C37	BASE	86.26	10.56	18.50	0	3.50	0.00	8.48	0.00
10yr3d	NSLRWCD C37	BASE	86.51	10.55	18.50	0	3.49	0.00	8.55	0.00
10yr3d	NSLRWCD C37	BASE	86.76	10.55	18.50	0	3.48	0.00	8.62	0.00
10yr3d	NSLRWCD C37	BASE	87.01	10.55	18.50	0	3.48	0.00	8.70	0.00
10yr3d	NSLRWCD C37	BASE	87.26	10.55	18.50	0	3.47	0.00	8.77	0.00
10yr3d	NSLRWCD C37	BASE	87.51	10.54	18.50	0	3.47	0.00	8.84	0.00
10yr3d	NSLRWCD C37	BASE	87.76	10.54	18.50	0	3.46	0.00	8.91	0.00
10yr3d	NSLRWCD C37	BASE	88.01	10.54	18.50	0	3.46	0.00	8.98	0.00
10yr3d	NSLRWCD C37	BASE	88.26	10.54	18.50	0	3.45	0.00	9.05	0.00
10yr3d	NSLRWCD C37	BASE	88.51	10.53	18.50	0	3.44	0.00	9.13	0.00
10yr3d	NSLRWCD C37	BASE	88.76	10.53	18.50	0	3.44	0.00	9.20	0.00
10yr3d	NSLRWCD C37	BASE	89.01	10.53	18.50	0	3.43	0.00	9.27	0.00
10yr3d	NSLRWCD C37	BASE	89.26	10.53	18.50	0	3.43	0.00	9.34	0.00
10yr3d	NSLRWCD C37	BASE	89.51	10.52	18.50	0	3.42	0.00	9.41	0.00
10yr3d	NSLRWCD C37	BASE	89.76	10.52	18.50	0	3.41	0.00	9.48	0.00

Max Discharge Volume in 24-hrs = 7.27 acft
Less than Allowable 2" over 45 ac = 7.65 acft

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	90.01	10.52	18.50	0	3.41	0.00	9.55	0.00
10yr3d	NSLRWCD C37	BASE	90.26	10.51	18.50	0	3.40	0.00	9.62	0.00
10yr3d	NSLRWCD C37	BASE	90.51	10.51	18.50	0	3.40	0.00	9.69	0.00
10yr3d	NSLRWCD C37	BASE	90.76	10.51	18.50	0	3.39	0.00	9.76	0.00
10yr3d	NSLRWCD C37	BASE	91.01	10.51	18.50	0	3.38	0.00	9.83	0.00
10yr3d	NSLRWCD C37	BASE	91.26	10.50	18.50	0	3.38	0.00	9.90	0.00
10yr3d	NSLRWCD C37	BASE	91.51	10.50	18.50	0	3.37	0.00	9.97	0.00
10yr3d	NSLRWCD C37	BASE	91.76	10.50	18.50	0	3.37	0.00	10.04	0.00
10yr3d	NSLRWCD C37	BASE	92.01	10.50	18.50	0	3.36	0.00	10.11	0.00
10yr3d	NSLRWCD C37	BASE	92.26	10.49	18.50	0	3.35	0.00	10.18	0.00
10yr3d	NSLRWCD C37	BASE	92.51	10.49	18.50	0	3.35	0.00	10.25	0.00
10yr3d	NSLRWCD C37	BASE	92.76	10.49	18.50	0	3.34	0.00	10.32	0.00
10yr3d	NSLRWCD C37	BASE	93.01	10.49	18.50	0	3.34	0.00	10.39	0.00
10yr3d	NSLRWCD C37	BASE	93.26	10.48	18.50	0	3.33	0.00	10.46	0.00
10yr3d	NSLRWCD C37	BASE	93.51	10.48	18.50	0	3.32	0.00	10.52	0.00
10yr3d	NSLRWCD C37	BASE	93.76	10.48	18.50	0	3.32	0.00	10.59	0.00
10yr3d	NSLRWCD C37	BASE	94.01	10.48	18.50	0	3.31	0.00	10.66	0.00
10yr3d	NSLRWCD C37	BASE	94.26	10.47	18.50	0	3.31	0.00	10.73	0.00
10yr3d	NSLRWCD C37	BASE	94.51	10.47	18.50	0	3.30	0.00	10.80	0.00
10yr3d	NSLRWCD C37	BASE	94.76	10.47	18.50	0	3.29	0.00	10.87	0.00
10yr3d	NSLRWCD C37	BASE	95.01	10.47	18.50	0	3.29	0.00	10.93	0.00
10yr3d	NSLRWCD C37	BASE	95.26	10.46	18.50	0	3.28	0.00	11.00	0.00
10yr3d	NSLRWCD C37	BASE	95.51	10.46	18.50	0	3.28	0.00	11.07	0.00
10yr3d	NSLRWCD C37	BASE	95.76	10.46	18.50	0	3.27	0.00	11.14	0.00
10yr3d	NSLRWCD C37	BASE	96.01	10.46	18.50	0	3.26	0.00	11.21	0.00
10yr3d	NSLRWCD C37	BASE	96.26	10.45	18.50	0	3.26	0.00	11.27	0.00
10yr3d	NSLRWCD C37	BASE	96.51	10.45	18.50	0	3.25	0.00	11.34	0.00
10yr3d	NSLRWCD C37	BASE	96.76	10.45	18.50	0	3.25	0.00	11.41	0.00
10yr3d	NSLRWCD C37	BASE	97.01	10.45	18.50	0	3.24	0.00	11.47	0.00
10yr3d	NSLRWCD C37	BASE	97.26	10.44	18.50	0	3.23	0.00	11.54	0.00
10yr3d	NSLRWCD C37	BASE	97.51	10.44	18.50	0	3.23	0.00	11.61	0.00
10yr3d	NSLRWCD C37	BASE	97.76	10.44	18.50	0	3.22	0.00	11.67	0.00
10yr3d	NSLRWCD C37	BASE	98.01	10.44	18.50	0	3.22	0.00	11.74	0.00
10yr3d	NSLRWCD C37	BASE	98.26	10.43	18.50	0	3.21	0.00	11.81	0.00
10yr3d	NSLRWCD C37	BASE	98.51	10.43	18.50	0	3.20	0.00	11.87	0.00
10yr3d	NSLRWCD C37	BASE	98.76	10.43	18.50	0	3.20	0.00	11.94	0.00
10yr3d	NSLRWCD C37	BASE	99.01	10.43	18.50	0	3.19	0.00	12.01	0.00
10yr3d	NSLRWCD C37	BASE	99.26	10.42	18.50	0	3.19	0.00	12.07	0.00
10yr3d	NSLRWCD C37	BASE	99.51	10.42	18.50	0	3.18	0.00	12.14	0.00
10yr3d	NSLRWCD C37	BASE	99.76	10.42	18.50	0	3.17	0.00	12.20	0.00
10yr3d	NSLRWCD C37	BASE	100.01	10.42	18.50	0	3.17	0.00	12.27	0.00
10yr3d	NSLRWCD C37	BASE	100.26	10.41	18.50	0	3.16	0.00	12.33	0.00
10yr3d	NSLRWCD C37	BASE	100.51	10.41	18.50	0	3.15	0.00	12.40	0.00
10yr3d	NSLRWCD C37	BASE	100.76	10.41	18.50	0	3.15	0.00	12.46	0.00
10yr3d	NSLRWCD C37	BASE	101.01	10.41	18.50	0	3.14	0.00	12.53	0.00
10yr3d	NSLRWCD C37	BASE	101.26	10.40	18.50	0	3.14	0.00	12.59	0.00
10yr3d	NSLRWCD C37	BASE	101.51	10.40	18.50	0	3.13	0.00	12.66	0.00
10yr3d	NSLRWCD C37	BASE	101.76	10.40	18.50	0	3.12	0.00	12.72	0.00
10yr3d	NSLRWCD C37	BASE	102.01	10.40	18.50	0	3.12	0.00	12.79	0.00
10yr3d	NSLRWCD C37	BASE	102.26	10.39	18.50	0	3.11	0.00	12.85	0.00
10yr3d	NSLRWCD C37	BASE	102.51	10.39	18.50	0	3.11	0.00	12.92	0.00
10yr3d	NSLRWCD C37	BASE	102.76	10.39	18.50	0	3.10	0.00	12.98	0.00
10yr3d	NSLRWCD C37	BASE	103.01	10.39	18.50	0	3.09	0.00	13.04	0.00
10yr3d	NSLRWCD C37	BASE	103.26	10.38	18.50	0	3.09	0.00	13.11	0.00
10yr3d	NSLRWCD C37	BASE	103.51	10.38	18.50	0	3.08	0.00	13.17	0.00
10yr3d	NSLRWCD C37	BASE	103.76	10.38	18.50	0	3.08	0.00	13.24	0.00
10yr3d	NSLRWCD C37	BASE	104.01	10.38	18.50	0	3.07	0.00	13.30	0.00
10yr3d	NSLRWCD C37	BASE	104.26	10.37	18.50	0	3.06	0.00	13.36	0.00
10yr3d	NSLRWCD C37	BASE	104.51	10.37	18.50	0	3.06	0.00	13.43	0.00
10yr3d	NSLRWCD C37	BASE	104.76	10.37	18.50	0	3.05	0.00	13.49	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	105.01	10.37	18.50	0	3.04	0.00	13.55	0.00
10yr3d	NSLRWCD C37	BASE	105.26	10.36	18.50	0	3.04	0.00	13.61	0.00
10yr3d	NSLRWCD C37	BASE	105.51	10.36	18.50	0	3.03	0.00	13.68	0.00
10yr3d	NSLRWCD C37	BASE	105.76	10.36	18.50	0	3.03	0.00	13.74	0.00
10yr3d	NSLRWCD C37	BASE	106.01	10.36	18.50	0	3.02	0.00	13.80	0.00
10yr3d	NSLRWCD C37	BASE	106.26	10.35	18.50	0	3.01	0.00	13.86	0.00
10yr3d	NSLRWCD C37	BASE	106.51	10.35	18.50	0	3.01	0.00	13.93	0.00
10yr3d	NSLRWCD C37	BASE	106.76	10.35	18.50	0	3.00	0.00	13.99	0.00
10yr3d	NSLRWCD C37	BASE	107.01	10.35	18.50	0	2.99	0.00	14.05	0.00
10yr3d	NSLRWCD C37	BASE	107.26	10.34	18.50	0	2.99	0.00	14.11	0.00
10yr3d	NSLRWCD C37	BASE	107.51	10.34	18.50	0	2.98	0.00	14.17	0.00
10yr3d	NSLRWCD C37	BASE	107.76	10.34	18.50	0	2.98	0.00	14.24	0.00
10yr3d	NSLRWCD C37	BASE	108.01	10.33	18.50	0	2.97	0.00	14.30	0.00
10yr3d	NSLRWCD C37	BASE	108.26	10.33	18.50	0	2.96	0.00	14.36	0.00
10yr3d	NSLRWCD C37	BASE	108.51	10.33	18.50	0	2.96	0.00	14.42	0.00
10yr3d	NSLRWCD C37	BASE	108.76	10.33	18.50	0	2.95	0.00	14.48	0.00
10yr3d	NSLRWCD C37	BASE	109.01	10.32	18.50	0	2.94	0.00	14.54	0.00
10yr3d	NSLRWCD C37	BASE	109.26	10.32	18.50	0	2.94	0.00	14.60	0.00
10yr3d	NSLRWCD C37	BASE	109.51	10.32	18.50	0	2.93	0.00	14.66	0.00
10yr3d	NSLRWCD C37	BASE	109.76	10.32	18.50	0	2.93	0.00	14.72	0.00
10yr3d	NSLRWCD C37	BASE	110.01	10.31	18.50	0	2.92	0.00	14.78	0.00
10yr3d	NSLRWCD C37	BASE	110.26	10.31	18.50	0	2.91	0.00	14.84	0.00
10yr3d	NSLRWCD C37	BASE	110.51	10.31	18.50	0	2.91	0.00	14.90	0.00
10yr3d	NSLRWCD C37	BASE	110.76	10.31	18.50	0	2.90	0.00	14.96	0.00
10yr3d	NSLRWCD C37	BASE	111.01	10.30	18.50	0	2.89	0.00	15.02	0.00
10yr3d	NSLRWCD C37	BASE	111.26	10.30	18.50	0	2.89	0.00	15.08	0.00
10yr3d	NSLRWCD C37	BASE	111.51	10.30	18.50	0	2.88	0.00	15.14	0.00
10yr3d	NSLRWCD C37	BASE	111.76	10.30	18.50	0	2.88	0.00	15.20	0.00
10yr3d	NSLRWCD C37	BASE	112.01	10.29	18.50	0	2.87	0.00	15.26	0.00
10yr3d	NSLRWCD C37	BASE	112.26	10.29	18.50	0	2.86	0.00	15.32	0.00
10yr3d	NSLRWCD C37	BASE	112.51	10.29	18.50	0	2.86	0.00	15.38	0.00
10yr3d	NSLRWCD C37	BASE	112.76	10.29	18.50	0	2.85	0.00	15.44	0.00
10yr3d	NSLRWCD C37	BASE	113.01	10.28	18.50	0	2.84	0.00	15.50	0.00
10yr3d	NSLRWCD C37	BASE	113.26	10.28	18.50	0	2.84	0.00	15.56	0.00
10yr3d	NSLRWCD C37	BASE	113.51	10.28	18.50	0	2.83	0.00	15.62	0.00
10yr3d	NSLRWCD C37	BASE	113.76	10.28	18.50	0	2.83	0.00	15.67	0.00
10yr3d	NSLRWCD C37	BASE	114.01	10.27	18.50	0	2.82	0.00	15.73	0.00
10yr3d	NSLRWCD C37	BASE	114.26	10.27	18.50	0	2.81	0.00	15.79	0.00
10yr3d	NSLRWCD C37	BASE	114.51	10.27	18.50	0	2.81	0.00	15.85	0.00
10yr3d	NSLRWCD C37	BASE	114.76	10.27	18.50	0	2.80	0.00	15.91	0.00
10yr3d	NSLRWCD C37	BASE	115.01	10.26	18.50	0	2.79	0.00	15.96	0.00
10yr3d	NSLRWCD C37	BASE	115.26	10.26	18.50	0	2.79	0.00	16.02	0.00
10yr3d	NSLRWCD C37	BASE	115.51	10.26	18.50	0	2.78	0.00	16.08	0.00
10yr3d	NSLRWCD C37	BASE	115.76	10.26	18.50	0	2.78	0.00	16.14	0.00
10yr3d	NSLRWCD C37	BASE	116.01	10.25	18.50	0	2.77	0.00	16.19	0.00
10yr3d	NSLRWCD C37	BASE	116.26	10.25	18.50	0	2.76	0.00	16.25	0.00
10yr3d	NSLRWCD C37	BASE	116.51	10.25	18.50	0	2.76	0.00	16.31	0.00
10yr3d	NSLRWCD C37	BASE	116.76	10.25	18.50	0	2.75	0.00	16.37	0.00
10yr3d	NSLRWCD C37	BASE	117.01	10.24	18.50	0	2.74	0.00	16.42	0.00
10yr3d	NSLRWCD C37	BASE	117.26	10.24	18.50	0	2.74	0.00	16.48	0.00
10yr3d	NSLRWCD C37	BASE	117.51	10.24	18.50	0	2.73	0.00	16.54	0.00
10yr3d	NSLRWCD C37	BASE	117.76	10.24	18.50	0	2.72	0.00	16.59	0.00
10yr3d	NSLRWCD C37	BASE	118.01	10.23	18.50	0	2.72	0.00	16.65	0.00
10yr3d	NSLRWCD C37	BASE	118.26	10.23	18.50	0	2.71	0.00	16.70	0.00
10yr3d	NSLRWCD C37	BASE	118.51	10.23	18.50	0	2.71	0.00	16.76	0.00
10yr3d	NSLRWCD C37	BASE	118.76	10.23	18.50	0	2.70	0.00	16.82	0.00
10yr3d	NSLRWCD C37	BASE	119.01	10.22	18.50	0	2.69	0.00	16.87	0.00
10yr3d	NSLRWCD C37	BASE	119.26	10.22	18.50	0	2.69	0.00	16.93	0.00
10yr3d	NSLRWCD C37	BASE	119.51	10.22	18.50	0	2.68	0.00	16.98	0.00
10yr3d	NSLRWCD C37	BASE	119.76	10.22	18.50	0	2.67	0.00	17.04	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	120.01	10.21	18.50	0	2.67	0.00	17.09	0.00
10yr3d	NSLRWCD C37	BASE	120.26	10.21	18.50	0	2.66	0.00	17.15	0.00
10yr3d	NSLRWCD C37	BASE	120.51	10.21	18.50	0	2.66	0.00	17.20	0.00
10yr3d	NSLRWCD C37	BASE	120.76	10.21	18.50	0	2.65	0.00	17.26	0.00
10yr3d	NSLRWCD C37	BASE	121.01	10.20	18.50	0	2.64	0.00	17.31	0.00
10yr3d	NSLRWCD C37	BASE	121.26	10.20	18.50	0	2.64	0.00	17.37	0.00
10yr3d	NSLRWCD C37	BASE	121.51	10.20	18.50	0	2.63	0.00	17.42	0.00
10yr3d	NSLRWCD C37	BASE	121.76	10.20	18.50	0	2.62	0.00	17.48	0.00
10yr3d	NSLRWCD C37	BASE	122.01	10.19	18.50	0	2.62	0.00	17.53	0.00
10yr3d	NSLRWCD C37	BASE	122.26	10.19	18.50	0	2.61	0.00	17.58	0.00
10yr3d	NSLRWCD C37	BASE	122.51	10.19	18.50	0	2.61	0.00	17.64	0.00
10yr3d	NSLRWCD C37	BASE	122.76	10.19	18.50	0	2.60	0.00	17.69	0.00
10yr3d	NSLRWCD C37	BASE	123.01	10.18	18.50	0	2.59	0.00	17.75	0.00
10yr3d	NSLRWCD C37	BASE	123.26	10.18	18.50	0	2.59	0.00	17.80	0.00
10yr3d	NSLRWCD C37	BASE	123.51	10.18	18.50	0	2.58	0.00	17.85	0.00
10yr3d	NSLRWCD C37	BASE	123.76	10.18	18.50	0	2.57	0.00	17.91	0.00
10yr3d	NSLRWCD C37	BASE	124.01	10.17	18.50	0	2.57	0.00	17.96	0.00
10yr3d	NSLRWCD C37	BASE	124.26	10.17	18.50	0	2.56	0.00	18.01	0.00
10yr3d	NSLRWCD C37	BASE	124.51	10.17	18.50	0	2.56	0.00	18.06	0.00
10yr3d	NSLRWCD C37	BASE	124.76	10.17	18.50	0	2.55	0.00	18.12	0.00
10yr3d	NSLRWCD C37	BASE	125.01	10.16	18.50	0	2.54	0.00	18.17	0.00
10yr3d	NSLRWCD C37	BASE	125.26	10.16	18.50	0	2.54	0.00	18.22	0.00
10yr3d	NSLRWCD C37	BASE	125.51	10.16	18.50	0	2.53	0.00	18.27	0.00
10yr3d	NSLRWCD C37	BASE	125.76	10.15	18.50	0	2.52	0.00	18.33	0.00
10yr3d	NSLRWCD C37	BASE	126.01	10.15	18.50	0	2.52	0.00	18.38	0.00
10yr3d	NSLRWCD C37	BASE	126.26	10.15	18.50	0	2.51	0.00	18.43	0.00
10yr3d	NSLRWCD C37	BASE	126.51	10.15	18.50	0	2.50	0.00	18.48	0.00
10yr3d	NSLRWCD C37	BASE	126.76	10.14	18.50	0	2.50	0.00	18.53	0.00
10yr3d	NSLRWCD C37	BASE	127.01	10.14	18.50	0	2.49	0.00	18.59	0.00
10yr3d	NSLRWCD C37	BASE	127.26	10.14	18.50	0	2.48	0.00	18.64	0.00
10yr3d	NSLRWCD C37	BASE	127.51	10.14	18.50	0	2.48	0.00	18.69	0.00
10yr3d	NSLRWCD C37	BASE	127.76	10.13	18.50	0	2.47	0.00	18.74	0.00
10yr3d	NSLRWCD C37	BASE	128.01	10.13	18.50	0	2.46	0.00	18.79	0.00
10yr3d	NSLRWCD C37	BASE	128.26	10.13	18.50	0	2.46	0.00	18.84	0.00
10yr3d	NSLRWCD C37	BASE	128.51	10.13	18.50	0	2.45	0.00	18.89	0.00
10yr3d	NSLRWCD C37	BASE	128.76	10.12	18.50	0	2.45	0.00	18.94	0.00
10yr3d	NSLRWCD C37	BASE	129.01	10.12	18.50	0	2.44	0.00	18.99	0.00
10yr3d	NSLRWCD C37	BASE	129.26	10.12	18.50	0	2.43	0.00	19.04	0.00
10yr3d	NSLRWCD C37	BASE	129.51	10.12	18.50	0	2.43	0.00	19.09	0.00
10yr3d	NSLRWCD C37	BASE	129.76	10.11	18.50	0	2.42	0.00	19.14	0.00
10yr3d	NSLRWCD C37	BASE	130.01	10.11	18.50	0	2.41	0.00	19.19	0.00
10yr3d	NSLRWCD C37	BASE	130.26	10.11	18.50	0	2.41	0.00	19.24	0.00
10yr3d	NSLRWCD C37	BASE	130.51	10.11	18.50	0	2.40	0.00	19.29	0.00
10yr3d	NSLRWCD C37	BASE	130.76	10.10	18.50	0	2.39	0.00	19.34	0.00
10yr3d	NSLRWCD C37	BASE	131.01	10.10	18.50	0	2.39	0.00	19.39	0.00
10yr3d	NSLRWCD C37	BASE	131.26	10.10	18.50	0	2.38	0.00	19.44	0.00
10yr3d	NSLRWCD C37	BASE	131.51	10.10	18.50	0	2.37	0.00	19.49	0.00
10yr3d	NSLRWCD C37	BASE	131.76	10.09	18.50	0	2.37	0.00	19.54	0.00
10yr3d	NSLRWCD C37	BASE	132.01	10.09	18.50	0	2.36	0.00	19.59	0.00
10yr3d	NSLRWCD C37	BASE	132.26	10.09	18.50	0	2.36	0.00	19.64	0.00
10yr3d	NSLRWCD C37	BASE	132.51	10.09	18.50	0	2.35	0.00	19.69	0.00
10yr3d	NSLRWCD C37	BASE	132.76	10.08	18.50	0	2.34	0.00	19.73	0.00
10yr3d	NSLRWCD C37	BASE	133.01	10.08	18.50	0	2.34	0.00	19.78	0.00
10yr3d	NSLRWCD C37	BASE	133.26	10.08	18.50	0	2.33	0.00	19.83	0.00
10yr3d	NSLRWCD C37	BASE	133.51	10.08	18.50	0	2.32	0.00	19.88	0.00
10yr3d	NSLRWCD C37	BASE	133.76	10.07	18.50	0	2.32	0.00	19.93	0.00
10yr3d	NSLRWCD C37	BASE	134.01	10.07	18.50	0	2.31	0.00	19.97	0.00
10yr3d	NSLRWCD C37	BASE	134.26	10.07	18.50	0	2.30	0.00	20.02	0.00
10yr3d	NSLRWCD C37	BASE	134.51	10.07	18.50	0	2.30	0.00	20.07	0.00
10yr3d	NSLRWCD C37	BASE	134.76	10.06	18.50	0	2.29	0.00	20.12	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	135.01	10.06	18.50	0	2.29	0.00	20.16	0.00
10yr3d	NSLRWCD C37	BASE	135.26	10.06	18.50	0	2.28	0.00	20.21	0.00
10yr3d	NSLRWCD C37	BASE	135.51	10.06	18.50	0	2.27	0.00	20.26	0.00
10yr3d	NSLRWCD C37	BASE	135.76	10.05	18.50	0	2.27	0.00	20.30	0.00
10yr3d	NSLRWCD C37	BASE	136.01	10.05	18.50	0	2.26	0.00	20.35	0.00
10yr3d	NSLRWCD C37	BASE	136.26	10.05	18.50	0	2.25	0.00	20.40	0.00
10yr3d	NSLRWCD C37	BASE	136.51	10.05	18.50	0	2.25	0.00	20.44	0.00
10yr3d	NSLRWCD C37	BASE	136.76	10.04	18.50	0	2.24	0.00	20.49	0.00
10yr3d	NSLRWCD C37	BASE	137.01	10.04	18.50	0	2.23	0.00	20.54	0.00
10yr3d	NSLRWCD C37	BASE	137.26	10.04	18.50	0	2.23	0.00	20.58	0.00
10yr3d	NSLRWCD C37	BASE	137.51	10.04	18.50	0	2.22	0.00	20.63	0.00
10yr3d	NSLRWCD C37	BASE	137.76	10.03	18.50	0	2.22	0.00	20.68	0.00
10yr3d	NSLRWCD C37	BASE	138.01	10.03	18.50	0	2.21	0.00	20.72	0.00
10yr3d	NSLRWCD C37	BASE	138.26	10.03	18.50	0	2.20	0.00	20.77	0.00
10yr3d	NSLRWCD C37	BASE	138.51	10.03	18.50	0	2.20	0.00	20.81	0.00
10yr3d	NSLRWCD C37	BASE	138.76	10.02	18.50	0	2.19	0.00	20.86	0.00
10yr3d	NSLRWCD C37	BASE	139.01	10.02	18.50	0	2.18	0.00	20.90	0.00
10yr3d	NSLRWCD C37	BASE	139.26	10.02	18.50	0	2.18	0.00	20.95	0.00
10yr3d	NSLRWCD C37	BASE	139.51	10.02	18.50	0	2.17	0.00	20.99	0.00
10yr3d	NSLRWCD C37	BASE	139.76	10.01	18.50	0	2.17	0.00	21.04	0.00
10yr3d	NSLRWCD C37	BASE	140.01	10.01	18.50	0	2.16	0.00	21.08	0.00
10yr3d	NSLRWCD C37	BASE	140.26	10.01	18.50	0	2.15	0.00	21.13	0.00
10yr3d	NSLRWCD C37	BASE	140.51	10.01	18.50	0	2.15	0.00	21.17	0.00
10yr3d	NSLRWCD C37	BASE	140.76	10.00	18.50	0	2.14	0.00	21.22	0.00
10yr3d	NSLRWCD C37	BASE	141.01	10.00	18.50	0	2.13	0.00	21.26	0.00
10yr3d	NSLRWCD C37	BASE	141.26	10.00	18.50	0	2.13	0.00	21.30	0.00
10yr3d	NSLRWCD C37	BASE	141.51	10.00	18.50	0	2.12	0.00	21.35	0.00
10yr3d	NSLRWCD C37	BASE	141.76	9.99	18.50	0	2.12	0.00	21.39	0.00
10yr3d	NSLRWCD C37	BASE	142.01	9.99	18.50	0	2.11	0.00	21.43	0.00
10yr3d	NSLRWCD C37	BASE	142.26	9.99	18.50	0	2.10	0.00	21.48	0.00
10yr3d	NSLRWCD C37	BASE	142.51	9.99	18.50	0	2.10	0.00	21.52	0.00
10yr3d	NSLRWCD C37	BASE	142.76	9.98	18.50	0	2.09	0.00	21.57	0.00
10yr3d	NSLRWCD C37	BASE	143.01	9.98	18.50	0	2.09	0.00	21.61	0.00
10yr3d	NSLRWCD C37	BASE	143.26	9.98	18.50	0	2.08	0.00	21.65	0.00
10yr3d	NSLRWCD C37	BASE	143.51	9.98	18.50	0	2.07	0.00	21.69	0.00
10yr3d	NSLRWCD C37	BASE	143.76	9.97	18.50	0	2.07	0.00	21.74	0.00
10yr3d	NSLRWCD C37	BASE	144.01	9.97	18.50	0	2.06	0.00	21.78	0.00
10yr3d	NSLRWCD C37	BASE	144.26	9.97	18.50	0	2.05	0.00	21.82	0.00
10yr3d	NSLRWCD C37	BASE	144.51	9.96	18.50	0	2.05	0.00	21.86	0.00
10yr3d	NSLRWCD C37	BASE	144.76	9.96	18.50	0	2.04	0.00	21.91	0.00
10yr3d	NSLRWCD C37	BASE	145.01	9.96	18.50	0	2.04	0.00	21.95	0.00
10yr3d	NSLRWCD C37	BASE	145.26	9.96	18.50	0	2.03	0.00	21.99	0.00
10yr3d	NSLRWCD C37	BASE	145.51	9.95	18.50	0	2.02	0.00	22.03	0.00
10yr3d	NSLRWCD C37	BASE	145.76	9.95	18.50	0	2.02	0.00	22.07	0.00
10yr3d	NSLRWCD C37	BASE	146.01	9.95	18.50	0	2.01	0.00	22.12	0.00
10yr3d	NSLRWCD C37	BASE	146.26	9.95	18.50	0	2.00	0.00	22.16	0.00
10yr3d	NSLRWCD C37	BASE	146.51	9.94	18.50	0	2.00	0.00	22.20	0.00
10yr3d	NSLRWCD C37	BASE	146.76	9.94	18.50	0	1.99	0.00	22.24	0.00
10yr3d	NSLRWCD C37	BASE	147.01	9.94	18.50	0	1.99	0.00	22.28	0.00
10yr3d	NSLRWCD C37	BASE	147.26	9.94	18.50	0	1.98	0.00	22.32	0.00
10yr3d	NSLRWCD C37	BASE	147.51	9.93	18.50	0	1.97	0.00	22.36	0.00
10yr3d	NSLRWCD C37	BASE	147.76	9.93	18.50	0	1.97	0.00	22.40	0.00
10yr3d	NSLRWCD C37	BASE	148.01	9.93	18.50	0	1.96	0.00	22.44	0.00
10yr3d	NSLRWCD C37	BASE	148.26	9.93	18.50	0	1.96	0.00	22.48	0.00
10yr3d	NSLRWCD C37	BASE	148.51	9.92	18.50	0	1.95	0.00	22.53	0.00
10yr3d	NSLRWCD C37	BASE	148.76	9.92	18.50	0	1.94	0.00	22.57	0.00
10yr3d	NSLRWCD C37	BASE	149.01	9.92	18.50	0	1.94	0.00	22.61	0.00
10yr3d	NSLRWCD C37	BASE	149.26	9.92	18.50	0	1.93	0.00	22.65	0.00
10yr3d	NSLRWCD C37	BASE	149.51	9.91	18.50	0	1.92	0.00	22.69	0.00
10yr3d	NSLRWCD C37	BASE	149.76	9.91	18.50	0	1.92	0.00	22.72	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	150.01	9.91	18.50	0	1.91	0.00	22.76	0.00
10yr3d	NSLRWCD C37	BASE	150.26	9.91	18.50	0	1.91	0.00	22.80	0.00
10yr3d	NSLRWCD C37	BASE	150.51	9.90	18.50	0	1.90	0.00	22.84	0.00
10yr3d	NSLRWCD C37	BASE	150.76	9.90	18.50	0	1.89	0.00	22.88	0.00
10yr3d	NSLRWCD C37	BASE	151.01	9.90	18.50	0	1.89	0.00	22.92	0.00
10yr3d	NSLRWCD C37	BASE	151.26	9.90	18.50	0	1.88	0.00	22.96	0.00
10yr3d	NSLRWCD C37	BASE	151.51	9.89	18.50	0	1.88	0.00	23.00	0.00
10yr3d	NSLRWCD C37	BASE	151.76	9.89	18.50	0	1.87	0.00	23.04	0.00
10yr3d	NSLRWCD C37	BASE	152.01	9.89	18.50	0	1.86	0.00	23.08	0.00
10yr3d	NSLRWCD C37	BASE	152.26	9.89	18.50	0	1.86	0.00	23.11	0.00
10yr3d	NSLRWCD C37	BASE	152.51	9.88	18.50	0	1.85	0.00	23.15	0.00
10yr3d	NSLRWCD C37	BASE	152.76	9.88	18.50	0	1.85	0.00	23.19	0.00
10yr3d	NSLRWCD C37	BASE	153.01	9.88	18.50	0	1.84	0.00	23.23	0.00
10yr3d	NSLRWCD C37	BASE	153.26	9.88	18.50	0	1.83	0.00	23.27	0.00
10yr3d	NSLRWCD C37	BASE	153.51	9.87	18.50	0	1.83	0.00	23.31	0.00
10yr3d	NSLRWCD C37	BASE	153.76	9.87	18.50	0	1.82	0.00	23.34	0.00
10yr3d	NSLRWCD C37	BASE	154.01	9.87	18.50	0	1.82	0.00	23.38	0.00
10yr3d	NSLRWCD C37	BASE	154.26	9.87	18.50	0	1.81	0.00	23.42	0.00
10yr3d	NSLRWCD C37	BASE	154.51	9.86	18.50	0	1.80	0.00	23.46	0.00
10yr3d	NSLRWCD C37	BASE	154.76	9.86	18.50	0	1.80	0.00	23.49	0.00
10yr3d	NSLRWCD C37	BASE	155.01	9.86	18.50	0	1.79	0.00	23.53	0.00
10yr3d	NSLRWCD C37	BASE	155.26	9.86	18.50	0	1.79	0.00	23.57	0.00
10yr3d	NSLRWCD C37	BASE	155.51	9.85	18.50	0	1.78	0.00	23.60	0.00
10yr3d	NSLRWCD C37	BASE	155.76	9.85	18.50	0	1.77	0.00	23.64	0.00
10yr3d	NSLRWCD C37	BASE	156.01	9.85	18.50	0	1.77	0.00	23.68	0.00
10yr3d	NSLRWCD C37	BASE	156.26	9.85	18.50	0	1.76	0.00	23.71	0.00
10yr3d	NSLRWCD C37	BASE	156.51	9.84	18.50	0	1.76	0.00	23.75	0.00
10yr3d	NSLRWCD C37	BASE	156.76	9.84	18.50	0	1.75	0.00	23.79	0.00
10yr3d	NSLRWCD C37	BASE	157.01	9.84	18.50	0	1.74	0.00	23.82	0.00
10yr3d	NSLRWCD C37	BASE	157.26	9.84	18.50	0	1.74	0.00	23.86	0.00
10yr3d	NSLRWCD C37	BASE	157.51	9.83	18.50	0	1.73	0.00	23.89	0.00
10yr3d	NSLRWCD C37	BASE	157.76	9.83	18.50	0	1.73	0.00	23.93	0.00
10yr3d	NSLRWCD C37	BASE	158.01	9.83	18.50	0	1.72	0.00	23.97	0.00
10yr3d	NSLRWCD C37	BASE	158.26	9.83	18.50	0	1.72	0.00	24.00	0.00
10yr3d	NSLRWCD C37	BASE	158.51	9.82	18.50	0	1.71	0.00	24.04	0.00
10yr3d	NSLRWCD C37	BASE	158.76	9.82	18.50	0	1.70	0.00	24.07	0.00
10yr3d	NSLRWCD C37	BASE	159.01	9.82	18.50	0	1.70	0.00	24.11	0.00
10yr3d	NSLRWCD C37	BASE	159.26	9.82	18.50	0	1.69	0.00	24.14	0.00
10yr3d	NSLRWCD C37	BASE	159.51	9.81	18.50	0	1.69	0.00	24.18	0.00
10yr3d	NSLRWCD C37	BASE	159.76	9.81	18.50	0	1.68	0.00	24.21	0.00
10yr3d	NSLRWCD C37	BASE	160.01	9.81	18.50	0	1.67	0.00	24.25	0.00
10yr3d	NSLRWCD C37	BASE	160.26	9.81	18.50	0	1.67	0.00	24.28	0.00
10yr3d	NSLRWCD C37	BASE	160.51	9.80	18.50	0	1.66	0.00	24.31	0.00
10yr3d	NSLRWCD C37	BASE	160.76	9.80	18.50	0	1.66	0.00	24.35	0.00
10yr3d	NSLRWCD C37	BASE	161.01	9.80	18.50	0	1.65	0.00	24.38	0.00
10yr3d	NSLRWCD C37	BASE	161.26	9.80	18.50	0	1.65	0.00	24.42	0.00
10yr3d	NSLRWCD C37	BASE	161.51	9.79	18.50	0	1.64	0.00	24.45	0.00
10yr3d	NSLRWCD C37	BASE	161.76	9.79	18.50	0	1.63	0.00	24.49	0.00
10yr3d	NSLRWCD C37	BASE	162.01	9.79	18.50	0	1.63	0.00	24.52	0.00
10yr3d	NSLRWCD C37	BASE	162.26	9.78	18.50	0	1.62	0.00	24.55	0.00
10yr3d	NSLRWCD C37	BASE	162.51	9.78	18.50	0	1.62	0.00	24.59	0.00
10yr3d	NSLRWCD C37	BASE	162.76	9.78	18.50	0	1.61	0.00	24.62	0.00
10yr3d	NSLRWCD C37	BASE	163.01	9.78	18.50	0	1.61	0.00	24.65	0.00
10yr3d	NSLRWCD C37	BASE	163.26	9.77	18.50	0	1.60	0.00	24.69	0.00
10yr3d	NSLRWCD C37	BASE	163.51	9.77	18.50	0	1.60	0.00	24.72	0.00
10yr3d	NSLRWCD C37	BASE	163.76	9.77	18.50	0	1.59	0.00	24.75	0.00
10yr3d	NSLRWCD C37	BASE	164.01	9.77	18.50	0	1.58	0.00	24.78	0.00
10yr3d	NSLRWCD C37	BASE	164.26	9.76	18.50	0	1.58	0.00	24.82	0.00
10yr3d	NSLRWCD C37	BASE	164.51	9.76	18.50	0	1.57	0.00	24.85	0.00
10yr3d	NSLRWCD C37	BASE	164.76	9.76	18.50	0	1.57	0.00	24.88	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	165.01	9.76	18.50	0	1.56	0.00	24.91	0.00
10yr3d	NSLRWCD C37	BASE	165.26	9.75	18.50	0	1.56	0.00	24.95	0.00
10yr3d	NSLRWCD C37	BASE	165.51	9.75	18.50	0	1.55	0.00	24.98	0.00
10yr3d	NSLRWCD C37	BASE	165.76	9.75	18.50	0	1.54	0.00	25.01	0.00
10yr3d	NSLRWCD C37	BASE	166.01	9.75	18.50	0	1.54	0.00	25.04	0.00
10yr3d	NSLRWCD C37	BASE	166.26	9.74	18.50	0	1.53	0.00	25.07	0.00
10yr3d	NSLRWCD C37	BASE	166.51	9.74	18.50	0	1.52	0.00	25.11	0.00
10yr3d	NSLRWCD C37	BASE	166.76	9.74	18.50	0	1.51	0.00	25.14	0.00
10yr3d	NSLRWCD C37	BASE	167.01	9.74	18.50	0	1.51	0.00	25.17	0.00
10yr3d	NSLRWCD C37	BASE	167.26	9.73	18.50	0	1.50	0.00	25.20	0.00
10yr3d	NSLRWCD C37	BASE	167.51	9.73	18.50	0	1.49	0.00	25.23	0.00
10yr3d	NSLRWCD C37	BASE	167.76	9.73	18.50	0	1.48	0.00	25.26	0.00
10yr3d	NSLRWCD C37	BASE	168.01	9.73	18.50	0	1.48	0.00	25.29	0.00
10yr3d	NSLRWCD C37	BASE	168.26	9.72	18.50	0	1.47	0.00	25.32	0.00
10yr3d	NSLRWCD C37	BASE	168.51	9.72	18.50	0	1.46	0.00	25.35	0.00
10yr3d	NSLRWCD C37	BASE	168.76	9.72	18.50	0	1.46	0.00	25.38	0.00
10yr3d	NSLRWCD C37	BASE	169.01	9.72	18.50	0	1.45	0.00	25.41	0.00
10yr3d	NSLRWCD C37	BASE	169.26	9.71	18.50	0	1.44	0.00	25.44	0.00
10yr3d	NSLRWCD C37	BASE	169.51	9.71	18.50	0	1.44	0.00	25.47	0.00
10yr3d	NSLRWCD C37	BASE	169.76	9.71	18.50	0	1.43	0.00	25.50	0.00
10yr3d	NSLRWCD C37	BASE	170.01	9.71	18.50	0	1.42	0.00	25.53	0.00
10yr3d	NSLRWCD C37	BASE	170.26	9.70	18.50	0	1.42	0.00	25.56	0.00
10yr3d	NSLRWCD C37	BASE	170.51	9.70	18.50	0	1.41	0.00	25.59	0.00
10yr3d	NSLRWCD C37	BASE	170.76	9.70	18.50	0	1.40	0.00	25.62	0.00
10yr3d	NSLRWCD C37	BASE	171.01	9.70	18.50	0	1.40	0.00	25.65	0.00
10yr3d	NSLRWCD C37	BASE	171.26	9.69	18.50	0	1.39	0.00	25.68	0.00
10yr3d	NSLRWCD C37	BASE	171.51	9.69	18.50	0	1.39	0.00	25.71	0.00
10yr3d	NSLRWCD C37	BASE	171.76	9.69	18.50	0	1.38	0.00	25.73	0.00
10yr3d	NSLRWCD C37	BASE	172.01	9.69	18.50	0	1.37	0.00	25.76	0.00
10yr3d	NSLRWCD C37	BASE	172.26	9.68	18.50	0	1.37	0.00	25.79	0.00
10yr3d	NSLRWCD C37	BASE	172.51	9.68	18.50	0	1.36	0.00	25.82	0.00
10yr3d	NSLRWCD C37	BASE	172.76	9.68	18.50	0	1.36	0.00	25.85	0.00
10yr3d	NSLRWCD C37	BASE	173.01	9.68	18.50	0	1.35	0.00	25.87	0.00
10yr3d	NSLRWCD C37	BASE	173.26	9.67	18.50	0	1.34	0.00	25.90	0.00
10yr3d	NSLRWCD C37	BASE	173.51	9.67	18.50	0	1.34	0.00	25.93	0.00
10yr3d	NSLRWCD C37	BASE	173.76	9.67	18.50	0	1.33	0.00	25.96	0.00
10yr3d	NSLRWCD C37	BASE	174.01	9.67	18.50	0	1.33	0.00	25.99	0.00
10yr3d	NSLRWCD C37	BASE	174.26	9.66	18.50	0	1.32	0.00	26.01	0.00
10yr3d	NSLRWCD C37	BASE	174.51	9.66	18.50	0	1.31	0.00	26.04	0.00
10yr3d	NSLRWCD C37	BASE	174.76	9.66	18.50	0	1.31	0.00	26.07	0.00
10yr3d	NSLRWCD C37	BASE	175.01	9.66	18.50	0	1.30	0.00	26.09	0.00
10yr3d	NSLRWCD C37	BASE	175.26	9.65	18.50	0	1.30	0.00	26.12	0.00
10yr3d	NSLRWCD C37	BASE	175.51	9.65	18.50	0	1.29	0.00	26.15	0.00
10yr3d	NSLRWCD C37	BASE	175.76	9.65	18.50	0	1.28	0.00	26.17	0.00
10yr3d	NSLRWCD C37	BASE	176.01	9.65	18.50	0	1.28	0.00	26.20	0.00
10yr3d	NSLRWCD C37	BASE	176.26	9.64	18.50	0	1.27	0.00	26.23	0.00
10yr3d	NSLRWCD C37	BASE	176.51	9.64	18.50	0	1.27	0.00	26.25	0.00
10yr3d	NSLRWCD C37	BASE	176.76	9.64	18.50	0	1.26	0.00	26.28	0.00
10yr3d	NSLRWCD C37	BASE	177.01	9.64	18.50	0	1.26	0.00	26.31	0.00
10yr3d	NSLRWCD C37	BASE	177.26	9.63	18.50	0	1.25	0.00	26.33	0.00
10yr3d	NSLRWCD C37	BASE	177.51	9.63	18.50	0	1.25	0.00	26.36	0.00
10yr3d	NSLRWCD C37	BASE	177.76	9.63	18.50	0	1.24	0.00	26.38	0.00
10yr3d	NSLRWCD C37	BASE	178.01	9.63	18.50	0	1.24	0.00	26.41	0.00
10yr3d	NSLRWCD C37	BASE	178.26	9.62	18.50	0	1.23	0.00	26.43	0.00
10yr3d	NSLRWCD C37	BASE	178.51	9.62	18.50	0	1.22	0.00	26.46	0.00
10yr3d	NSLRWCD C37	BASE	178.76	9.62	18.50	0	1.22	0.00	26.48	0.00
10yr3d	NSLRWCD C37	BASE	179.01	9.62	18.50	0	1.22	0.00	26.51	0.00
10yr3d	NSLRWCD C37	BASE	179.26	9.61	18.50	0	1.21	0.00	26.53	0.00
10yr3d	NSLRWCD C37	BASE	179.51	9.61	18.50	0	1.21	0.00	26.56	0.00
10yr3d	NSLRWCD C37	BASE	179.76	9.61	18.50	0	1.20	0.00	26.58	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	180.01	9.60	18.50	0	1.20	0.00	26.61	0.00
10yr3d	NSLRWCD C37	BASE	180.26	9.60	18.50	0	1.19	0.00	26.63	0.00
10yr3d	NSLRWCD C37	BASE	180.51	9.60	18.50	0	1.19	0.00	26.66	0.00
10yr3d	NSLRWCD C37	BASE	180.76	9.60	18.50	0	1.18	0.00	26.68	0.00
10yr3d	NSLRWCD C37	BASE	181.01	9.59	18.50	0	1.18	0.00	26.71	0.00
10yr3d	NSLRWCD C37	BASE	181.26	9.59	18.50	0	1.17	0.00	26.73	0.00
10yr3d	NSLRWCD C37	BASE	181.51	9.59	18.50	0	1.17	0.00	26.76	0.00
10yr3d	NSLRWCD C37	BASE	181.76	9.59	18.50	0	1.16	0.00	26.78	0.00
10yr3d	NSLRWCD C37	BASE	182.01	9.58	18.50	0	1.16	0.00	26.80	0.00
10yr3d	NSLRWCD C37	BASE	182.26	9.58	18.50	0	1.16	0.00	26.83	0.00
10yr3d	NSLRWCD C37	BASE	182.51	9.58	18.50	0	1.15	0.00	26.85	0.00
10yr3d	NSLRWCD C37	BASE	182.76	9.58	18.50	0	1.15	0.00	26.88	0.00
10yr3d	NSLRWCD C37	BASE	183.01	9.57	18.50	0	1.14	0.00	26.90	0.00
10yr3d	NSLRWCD C37	BASE	183.26	9.57	18.50	0	1.14	0.00	26.92	0.00
10yr3d	NSLRWCD C37	BASE	183.51	9.57	18.50	0	1.14	0.00	26.95	0.00
10yr3d	NSLRWCD C37	BASE	183.76	9.57	18.50	0	1.13	0.00	26.97	0.00
10yr3d	NSLRWCD C37	BASE	184.01	9.56	18.50	0	1.13	0.00	26.99	0.00
10yr3d	NSLRWCD C37	BASE	184.26	9.56	18.50	0	1.12	0.00	27.02	0.00
10yr3d	NSLRWCD C37	BASE	184.51	9.56	18.50	0	1.12	0.00	27.04	0.00
10yr3d	NSLRWCD C37	BASE	184.76	9.56	18.50	0	1.12	0.00	27.06	0.00
10yr3d	NSLRWCD C37	BASE	185.01	9.55	18.50	0	1.11	0.00	27.09	0.00
10yr3d	NSLRWCD C37	BASE	185.26	9.55	18.50	0	1.11	0.00	27.11	0.00
10yr3d	NSLRWCD C37	BASE	185.51	9.55	18.50	0	1.11	0.00	27.13	0.00
10yr3d	NSLRWCD C37	BASE	185.76	9.55	18.50	0	1.10	0.00	27.15	0.00
10yr3d	NSLRWCD C37	BASE	186.01	9.54	18.50	0	1.10	0.00	27.18	0.00
10yr3d	NSLRWCD C37	BASE	186.26	9.54	18.50	0	1.10	0.00	27.20	0.00
10yr3d	NSLRWCD C37	BASE	186.51	9.54	18.50	0	1.09	0.00	27.22	0.00
10yr3d	NSLRWCD C37	BASE	186.76	9.54	18.50	0	1.09	0.00	27.24	0.00
10yr3d	NSLRWCD C37	BASE	187.01	9.53	18.50	0	1.08	0.00	27.27	0.00
10yr3d	NSLRWCD C37	BASE	187.26	9.53	18.50	0	1.08	0.00	27.29	0.00
10yr3d	NSLRWCD C37	BASE	187.51	9.53	18.50	0	1.08	0.00	27.31	0.00
10yr3d	NSLRWCD C37	BASE	187.76	9.53	18.50	0	1.07	0.00	27.33	0.00
10yr3d	NSLRWCD C37	BASE	188.01	9.52	18.50	0	1.07	0.00	27.36	0.00
10yr3d	NSLRWCD C37	BASE	188.26	9.52	18.50	0	1.07	0.00	27.38	0.00
10yr3d	NSLRWCD C37	BASE	188.51	9.52	18.50	0	1.07	0.00	27.40	0.00
10yr3d	NSLRWCD C37	BASE	188.76	9.52	18.50	0	1.06	0.00	27.42	0.00
10yr3d	NSLRWCD C37	BASE	189.01	9.51	18.50	0	1.06	0.00	27.44	0.00
10yr3d	NSLRWCD C37	BASE	189.26	9.51	18.50	0	1.06	0.00	27.47	0.00
10yr3d	NSLRWCD C37	BASE	189.51	9.51	18.50	0	1.05	0.00	27.49	0.00
10yr3d	NSLRWCD C37	BASE	189.76	9.51	18.50	0	1.05	0.00	27.51	0.00
10yr3d	NSLRWCD C37	BASE	190.01	9.50	18.50	0	1.05	0.00	27.53	0.00
10yr3d	NSLRWCD C37	BASE	190.26	9.50	18.50	0	1.04	0.00	27.55	0.00
10yr3d	NSLRWCD C37	BASE	190.51	9.50	18.50	0	1.04	0.00	27.57	0.00
10yr3d	NSLRWCD C37	BASE	190.76	9.50	18.50	0	1.04	0.00	27.60	0.00
10yr3d	NSLRWCD C37	BASE	191.01	9.49	18.50	0	1.03	0.00	27.62	0.00
10yr3d	NSLRWCD C37	BASE	191.26	9.49	18.50	0	1.03	0.00	27.64	0.00
10yr3d	NSLRWCD C37	BASE	191.51	9.49	18.50	0	1.03	0.00	27.66	0.00
10yr3d	NSLRWCD C37	BASE	191.76	9.49	18.50	0	1.03	0.00	27.68	0.00
10yr3d	NSLRWCD C37	BASE	192.01	9.48	18.50	0	1.02	0.00	27.70	0.00
10yr3d	NSLRWCD C37	BASE	192.26	9.48	18.50	0	1.02	0.00	27.72	0.00
10yr3d	NSLRWCD C37	BASE	192.51	9.48	18.50	0	1.02	0.00	27.74	0.00
10yr3d	NSLRWCD C37	BASE	192.76	9.48	18.50	0	1.01	0.00	27.77	0.00
10yr3d	NSLRWCD C37	BASE	193.01	9.47	18.50	0	1.01	0.00	27.79	0.00
10yr3d	NSLRWCD C37	BASE	193.26	9.47	18.50	0	1.01	0.00	27.81	0.00
10yr3d	NSLRWCD C37	BASE	193.51	9.47	18.50	0	1.01	0.00	27.83	0.00
10yr3d	NSLRWCD C37	BASE	193.76	9.47	18.50	0	1.00	0.00	27.85	0.00
10yr3d	NSLRWCD C37	BASE	194.01	9.46	18.50	0	1.00	0.00	27.87	0.00
10yr3d	NSLRWCD C37	BASE	194.26	9.46	18.50	0	1.00	0.00	27.89	0.00
10yr3d	NSLRWCD C37	BASE	194.51	9.46	18.50	0	1.00	0.00	27.91	0.00
10yr3d	NSLRWCD C37	BASE	194.76	9.46	18.50	0	0.99	0.00	27.93	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	195.01	9.45	18.50	0	0.99	0.00	27.95	0.00
10yr3d	NSLRWCD C37	BASE	195.26	9.45	18.50	0	0.99	0.00	27.97	0.00
10yr3d	NSLRWCD C37	BASE	195.51	9.45	18.50	0	0.99	0.00	27.99	0.00
10yr3d	NSLRWCD C37	BASE	195.76	9.45	18.50	0	0.98	0.00	28.01	0.00
10yr3d	NSLRWCD C37	BASE	196.01	9.44	18.50	0	0.98	0.00	28.03	0.00
10yr3d	NSLRWCD C37	BASE	196.26	9.44	18.50	0	0.98	0.00	28.05	0.00
10yr3d	NSLRWCD C37	BASE	196.51	9.44	18.50	0	0.98	0.00	28.07	0.00
10yr3d	NSLRWCD C37	BASE	196.76	9.44	18.50	0	0.97	0.00	28.09	0.00
10yr3d	NSLRWCD C37	BASE	197.01	9.43	18.50	0	0.97	0.00	28.11	0.00
10yr3d	NSLRWCD C37	BASE	197.26	9.43	18.50	0	0.97	0.00	28.13	0.00
10yr3d	NSLRWCD C37	BASE	197.51	9.43	18.50	0	0.97	0.00	28.15	0.00
10yr3d	NSLRWCD C37	BASE	197.76	9.42	18.50	0	0.96	0.00	28.17	0.00
10yr3d	NSLRWCD C37	BASE	198.01	9.42	18.50	0	0.96	0.00	28.19	0.00
10yr3d	NSLRWCD C37	BASE	198.26	9.42	18.50	0	0.96	0.00	28.21	0.00
10yr3d	NSLRWCD C37	BASE	198.51	9.42	18.50	0	0.96	0.00	28.23	0.00
10yr3d	NSLRWCD C37	BASE	198.76	9.41	18.50	0	0.95	0.00	28.25	0.00
10yr3d	NSLRWCD C37	BASE	199.01	9.41	18.50	0	0.95	0.00	28.27	0.00
10yr3d	NSLRWCD C37	BASE	199.26	9.41	18.50	0	0.95	0.00	28.29	0.00
10yr3d	NSLRWCD C37	BASE	199.51	9.41	18.50	0	0.95	0.00	28.31	0.00
10yr3d	NSLRWCD C37	BASE	199.76	9.40	18.50	0	0.95	0.00	28.33	0.00
10yr3d	NSLRWCD C37	BASE	200.01	9.40	18.50	0	0.94	0.00	28.35	0.00
10yr3d	NSLRWCD C37	BASE	200.26	9.40	18.50	0	0.94	0.00	28.37	0.00
10yr3d	NSLRWCD C37	BASE	200.51	9.40	18.50	0	0.94	0.00	28.39	0.00
10yr3d	NSLRWCD C37	BASE	200.76	9.39	18.50	0	0.94	0.00	28.41	0.00
10yr3d	NSLRWCD C37	BASE	201.01	9.39	18.50	0	0.93	0.00	28.43	0.00
10yr3d	NSLRWCD C37	BASE	201.26	9.39	18.50	0	0.93	0.00	28.45	0.00
10yr3d	NSLRWCD C37	BASE	201.51	9.39	18.50	0	0.93	0.00	28.47	0.00
10yr3d	NSLRWCD C37	BASE	201.76	9.38	18.50	0	0.93	0.00	28.49	0.00
10yr3d	NSLRWCD C37	BASE	202.01	9.38	18.50	0	0.93	0.00	28.51	0.00
10yr3d	NSLRWCD C37	BASE	202.26	9.38	18.50	0	0.92	0.00	28.53	0.00
10yr3d	NSLRWCD C37	BASE	202.51	9.38	18.50	0	0.92	0.00	28.54	0.00
10yr3d	NSLRWCD C37	BASE	202.76	9.37	18.50	0	0.92	0.00	28.56	0.00
10yr3d	NSLRWCD C37	BASE	203.01	9.37	18.50	0	0.92	0.00	28.58	0.00
10yr3d	NSLRWCD C37	BASE	203.26	9.37	18.50	0	0.92	0.00	28.60	0.00
10yr3d	NSLRWCD C37	BASE	203.51	9.37	18.50	0	0.91	0.00	28.62	0.00
10yr3d	NSLRWCD C37	BASE	203.76	9.36	18.50	0	0.91	0.00	28.64	0.00
10yr3d	NSLRWCD C37	BASE	204.01	9.36	18.50	0	0.91	0.00	28.66	0.00
10yr3d	NSLRWCD C37	BASE	204.26	9.36	18.50	0	0.91	0.00	28.68	0.00
10yr3d	NSLRWCD C37	BASE	204.51	9.36	18.50	0	0.91	0.00	28.70	0.00
10yr3d	NSLRWCD C37	BASE	204.76	9.35	18.50	0	0.90	0.00	28.71	0.00
10yr3d	NSLRWCD C37	BASE	205.01	9.35	18.50	0	0.90	0.00	28.73	0.00
10yr3d	NSLRWCD C37	BASE	205.26	9.35	18.50	0	0.90	0.00	28.75	0.00
10yr3d	NSLRWCD C37	BASE	205.51	9.35	18.50	0	0.90	0.00	28.77	0.00
10yr3d	NSLRWCD C37	BASE	205.76	9.34	18.50	0	0.90	0.00	28.79	0.00
10yr3d	NSLRWCD C37	BASE	206.01	9.34	18.50	0	0.89	0.00	28.81	0.00
10yr3d	NSLRWCD C37	BASE	206.26	9.34	18.50	0	0.89	0.00	28.83	0.00
10yr3d	NSLRWCD C37	BASE	206.51	9.34	18.50	0	0.89	0.00	28.84	0.00
10yr3d	NSLRWCD C37	BASE	206.76	9.33	18.50	0	0.89	0.00	28.86	0.00
10yr3d	NSLRWCD C37	BASE	207.01	9.33	18.50	0	0.89	0.00	28.88	0.00
10yr3d	NSLRWCD C37	BASE	207.26	9.33	18.50	0	0.89	0.00	28.90	0.00
10yr3d	NSLRWCD C37	BASE	207.51	9.33	18.50	0	0.88	0.00	28.92	0.00
10yr3d	NSLRWCD C37	BASE	207.76	9.32	18.50	0	0.88	0.00	28.94	0.00
10yr3d	NSLRWCD C37	BASE	208.01	9.32	18.50	0	0.88	0.00	28.95	0.00
10yr3d	NSLRWCD C37	BASE	208.26	9.32	18.50	0	0.88	0.00	28.97	0.00
10yr3d	NSLRWCD C37	BASE	208.51	9.32	18.50	0	0.88	0.00	28.99	0.00
10yr3d	NSLRWCD C37	BASE	208.76	9.31	18.50	0	0.87	0.00	29.01	0.00
10yr3d	NSLRWCD C37	BASE	209.01	9.31	18.50	0	0.87	0.00	29.03	0.00
10yr3d	NSLRWCD C37	BASE	209.26	9.31	18.50	0	0.87	0.00	29.04	0.00
10yr3d	NSLRWCD C37	BASE	209.51	9.31	18.50	0	0.87	0.00	29.06	0.00
10yr3d	NSLRWCD C37	BASE	209.76	9.30	18.50	0	0.87	0.00	29.08	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	210.01	9.30	18.50	0	0.87	0.00	29.10	0.00
10yr3d	NSLRWCD C37	BASE	210.26	9.30	18.50	0	0.86	0.00	29.12	0.00
10yr3d	NSLRWCD C37	BASE	210.51	9.30	18.50	0	0.86	0.00	29.13	0.00
10yr3d	NSLRWCD C37	BASE	210.76	9.29	18.50	0	0.86	0.00	29.15	0.00
10yr3d	NSLRWCD C37	BASE	211.01	9.29	18.50	0	0.86	0.00	29.17	0.00
10yr3d	NSLRWCD C37	BASE	211.26	9.29	18.50	0	0.86	0.00	29.19	0.00
10yr3d	NSLRWCD C37	BASE	211.51	9.29	18.50	0	0.86	0.00	29.20	0.00
10yr3d	NSLRWCD C37	BASE	211.76	9.28	18.50	0	0.85	0.00	29.22	0.00
10yr3d	NSLRWCD C37	BASE	212.01	9.28	18.50	0	0.85	0.00	29.24	0.00
10yr3d	NSLRWCD C37	BASE	212.26	9.28	18.50	0	0.85	0.00	29.26	0.00
10yr3d	NSLRWCD C37	BASE	212.51	9.28	18.50	0	0.85	0.00	29.28	0.00
10yr3d	NSLRWCD C37	BASE	212.76	9.27	18.50	0	0.85	0.00	29.29	0.00
10yr3d	NSLRWCD C37	BASE	213.01	9.27	18.50	0	0.85	0.00	29.31	0.00
10yr3d	NSLRWCD C37	BASE	213.26	9.27	18.50	0	0.84	0.00	29.33	0.00
10yr3d	NSLRWCD C37	BASE	213.51	9.27	18.50	0	0.84	0.00	29.35	0.00
10yr3d	NSLRWCD C37	BASE	213.76	9.26	18.50	0	0.84	0.00	29.36	0.00
10yr3d	NSLRWCD C37	BASE	214.01	9.26	18.50	0	0.84	0.00	29.38	0.00
10yr3d	NSLRWCD C37	BASE	214.26	9.26	18.50	0	0.84	0.00	29.40	0.00
10yr3d	NSLRWCD C37	BASE	214.51	9.26	18.50	0	0.84	0.00	29.41	0.00
10yr3d	NSLRWCD C37	BASE	214.76	9.25	18.50	0	0.83	0.00	29.43	0.00
10yr3d	NSLRWCD C37	BASE	215.01	9.25	18.50	0	0.83	0.00	29.45	0.00
10yr3d	NSLRWCD C37	BASE	215.26	9.25	18.50	0	0.83	0.00	29.47	0.00
10yr3d	NSLRWCD C37	BASE	215.51	9.25	18.50	0	0.83	0.00	29.48	0.00
10yr3d	NSLRWCD C37	BASE	215.76	9.24	18.50	0	0.83	0.00	29.50	0.00
10yr3d	NSLRWCD C37	BASE	216.01	9.24	18.50	0	0.83	0.00	29.52	0.00
10yr3d	NSLRWCD C37	BASE	216.26	9.24	18.50	0	0.83	0.00	29.53	0.00
10yr3d	NSLRWCD C37	BASE	216.51	9.23	18.50	0	0.82	0.00	29.55	0.00
10yr3d	NSLRWCD C37	BASE	216.76	9.23	18.50	0	0.82	0.00	29.57	0.00
10yr3d	NSLRWCD C37	BASE	217.01	9.23	18.50	0	0.82	0.00	29.59	0.00
10yr3d	NSLRWCD C37	BASE	217.26	9.23	18.50	0	0.82	0.00	29.60	0.00
10yr3d	NSLRWCD C37	BASE	217.51	9.22	18.50	0	0.82	0.00	29.62	0.00
10yr3d	NSLRWCD C37	BASE	217.76	9.22	18.50	0	0.82	0.00	29.64	0.00
10yr3d	NSLRWCD C37	BASE	218.01	9.22	18.50	0	0.81	0.00	29.65	0.00
10yr3d	NSLRWCD C37	BASE	218.26	9.22	18.50	0	0.81	0.00	29.67	0.00
10yr3d	NSLRWCD C37	BASE	218.51	9.21	18.50	0	0.81	0.00	29.69	0.00
10yr3d	NSLRWCD C37	BASE	218.76	9.21	18.50	0	0.81	0.00	29.70	0.00
10yr3d	NSLRWCD C37	BASE	219.01	9.21	18.50	0	0.81	0.00	29.72	0.00
10yr3d	NSLRWCD C37	BASE	219.26	9.21	18.50	0	0.81	0.00	29.74	0.00
10yr3d	NSLRWCD C37	BASE	219.51	9.20	18.50	0	0.81	0.00	29.75	0.00
10yr3d	NSLRWCD C37	BASE	219.76	9.20	18.50	0	0.80	0.00	29.77	0.00
10yr3d	NSLRWCD C37	BASE	220.01	9.20	18.50	0	0.80	0.00	29.79	0.00
10yr3d	NSLRWCD C37	BASE	220.26	9.20	18.50	0	0.80	0.00	29.80	0.00
10yr3d	NSLRWCD C37	BASE	220.51	9.19	18.50	0	0.80	0.00	29.82	0.00
10yr3d	NSLRWCD C37	BASE	220.76	9.19	18.50	0	0.80	0.00	29.84	0.00
10yr3d	NSLRWCD C37	BASE	221.01	9.19	18.50	0	0.80	0.00	29.85	0.00
10yr3d	NSLRWCD C37	BASE	221.26	9.19	18.50	0	0.80	0.00	29.87	0.00
10yr3d	NSLRWCD C37	BASE	221.51	9.18	18.50	0	0.79	0.00	29.89	0.00
10yr3d	NSLRWCD C37	BASE	221.76	9.18	18.50	0	0.79	0.00	29.90	0.00
10yr3d	NSLRWCD C37	BASE	222.01	9.18	18.50	0	0.79	0.00	29.92	0.00
10yr3d	NSLRWCD C37	BASE	222.26	9.18	18.50	0	0.79	0.00	29.93	0.00
10yr3d	NSLRWCD C37	BASE	222.51	9.17	18.50	0	0.79	0.00	29.95	0.00
10yr3d	NSLRWCD C37	BASE	222.76	9.17	18.50	0	0.79	0.00	29.97	0.00
10yr3d	NSLRWCD C37	BASE	223.01	9.17	18.50	0	0.79	0.00	29.98	0.00
10yr3d	NSLRWCD C37	BASE	223.26	9.17	18.50	0	0.78	0.00	30.00	0.00
10yr3d	NSLRWCD C37	BASE	223.51	9.16	18.50	0	0.78	0.00	30.02	0.00
10yr3d	NSLRWCD C37	BASE	223.76	9.16	18.50	0	0.78	0.00	30.03	0.00
10yr3d	NSLRWCD C37	BASE	224.01	9.16	18.50	0	0.78	0.00	30.05	0.00
10yr3d	NSLRWCD C37	BASE	224.26	9.16	18.50	0	0.78	0.00	30.06	0.00
10yr3d	NSLRWCD C37	BASE	224.51	9.15	18.50	0	0.78	0.00	30.08	0.00
10yr3d	NSLRWCD C37	BASE	224.76	9.15	18.50	0	0.78	0.00	30.10	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	225.01	9.15	18.50	0	0.77	0.00	30.11	0.00
10yr3d	NSLRWCD C37	BASE	225.26	9.15	18.50	0	0.77	0.00	30.13	0.00
10yr3d	NSLRWCD C37	BASE	225.51	9.14	18.50	0	0.77	0.00	30.14	0.00
10yr3d	NSLRWCD C37	BASE	225.76	9.14	18.50	0	0.77	0.00	30.16	0.00
10yr3d	NSLRWCD C37	BASE	226.01	9.14	18.50	0	0.77	0.00	30.18	0.00
10yr3d	NSLRWCD C37	BASE	226.26	9.14	18.50	0	0.77	0.00	30.19	0.00
10yr3d	NSLRWCD C37	BASE	226.51	9.13	18.50	0	0.77	0.00	30.21	0.00
10yr3d	NSLRWCD C37	BASE	226.76	9.13	18.50	0	0.76	0.00	30.22	0.00
10yr3d	NSLRWCD C37	BASE	227.01	9.13	18.50	0	0.76	0.00	30.24	0.00
10yr3d	NSLRWCD C37	BASE	227.26	9.13	18.50	0	0.76	0.00	30.26	0.00
10yr3d	NSLRWCD C37	BASE	227.51	9.12	18.50	0	0.76	0.00	30.27	0.00
10yr3d	NSLRWCD C37	BASE	227.76	9.12	18.50	0	0.76	0.00	30.29	0.00
10yr3d	NSLRWCD C37	BASE	228.01	9.12	18.50	0	0.76	0.00	30.30	0.00
10yr3d	NSLRWCD C37	BASE	228.26	9.12	18.50	0	0.76	0.00	30.32	0.00
10yr3d	NSLRWCD C37	BASE	228.51	9.11	18.50	0	0.76	0.00	30.33	0.00
10yr3d	NSLRWCD C37	BASE	228.76	9.11	18.50	0	0.75	0.00	30.35	0.00
10yr3d	NSLRWCD C37	BASE	229.01	9.11	18.50	0	0.75	0.00	30.36	0.00
10yr3d	NSLRWCD C37	BASE	229.26	9.11	18.50	0	0.75	0.00	30.38	0.00
10yr3d	NSLRWCD C37	BASE	229.51	9.10	18.50	0	0.75	0.00	30.40	0.00
10yr3d	NSLRWCD C37	BASE	229.76	9.10	18.50	0	0.75	0.00	30.41	0.00
10yr3d	NSLRWCD C37	BASE	230.01	9.10	18.50	0	0.75	0.00	30.43	0.00
10yr3d	NSLRWCD C37	BASE	230.26	9.10	18.50	0	0.75	0.00	30.44	0.00
10yr3d	NSLRWCD C37	BASE	230.51	9.09	18.50	0	0.75	0.00	30.46	0.00
10yr3d	NSLRWCD C37	BASE	230.76	9.09	18.50	0	0.74	0.00	30.47	0.00
10yr3d	NSLRWCD C37	BASE	231.01	9.09	18.50	0	0.74	0.00	30.49	0.00
10yr3d	NSLRWCD C37	BASE	231.26	9.09	18.50	0	0.74	0.00	30.50	0.00
10yr3d	NSLRWCD C37	BASE	231.51	9.08	18.50	0	0.74	0.00	30.52	0.00
10yr3d	NSLRWCD C37	BASE	231.76	9.08	18.50	0	0.74	0.00	30.53	0.00
10yr3d	NSLRWCD C37	BASE	232.01	9.08	18.50	0	0.74	0.00	30.55	0.00
10yr3d	NSLRWCD C37	BASE	232.26	9.08	18.50	0	0.74	0.00	30.56	0.00
10yr3d	NSLRWCD C37	BASE	232.51	9.07	18.50	0	0.73	0.00	30.58	0.00
10yr3d	NSLRWCD C37	BASE	232.76	9.07	18.50	0	0.73	0.00	30.60	0.00
10yr3d	NSLRWCD C37	BASE	233.01	9.07	18.50	0	0.73	0.00	30.61	0.00
10yr3d	NSLRWCD C37	BASE	233.26	9.07	18.50	0	0.73	0.00	30.63	0.00
10yr3d	NSLRWCD C37	BASE	233.51	9.06	18.50	0	0.73	0.00	30.64	0.00
10yr3d	NSLRWCD C37	BASE	233.76	9.06	18.50	0	0.73	0.00	30.66	0.00
10yr3d	NSLRWCD C37	BASE	234.01	9.06	18.50	0	0.73	0.00	30.67	0.00
10yr3d	NSLRWCD C37	BASE	234.26	9.05	18.50	0	0.73	0.00	30.69	0.00
10yr3d	NSLRWCD C37	BASE	234.51	9.05	18.50	0	0.72	0.00	30.70	0.00
10yr3d	NSLRWCD C37	BASE	234.76	9.05	18.50	0	0.72	0.00	30.72	0.00
10yr3d	NSLRWCD C37	BASE	235.01	9.05	18.50	0	0.72	0.00	30.73	0.00
10yr3d	NSLRWCD C37	BASE	235.26	9.04	18.50	0	0.72	0.00	30.75	0.00
10yr3d	NSLRWCD C37	BASE	235.51	9.04	18.50	0	0.72	0.00	30.76	0.00
10yr3d	NSLRWCD C37	BASE	235.76	9.04	18.50	0	0.72	0.00	30.78	0.00
10yr3d	NSLRWCD C37	BASE	236.01	9.04	18.50	0	0.72	0.00	30.79	0.00
10yr3d	NSLRWCD C37	BASE	236.26	9.03	18.50	0	0.72	0.00	30.80	0.00
10yr3d	NSLRWCD C37	BASE	236.51	9.03	18.50	0	0.71	0.00	30.82	0.00
10yr3d	NSLRWCD C37	BASE	236.76	9.03	18.50	0	0.71	0.00	30.83	0.00
10yr3d	NSLRWCD C37	BASE	237.01	9.03	18.50	0	0.71	0.00	30.85	0.00
10yr3d	NSLRWCD C37	BASE	237.26	9.02	18.50	0	0.71	0.00	30.86	0.00
10yr3d	NSLRWCD C37	BASE	237.51	9.02	18.50	0	0.71	0.00	30.88	0.00
10yr3d	NSLRWCD C37	BASE	237.76	9.02	18.50	0	0.71	0.00	30.89	0.00
10yr3d	NSLRWCD C37	BASE	238.01	9.02	18.50	0	0.71	0.00	30.91	0.00
10yr3d	NSLRWCD C37	BASE	238.26	9.01	18.50	0	0.71	0.00	30.92	0.00
10yr3d	NSLRWCD C37	BASE	238.51	9.01	18.50	0	0.71	0.00	30.94	0.00
10yr3d	NSLRWCD C37	BASE	238.76	9.01	18.50	0	0.70	0.00	30.95	0.00
10yr3d	NSLRWCD C37	BASE	239.01	9.01	18.50	0	0.70	0.00	30.97	0.00
10yr3d	NSLRWCD C37	BASE	239.26	9.00	18.50	0	0.70	0.00	30.98	0.00
10yr3d	NSLRWCD C37	BASE	239.51	9.00	18.50	0	0.70	0.00	31.00	0.00
10yr3d	NSLRWCD C37	BASE	239.76	9.00	18.50	0	0.70	0.00	31.01	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	240.01	9.00	18.50	0	0.70	0.00	31.02	0.00
10yr3d	NSLRWCD C37	BASE	240.26	8.99	18.50	0	0.70	0.00	31.04	0.00
10yr3d	NSLRWCD C37	BASE	240.51	8.99	18.50	0	0.70	0.00	31.05	0.00
10yr3d	NSLRWCD C37	BASE	240.76	8.99	18.50	0	0.69	0.00	31.07	0.00
10yr3d	NSLRWCD C37	BASE	241.01	8.99	18.50	0	0.69	0.00	31.08	0.00
10yr3d	NSLRWCD C37	BASE	241.26	8.98	18.50	0	0.69	0.00	31.10	0.00
10yr3d	NSLRWCD C37	BASE	241.51	8.98	18.50	0	0.69	0.00	31.11	0.00
10yr3d	NSLRWCD C37	BASE	241.76	8.98	18.50	0	0.69	0.00	31.12	0.00
10yr3d	NSLRWCD C37	BASE	242.01	8.98	18.50	0	0.69	0.00	31.14	0.00
10yr3d	NSLRWCD C37	BASE	242.26	8.97	18.50	0	0.69	0.00	31.15	0.00
10yr3d	NSLRWCD C37	BASE	242.51	8.97	18.50	0	0.69	0.00	31.17	0.00
10yr3d	NSLRWCD C37	BASE	242.76	8.97	18.50	0	0.69	0.00	31.18	0.00
10yr3d	NSLRWCD C37	BASE	243.01	8.97	18.50	0	0.68	0.00	31.20	0.00
10yr3d	NSLRWCD C37	BASE	243.26	8.96	18.50	0	0.68	0.00	31.21	0.00
10yr3d	NSLRWCD C37	BASE	243.51	8.96	18.50	0	0.68	0.00	31.22	0.00
10yr3d	NSLRWCD C37	BASE	243.76	8.96	18.50	0	0.68	0.00	31.24	0.00
10yr3d	NSLRWCD C37	BASE	244.01	8.96	18.50	0	0.68	0.00	31.25	0.00
10yr3d	NSLRWCD C37	BASE	244.26	8.95	18.50	0	0.68	0.00	31.27	0.00
10yr3d	NSLRWCD C37	BASE	244.51	8.95	18.50	0	0.68	0.00	31.28	0.00
10yr3d	NSLRWCD C37	BASE	244.76	8.95	18.50	0	0.68	0.00	31.29	0.00
10yr3d	NSLRWCD C37	BASE	245.01	8.95	18.50	0	0.67	0.00	31.31	0.00
10yr3d	NSLRWCD C37	BASE	245.26	8.94	18.50	0	0.67	0.00	31.32	0.00
10yr3d	NSLRWCD C37	BASE	245.51	8.94	18.50	0	0.67	0.00	31.34	0.00
10yr3d	NSLRWCD C37	BASE	245.76	8.94	18.50	0	0.67	0.00	31.35	0.00
10yr3d	NSLRWCD C37	BASE	246.01	8.94	18.50	0	0.67	0.00	31.36	0.00
10yr3d	NSLRWCD C37	BASE	246.26	8.93	18.50	0	0.67	0.00	31.38	0.00
10yr3d	NSLRWCD C37	BASE	246.51	8.93	18.50	0	0.67	0.00	31.39	0.00
10yr3d	NSLRWCD C37	BASE	246.76	8.93	18.50	0	0.67	0.00	31.40	0.00
10yr3d	NSLRWCD C37	BASE	247.01	8.93	18.50	0	0.67	0.00	31.42	0.00
10yr3d	NSLRWCD C37	BASE	247.26	8.92	18.50	0	0.66	0.00	31.43	0.00
10yr3d	NSLRWCD C37	BASE	247.51	8.92	18.50	0	0.66	0.00	31.45	0.00
10yr3d	NSLRWCD C37	BASE	247.76	8.92	18.50	0	0.66	0.00	31.46	0.00
10yr3d	NSLRWCD C37	BASE	248.01	8.92	18.50	0	0.66	0.00	31.47	0.00
10yr3d	NSLRWCD C37	BASE	248.26	8.91	18.50	0	0.66	0.00	31.49	0.00
10yr3d	NSLRWCD C37	BASE	248.51	8.91	18.50	0	0.66	0.00	31.50	0.00
10yr3d	NSLRWCD C37	BASE	248.76	8.91	18.50	0	0.66	0.00	31.51	0.00
10yr3d	NSLRWCD C37	BASE	249.01	8.91	18.50	0	0.66	0.00	31.53	0.00
10yr3d	NSLRWCD C37	BASE	249.26	8.90	18.50	0	0.66	0.00	31.54	0.00
10yr3d	NSLRWCD C37	BASE	249.51	8.90	18.50	0	0.65	0.00	31.55	0.00
10yr3d	NSLRWCD C37	BASE	249.76	8.90	18.50	0	0.65	0.00	31.57	0.00
10yr3d	NSLRWCD C37	BASE	250.01	8.90	18.50	0	0.65	0.00	31.58	0.00
10yr3d	NSLRWCD C37	BASE	250.26	8.89	18.50	0	0.65	0.00	31.60	0.00
10yr3d	NSLRWCD C37	BASE	250.51	8.89	18.50	0	0.65	0.00	31.61	0.00
10yr3d	NSLRWCD C37	BASE	250.76	8.89	18.50	0	0.65	0.00	31.62	0.00
10yr3d	NSLRWCD C37	BASE	251.01	8.89	18.50	0	0.65	0.00	31.64	0.00
10yr3d	NSLRWCD C37	BASE	251.26	8.88	18.50	0	0.65	0.00	31.65	0.00
10yr3d	NSLRWCD C37	BASE	251.51	8.88	18.50	0	0.65	0.00	31.66	0.00
10yr3d	NSLRWCD C37	BASE	251.76	8.88	18.50	0	0.64	0.00	31.68	0.00
10yr3d	NSLRWCD C37	BASE	252.01	8.87	18.50	0	0.64	0.00	31.69	0.00
10yr3d	NSLRWCD C37	BASE	252.26	8.87	18.50	0	0.64	0.00	31.70	0.00
10yr3d	NSLRWCD C37	BASE	252.51	8.87	18.50	0	0.64	0.00	31.72	0.00
10yr3d	NSLRWCD C37	BASE	252.76	8.87	18.50	0	0.64	0.00	31.73	0.00
10yr3d	NSLRWCD C37	BASE	253.01	8.86	18.50	0	0.64	0.00	31.74	0.00
10yr3d	NSLRWCD C37	BASE	253.26	8.86	18.50	0	0.64	0.00	31.75	0.00
10yr3d	NSLRWCD C37	BASE	253.51	8.86	18.50	0	0.64	0.00	31.77	0.00
10yr3d	NSLRWCD C37	BASE	253.76	8.86	18.50	0	0.64	0.00	31.78	0.00
10yr3d	NSLRWCD C37	BASE	254.01	8.85	18.50	0	0.63	0.00	31.79	0.00
10yr3d	NSLRWCD C37	BASE	254.26	8.85	18.50	0	0.63	0.00	31.81	0.00
10yr3d	NSLRWCD C37	BASE	254.51	8.85	18.50	0	0.63	0.00	31.82	0.00
10yr3d	NSLRWCD C37	BASE	254.76	8.85	18.50	0	0.63	0.00	31.83	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	255.01	8.84	18.50	0	0.63	0.00	31.85	0.00
10yr3d	NSLRWCD C37	BASE	255.26	8.84	18.50	0	0.63	0.00	31.86	0.00
10yr3d	NSLRWCD C37	BASE	255.51	8.84	18.50	0	0.63	0.00	31.87	0.00
10yr3d	NSLRWCD C37	BASE	255.76	8.84	18.50	0	0.63	0.00	31.89	0.00
10yr3d	NSLRWCD C37	BASE	256.01	8.83	18.50	0	0.63	0.00	31.90	0.00
10yr3d	NSLRWCD C37	BASE	256.26	8.83	18.50	0	0.62	0.00	31.91	0.00
10yr3d	NSLRWCD C37	BASE	256.51	8.83	18.50	0	0.62	0.00	31.92	0.00
10yr3d	NSLRWCD C37	BASE	256.76	8.83	18.50	0	0.62	0.00	31.94	0.00
10yr3d	NSLRWCD C37	BASE	257.01	8.82	18.50	0	0.62	0.00	31.95	0.00
10yr3d	NSLRWCD C37	BASE	257.26	8.82	18.50	0	0.62	0.00	31.96	0.00
10yr3d	NSLRWCD C37	BASE	257.51	8.82	18.50	0	0.62	0.00	31.98	0.00
10yr3d	NSLRWCD C37	BASE	257.76	8.82	18.50	0	0.62	0.00	31.99	0.00
10yr3d	NSLRWCD C37	BASE	258.01	8.81	18.50	0	0.62	0.00	32.00	0.00
10yr3d	NSLRWCD C37	BASE	258.26	8.81	18.50	0	0.62	0.00	32.01	0.00
10yr3d	NSLRWCD C37	BASE	258.51	8.81	18.50	0	0.62	0.00	32.03	0.00
10yr3d	NSLRWCD C37	BASE	258.76	8.81	18.50	0	0.61	0.00	32.04	0.00
10yr3d	NSLRWCD C37	BASE	259.01	8.80	18.50	0	0.61	0.00	32.05	0.00
10yr3d	NSLRWCD C37	BASE	259.26	8.80	18.50	0	0.61	0.00	32.06	0.00
10yr3d	NSLRWCD C37	BASE	259.51	8.80	18.50	0	0.61	0.00	32.08	0.00
10yr3d	NSLRWCD C37	BASE	259.76	8.80	18.50	0	0.61	0.00	32.09	0.00
10yr3d	NSLRWCD C37	BASE	260.01	8.79	18.50	0	0.61	0.00	32.10	0.00
10yr3d	NSLRWCD C37	BASE	260.26	8.79	18.50	0	0.61	0.00	32.12	0.00
10yr3d	NSLRWCD C37	BASE	260.51	8.79	18.50	0	0.61	0.00	32.13	0.00
10yr3d	NSLRWCD C37	BASE	260.76	8.79	18.50	0	0.61	0.00	32.14	0.00
10yr3d	NSLRWCD C37	BASE	261.01	8.78	18.50	0	0.61	0.00	32.15	0.00
10yr3d	NSLRWCD C37	BASE	261.26	8.78	18.50	0	0.60	0.00	32.17	0.00
10yr3d	NSLRWCD C37	BASE	261.51	8.78	18.50	0	0.60	0.00	32.18	0.00
10yr3d	NSLRWCD C37	BASE	261.76	8.78	18.50	0	0.60	0.00	32.19	0.00
10yr3d	NSLRWCD C37	BASE	262.01	8.77	18.50	0	0.60	0.00	32.20	0.00
10yr3d	NSLRWCD C37	BASE	262.26	8.77	18.50	0	0.60	0.00	32.22	0.00
10yr3d	NSLRWCD C37	BASE	262.51	8.77	18.50	0	0.60	0.00	32.23	0.00
10yr3d	NSLRWCD C37	BASE	262.76	8.77	18.50	0	0.60	0.00	32.24	0.00
10yr3d	NSLRWCD C37	BASE	263.01	8.76	18.50	0	0.60	0.00	32.25	0.00
10yr3d	NSLRWCD C37	BASE	263.26	8.76	18.50	0	0.60	0.00	32.26	0.00
10yr3d	NSLRWCD C37	BASE	263.51	8.76	18.50	0	0.59	0.00	32.28	0.00
10yr3d	NSLRWCD C37	BASE	263.76	8.76	18.50	0	0.59	0.00	32.29	0.00
10yr3d	NSLRWCD C37	BASE	264.01	8.75	18.50	0	0.59	0.00	32.30	0.00
10yr3d	NSLRWCD C37	BASE	264.26	8.75	18.50	0	0.59	0.00	32.31	0.00
10yr3d	NSLRWCD C37	BASE	264.51	8.75	18.50	0	0.59	0.00	32.33	0.00
10yr3d	NSLRWCD C37	BASE	264.76	8.75	18.50	0	0.59	0.00	32.34	0.00
10yr3d	NSLRWCD C37	BASE	265.01	8.74	18.50	0	0.59	0.00	32.35	0.00
10yr3d	NSLRWCD C37	BASE	265.26	8.74	18.50	0	0.59	0.00	32.36	0.00
10yr3d	NSLRWCD C37	BASE	265.51	8.74	18.50	0	0.59	0.00	32.37	0.00
10yr3d	NSLRWCD C37	BASE	265.76	8.74	18.50	0	0.59	0.00	32.39	0.00
10yr3d	NSLRWCD C37	BASE	266.01	8.73	18.50	0	0.58	0.00	32.40	0.00
10yr3d	NSLRWCD C37	BASE	266.26	8.73	18.50	0	0.58	0.00	32.41	0.00
10yr3d	NSLRWCD C37	BASE	266.51	8.73	18.50	0	0.58	0.00	32.42	0.00
10yr3d	NSLRWCD C37	BASE	266.76	8.73	18.50	0	0.58	0.00	32.43	0.00
10yr3d	NSLRWCD C37	BASE	267.01	8.72	18.50	0	0.58	0.00	32.45	0.00
10yr3d	NSLRWCD C37	BASE	267.26	8.72	18.50	0	0.58	0.00	32.46	0.00
10yr3d	NSLRWCD C37	BASE	267.51	8.72	18.50	0	0.58	0.00	32.47	0.00
10yr3d	NSLRWCD C37	BASE	267.76	8.72	18.50	0	0.58	0.00	32.48	0.00
10yr3d	NSLRWCD C37	BASE	268.01	8.71	18.50	0	0.58	0.00	32.49	0.00
10yr3d	NSLRWCD C37	BASE	268.26	8.71	18.50	0	0.58	0.00	32.51	0.00
10yr3d	NSLRWCD C37	BASE	268.51	8.71	18.50	0	0.58	0.00	32.52	0.00
10yr3d	NSLRWCD C37	BASE	268.76	8.71	18.50	0	0.57	0.00	32.53	0.00
10yr3d	NSLRWCD C37	BASE	269.01	8.70	18.50	0	0.57	0.00	32.54	0.00
10yr3d	NSLRWCD C37	BASE	269.26	8.70	18.50	0	0.57	0.00	32.55	0.00
10yr3d	NSLRWCD C37	BASE	269.51	8.70	18.50	0	0.57	0.00	32.57	0.00
10yr3d	NSLRWCD C37	BASE	269.76	8.69	18.50	0	0.57	0.00	32.58	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	270.01	8.69	18.50	0	0.57	0.00	32.59	0.00
10yr3d	NSLRWCD C37	BASE	270.26	8.69	18.50	0	0.57	0.00	32.60	0.00
10yr3d	NSLRWCD C37	BASE	270.51	8.69	18.50	0	0.57	0.00	32.61	0.00
10yr3d	NSLRWCD C37	BASE	270.76	8.68	18.50	0	0.57	0.00	32.62	0.00
10yr3d	NSLRWCD C37	BASE	271.01	8.68	18.50	0	0.57	0.00	32.64	0.00
10yr3d	NSLRWCD C37	BASE	271.26	8.68	18.50	0	0.56	0.00	32.65	0.00
10yr3d	NSLRWCD C37	BASE	271.51	8.68	18.50	0	0.56	0.00	32.66	0.00
10yr3d	NSLRWCD C37	BASE	271.76	8.67	18.50	0	0.56	0.00	32.67	0.00
10yr3d	NSLRWCD C37	BASE	272.01	8.67	18.50	0	0.56	0.00	32.68	0.00
10yr3d	NSLRWCD C37	BASE	272.26	8.67	18.50	0	0.56	0.00	32.69	0.00
10yr3d	NSLRWCD C37	BASE	272.51	8.67	18.50	0	0.56	0.00	32.71	0.00
10yr3d	NSLRWCD C37	BASE	272.76	8.66	18.50	0	0.56	0.00	32.72	0.00
10yr3d	NSLRWCD C37	BASE	273.01	8.66	18.50	0	0.56	0.00	32.73	0.00
10yr3d	NSLRWCD C37	BASE	273.26	8.66	18.50	0	0.56	0.00	32.74	0.00
10yr3d	NSLRWCD C37	BASE	273.51	8.66	18.50	0	0.56	0.00	32.75	0.00
10yr3d	NSLRWCD C37	BASE	273.76	8.65	18.50	0	0.56	0.00	32.76	0.00
10yr3d	NSLRWCD C37	BASE	274.01	8.65	18.50	0	0.55	0.00	32.78	0.00
10yr3d	NSLRWCD C37	BASE	274.26	8.65	18.50	0	0.55	0.00	32.79	0.00
10yr3d	NSLRWCD C37	BASE	274.51	8.65	18.50	0	0.55	0.00	32.80	0.00
10yr3d	NSLRWCD C37	BASE	274.76	8.64	18.50	0	0.55	0.00	32.81	0.00
10yr3d	NSLRWCD C37	BASE	275.01	8.64	18.50	0	0.55	0.00	32.82	0.00
10yr3d	NSLRWCD C37	BASE	275.26	8.64	18.50	0	0.55	0.00	32.83	0.00
10yr3d	NSLRWCD C37	BASE	275.51	8.64	18.50	0	0.55	0.00	32.84	0.00
10yr3d	NSLRWCD C37	BASE	275.76	8.63	18.50	0	0.55	0.00	32.85	0.00
10yr3d	NSLRWCD C37	BASE	276.01	8.63	18.50	0	0.55	0.00	32.87	0.00
10yr3d	NSLRWCD C37	BASE	276.26	8.63	18.50	0	0.55	0.00	32.88	0.00
10yr3d	NSLRWCD C37	BASE	276.51	8.63	18.50	0	0.55	0.00	32.89	0.00
10yr3d	NSLRWCD C37	BASE	276.76	8.62	18.50	0	0.54	0.00	32.90	0.00
10yr3d	NSLRWCD C37	BASE	277.01	8.62	18.50	0	0.54	0.00	32.91	0.00
10yr3d	NSLRWCD C37	BASE	277.26	8.62	18.50	0	0.54	0.00	32.92	0.00
10yr3d	NSLRWCD C37	BASE	277.51	8.62	18.50	0	0.54	0.00	32.93	0.00
10yr3d	NSLRWCD C37	BASE	277.76	8.61	18.50	0	0.54	0.00	32.94	0.00
10yr3d	NSLRWCD C37	BASE	278.01	8.61	18.50	0	0.54	0.00	32.96	0.00
10yr3d	NSLRWCD C37	BASE	278.26	8.61	18.50	0	0.54	0.00	32.97	0.00
10yr3d	NSLRWCD C37	BASE	278.51	8.61	18.50	0	0.54	0.00	32.98	0.00
10yr3d	NSLRWCD C37	BASE	278.76	8.60	18.50	0	0.54	0.00	32.99	0.00
10yr3d	NSLRWCD C37	BASE	279.01	8.60	18.50	0	0.54	0.00	33.00	0.00
10yr3d	NSLRWCD C37	BASE	279.26	8.60	18.50	0	0.54	0.00	33.01	0.00
10yr3d	NSLRWCD C37	BASE	279.51	8.60	18.50	0	0.54	0.00	33.02	0.00
10yr3d	NSLRWCD C37	BASE	279.76	8.59	18.50	0	0.53	0.00	33.03	0.00
10yr3d	NSLRWCD C37	BASE	280.01	8.59	18.50	0	0.53	0.00	33.04	0.00
10yr3d	NSLRWCD C37	BASE	280.26	8.59	18.50	0	0.53	0.00	33.06	0.00
10yr3d	NSLRWCD C37	BASE	280.51	8.59	18.50	0	0.53	0.00	33.07	0.00
10yr3d	NSLRWCD C37	BASE	280.76	8.58	18.50	0	0.53	0.00	33.08	0.00
10yr3d	NSLRWCD C37	BASE	281.01	8.58	18.50	0	0.53	0.00	33.09	0.00
10yr3d	NSLRWCD C37	BASE	281.26	8.58	18.50	0	0.53	0.00	33.10	0.00
10yr3d	NSLRWCD C37	BASE	281.51	8.58	18.50	0	0.53	0.00	33.11	0.00
10yr3d	NSLRWCD C37	BASE	281.76	8.57	18.50	0	0.53	0.00	33.12	0.00
10yr3d	NSLRWCD C37	BASE	282.01	8.57	18.50	0	0.53	0.00	33.13	0.00
10yr3d	NSLRWCD C37	BASE	282.26	8.57	18.50	0	0.53	0.00	33.14	0.00
10yr3d	NSLRWCD C37	BASE	282.51	8.57	18.50	0	0.53	0.00	33.15	0.00
10yr3d	NSLRWCD C37	BASE	282.76	8.56	18.50	0	0.53	0.00	33.17	0.00
10yr3d	NSLRWCD C37	BASE	283.01	8.56	18.50	0	0.52	0.00	33.18	0.00
10yr3d	NSLRWCD C37	BASE	283.26	8.56	18.50	0	0.52	0.00	33.19	0.00
10yr3d	NSLRWCD C37	BASE	283.51	8.56	18.50	0	0.52	0.00	33.20	0.00
10yr3d	NSLRWCD C37	BASE	283.76	8.55	18.50	0	0.52	0.00	33.21	0.00
10yr3d	NSLRWCD C37	BASE	284.01	8.55	18.50	0	0.52	0.00	33.22	0.00
10yr3d	NSLRWCD C37	BASE	284.26	8.55	18.50	0	0.52	0.00	33.23	0.00
10yr3d	NSLRWCD C37	BASE	284.51	8.55	18.50	0	0.52	0.00	33.24	0.00
10yr3d	NSLRWCD C37	BASE	284.76	8.54	18.50	0	0.52	0.00	33.25	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	285.01	8.54	18.50	0	0.52	0.00	33.26	0.00
10yr3d	NSLRWCD C37	BASE	285.26	8.54	18.50	0	0.52	0.00	33.27	0.00
10yr3d	NSLRWCD C37	BASE	285.51	8.54	18.50	0	0.52	0.00	33.28	0.00
10yr3d	NSLRWCD C37	BASE	285.76	8.53	18.50	0	0.52	0.00	33.29	0.00
10yr3d	NSLRWCD C37	BASE	286.01	8.53	18.50	0	0.52	0.00	33.30	0.00
10yr3d	NSLRWCD C37	BASE	286.26	8.53	18.50	0	0.51	0.00	33.32	0.00
10yr3d	NSLRWCD C37	BASE	286.51	8.53	18.50	0	0.51	0.00	33.33	0.00
10yr3d	NSLRWCD C37	BASE	286.76	8.52	18.50	0	0.51	0.00	33.34	0.00
10yr3d	NSLRWCD C37	BASE	287.01	8.52	18.50	0	0.51	0.00	33.35	0.00
10yr3d	NSLRWCD C37	BASE	287.26	8.52	18.50	0	0.51	0.00	33.36	0.00
10yr3d	NSLRWCD C37	BASE	287.51	8.52	18.50	0	0.51	0.00	33.37	0.00
10yr3d	NSLRWCD C37	BASE	287.76	8.51	18.50	0	0.51	0.00	33.38	0.00
10yr3d	NSLRWCD C37	BASE	288.01	8.51	18.50	0	0.51	0.00	33.39	0.00
10yr3d	NSLRWCD C37	BASE	288.26	8.51	18.50	0	0.51	0.00	33.40	0.00
10yr3d	NSLRWCD C37	BASE	288.51	8.50	18.50	0	0.51	0.00	33.41	0.00
10yr3d	NSLRWCD C37	BASE	288.76	8.50	18.50	0	0.51	0.00	33.42	0.00
10yr3d	NSLRWCD C37	BASE	289.01	8.50	18.50	0	0.51	0.00	33.43	0.00
10yr3d	NSLRWCD C37	BASE	289.26	8.50	18.50	0	0.51	0.00	33.44	0.00
10yr3d	NSLRWCD C37	BASE	289.51	8.49	18.50	0	0.51	0.00	33.45	0.00
10yr3d	NSLRWCD C37	BASE	289.76	8.49	18.50	0	0.51	0.00	33.46	0.00
10yr3d	NSLRWCD C37	BASE	290.01	8.49	18.50	0	0.51	0.00	33.47	0.00
10yr3d	NSLRWCD C37	BASE	290.26	8.49	18.50	0	0.51	0.00	33.48	0.00
10yr3d	NSLRWCD C37	BASE	290.51	8.48	18.50	0	0.51	0.00	33.49	0.00
10yr3d	NSLRWCD C37	BASE	290.76	8.48	18.50	0	0.50	0.00	33.51	0.00
10yr3d	NSLRWCD C37	BASE	291.01	8.48	18.50	0	0.50	0.00	33.52	0.00
10yr3d	NSLRWCD C37	BASE	291.26	8.48	18.50	0	0.50	0.00	33.53	0.00
10yr3d	NSLRWCD C37	BASE	291.51	8.47	18.50	0	0.50	0.00	33.54	0.00
10yr3d	NSLRWCD C37	BASE	291.76	8.47	18.50	0	0.50	0.00	33.55	0.00
10yr3d	NSLRWCD C37	BASE	292.01	8.47	18.50	0	0.50	0.00	33.56	0.00
10yr3d	NSLRWCD C37	BASE	292.26	8.47	18.50	0	0.50	0.00	33.57	0.00
10yr3d	NSLRWCD C37	BASE	292.51	8.46	18.50	0	0.50	0.00	33.58	0.00
10yr3d	NSLRWCD C37	BASE	292.76	8.46	18.50	0	0.50	0.00	33.59	0.00
10yr3d	NSLRWCD C37	BASE	293.01	8.46	18.50	0	0.50	0.00	33.60	0.00
10yr3d	NSLRWCD C37	BASE	293.26	8.46	18.50	0	0.50	0.00	33.61	0.00
10yr3d	NSLRWCD C37	BASE	293.51	8.45	18.50	0	0.50	0.00	33.62	0.00
10yr3d	NSLRWCD C37	BASE	293.76	8.45	18.50	0	0.50	0.00	33.63	0.00
10yr3d	NSLRWCD C37	BASE	294.01	8.45	18.50	0	0.50	0.00	33.64	0.00
10yr3d	NSLRWCD C37	BASE	294.26	8.45	18.50	0	0.50	0.00	33.65	0.00
10yr3d	NSLRWCD C37	BASE	294.51	8.44	18.50	0	0.50	0.00	33.66	0.00
10yr3d	NSLRWCD C37	BASE	294.76	8.44	18.50	0	0.50	0.00	33.67	0.00
10yr3d	NSLRWCD C37	BASE	295.01	8.44	18.50	0	0.50	0.00	33.68	0.00
10yr3d	NSLRWCD C37	BASE	295.26	8.44	18.50	0	0.50	0.00	33.69	0.00
10yr3d	NSLRWCD C37	BASE	295.51	8.43	18.50	0	0.50	0.00	33.70	0.00
10yr3d	NSLRWCD C37	BASE	295.76	8.43	18.50	0	0.50	0.00	33.71	0.00
10yr3d	NSLRWCD C37	BASE	296.01	8.43	18.50	0	0.50	0.00	33.72	0.00
10yr3d	NSLRWCD C37	BASE	296.26	8.43	18.50	0	0.50	0.00	33.73	0.00
10yr3d	NSLRWCD C37	BASE	296.51	8.42	18.50	0	0.50	0.00	33.74	0.00
10yr3d	NSLRWCD C37	BASE	296.76	8.42	18.50	0	0.50	0.00	33.75	0.00
10yr3d	NSLRWCD C37	BASE	297.01	8.42	18.50	0	0.50	0.00	33.76	0.00
10yr3d	NSLRWCD C37	BASE	297.26	8.42	18.50	0	0.50	0.00	33.77	0.00
10yr3d	NSLRWCD C37	BASE	297.51	8.41	18.50	0	0.50	0.00	33.78	0.00
10yr3d	NSLRWCD C37	BASE	297.76	8.41	18.50	0	0.50	0.00	33.79	0.00
10yr3d	NSLRWCD C37	BASE	298.01	8.41	18.50	0	0.50	0.00	33.81	0.00
10yr3d	NSLRWCD C37	BASE	298.26	8.41	18.50	0	0.50	0.00	33.82	0.00
10yr3d	NSLRWCD C37	BASE	298.51	8.40	18.50	0	0.50	0.00	33.83	0.00
10yr3d	NSLRWCD C37	BASE	298.76	8.40	18.50	0	0.50	0.00	33.84	0.00
10yr3d	NSLRWCD C37	BASE	299.01	8.40	18.50	0	0.50	0.00	33.85	0.00
10yr3d	NSLRWCD C37	BASE	299.26	8.40	18.50	0	0.50	0.00	33.86	0.00
10yr3d	NSLRWCD C37	BASE	299.51	8.39	18.50	0	0.50	0.00	33.87	0.00
10yr3d	NSLRWCD C37	BASE	299.76	8.39	18.50	0	0.50	0.00	33.88	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	300.01	8.39	18.50	0	0.50	0.00	33.89	0.00
10yr3d	NSLRWCD C37	BASE	300.26	8.39	18.50	0	0.50	0.00	33.90	0.00
10yr3d	NSLRWCD C37	BASE	300.51	8.38	18.50	0	0.50	0.00	33.91	0.00
10yr3d	NSLRWCD C37	BASE	300.76	8.38	18.50	0	0.50	0.00	33.92	0.00
10yr3d	NSLRWCD C37	BASE	301.01	8.38	18.50	0	0.50	0.00	33.93	0.00
10yr3d	NSLRWCD C37	BASE	301.26	8.38	18.50	0	0.49	0.00	33.94	0.00
10yr3d	NSLRWCD C37	BASE	301.51	8.37	18.50	0	0.49	0.00	33.95	0.00
10yr3d	NSLRWCD C37	BASE	301.76	8.37	18.50	0	0.49	0.00	33.96	0.00
10yr3d	NSLRWCD C37	BASE	302.01	8.37	18.50	0	0.49	0.00	33.97	0.00
10yr3d	NSLRWCD C37	BASE	302.26	8.37	18.50	0	0.49	0.00	33.98	0.00
10yr3d	NSLRWCD C37	BASE	302.51	8.36	18.50	0	0.49	0.00	33.99	0.00
10yr3d	NSLRWCD C37	BASE	302.76	8.36	18.50	0	0.49	0.00	34.00	0.00
10yr3d	NSLRWCD C37	BASE	303.01	8.36	18.50	0	0.49	0.00	34.01	0.00
10yr3d	NSLRWCD C37	BASE	303.26	8.36	18.50	0	0.49	0.00	34.02	0.00
10yr3d	NSLRWCD C37	BASE	303.51	8.35	18.50	0	0.49	0.00	34.03	0.00
10yr3d	NSLRWCD C37	BASE	303.76	8.35	18.50	0	0.49	0.00	34.04	0.00
10yr3d	NSLRWCD C37	BASE	304.01	8.35	18.50	0	0.49	0.00	34.05	0.00
10yr3d	NSLRWCD C37	BASE	304.26	8.35	18.50	0	0.49	0.00	34.06	0.00
10yr3d	NSLRWCD C37	BASE	304.51	8.34	18.50	0	0.49	0.00	34.07	0.00
10yr3d	NSLRWCD C37	BASE	304.76	8.34	18.50	0	0.49	0.00	34.08	0.00
10yr3d	NSLRWCD C37	BASE	305.01	8.34	18.50	0	0.49	0.00	34.09	0.00
10yr3d	NSLRWCD C37	BASE	305.26	8.34	18.50	0	0.49	0.00	34.10	0.00
10yr3d	NSLRWCD C37	BASE	305.51	8.33	18.50	0	0.49	0.00	34.11	0.00
10yr3d	NSLRWCD C37	BASE	305.76	8.33	18.50	0	0.49	0.00	34.12	0.00
10yr3d	NSLRWCD C37	BASE	306.01	8.33	18.50	0	0.49	0.00	34.13	0.00
10yr3d	NSLRWCD C37	BASE	306.26	8.32	18.50	0	0.49	0.00	34.14	0.00
10yr3d	NSLRWCD C37	BASE	306.51	8.32	18.50	0	0.49	0.00	34.15	0.00
10yr3d	NSLRWCD C37	BASE	306.76	8.32	18.50	0	0.49	0.00	34.16	0.00
10yr3d	NSLRWCD C37	BASE	307.01	8.32	18.50	0	0.49	0.00	34.17	0.00
10yr3d	NSLRWCD C37	BASE	307.26	8.31	18.50	0	0.49	0.00	34.18	0.00
10yr3d	NSLRWCD C37	BASE	307.51	8.31	18.50	0	0.49	0.00	34.19	0.00
10yr3d	NSLRWCD C37	BASE	307.76	8.31	18.50	0	0.49	0.00	34.20	0.00
10yr3d	NSLRWCD C37	BASE	308.01	8.31	18.50	0	0.49	0.00	34.21	0.00
10yr3d	NSLRWCD C37	BASE	308.26	8.30	18.50	0	0.49	0.00	34.22	0.00
10yr3d	NSLRWCD C37	BASE	308.51	8.30	18.50	0	0.49	0.00	34.23	0.00
10yr3d	NSLRWCD C37	BASE	308.76	8.30	18.50	0	0.49	0.00	34.24	0.00
10yr3d	NSLRWCD C37	BASE	309.01	8.30	18.50	0	0.49	0.00	34.25	0.00
10yr3d	NSLRWCD C37	BASE	309.26	8.29	18.50	0	0.49	0.00	34.26	0.00
10yr3d	NSLRWCD C37	BASE	309.51	8.29	18.50	0	0.49	0.00	34.27	0.00
10yr3d	NSLRWCD C37	BASE	309.76	8.29	18.50	0	0.49	0.00	34.28	0.00
10yr3d	NSLRWCD C37	BASE	310.01	8.29	18.50	0	0.49	0.00	34.29	0.00
10yr3d	NSLRWCD C37	BASE	310.26	8.28	18.50	0	0.49	0.00	34.30	0.00
10yr3d	NSLRWCD C37	BASE	310.51	8.28	18.50	0	0.49	0.00	34.31	0.00
10yr3d	NSLRWCD C37	BASE	310.76	8.28	18.50	0	0.49	0.00	34.32	0.00
10yr3d	NSLRWCD C37	BASE	311.01	8.28	18.50	0	0.48	0.00	34.33	0.00
10yr3d	NSLRWCD C37	BASE	311.26	8.27	18.50	0	0.48	0.00	34.34	0.00
10yr3d	NSLRWCD C37	BASE	311.51	8.27	18.50	0	0.48	0.00	34.35	0.00
10yr3d	NSLRWCD C37	BASE	311.76	8.27	18.50	0	0.48	0.00	34.36	0.00
10yr3d	NSLRWCD C37	BASE	312.01	8.27	18.50	0	0.48	0.00	34.37	0.00
10yr3d	NSLRWCD C37	BASE	312.26	8.26	18.50	0	0.48	0.00	34.38	0.00
10yr3d	NSLRWCD C37	BASE	312.51	8.26	18.50	0	0.48	0.00	34.39	0.00
10yr3d	NSLRWCD C37	BASE	312.76	8.26	18.50	0	0.48	0.00	34.40	0.00
10yr3d	NSLRWCD C37	BASE	313.01	8.26	18.50	0	0.48	0.00	34.41	0.00
10yr3d	NSLRWCD C37	BASE	313.26	8.25	18.50	0	0.48	0.00	34.42	0.00
10yr3d	NSLRWCD C37	BASE	313.51	8.25	18.50	0	0.48	0.00	34.43	0.00
10yr3d	NSLRWCD C37	BASE	313.76	8.25	18.50	0	0.48	0.00	34.44	0.00
10yr3d	NSLRWCD C37	BASE	314.01	8.25	18.50	0	0.48	0.00	34.45	0.00
10yr3d	NSLRWCD C37	BASE	314.26	8.24	18.50	0	0.48	0.00	34.46	0.00
10yr3d	NSLRWCD C37	BASE	314.51	8.24	18.50	0	0.48	0.00	34.47	0.00
10yr3d	NSLRWCD C37	BASE	314.76	8.24	18.50	0	0.48	0.00	34.48	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	315.01	8.24	18.50	0	0.48	0.00	34.49	0.00
10yr3d	NSLRWCD C37	BASE	315.26	8.23	18.50	0	0.48	0.00	34.50	0.00
10yr3d	NSLRWCD C37	BASE	315.51	8.23	18.50	0	0.48	0.00	34.51	0.00
10yr3d	NSLRWCD C37	BASE	315.76	8.23	18.50	0	0.48	0.00	34.52	0.00
10yr3d	NSLRWCD C37	BASE	316.01	8.23	18.50	0	0.48	0.00	34.53	0.00
10yr3d	NSLRWCD C37	BASE	316.26	8.22	18.50	0	0.48	0.00	34.54	0.00
10yr3d	NSLRWCD C37	BASE	316.51	8.22	18.50	0	0.48	0.00	34.55	0.00
10yr3d	NSLRWCD C37	BASE	316.76	8.22	18.50	0	0.48	0.00	34.56	0.00
10yr3d	NSLRWCD C37	BASE	317.01	8.22	18.50	0	0.48	0.00	34.57	0.00
10yr3d	NSLRWCD C37	BASE	317.26	8.21	18.50	0	0.48	0.00	34.58	0.00
10yr3d	NSLRWCD C37	BASE	317.51	8.21	18.50	0	0.48	0.00	34.59	0.00
10yr3d	NSLRWCD C37	BASE	317.76	8.21	18.50	0	0.48	0.00	34.60	0.00
10yr3d	NSLRWCD C37	BASE	318.01	8.21	18.50	0	0.48	0.00	34.61	0.00
10yr3d	NSLRWCD C37	BASE	318.26	8.20	18.50	0	0.48	0.00	34.62	0.00
10yr3d	NSLRWCD C37	BASE	318.51	8.20	18.50	0	0.48	0.00	34.63	0.00
10yr3d	NSLRWCD C37	BASE	318.76	8.20	18.50	0	0.48	0.00	34.64	0.00
10yr3d	NSLRWCD C37	BASE	319.01	8.20	18.50	0	0.48	0.00	34.65	0.00
10yr3d	NSLRWCD C37	BASE	319.26	8.19	18.50	0	0.48	0.00	34.66	0.00
10yr3d	NSLRWCD C37	BASE	319.51	8.19	18.50	0	0.47	0.00	34.67	0.00
10yr3d	NSLRWCD C37	BASE	319.76	8.19	18.50	0	0.47	0.00	34.68	0.00
10yr3d	NSLRWCD C37	BASE	320.01	8.19	18.50	0	0.47	0.00	34.69	0.00
10yr3d	NSLRWCD C37	BASE	320.26	8.18	18.50	0	0.47	0.00	34.70	0.00
10yr3d	NSLRWCD C37	BASE	320.51	8.18	18.50	0	0.47	0.00	34.71	0.00
10yr3d	NSLRWCD C37	BASE	320.76	8.18	18.50	0	0.47	0.00	34.72	0.00
10yr3d	NSLRWCD C37	BASE	321.01	8.18	18.50	0	0.47	0.00	34.73	0.00
10yr3d	NSLRWCD C37	BASE	321.26	8.17	18.50	0	0.47	0.00	34.74	0.00
10yr3d	NSLRWCD C37	BASE	321.51	8.17	18.50	0	0.47	0.00	34.75	0.00
10yr3d	NSLRWCD C37	BASE	321.76	8.17	18.50	0	0.47	0.00	34.76	0.00
10yr3d	NSLRWCD C37	BASE	322.01	8.17	18.50	0	0.47	0.00	34.77	0.00
10yr3d	NSLRWCD C37	BASE	322.26	8.16	18.50	0	0.47	0.00	34.78	0.00
10yr3d	NSLRWCD C37	BASE	322.51	8.16	18.50	0	0.47	0.00	34.79	0.00
10yr3d	NSLRWCD C37	BASE	322.76	8.16	18.50	0	0.47	0.00	34.80	0.00
10yr3d	NSLRWCD C37	BASE	323.01	8.16	18.50	0	0.47	0.00	34.81	0.00
10yr3d	NSLRWCD C37	BASE	323.26	8.15	18.50	0	0.47	0.00	34.82	0.00
10yr3d	NSLRWCD C37	BASE	323.51	8.15	18.50	0	0.47	0.00	34.83	0.00
10yr3d	NSLRWCD C37	BASE	323.76	8.15	18.50	0	0.47	0.00	34.84	0.00
10yr3d	NSLRWCD C37	BASE	324.01	8.14	18.50	0	0.47	0.00	34.85	0.00
10yr3d	NSLRWCD C37	BASE	324.26	8.14	18.50	0	0.47	0.00	34.86	0.00
10yr3d	NSLRWCD C37	BASE	324.51	8.14	18.50	0	0.47	0.00	34.87	0.00
10yr3d	NSLRWCD C37	BASE	324.76	8.14	18.50	0	0.47	0.00	34.88	0.00
10yr3d	NSLRWCD C37	BASE	325.01	8.13	18.50	0	0.47	0.00	34.88	0.00
10yr3d	NSLRWCD C37	BASE	325.26	8.13	18.50	0	0.47	0.00	34.89	0.00
10yr3d	NSLRWCD C37	BASE	325.51	8.13	18.50	0	0.47	0.00	34.90	0.00
10yr3d	NSLRWCD C37	BASE	325.76	8.13	18.50	0	0.47	0.00	34.91	0.00
10yr3d	NSLRWCD C37	BASE	326.01	8.12	18.50	0	0.47	0.00	34.92	0.00
10yr3d	NSLRWCD C37	BASE	326.26	8.12	18.50	0	0.47	0.00	34.93	0.00
10yr3d	NSLRWCD C37	BASE	326.51	8.12	18.50	0	0.47	0.00	34.94	0.00
10yr3d	NSLRWCD C37	BASE	326.76	8.12	18.50	0	0.46	0.00	34.95	0.00
10yr3d	NSLRWCD C37	BASE	327.01	8.11	18.50	0	0.46	0.00	34.96	0.00
10yr3d	NSLRWCD C37	BASE	327.26	8.11	18.50	0	0.46	0.00	34.97	0.00
10yr3d	NSLRWCD C37	BASE	327.51	8.11	18.50	0	0.46	0.00	34.98	0.00
10yr3d	NSLRWCD C37	BASE	327.76	8.11	18.50	0	0.46	0.00	34.99	0.00
10yr3d	NSLRWCD C37	BASE	328.01	8.10	18.50	0	0.46	0.00	35.00	0.00
10yr3d	NSLRWCD C37	BASE	328.26	8.10	18.50	0	0.46	0.00	35.01	0.00
10yr3d	NSLRWCD C37	BASE	328.51	8.10	18.50	0	0.46	0.00	35.02	0.00
10yr3d	NSLRWCD C37	BASE	328.76	8.10	18.50	0	0.46	0.00	35.03	0.00
10yr3d	NSLRWCD C37	BASE	329.01	8.09	18.50	0	0.46	0.00	35.04	0.00
10yr3d	NSLRWCD C37	BASE	329.26	8.09	18.50	0	0.46	0.00	35.05	0.00
10yr3d	NSLRWCD C37	BASE	329.51	8.09	18.50	0	0.46	0.00	35.06	0.00
10yr3d	NSLRWCD C37	BASE	329.76	8.09	18.50	0	0.46	0.00	35.07	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	330.01	8.08	18.50	0	0.46	0.00	35.08	0.00
10yr3d	NSLRWCD C37	BASE	330.26	8.08	18.50	0	0.46	0.00	35.09	0.00
10yr3d	NSLRWCD C37	BASE	330.51	8.08	18.50	0	0.46	0.00	35.10	0.00
10yr3d	NSLRWCD C37	BASE	330.76	8.08	18.50	0	0.46	0.00	35.10	0.00
10yr3d	NSLRWCD C37	BASE	331.01	8.07	18.50	0	0.46	0.00	35.11	0.00
10yr3d	NSLRWCD C37	BASE	331.26	8.07	18.50	0	0.46	0.00	35.12	0.00
10yr3d	NSLRWCD C37	BASE	331.51	8.07	18.50	0	0.46	0.00	35.13	0.00
10yr3d	NSLRWCD C37	BASE	331.76	8.07	18.50	0	0.46	0.00	35.14	0.00
10yr3d	NSLRWCD C37	BASE	332.01	8.06	18.50	0	0.46	0.00	35.15	0.00
10yr3d	NSLRWCD C37	BASE	332.26	8.06	18.50	0	0.46	0.00	35.16	0.00
10yr3d	NSLRWCD C37	BASE	332.51	8.06	18.50	0	0.46	0.00	35.17	0.00
10yr3d	NSLRWCD C37	BASE	332.76	8.06	18.50	0	0.46	0.00	35.18	0.00
10yr3d	NSLRWCD C37	BASE	333.01	8.05	18.50	0	0.46	0.00	35.19	0.00
10yr3d	NSLRWCD C37	BASE	333.26	8.05	18.50	0	0.46	0.00	35.20	0.00
10yr3d	NSLRWCD C37	BASE	333.51	8.05	18.50	0	0.45	0.00	35.21	0.00
10yr3d	NSLRWCD C37	BASE	333.76	8.05	18.50	0	0.45	0.00	35.22	0.00
10yr3d	NSLRWCD C37	BASE	334.01	8.04	18.50	0	0.45	0.00	35.23	0.00
10yr3d	NSLRWCD C37	BASE	334.26	8.04	18.50	0	0.45	0.00	35.24	0.00
10yr3d	NSLRWCD C37	BASE	334.51	8.04	18.50	0	0.45	0.00	35.25	0.00
10yr3d	NSLRWCD C37	BASE	334.76	8.04	18.50	0	0.45	0.00	35.26	0.00
10yr3d	NSLRWCD C37	BASE	335.01	8.03	18.50	0	0.45	0.00	35.27	0.00
10yr3d	NSLRWCD C37	BASE	335.26	8.03	18.50	0	0.45	0.00	35.27	0.00
10yr3d	NSLRWCD C37	BASE	335.51	8.03	18.50	0	0.45	0.00	35.28	0.00
10yr3d	NSLRWCD C37	BASE	335.76	8.03	18.50	0	0.45	0.00	35.29	0.00
10yr3d	NSLRWCD C37	BASE	336.01	8.02	18.50	0	0.45	0.00	35.30	0.00
10yr3d	NSLRWCD C37	BASE	336.26	8.02	18.50	0	0.45	0.00	35.31	0.00
10yr3d	NSLRWCD C37	BASE	336.51	8.02	18.50	0	0.45	0.00	35.32	0.00
10yr3d	NSLRWCD C37	BASE	336.76	8.02	18.50	0	0.45	0.00	35.33	0.00
10yr3d	NSLRWCD C37	BASE	337.01	8.01	18.50	0	0.45	0.00	35.34	0.00
10yr3d	NSLRWCD C37	BASE	337.26	8.01	18.50	0	0.45	0.00	35.35	0.00
10yr3d	NSLRWCD C37	BASE	337.51	8.01	18.50	0	0.45	0.00	35.36	0.00
10yr3d	NSLRWCD C37	BASE	337.76	8.01	18.50	0	0.45	0.00	35.37	0.00
10yr3d	NSLRWCD C37	BASE	338.01	8.00	18.50	0	0.45	0.00	35.38	0.00
10yr3d	NSLRWCD C37	BASE	338.26	8.00	18.50	0	0.45	0.00	35.39	0.00
10yr3d	NSLRWCD C37	BASE	338.51	8.00	18.50	0	0.45	0.00	35.40	0.00
10yr3d	NSLRWCD C37	BASE	338.76	8.00	18.50	0	0.45	0.00	35.40	0.00
10yr3d	NSLRWCD C37	BASE	339.01	7.99	18.50	0	0.45	0.00	35.41	0.00
10yr3d	NSLRWCD C37	BASE	339.26	7.99	18.50	0	0.45	0.00	35.42	0.00
10yr3d	NSLRWCD C37	BASE	339.51	7.99	18.50	0	0.45	0.00	35.43	0.00
10yr3d	NSLRWCD C37	BASE	339.76	7.99	18.50	0	0.44	0.00	35.44	0.00
10yr3d	NSLRWCD C37	BASE	340.01	7.98	18.50	0	0.44	0.00	35.45	0.00
10yr3d	NSLRWCD C37	BASE	340.26	7.98	18.50	0	0.44	0.00	35.46	0.00
10yr3d	NSLRWCD C37	BASE	340.51	7.98	18.50	0	0.44	0.00	35.47	0.00
10yr3d	NSLRWCD C37	BASE	340.76	7.98	18.50	0	0.44	0.00	35.48	0.00
10yr3d	NSLRWCD C37	BASE	341.01	7.97	18.50	0	0.44	0.00	35.49	0.00
10yr3d	NSLRWCD C37	BASE	341.26	7.97	18.50	0	0.44	0.00	35.50	0.00
10yr3d	NSLRWCD C37	BASE	341.51	7.97	18.50	0	0.44	0.00	35.51	0.00
10yr3d	NSLRWCD C37	BASE	341.76	7.96	18.50	0	0.44	0.00	35.51	0.00
10yr3d	NSLRWCD C37	BASE	342.01	7.96	18.50	0	0.44	0.00	35.52	0.00
10yr3d	NSLRWCD C37	BASE	342.26	7.96	18.50	0	0.44	0.00	35.53	0.00
10yr3d	NSLRWCD C37	BASE	342.51	7.96	18.50	0	0.44	0.00	35.54	0.00
10yr3d	NSLRWCD C37	BASE	342.76	7.95	18.50	0	0.44	0.00	35.55	0.00
10yr3d	NSLRWCD C37	BASE	343.01	7.95	18.50	0	0.44	0.00	35.56	0.00
10yr3d	NSLRWCD C37	BASE	343.26	7.95	18.50	0	0.44	0.00	35.57	0.00
10yr3d	NSLRWCD C37	BASE	343.51	7.95	18.50	0	0.44	0.00	35.58	0.00
10yr3d	NSLRWCD C37	BASE	343.76	7.94	18.50	0	0.44	0.00	35.59	0.00
10yr3d	NSLRWCD C37	BASE	344.01	7.94	18.50	0	0.44	0.00	35.60	0.00
10yr3d	NSLRWCD C37	BASE	344.26	7.94	18.50	0	0.44	0.00	35.61	0.00
10yr3d	NSLRWCD C37	BASE	344.51	7.94	18.50	0	0.44	0.00	35.61	0.00
10yr3d	NSLRWCD C37	BASE	344.76	7.93	18.50	0	0.44	0.00	35.62	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	345.01	7.93	18.50	0	0.44	0.00	35.63	0.00
10yr3d	NSLRWCD C37	BASE	345.26	7.93	18.50	0	0.44	0.00	35.64	0.00
10yr3d	NSLRWCD C37	BASE	345.51	7.93	18.50	0	0.43	0.00	35.65	0.00
10yr3d	NSLRWCD C37	BASE	345.76	7.92	18.50	0	0.43	0.00	35.66	0.00
10yr3d	NSLRWCD C37	BASE	346.01	7.92	18.50	0	0.43	0.00	35.67	0.00
10yr3d	NSLRWCD C37	BASE	346.26	7.92	18.50	0	0.43	0.00	35.68	0.00
10yr3d	NSLRWCD C37	BASE	346.51	7.92	18.50	0	0.43	0.00	35.69	0.00
10yr3d	NSLRWCD C37	BASE	346.76	7.91	18.50	0	0.43	0.00	35.69	0.00
10yr3d	NSLRWCD C37	BASE	347.01	7.91	18.50	0	0.43	0.00	35.70	0.00
10yr3d	NSLRWCD C37	BASE	347.26	7.91	18.50	0	0.43	0.00	35.71	0.00
10yr3d	NSLRWCD C37	BASE	347.51	7.91	18.50	0	0.43	0.00	35.72	0.00
10yr3d	NSLRWCD C37	BASE	347.76	7.90	18.50	0	0.43	0.00	35.73	0.00
10yr3d	NSLRWCD C37	BASE	348.01	7.90	18.50	0	0.43	0.00	35.74	0.00
10yr3d	NSLRWCD C37	BASE	348.26	7.90	18.50	0	0.43	0.00	35.75	0.00
10yr3d	NSLRWCD C37	BASE	348.51	7.90	18.50	0	0.43	0.00	35.76	0.00
10yr3d	NSLRWCD C37	BASE	348.76	7.89	18.50	0	0.43	0.00	35.77	0.00
10yr3d	NSLRWCD C37	BASE	349.01	7.89	18.50	0	0.43	0.00	35.78	0.00
10yr3d	NSLRWCD C37	BASE	349.26	7.89	18.50	0	0.43	0.00	35.78	0.00
10yr3d	NSLRWCD C37	BASE	349.51	7.89	18.50	0	0.43	0.00	35.79	0.00
10yr3d	NSLRWCD C37	BASE	349.76	7.88	18.50	0	0.43	0.00	35.80	0.00
10yr3d	NSLRWCD C37	BASE	350.01	7.88	18.50	0	0.43	0.00	35.81	0.00
10yr3d	NSLRWCD C37	BASE	350.26	7.88	18.50	0	0.43	0.00	35.82	0.00
10yr3d	NSLRWCD C37	BASE	350.51	7.88	18.50	0	0.43	0.00	35.83	0.00
10yr3d	NSLRWCD C37	BASE	350.76	7.87	18.50	0	0.42	0.00	35.84	0.00
10yr3d	NSLRWCD C37	BASE	351.01	7.87	18.50	0	0.42	0.00	35.85	0.00
10yr3d	NSLRWCD C37	BASE	351.26	7.87	18.50	0	0.42	0.00	35.85	0.00
10yr3d	NSLRWCD C37	BASE	351.51	7.87	18.50	0	0.42	0.00	35.86	0.00
10yr3d	NSLRWCD C37	BASE	351.76	7.86	18.50	0	0.42	0.00	35.87	0.00
10yr3d	NSLRWCD C37	BASE	352.01	7.86	18.50	0	0.42	0.00	35.88	0.00
10yr3d	NSLRWCD C37	BASE	352.26	7.86	18.50	0	0.42	0.00	35.89	0.00
10yr3d	NSLRWCD C37	BASE	352.51	7.86	18.50	0	0.42	0.00	35.90	0.00
10yr3d	NSLRWCD C37	BASE	352.76	7.85	18.50	0	0.42	0.00	35.91	0.00
10yr3d	NSLRWCD C37	BASE	353.01	7.85	18.50	0	0.42	0.00	35.92	0.00
10yr3d	NSLRWCD C37	BASE	353.26	7.85	18.50	0	0.42	0.00	35.92	0.00
10yr3d	NSLRWCD C37	BASE	353.51	7.85	18.50	0	0.42	0.00	35.93	0.00
10yr3d	NSLRWCD C37	BASE	353.76	7.84	18.50	0	0.42	0.00	35.94	0.00
10yr3d	NSLRWCD C37	BASE	354.01	7.84	18.50	0	0.42	0.00	35.95	0.00
10yr3d	NSLRWCD C37	BASE	354.26	7.84	18.50	0	0.42	0.00	35.96	0.00
10yr3d	NSLRWCD C37	BASE	354.51	7.84	18.50	0	0.42	0.00	35.97	0.00
10yr3d	NSLRWCD C37	BASE	354.76	7.83	18.50	0	0.42	0.00	35.98	0.00
10yr3d	NSLRWCD C37	BASE	355.01	7.83	18.50	0	0.42	0.00	35.98	0.00
10yr3d	NSLRWCD C37	BASE	355.26	7.83	18.50	0	0.42	0.00	35.99	0.00
10yr3d	NSLRWCD C37	BASE	355.51	7.83	18.50	0	0.42	0.00	36.00	0.00
10yr3d	NSLRWCD C37	BASE	355.76	7.82	18.50	0	0.41	0.00	36.01	0.00
10yr3d	NSLRWCD C37	BASE	356.01	7.82	18.50	0	0.41	0.00	36.02	0.00
10yr3d	NSLRWCD C37	BASE	356.26	7.82	18.50	0	0.41	0.00	36.03	0.00
10yr3d	NSLRWCD C37	BASE	356.51	7.82	18.50	0	0.41	0.00	36.04	0.00
10yr3d	NSLRWCD C37	BASE	356.76	7.81	18.50	0	0.41	0.00	36.04	0.00
10yr3d	NSLRWCD C37	BASE	357.01	7.81	18.50	0	0.41	0.00	36.05	0.00
10yr3d	NSLRWCD C37	BASE	357.26	7.81	18.50	0	0.41	0.00	36.06	0.00
10yr3d	NSLRWCD C37	BASE	357.51	7.81	18.50	0	0.41	0.00	36.07	0.00
10yr3d	NSLRWCD C37	BASE	357.76	7.80	18.50	0	0.41	0.00	36.08	0.00
10yr3d	NSLRWCD C37	BASE	358.01	7.80	18.50	0	0.41	0.00	36.09	0.00
10yr3d	NSLRWCD C37	BASE	358.26	7.80	18.50	0	0.41	0.00	36.10	0.00
10yr3d	NSLRWCD C37	BASE	358.51	7.80	18.50	0	0.41	0.00	36.10	0.00
10yr3d	NSLRWCD C37	BASE	358.76	7.79	18.50	0	0.41	0.00	36.11	0.00
10yr3d	NSLRWCD C37	BASE	359.01	7.79	18.50	0	0.41	0.00	36.12	0.00
10yr3d	NSLRWCD C37	BASE	359.26	7.79	18.50	0	0.41	0.00	36.13	0.00
10yr3d	NSLRWCD C37	BASE	359.51	7.79	18.50	0	0.41	0.00	36.14	0.00
10yr3d	NSLRWCD C37	BASE	359.76	7.78	18.50	0	0.41	0.00	36.15	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	360.01	7.78	18.50	0	0.41	0.00	36.15	0.00
10yr3d	NSLRWCD C37	BASE	360.01	7.78	18.50	0	0.41	0.00	36.15	0.00

Appendix C - ICPR Routing
Developed Condition
Recovery Storm Events

ENGINEERING DESIGN & CONSTRUCTION, INC
CIVIL ENGINEERS & SURVEYORS SPECIALIZING IN LAND DEVELOPMENT

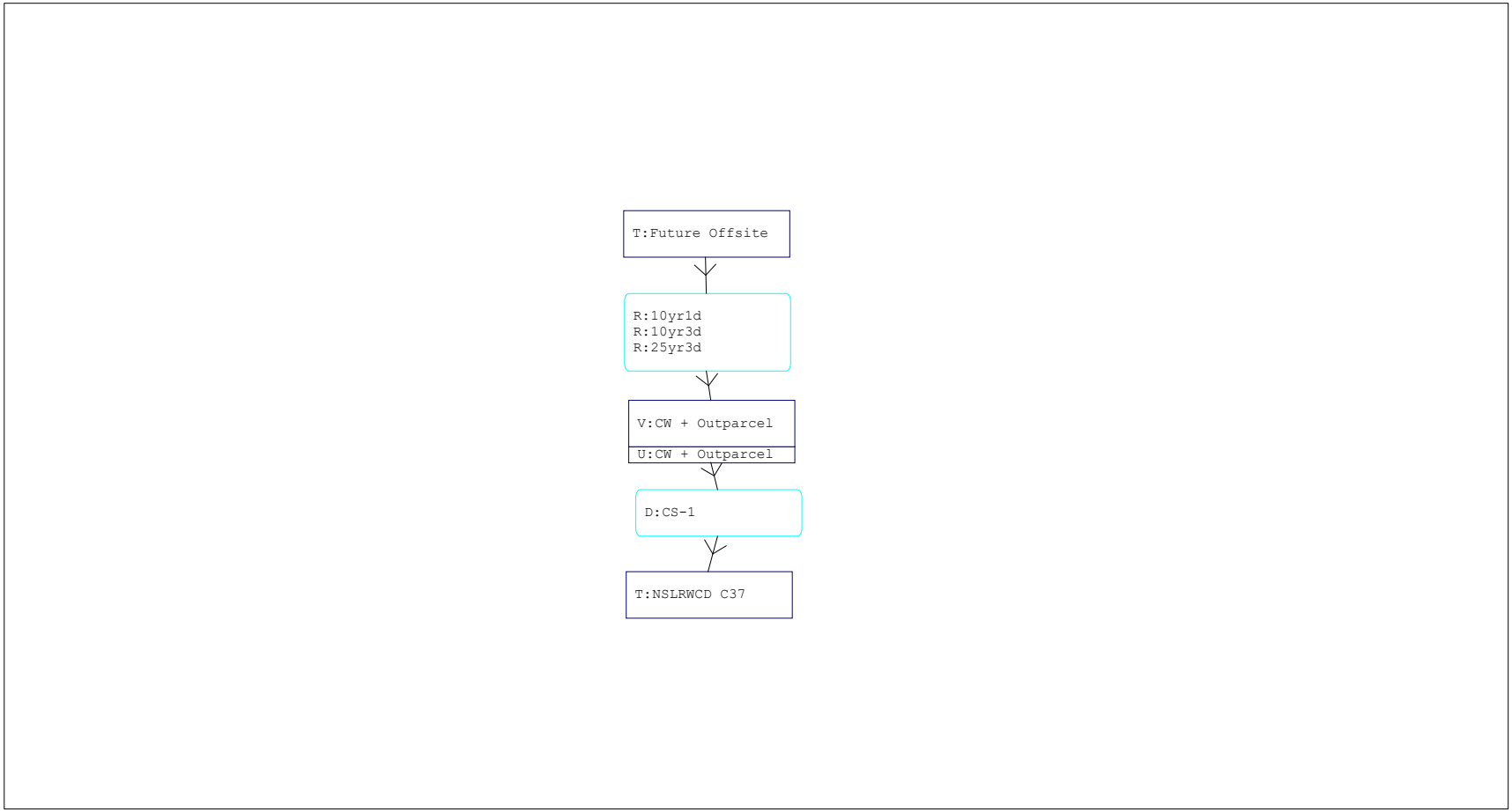
10250 SW Village Parkway, Suite 201
Port St. Lucie, FL 34987
772-462-2455

16-225 Camping World - Recovery Storm Routing
Nodal Diagram

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc.

==========
==== Basins ====
==========

Name: CW + Outparcel Node: CW + Outparcel Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
Area(ac): 28.970 Time Shift(hrs): 0.00
Curve Number: 94.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

==========
==== Nodes ====
==========

Name: CW + Outparcel Base Flow(cfs): 0.000 Init Stage(ft): 11.100
Group: BASE Warn Stage(ft): 18.500
Type: Stage/Volume

Stage(ft)	Volume(af)
10.000	0.0000
10.500	1.6100
11.000	3.2600
11.500	4.9500
12.000	6.6700
12.500	8.4300
13.500	12.0700
14.500	16.0600
15.500	20.6900
16.500	27.4700
17.500	41.7200
18.500	64.4700

Name: Future Offsite Base Flow(cfs): 0.000 Init Stage(ft): 13.000
Group: Offsite Warn Stage(ft): 18.500
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	13.000
62.00	13.000
360.00	13.000

Name: NSLRWCD C37 Base Flow(cfs): 0.000 Init Stage(ft): 7.780
Group: BASE Warn Stage(ft): 18.500
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	7.780
62.00	7.780
360.00	7.780

==========
==== Operating Tables ====
==========

Name: 10yr1d Group: 10yr1d
Type: Rating Curve
Function: Time vs. Discharge

Time(hrs)	Discharge(cfs)
0.00	0.00
24.00	1.00
120.00	0.00

Name: 10yr3d Group: 10yr3d
Type: Rating Curve

Function: Time vs. Discharge

Time(hrs)	Discharge(cfs)
0.00	0.00
62.00	1.41
360.00	0.00

Name: 25yr3d Group: 25yr3d
Type: Rating Curve
Function: Time vs. Discharge

Time(hrs)	Discharge(cfs)
0.00	0.00
62.00	1.58
360.00	0.00

==========
==== Drop Structures ==========
==========

Name: CS-1 From Node: CW + Outparcel Length(ft): 35.00
Group: Outfalls To Node: NSLRWCD C37 Count: 1

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Friction Equation:	Automatic
Span(in):	36.00	36.00	Solution Algorithm:	Most Restrictive
Rise(in):	36.00	36.00	Flow:	Both
Invert(ft):	8.650	8.440	Entrance Loss Coef:	0.000
Manning's N:	0.012000	0.012000	Exit Loss Coef:	1.000
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
			Solution Incs:	10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

*** Weir 1 of 4 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Circular	Orifice Disc Coef:	0.600
Span(in):	4.00	Invert(ft):	10.000
Rise(in):	4.00	Control Elev(ft):	10.000

*** Weir 2 of 4 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	8.00	Invert(ft):	11.600
Rise(in):	6.00	Control Elev(ft):	11.600

*** Weir 3 of 4 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	54.00	Invert(ft):	15.250
Rise(in):	6.00	Control Elev(ft):	15.250

*** Weir 4 of 4 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	54.00	Invert(ft):	15.750
Rise(in):	18.00	Control Elev(ft):	15.750

```
================================================================================
==== Rating Curves =============================================================
================================================================================

         Name: 10yr1d              From Node: Future Offsite          Count: 1
        Group: 10yr1d                To Node: CW + Outparcel          Flow: Both

               TABLE           ELEV ON(ft)     ELEV OFF(ft)
           #1: 10yr1d          13.000          13.000
           #2:                 0.000           0.000
           #3:                 0.000           0.000
           #4:                 0.000           0.000



--------------------------------------------------------------------------------------------------------
         Name: 10yr3d              From Node: Future Offsite          Count: 1
        Group: 10yr3d                To Node: CW + Outparcel          Flow: Both

               TABLE           ELEV ON(ft)     ELEV OFF(ft)
           #1: 10yr3d          13.000          13.000
           #2:                 0.000           0.000
           #3:                 0.000           0.000
           #4:                 0.000           0.000



--------------------------------------------------------------------------------------------------------
         Name: 25yr3d              From Node: Future Offsite          Count: 1
        Group: 25yr3d                To Node: CW + Outparcel          Flow: Both

               TABLE           ELEV ON(ft)     ELEV OFF(ft)
           #1: 25yr3d          13.000          13.000
           #2:                 0.000           0.000
           #3:                 0.000           0.000
           #4:                 0.000           0.000



================================================================================
==== Hydrology Simulations =====================================================
================================================================================

          Name: 100yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\100yr3d.R32

       Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Sfwmd72
    Rainfall Amount(in): 12.23

Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         5.00

--------------------------------------------------------------------------------------------------------
          Name: 10yr1d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr1d.R32

       Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 6.00

Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         5.00

--------------------------------------------------------------------------------------------------------
          Name: 10yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr3d.R32

       Override Defaults: Yes
    Storm Duration(hrs): 72.00
          Rainfall File: Sfwmd72
    Rainfall Amount(in): 8.50

Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         5.00

--------------------------------------------------------------------------------------------------------
          Name: 25yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\25yr3d.R32

       Override Defaults: Yes
```

```
    Storm Duration(hrs): 72.00
          Rainfall File: Sfwmd72
    Rainfall Amount(in): 9.50

Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         5.00

================================================================================
==== Routing Simulations ======================================================
================================================================================

         Name: 100yr3d             Hydrology Sim: 100yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\100yr3d.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 360.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         15.000

Group           Run
--------------- -----
BASE            Yes
Offsite         Yes


--------------------------------------------------------------------------------------------------------
         Name: 10yr1d              Hydrology Sim: 10yr1d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr1d.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 360.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages: 10yr1d                  Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         15.000

Group           Run
--------------- -----
10yr1d          Yes
BASE            Yes
Offsite         Yes
Outfalls        Yes


--------------------------------------------------------------------------------------------------------
         Name: 10yr3d              Hydrology Sim: 10yr3d
     Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr3d.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 360.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages: 10yr3d                  Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
360.000         15.000

Group           Run
--------------- -----
10yr3d          Yes
BASE            Yes
Offsite         Yes
```

Outfalls Yes

Name: 25yr3d Hydrology Sim: 25yr3d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\25yr3d.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 360.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: 10yr3d Boundary Flows:

Time(hrs)	Print Inc(min)
360.000	15.000

Group	Run
25yr3d	Yes
BASE	Yes
Offsite	Yes
Outfalls	Yes

==== Boundary Conditions ====

Name: 10yr1d Node: NSLRWCD C37 Type: Stage

Time(hrs)	Stage(ft)
0.000	7.780
1.330	9.420
2.670	9.730
4.000	10.770
5.330	10.140
6.670	9.590
8.000	9.420
9.330	9.530
10.670	9.770
12.000	11.060
13.330	10.300
14.670	9.650
16.000	9.450
17.330	9.650
18.670	10.010
20.000	11.950
21.330	10.810
22.670	9.830
24.000	9.530
360.000	7.780

Name: 10yr3d Node: NSLRWCD C37 Type: Stage

Time(hrs)	Stage(ft)
0.000	7.780
4.000	10.580
8.000	10.950
12.000	12.060
16.000	11.360
20.000	10.760
24.000	10.580
28.000	10.700
32.000	10.960
36.000	12.390
40.000	11.540
44.000	10.830
48.000	10.610
52.000	10.830
56.000	11.230
60.000	13.370
64.000	12.110
68.000	11.020
72.000	10.700
360.000	7.780

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
CW + Outparcel	BASE	100yr3d	73.00	16.68	18.50	0.0050	520942	60.00	155.99	0.00	0.00
CW + Outparcel	BASE	10yr1d	20.17	13.98	18.50	0.0050	176465	12.25	101.23	18.47	3.15
CW + Outparcel	BASE	10yr3d	68.21	15.32	18.50	0.0050	237336	60.00	109.13	68.24	4.10
CW + Outparcel	BASE	25yr3d	64.28	15.55	18.50	0.0050	258455	60.00	122.31	64.76	6.12
Future Offsite	Offsite	100yr3d	0.00	13.00	18.50	0.0000	0	0.00	0.00	0.00	0.00
Future Offsite	Offsite	10yr1d	0.00	13.00	18.50	0.0000	0	0.00	0.00	24.00	1.00
Future Offsite	Offsite	10yr3d	0.00	13.00	18.50	0.0000	0	0.00	0.00	62.01	1.41
Future Offsite	Offsite	25yr3d	0.00	13.00	18.50	0.0000	0	0.00	0.00	62.01	1.58
NSLRWCD C37	BASE	100yr3d	0.00	7.78	18.50	0.0000	0	0.00	0.00	0.00	0.00
NSLRWCD C37	BASE	10yr1d	20.00	11.95	18.50	0.0243	0	18.47	3.15	0.00	0.00
NSLRWCD C37	BASE	10yr3d	60.00	13.37	18.50	0.0117	0	68.24	4.10	0.00	0.00
NSLRWCD C37	BASE	25yr3d	60.00	13.37	18.50	0.0117	0	64.76	6.12	0.00	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	0.00	7.78	18.50	0	0.41	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	0.26	7.96	18.50	0	0.41	0.00	0.01	0.00
10yr3d	NSLRWCD C37	BASE	0.50	8.13	18.50	0	0.40	0.00	0.02	0.00
10yr3d	NSLRWCD C37	BASE	0.77	8.32	18.50	0	0.40	0.00	0.03	0.00
10yr3d	NSLRWCD C37	BASE	1.02	8.49	18.50	0	0.40	0.00	0.03	0.00
10yr3d	NSLRWCD C37	BASE	1.27	8.67	18.50	0	0.40	0.00	0.04	0.00
10yr3d	NSLRWCD C37	BASE	1.52	8.84	18.50	0	0.40	0.00	0.05	0.00
10yr3d	NSLRWCD C37	BASE	1.77	9.02	18.50	0	0.40	0.00	0.06	0.00
10yr3d	NSLRWCD C37	BASE	2.02	9.19	18.50	0	0.40	0.00	0.07	0.00
10yr3d	NSLRWCD C37	BASE	2.27	9.37	18.50	0	0.40	0.00	0.08	0.00
10yr3d	NSLRWCD C37	BASE	2.52	9.54	18.50	0	0.40	0.00	0.08	0.00
10yr3d	NSLRWCD C37	BASE	2.77	9.72	18.50	0	0.40	0.00	0.09	0.00
10yr3d	NSLRWCD C37	BASE	3.02	9.89	18.50	0	0.40	0.00	0.10	0.00
10yr3d	NSLRWCD C37	BASE	3.27	10.07	18.50	0	0.40	0.00	0.11	0.00
10yr3d	NSLRWCD C37	BASE	3.52	10.24	18.50	0	0.38	0.00	0.12	0.00
10yr3d	NSLRWCD C37	BASE	3.77	10.42	18.50	0	0.34	0.00	0.12	0.00
10yr3d	NSLRWCD C37	BASE	4.02	10.58	18.50	0	0.29	0.00	0.13	0.00
10yr3d	NSLRWCD C37	BASE	4.27	10.60	18.50	0	0.28	0.00	0.14	0.00
10yr3d	NSLRWCD C37	BASE	4.52	10.63	18.50	0	0.28	0.00	0.14	0.00
10yr3d	NSLRWCD C37	BASE	4.77	10.65	18.50	0	0.27	0.00	0.15	0.00
10yr3d	NSLRWCD C37	BASE	5.02	10.67	18.50	0	0.26	0.00	0.15	0.00
10yr3d	NSLRWCD C37	BASE	5.27	10.70	18.50	0	0.25	0.00	0.16	0.00
10yr3d	NSLRWCD C37	BASE	5.52	10.72	18.50	0	0.25	0.00	0.16	0.00
10yr3d	NSLRWCD C37	BASE	5.77	10.74	18.50	0	0.24	0.00	0.17	0.00
10yr3d	NSLRWCD C37	BASE	6.02	10.77	18.50	0	0.23	0.00	0.17	0.00
10yr3d	NSLRWCD C37	BASE	6.27	10.79	18.50	0	0.22	0.00	0.18	0.00
10yr3d	NSLRWCD C37	BASE	6.52	10.81	18.50	0	0.21	0.00	0.18	0.00
10yr3d	NSLRWCD C37	BASE	6.77	10.84	18.50	0	0.20	0.00	0.19	0.00
10yr3d	NSLRWCD C37	BASE	7.02	10.86	18.50	0	0.19	0.00	0.19	0.00
10yr3d	NSLRWCD C37	BASE	7.27	10.88	18.50	0	0.18	0.00	0.20	0.00
10yr3d	NSLRWCD C37	BASE	7.52	10.91	18.50	0	0.17	0.00	0.20	0.00
10yr3d	NSLRWCD C37	BASE	7.77	10.93	18.50	0	0.16	0.00	0.20	0.00
10yr3d	NSLRWCD C37	BASE	8.02	10.95	18.50	0	0.15	0.00	0.21	0.00
10yr3d	NSLRWCD C37	BASE	8.27	11.02	18.50	0	0.10	0.00	0.21	0.00
10yr3d	NSLRWCD C37	BASE	8.52	11.09	18.50	0	-0.03	0.00	0.21	0.00
10yr3d	NSLRWCD C37	BASE	8.77	11.16	18.50	0	-0.11	0.00	0.21	0.00
10yr3d	NSLRWCD C37	BASE	9.02	11.23	18.50	0	-0.15	0.00	0.20	0.00
10yr3d	NSLRWCD C37	BASE	9.27	11.30	18.50	0	-0.19	0.00	0.20	0.00
10yr3d	NSLRWCD C37	BASE	9.52	11.37	18.50	0	-0.21	0.00	0.20	0.00
10yr3d	NSLRWCD C37	BASE	9.77	11.44	18.50	0	-0.24	0.00	0.19	0.00
10yr3d	NSLRWCD C37	BASE	10.02	11.51	18.50	0	-0.26	0.00	0.19	0.00
10yr3d	NSLRWCD C37	BASE	10.27	11.58	18.50	0	-0.28	0.00	0.18	0.00
10yr3d	NSLRWCD C37	BASE	10.52	11.65	18.50	0	-0.32	0.00	0.18	0.00
10yr3d	NSLRWCD C37	BASE	10.77	11.72	18.50	0	-0.40	0.00	0.17	0.00
10yr3d	NSLRWCD C37	BASE	11.02	11.79	18.50	0	-0.50	0.00	0.16	0.00
10yr3d	NSLRWCD C37	BASE	11.27	11.86	18.50	0	-0.62	0.00	0.15	0.00
10yr3d	NSLRWCD C37	BASE	11.52	11.93	18.50	0	-0.75	0.00	0.13	0.00
10yr3d	NSLRWCD C37	BASE	11.77	12.00	18.50	0	-0.90	0.00	0.12	0.00
10yr3d	NSLRWCD C37	BASE	12.02	12.06	18.50	0	-1.04	0.00	0.10	0.00
10yr3d	NSLRWCD C37	BASE	12.27	12.01	18.50	0	-0.93	0.00	0.08	0.00
10yr3d	NSLRWCD C37	BASE	12.52	11.97	18.50	0	-0.84	0.00	0.06	0.00
10yr3d	NSLRWCD C37	BASE	12.77	11.93	18.50	0	-0.74	0.00	0.04	0.00
10yr3d	NSLRWCD C37	BASE	13.02	11.88	18.50	0	-0.65	0.00	0.03	0.00
10yr3d	NSLRWCD C37	BASE	13.27	11.84	18.50	0	-0.57	0.00	0.01	0.00
10yr3d	NSLRWCD C37	BASE	13.52	11.79	18.50	0	-0.49	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	13.77	11.75	18.50	0	-0.42	0.00	-0.01	0.00
10yr3d	NSLRWCD C37	BASE	14.02	11.71	18.50	0	-0.35	0.00	-0.01	0.00
10yr3d	NSLRWCD C37	BASE	14.27	11.66	18.50	0	-0.29	0.00	-0.02	0.00
10yr3d	NSLRWCD C37	BASE	14.52	11.62	18.50	0	-0.25	0.00	-0.03	0.00
10yr3d	NSLRWCD C37	BASE	14.77	11.58	18.50	0	-0.22	0.00	-0.03	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	15.02	11.53	18.50	0	-0.20	0.00	-0.04	0.00
10yr3d	NSLRWCD C37	BASE	15.27	11.49	18.50	0	-0.18	0.00	-0.04	0.00
10yr3d	NSLRWCD C37	BASE	15.52	11.44	18.50	0	-0.15	0.00	-0.04	0.00
10yr3d	NSLRWCD C37	BASE	15.77	11.40	18.50	0	-0.12	0.00	-0.05	0.00
10yr3d	NSLRWCD C37	BASE	16.02	11.36	18.50	0	-0.07	0.00	-0.05	0.00
10yr3d	NSLRWCD C37	BASE	16.27	11.32	18.50	0	0.05	0.00	-0.05	0.00
10yr3d	NSLRWCD C37	BASE	16.52	11.28	18.50	0	0.10	0.00	-0.05	0.00
10yr3d	NSLRWCD C37	BASE	16.77	11.25	18.50	0	0.13	0.00	-0.04	0.00
10yr3d	NSLRWCD C37	BASE	17.02	11.21	18.50	0	0.16	0.00	-0.04	0.00
10yr3d	NSLRWCD C37	BASE	17.27	11.17	18.50	0	0.18	0.00	-0.04	0.00
10yr3d	NSLRWCD C37	BASE	17.52	11.13	18.50	0	0.20	0.00	-0.03	0.00
10yr3d	NSLRWCD C37	BASE	17.77	11.10	18.50	0	0.22	0.00	-0.03	0.00
10yr3d	NSLRWCD C37	BASE	18.02	11.06	18.50	0	0.24	0.00	-0.02	0.00
10yr3d	NSLRWCD C37	BASE	18.27	11.02	18.50	0	0.25	0.00	-0.02	0.00
10yr3d	NSLRWCD C37	BASE	18.52	10.98	18.50	0	0.27	0.00	-0.01	0.00
10yr3d	NSLRWCD C37	BASE	18.77	10.95	18.50	0	0.28	0.00	-0.01	0.00
10yr3d	NSLRWCD C37	BASE	19.02	10.91	18.50	0	0.29	0.00	-0.00	0.00
10yr3d	NSLRWCD C37	BASE	19.27	10.87	18.50	0	0.31	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	19.52	10.83	18.50	0	0.32	0.00	0.01	0.00
10yr3d	NSLRWCD C37	BASE	19.77	10.80	18.50	0	0.33	0.00	0.02	0.00
10yr3d	NSLRWCD C37	BASE	20.02	10.76	18.50	0	0.34	0.00	0.02	0.00
10yr3d	NSLRWCD C37	BASE	20.27	10.75	18.50	0	0.35	0.00	0.03	0.00
10yr3d	NSLRWCD C37	BASE	20.52	10.74	18.50	0	0.35	0.00	0.04	0.00
10yr3d	NSLRWCD C37	BASE	20.77	10.73	18.50	0	0.35	0.00	0.05	0.00
10yr3d	NSLRWCD C37	BASE	21.02	10.71	18.50	0	0.36	0.00	0.05	0.00
10yr3d	NSLRWCD C37	BASE	21.27	10.70	18.50	0	0.36	0.00	0.06	0.00
10yr3d	NSLRWCD C37	BASE	21.52	10.69	18.50	0	0.37	0.00	0.07	0.00
10yr3d	NSLRWCD C37	BASE	21.77	10.68	18.50	0	0.37	0.00	0.08	0.00
10yr3d	NSLRWCD C37	BASE	22.02	10.67	18.50	0	0.38	0.00	0.08	0.00
10yr3d	NSLRWCD C37	BASE	22.27	10.66	18.50	0	0.38	0.00	0.09	0.00
10yr3d	NSLRWCD C37	BASE	22.52	10.65	18.50	0	0.38	0.00	0.10	0.00
10yr3d	NSLRWCD C37	BASE	22.77	10.64	18.50	0	0.39	0.00	0.11	0.00
10yr3d	NSLRWCD C37	BASE	23.02	10.62	18.50	0	0.39	0.00	0.11	0.00
10yr3d	NSLRWCD C37	BASE	23.27	10.61	18.50	0	0.40	0.00	0.12	0.00
10yr3d	NSLRWCD C37	BASE	23.52	10.60	18.50	0	0.40	0.00	0.13	0.00
10yr3d	NSLRWCD C37	BASE	23.77	10.59	18.50	0	0.40	0.00	0.14	0.00
10yr3d	NSLRWCD C37	BASE	24.02	10.58	18.50	0	0.41	0.00	0.15	0.00
10yr3d	NSLRWCD C37	BASE	24.27	10.59	18.50	0	0.41	0.00	0.16	0.00
10yr3d	NSLRWCD C37	BASE	24.52	10.60	18.50	0	0.41	0.00	0.16	0.00
10yr3d	NSLRWCD C37	BASE	24.77	10.60	18.50	0	0.41	0.00	0.17	0.00
10yr3d	NSLRWCD C37	BASE	25.02	10.61	18.50	0	0.41	0.00	0.18	0.00
10yr3d	NSLRWCD C37	BASE	25.27	10.62	18.50	0	0.41	0.00	0.19	0.00
10yr3d	NSLRWCD C37	BASE	25.52	10.63	18.50	0	0.41	0.00	0.20	0.00
10yr3d	NSLRWCD C37	BASE	25.77	10.63	18.50	0	0.41	0.00	0.21	0.00
10yr3d	NSLRWCD C37	BASE	26.02	10.64	18.50	0	0.41	0.00	0.22	0.00
10yr3d	NSLRWCD C37	BASE	26.27	10.65	18.50	0	0.41	0.00	0.22	0.00
10yr3d	NSLRWCD C37	BASE	26.52	10.66	18.50	0	0.41	0.00	0.23	0.00
10yr3d	NSLRWCD C37	BASE	26.77	10.66	18.50	0	0.41	0.00	0.24	0.00
10yr3d	NSLRWCD C37	BASE	27.02	10.67	18.50	0	0.42	0.00	0.25	0.00
10yr3d	NSLRWCD C37	BASE	27.27	10.68	18.50	0	0.42	0.00	0.26	0.00
10yr3d	NSLRWCD C37	BASE	27.52	10.69	18.50	0	0.43	0.00	0.27	0.00
10yr3d	NSLRWCD C37	BASE	27.77	10.69	18.50	0	0.44	0.00	0.28	0.00
10yr3d	NSLRWCD C37	BASE	28.02	10.70	18.50	0	0.44	0.00	0.28	0.00
10yr3d	NSLRWCD C37	BASE	28.27	10.72	18.50	0	0.45	0.00	0.29	0.00
10yr3d	NSLRWCD C37	BASE	28.52	10.73	18.50	0	0.46	0.00	0.30	0.00
10yr3d	NSLRWCD C37	BASE	28.77	10.75	18.50	0	0.47	0.00	0.31	0.00
10yr3d	NSLRWCD C37	BASE	29.02	10.77	18.50	0	0.47	0.00	0.32	0.00
10yr3d	NSLRWCD C37	BASE	29.27	10.78	18.50	0	0.48	0.00	0.33	0.00
10yr3d	NSLRWCD C37	BASE	29.52	10.80	18.50	0	0.49	0.00	0.34	0.00
10yr3d	NSLRWCD C37	BASE	29.77	10.81	18.50	0	0.50	0.00	0.35	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	30.02	10.83	18.50	0	0.51	0.00	0.36	0.00
10yr3d	NSLRWCD C37	BASE	30.27	10.85	18.50	0	0.52	0.00	0.37	0.00
10yr3d	NSLRWCD C37	BASE	30.52	10.86	18.50	0	0.53	0.00	0.38	0.00
10yr3d	NSLRWCD C37	BASE	30.77	10.88	18.50	0	0.54	0.00	0.40	0.00
10yr3d	NSLRWCD C37	BASE	31.02	10.90	18.50	0	0.55	0.00	0.41	0.00
10yr3d	NSLRWCD C37	BASE	31.27	10.91	18.50	0	0.56	0.00	0.42	0.00
10yr3d	NSLRWCD C37	BASE	31.52	10.93	18.50	0	0.57	0.00	0.43	0.00
10yr3d	NSLRWCD C37	BASE	31.77	10.94	18.50	0	0.58	0.00	0.44	0.00
10yr3d	NSLRWCD C37	BASE	32.02	10.97	18.50	0	0.60	0.00	0.45	0.00
10yr3d	NSLRWCD C37	BASE	32.27	11.06	18.50	0	0.59	0.00	0.47	0.00
10yr3d	NSLRWCD C37	BASE	32.52	11.14	18.50	0	0.59	0.00	0.48	0.00
10yr3d	NSLRWCD C37	BASE	32.77	11.23	18.50	0	0.58	0.00	0.49	0.00
10yr3d	NSLRWCD C37	BASE	33.02	11.32	18.50	0	0.57	0.00	0.50	0.00
10yr3d	NSLRWCD C37	BASE	33.27	11.41	18.50	0	0.56	0.00	0.51	0.00
10yr3d	NSLRWCD C37	BASE	33.52	11.50	18.50	0	0.55	0.00	0.53	0.00
10yr3d	NSLRWCD C37	BASE	33.77	11.59	18.50	0	0.54	0.00	0.54	0.00
10yr3d	NSLRWCD C37	BASE	34.02	11.68	18.50	0	0.50	0.00	0.55	0.00
10yr3d	NSLRWCD C37	BASE	34.27	11.77	18.50	0	0.43	0.00	0.56	0.00
10yr3d	NSLRWCD C37	BASE	34.52	11.86	18.50	0	0.30	0.00	0.57	0.00
10yr3d	NSLRWCD C37	BASE	34.77	11.95	18.50	0	-0.21	0.00	0.57	0.00
10yr3d	NSLRWCD C37	BASE	35.02	12.04	18.50	0	-0.52	0.00	0.56	0.00
10yr3d	NSLRWCD C37	BASE	35.27	12.13	18.50	0	-0.76	0.00	0.55	0.00
10yr3d	NSLRWCD C37	BASE	35.52	12.22	18.50	0	-0.99	0.00	0.53	0.00
10yr3d	NSLRWCD C37	BASE	35.77	12.31	18.50	0	-1.12	0.00	0.51	0.00
10yr3d	NSLRWCD C37	BASE	36.02	12.39	18.50	0	-1.22	0.00	0.48	0.00
10yr3d	NSLRWCD C37	BASE	36.27	12.33	18.50	0	-1.10	0.00	0.46	0.00
10yr3d	NSLRWCD C37	BASE	36.52	12.28	18.50	0	-0.95	0.00	0.44	0.00
10yr3d	NSLRWCD C37	BASE	36.77	12.23	18.50	0	-0.78	0.00	0.42	0.00
10yr3d	NSLRWCD C37	BASE	37.02	12.17	18.50	0	-0.52	0.00	0.40	0.00
10yr3d	NSLRWCD C37	BASE	37.27	12.12	18.50	0	-0.22	0.00	0.40	0.00
10yr3d	NSLRWCD C37	BASE	37.52	12.07	18.50	0	0.40	0.00	0.40	0.00
10yr3d	NSLRWCD C37	BASE	37.77	12.01	18.50	0	0.65	0.00	0.41	0.00
10yr3d	NSLRWCD C37	BASE	38.02	11.96	18.50	0	0.80	0.00	0.43	0.00
10yr3d	NSLRWCD C37	BASE	38.27	11.91	18.50	0	0.93	0.00	0.44	0.00
10yr3d	NSLRWCD C37	BASE	38.52	11.86	18.50	0	1.04	0.00	0.46	0.00
10yr3d	NSLRWCD C37	BASE	38.77	11.80	18.50	0	1.11	0.00	0.49	0.00
10yr3d	NSLRWCD C37	BASE	39.02	11.75	18.50	0	1.16	0.00	0.51	0.00
10yr3d	NSLRWCD C37	BASE	39.27	11.70	18.50	0	1.20	0.00	0.53	0.00
10yr3d	NSLRWCD C37	BASE	39.52	11.64	18.50	0	1.23	0.00	0.56	0.00
10yr3d	NSLRWCD C37	BASE	39.77	11.59	18.50	0	1.26	0.00	0.58	0.00
10yr3d	NSLRWCD C37	BASE	40.02	11.54	18.50	0	1.29	0.00	0.61	0.00
10yr3d	NSLRWCD C37	BASE	40.27	11.49	18.50	0	1.31	0.00	0.64	0.00
10yr3d	NSLRWCD C37	BASE	40.52	11.45	18.50	0	1.33	0.00	0.66	0.00
10yr3d	NSLRWCD C37	BASE	40.77	11.40	18.50	0	1.35	0.00	0.69	0.00
10yr3d	NSLRWCD C37	BASE	41.02	11.36	18.50	0	1.37	0.00	0.72	0.00
10yr3d	NSLRWCD C37	BASE	41.27	11.32	18.50	0	1.39	0.00	0.75	0.00
10yr3d	NSLRWCD C37	BASE	41.52	11.27	18.50	0	1.41	0.00	0.78	0.00
10yr3d	NSLRWCD C37	BASE	41.77	11.23	18.50	0	1.43	0.00	0.81	0.00
10yr3d	NSLRWCD C37	BASE	42.02	11.18	18.50	0	1.45	0.00	0.84	0.00
10yr3d	NSLRWCD C37	BASE	42.27	11.14	18.50	0	1.47	0.00	0.87	0.00
10yr3d	NSLRWCD C37	BASE	42.52	11.09	18.50	0	1.48	0.00	0.90	0.00
10yr3d	NSLRWCD C37	BASE	42.77	11.05	18.50	0	1.50	0.00	0.93	0.00
10yr3d	NSLRWCD C37	BASE	43.02	11.00	18.50	0	1.52	0.00	0.96	0.00
10yr3d	NSLRWCD C37	BASE	43.27	10.96	18.50	0	1.53	0.00	0.99	0.00
10yr3d	NSLRWCD C37	BASE	43.52	10.92	18.50	0	1.55	0.00	1.02	0.00
10yr3d	NSLRWCD C37	BASE	43.77	10.87	18.50	0	1.56	0.00	1.06	0.00
10yr3d	NSLRWCD C37	BASE	44.02	10.83	18.50	0	1.58	0.00	1.09	0.00
10yr3d	NSLRWCD C37	BASE	44.27	10.82	18.50	0	1.59	0.00	1.12	0.00
10yr3d	NSLRWCD C37	BASE	44.52	10.80	18.50	0	1.60	0.00	1.15	0.00
10yr3d	NSLRWCD C37	BASE	44.77	10.79	18.50	0	1.61	0.00	1.19	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	45.02	10.77	18.50	0	1.62	0.00	1.22	0.00
10yr3d	NSLRWCD C37	BASE	45.27	10.76	18.50	0	1.63	0.00	1.25	0.00
10yr3d	NSLRWCD C37	BASE	45.52	10.75	18.50	0	1.64	0.00	1.29	0.00
10yr3d	NSLRWCD C37	BASE	45.77	10.73	18.50	0	1.65	0.00	1.32	0.00
10yr3d	NSLRWCD C37	BASE	46.02	10.72	18.50	0	1.66	0.00	1.36	0.00
10yr3d	NSLRWCD C37	BASE	46.27	10.71	18.50	0	1.67	0.00	1.39	0.00
10yr3d	NSLRWCD C37	BASE	46.52	10.69	18.50	0	1.67	0.00	1.42	0.00
10yr3d	NSLRWCD C37	BASE	46.77	10.68	18.50	0	1.68	0.00	1.46	0.00
10yr3d	NSLRWCD C37	BASE	47.02	10.66	18.50	0	1.69	0.00	1.49	0.00
10yr3d	NSLRWCD C37	BASE	47.27	10.65	18.50	0	1.70	0.00	1.53	0.00
10yr3d	NSLRWCD C37	BASE	47.52	10.64	18.50	0	1.71	0.00	1.56	0.00
10yr3d	NSLRWCD C37	BASE	47.77	10.62	18.50	0	1.72	0.00	1.60	0.00
10yr3d	NSLRWCD C37	BASE	48.02	10.61	18.50	0	1.73	0.00	1.64	0.00
10yr3d	NSLRWCD C37	BASE	48.27	10.62	18.50	0	1.73	0.00	1.67	0.00
10yr3d	NSLRWCD C37	BASE	48.52	10.64	18.50	0	1.74	0.00	1.71	0.00
10yr3d	NSLRWCD C37	BASE	48.77	10.65	18.50	0	1.74	0.00	1.74	0.00
10yr3d	NSLRWCD C37	BASE	49.02	10.67	18.50	0	1.75	0.00	1.78	0.00
10yr3d	NSLRWCD C37	BASE	49.27	10.68	18.50	0	1.75	0.00	1.81	0.00
10yr3d	NSLRWCD C37	BASE	49.52	10.69	18.50	0	1.76	0.00	1.85	0.00
10yr3d	NSLRWCD C37	BASE	49.77	10.71	18.50	0	1.77	0.00	1.89	0.00
10yr3d	NSLRWCD C37	BASE	50.02	10.72	18.50	0	1.77	0.00	1.92	0.00
10yr3d	NSLRWCD C37	BASE	50.27	10.73	18.50	0	1.78	0.00	1.96	0.00
10yr3d	NSLRWCD C37	BASE	50.52	10.75	18.50	0	1.79	0.00	2.00	0.00
10yr3d	NSLRWCD C37	BASE	50.77	10.76	18.50	0	1.79	0.00	2.03	0.00
10yr3d	NSLRWCD C37	BASE	51.02	10.78	18.50	0	1.80	0.00	2.07	0.00
10yr3d	NSLRWCD C37	BASE	51.27	10.79	18.50	0	1.81	0.00	2.11	0.00
10yr3d	NSLRWCD C37	BASE	51.52	10.80	18.50	0	1.82	0.00	2.15	0.00
10yr3d	NSLRWCD C37	BASE	51.77	10.82	18.50	0	1.83	0.00	2.18	0.00
10yr3d	NSLRWCD C37	BASE	52.02	10.83	18.50	0	1.83	0.00	2.22	0.00
10yr3d	NSLRWCD C37	BASE	52.27	10.86	18.50	0	1.84	0.00	2.26	0.00
10yr3d	NSLRWCD C37	BASE	52.52	10.88	18.50	0	1.85	0.00	2.30	0.00
10yr3d	NSLRWCD C37	BASE	52.77	10.91	18.50	0	1.86	0.00	2.34	0.00
10yr3d	NSLRWCD C37	BASE	53.02	10.93	18.50	0	1.87	0.00	2.38	0.00
10yr3d	NSLRWCD C37	BASE	53.27	10.96	18.50	0	1.89	0.00	2.41	0.00
10yr3d	NSLRWCD C37	BASE	53.52	10.98	18.50	0	1.90	0.00	2.45	0.00
10yr3d	NSLRWCD C37	BASE	53.77	11.01	18.50	0	1.91	0.00	2.49	0.00
10yr3d	NSLRWCD C37	BASE	54.02	11.03	18.50	0	1.93	0.00	2.53	0.00
10yr3d	NSLRWCD C37	BASE	54.27	11.06	18.50	0	1.94	0.00	2.57	0.00
10yr3d	NSLRWCD C37	BASE	54.52	11.08	18.50	0	1.96	0.00	2.61	0.00
10yr3d	NSLRWCD C37	BASE	54.77	11.11	18.50	0	1.98	0.00	2.65	0.00
10yr3d	NSLRWCD C37	BASE	55.02	11.13	18.50	0	2.00	0.00	2.69	0.00
10yr3d	NSLRWCD C37	BASE	55.27	11.16	18.50	0	2.02	0.00	2.74	0.00
10yr3d	NSLRWCD C37	BASE	55.52	11.18	18.50	0	2.04	0.00	2.78	0.00
10yr3d	NSLRWCD C37	BASE	55.77	11.21	18.50	0	2.06	0.00	2.82	0.00
10yr3d	NSLRWCD C37	BASE	56.02	11.24	18.50	0	2.08	0.00	2.86	0.00
10yr3d	NSLRWCD C37	BASE	56.27	11.37	18.50	0	2.08	0.00	2.91	0.00
10yr3d	NSLRWCD C37	BASE	56.52	11.51	18.50	0	2.08	0.00	2.95	0.00
10yr3d	NSLRWCD C37	BASE	56.77	11.64	18.50	0	2.09	0.00	2.99	0.00
10yr3d	NSLRWCD C37	BASE	57.02	11.77	18.50	0	2.09	0.00	3.03	0.00
10yr3d	NSLRWCD C37	BASE	57.27	11.91	18.50	0	2.04	0.00	3.08	0.00
10yr3d	NSLRWCD C37	BASE	57.52	12.04	18.50	0	1.94	0.00	3.12	0.00
10yr3d	NSLRWCD C37	BASE	57.77	12.17	18.50	0	1.83	0.00	3.16	0.00
10yr3d	NSLRWCD C37	BASE	58.02	12.31	18.50	0	1.73	0.00	3.19	0.00
10yr3d	NSLRWCD C37	BASE	58.27	12.44	18.50	0	1.62	0.00	3.23	0.00
10yr3d	NSLRWCD C37	BASE	58.52	12.58	18.50	0	1.50	0.00	3.26	0.00
10yr3d	NSLRWCD C37	BASE	58.77	12.71	18.50	0	1.39	0.00	3.29	0.00
10yr3d	NSLRWCD C37	BASE	59.02	12.84	18.50	0	1.28	0.00	3.32	0.00
10yr3d	NSLRWCD C37	BASE	59.26	12.97	18.50	0	1.18	0.00	3.34	0.00
10yr3d	NSLRWCD C37	BASE	59.50	13.10	18.50	0	1.11	0.00	3.37	0.00
10yr3d	NSLRWCD C37	BASE	59.75	13.24	18.50	0	1.31	0.00	3.39	0.00

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	60.00	13.37	18.50	0	1.78	0.00	3.42	0.00
10yr3d	NSLRWCD C37	BASE	60.25	13.29	18.50	0	2.28	0.00	3.47	0.00
10yr3d	NSLRWCD C37	BASE	60.50	13.21	18.50	0	2.53	0.00	3.51	0.00
10yr3d	NSLRWCD C37	BASE	60.75	13.13	18.50	0	2.68	0.00	3.57	0.00
10yr3d	NSLRWCD C37	BASE	61.00	13.05	18.50	0	2.79	0.00	3.63	0.00
10yr3d	NSLRWCD C37	BASE	61.26	12.97	18.50	0	2.88	0.00	3.68	0.00
10yr3d	NSLRWCD C37	BASE	61.51	12.90	18.50	0	2.97	0.00	3.74	0.00
10yr3d	NSLRWCD C37	BASE	61.76	12.82	18.50	0	3.04	0.00	3.81	0.00
10yr3d	NSLRWCD C37	BASE	62.01	12.74	18.50	0	3.11	0.00	3.87	0.00
10yr3d	NSLRWCD C37	BASE	62.26	12.66	18.50	0	3.18	0.00	3.94	0.00
10yr3d	NSLRWCD C37	BASE	62.51	12.58	18.50	0	3.24	0.00	4.00	0.00
10yr3d	NSLRWCD C37	BASE	62.76	12.50	18.50	0	3.30	0.00	4.07	0.00
10yr3d	NSLRWCD C37	BASE	63.01	12.42	18.50	0	3.36	0.00	4.14	0.00
10yr3d	NSLRWCD C37	BASE	63.26	12.34	18.50	0	3.41	0.00	4.21	0.00
10yr3d	NSLRWCD C37	BASE	63.51	12.27	18.50	0	3.46	0.00	4.28	0.00
10yr3d	NSLRWCD C37	BASE	63.76	12.19	18.50	0	3.52	0.00	4.35	0.00
10yr3d	NSLRWCD C37	BASE	64.01	12.11	18.50	0	3.58	0.00	4.42	0.00
10yr3d	NSLRWCD C37	BASE	64.26	12.04	18.50	0	3.65	0.00	4.50	0.00
10yr3d	NSLRWCD C37	BASE	64.51	11.97	18.50	0	3.71	0.00	4.58	0.00
10yr3d	NSLRWCD C37	BASE	64.76	11.90	18.50	0	3.77	0.00	4.65	0.00
10yr3d	NSLRWCD C37	BASE	65.01	11.84	18.50	0	3.81	0.00	4.73	0.00
10yr3d	NSLRWCD C37	BASE	65.26	11.77	18.50	0	3.84	0.00	4.81	0.00
10yr3d	NSLRWCD C37	BASE	65.51	11.70	18.50	0	3.87	0.00	4.89	0.00
10yr3d	NSLRWCD C37	BASE	65.76	11.63	18.50	0	3.89	0.00	4.97	0.00
10yr3d	NSLRWCD C37	BASE	66.01	11.56	18.50	0	3.92	0.00	5.05	0.00
10yr3d	NSLRWCD C37	BASE	66.26	11.50	18.50	0	3.94	0.00	5.13	0.00
10yr3d	NSLRWCD C37	BASE	66.51	11.43	18.50	0	3.97	0.00	5.21	0.00
10yr3d	NSLRWCD C37	BASE	66.76	11.36	18.50	0	3.99	0.00	5.30	0.00
10yr3d	NSLRWCD C37	BASE	67.01	11.29	18.50	0	4.01	0.00	5.38	0.00
10yr3d	NSLRWCD C37	BASE	67.26	11.22	18.50	0	4.03	0.00	5.46	0.00
10yr3d	NSLRWCD C37	BASE	67.51	11.15	18.50	0	4.05	0.00	5.54	0.00
10yr3d	NSLRWCD C37	BASE	67.76	11.09	18.50	0	4.07	0.00	5.63	0.00
10yr3d	NSLRWCD C37	BASE	68.01	11.02	18.50	0	4.09	0.00	5.71	0.00
10yr3d	NSLRWCD C37	BASE	68.26	11.00	18.50	0	4.10	0.00	5.80	0.00
10yr3d	NSLRWCD C37	BASE	68.51	10.98	18.50	0	4.09	0.00	5.88	0.00
10yr3d	NSLRWCD C37	BASE	68.76	10.96	18.50	0	4.08	0.00	5.97	0.00
10yr3d	NSLRWCD C37	BASE	69.01	10.94	18.50	0	4.07	0.00	6.05	0.00
10yr3d	NSLRWCD C37	BASE	69.26	10.92	18.50	0	4.06	0.00	6.13	0.00
10yr3d	NSLRWCD C37	BASE	69.51	10.90	18.50	0	4.06	0.00	6.22	0.00
10yr3d	NSLRWCD C37	BASE	69.76	10.88	18.50	0	4.05	0.00	6.30	0.00
10yr3d	NSLRWCD C37	BASE	70.01	10.86	18.50	0	4.04	0.00	6.39	0.00
10yr3d	NSLRWCD C37	BASE	70.26	10.84	18.50	0	4.03	0.00	6.47	0.00
10yr3d	NSLRWCD C37	BASE	70.51	10.82	18.50	0	4.02	0.00	6.55	0.00
10yr3d	NSLRWCD C37	BASE	70.76	10.80	18.50	0	4.01	0.00	6.64	0.00
10yr3d	NSLRWCD C37	BASE	71.01	10.78	18.50	0	4.01	0.00	6.72	0.00
10yr3d	NSLRWCD C37	BASE	71.26	10.76	18.50	0	4.00	0.00	6.80	0.00
10yr3d	NSLRWCD C37	BASE	71.51	10.74	18.50	0	3.99	0.00	6.88	0.00
10yr3d	NSLRWCD C37	BASE	71.76	10.72	18.50	0	3.99	0.00	6.97	0.00
10yr3d	NSLRWCD C37	BASE	72.01	10.70	18.50	0	3.98	0.00	7.05	0.00
10yr3d	NSLRWCD C37	BASE	72.26	10.70	18.50	0	3.96	0.00	7.13	0.00
10yr3d	NSLRWCD C37	BASE	72.51	10.69	18.50	0	3.93	0.00	7.21	0.00
10yr3d	NSLRWCD C37	BASE	72.76	10.69	18.50	0	3.89	0.00	7.29	0.00
10yr3d	NSLRWCD C37	BASE	73.01	10.69	18.50	0	3.86	0.00	7.37	0.00
10yr3d	NSLRWCD C37	BASE	73.26	10.69	18.50	0	3.85	0.00	7.45	0.00
10yr3d	NSLRWCD C37	BASE	73.51	10.68	18.50	0	3.84	0.00	7.53	0.00
10yr3d	NSLRWCD C37	BASE	73.76	10.68	18.50	0	3.84	0.00	7.61	0.00
10yr3d	NSLRWCD C37	BASE	74.01	10.68	18.50	0	3.83	0.00	7.69	0.00
10yr3d	NSLRWCD C37	BASE	74.26	10.68	18.50	0	3.83	0.00	7.77	0.00
10yr3d	NSLRWCD C37	BASE	74.51	10.67	18.50	0	3.82	0.00	7.85	0.00
10yr3d	NSLRWCD C37	BASE	74.76	10.67	18.50	0	3.82	0.00	7.93	0.00

Max Discharge Volume in 24-hrs = 7.54 acft
Less than Allowable 2" over 45 ac = 7.65 acft

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	75.01	10.67	18.50	0	3.81	0.00	8.01	0.00
10yr3d	NSLRWCD C37	BASE	75.26	10.67	18.50	0	3.81	0.00	8.09	0.00
10yr3d	NSLRWCD C37	BASE	75.51	10.66	18.50	0	3.80	0.00	8.16	0.00
10yr3d	NSLRWCD C37	BASE	75.76	10.66	18.50	0	3.80	0.00	8.24	0.00
10yr3d	NSLRWCD C37	BASE	76.01	10.66	18.50	0	3.79	0.00	8.32	0.00
10yr3d	NSLRWCD C37	BASE	76.26	10.66	18.50	0	3.79	0.00	8.40	0.00
10yr3d	NSLRWCD C37	BASE	76.51	10.65	18.50	0	3.78	0.00	8.48	0.00
10yr3d	NSLRWCD C37	BASE	76.76	10.65	18.50	0	3.78	0.00	8.56	0.00
10yr3d	NSLRWCD C37	BASE	77.01	10.65	18.50	0	3.77	0.00	8.63	0.00
10yr3d	NSLRWCD C37	BASE	77.26	10.65	18.50	0	3.77	0.00	8.71	0.00
10yr3d	NSLRWCD C37	BASE	77.51	10.64	18.50	0	3.76	0.00	8.79	0.00
10yr3d	NSLRWCD C37	BASE	77.76	10.64	18.50	0	3.76	0.00	8.87	0.00
10yr3d	NSLRWCD C37	BASE	78.01	10.64	18.50	0	3.75	0.00	8.94	0.00
10yr3d	NSLRWCD C37	BASE	78.26	10.64	18.50	0	3.75	0.00	9.02	0.00
10yr3d	NSLRWCD C37	BASE	78.51	10.63	18.50	0	3.74	0.00	9.10	0.00
10yr3d	NSLRWCD C37	BASE	78.76	10.63	18.50	0	3.74	0.00	9.18	0.00
10yr3d	NSLRWCD C37	BASE	79.01	10.63	18.50	0	3.73	0.00	9.25	0.00
10yr3d	NSLRWCD C37	BASE	79.26	10.63	18.50	0	3.73	0.00	9.33	0.00
10yr3d	NSLRWCD C37	BASE	79.51	10.62	18.50	0	3.72	0.00	9.41	0.00
10yr3d	NSLRWCD C37	BASE	79.76	10.62	18.50	0	3.72	0.00	9.48	0.00
10yr3d	NSLRWCD C37	BASE	80.01	10.62	18.50	0	3.71	0.00	9.56	0.00
10yr3d	NSLRWCD C37	BASE	80.26	10.62	18.50	0	3.71	0.00	9.64	0.00
10yr3d	NSLRWCD C37	BASE	80.51	10.61	18.50	0	3.70	0.00	9.71	0.00
10yr3d	NSLRWCD C37	BASE	80.76	10.61	18.50	0	3.70	0.00	9.79	0.00
10yr3d	NSLRWCD C37	BASE	81.01	10.61	18.50	0	3.69	0.00	9.87	0.00
10yr3d	NSLRWCD C37	BASE	81.26	10.61	18.50	0	3.69	0.00	9.94	0.00
10yr3d	NSLRWCD C37	BASE	81.51	10.60	18.50	0	3.68	0.00	10.02	0.00
10yr3d	NSLRWCD C37	BASE	81.76	10.60	18.50	0	3.67	0.00	10.10	0.00
10yr3d	NSLRWCD C37	BASE	82.01	10.60	18.50	0	3.67	0.00	10.17	0.00
10yr3d	NSLRWCD C37	BASE	82.26	10.60	18.50	0	3.66	0.00	10.25	0.00
10yr3d	NSLRWCD C37	BASE	82.51	10.59	18.50	0	3.66	0.00	10.32	0.00
10yr3d	NSLRWCD C37	BASE	82.76	10.59	18.50	0	3.65	0.00	10.40	0.00
10yr3d	NSLRWCD C37	BASE	83.01	10.59	18.50	0	3.65	0.00	10.47	0.00
10yr3d	NSLRWCD C37	BASE	83.26	10.59	18.50	0	3.64	0.00	10.55	0.00
10yr3d	NSLRWCD C37	BASE	83.51	10.58	18.50	0	3.64	0.00	10.62	0.00
10yr3d	NSLRWCD C37	BASE	83.76	10.58	18.50	0	3.63	0.00	10.70	0.00
10yr3d	NSLRWCD C37	BASE	84.01	10.58	18.50	0	3.63	0.00	10.77	0.00
10yr3d	NSLRWCD C37	BASE	84.26	10.58	18.50	0	3.62	0.00	10.85	0.00
10yr3d	NSLRWCD C37	BASE	84.51	10.57	18.50	0	3.62	0.00	10.92	0.00
10yr3d	NSLRWCD C37	BASE	84.76	10.57	18.50	0	3.61	0.00	11.00	0.00
10yr3d	NSLRWCD C37	BASE	85.01	10.57	18.50	0	3.60	0.00	11.07	0.00
10yr3d	NSLRWCD C37	BASE	85.26	10.57	18.50	0	3.60	0.00	11.15	0.00
10yr3d	NSLRWCD C37	BASE	85.51	10.56	18.50	0	3.59	0.00	11.22	0.00
10yr3d	NSLRWCD C37	BASE	85.76	10.56	18.50	0	3.59	0.00	11.30	0.00
10yr3d	NSLRWCD C37	BASE	86.01	10.56	18.50	0	3.58	0.00	11.37	0.00
10yr3d	NSLRWCD C37	BASE	86.26	10.56	18.50	0	3.58	0.00	11.44	0.00
10yr3d	NSLRWCD C37	BASE	86.51	10.55	18.50	0	3.57	0.00	11.52	0.00
10yr3d	NSLRWCD C37	BASE	86.76	10.55	18.50	0	3.57	0.00	11.59	0.00
10yr3d	NSLRWCD C37	BASE	87.01	10.55	18.50	0	3.56	0.00	11.66	0.00
10yr3d	NSLRWCD C37	BASE	87.26	10.55	18.50	0	3.55	0.00	11.74	0.00
10yr3d	NSLRWCD C37	BASE	87.51	10.54	18.50	0	3.55	0.00	11.81	0.00
10yr3d	NSLRWCD C37	BASE	87.76	10.54	18.50	0	3.54	0.00	11.89	0.00
10yr3d	NSLRWCD C37	BASE	88.01	10.54	18.50	0	3.54	0.00	11.96	0.00
10yr3d	NSLRWCD C37	BASE	88.26	10.54	18.50	0	3.53	0.00	12.03	0.00
10yr3d	NSLRWCD C37	BASE	88.51	10.53	18.50	0	3.53	0.00	12.10	0.00
10yr3d	NSLRWCD C37	BASE	88.76	10.53	18.50	0	3.52	0.00	12.18	0.00
10yr3d	NSLRWCD C37	BASE	89.01	10.53	18.50	0	3.51	0.00	12.25	0.00
10yr3d	NSLRWCD C37	BASE	89.26	10.53	18.50	0	3.51	0.00	12.32	0.00
10yr3d	NSLRWCD C37	BASE	89.51	10.52	18.50	0	3.50	0.00	12.39	0.00
10yr3d	NSLRWCD C37	BASE	89.76	10.52	18.50	0	3.50	0.00	12.47	0.00

Max Discharge Volume in 24-hrs = 7.54 acft
Less than Allowable 2" over 45 ac = 7.65 acft

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	90.01	10.52	18.50	0	3.49	0.00	12.54	0.00
10yr3d	NSLRWCD C37	BASE	90.26	10.51	18.50	0	3.49	0.00	12.61	0.00
10yr3d	NSLRWCD C37	BASE	90.51	10.51	18.50	0	3.48	0.00	12.68	0.00
10yr3d	NSLRWCD C37	BASE	90.76	10.51	18.50	0	3.47	0.00	12.75	0.00
10yr3d	NSLRWCD C37	BASE	91.01	10.51	18.50	0	3.47	0.00	12.83	0.00
10yr3d	NSLRWCD C37	BASE	91.26	10.50	18.50	0	3.46	0.00	12.90	0.00
10yr3d	NSLRWCD C37	BASE	91.51	10.50	18.50	0	3.46	0.00	12.97	0.00
10yr3d	NSLRWCD C37	BASE	91.76	10.50	18.50	0	3.45	0.00	13.04	0.00
10yr3d	NSLRWCD C37	BASE	92.01	10.50	18.50	0	3.44	0.00	13.11	0.00
10yr3d	NSLRWCD C37	BASE	92.26	10.49	18.50	0	3.44	0.00	13.18	0.00
10yr3d	NSLRWCD C37	BASE	92.51	10.49	18.50	0	3.43	0.00	13.25	0.00
10yr3d	NSLRWCD C37	BASE	92.76	10.49	18.50	0	3.43	0.00	13.33	0.00
10yr3d	NSLRWCD C37	BASE	93.01	10.49	18.50	0	3.42	0.00	13.40	0.00
10yr3d	NSLRWCD C37	BASE	93.26	10.48	18.50	0	3.41	0.00	13.47	0.00
10yr3d	NSLRWCD C37	BASE	93.51	10.48	18.50	0	3.41	0.00	13.54	0.00
10yr3d	NSLRWCD C37	BASE	93.76	10.48	18.50	0	3.40	0.00	13.61	0.00
10yr3d	NSLRWCD C37	BASE	94.01	10.48	18.50	0	3.40	0.00	13.68	0.00
10yr3d	NSLRWCD C37	BASE	94.26	10.47	18.50	0	3.39	0.00	13.75	0.00
10yr3d	NSLRWCD C37	BASE	94.51	10.47	18.50	0	3.38	0.00	13.82	0.00
10yr3d	NSLRWCD C37	BASE	94.76	10.47	18.50	0	3.38	0.00	13.89	0.00
10yr3d	NSLRWCD C37	BASE	95.01	10.47	18.50	0	3.37	0.00	13.96	0.00
10yr3d	NSLRWCD C37	BASE	95.26	10.46	18.50	0	3.37	0.00	14.03	0.00
10yr3d	NSLRWCD C37	BASE	95.51	10.46	18.50	0	3.36	0.00	14.10	0.00
10yr3d	NSLRWCD C37	BASE	95.76	10.46	18.50	0	3.35	0.00	14.17	0.00
10yr3d	NSLRWCD C37	BASE	96.01	10.46	18.50	0	3.35	0.00	14.23	0.00
10yr3d	NSLRWCD C37	BASE	96.26	10.45	18.50	0	3.34	0.00	14.30	0.00
10yr3d	NSLRWCD C37	BASE	96.51	10.45	18.50	0	3.34	0.00	14.37	0.00
10yr3d	NSLRWCD C37	BASE	96.76	10.45	18.50	0	3.33	0.00	14.44	0.00
10yr3d	NSLRWCD C37	BASE	97.01	10.45	18.50	0	3.32	0.00	14.51	0.00
10yr3d	NSLRWCD C37	BASE	97.26	10.44	18.50	0	3.32	0.00	14.58	0.00
10yr3d	NSLRWCD C37	BASE	97.51	10.44	18.50	0	3.31	0.00	14.65	0.00
10yr3d	NSLRWCD C37	BASE	97.76	10.44	18.50	0	3.31	0.00	14.72	0.00
10yr3d	NSLRWCD C37	BASE	98.01	10.44	18.50	0	3.30	0.00	14.78	0.00
10yr3d	NSLRWCD C37	BASE	98.26	10.43	18.50	0	3.29	0.00	14.85	0.00
10yr3d	NSLRWCD C37	BASE	98.51	10.43	18.50	0	3.29	0.00	14.92	0.00
10yr3d	NSLRWCD C37	BASE	98.76	10.43	18.50	0	3.28	0.00	14.99	0.00
10yr3d	NSLRWCD C37	BASE	99.01	10.43	18.50	0	3.28	0.00	15.06	0.00
10yr3d	NSLRWCD C37	BASE	99.26	10.42	18.50	0	3.27	0.00	15.12	0.00
10yr3d	NSLRWCD C37	BASE	99.51	10.42	18.50	0	3.26	0.00	15.19	0.00
10yr3d	NSLRWCD C37	BASE	99.76	10.42	18.50	0	3.26	0.00	15.26	0.00
10yr3d	NSLRWCD C37	BASE	100.01	10.42	18.50	0	3.25	0.00	15.33	0.00
10yr3d	NSLRWCD C37	BASE	100.26	10.41	18.50	0	3.24	0.00	15.39	0.00
10yr3d	NSLRWCD C37	BASE	100.51	10.41	18.50	0	3.24	0.00	15.46	0.00
10yr3d	NSLRWCD C37	BASE	100.76	10.41	18.50	0	3.23	0.00	15.53	0.00
10yr3d	NSLRWCD C37	BASE	101.01	10.41	18.50	0	3.23	0.00	15.59	0.00
10yr3d	NSLRWCD C37	BASE	101.26	10.40	18.50	0	3.22	0.00	15.66	0.00
10yr3d	NSLRWCD C37	BASE	101.51	10.40	18.50	0	3.21	0.00	15.73	0.00
10yr3d	NSLRWCD C37	BASE	101.76	10.40	18.50	0	3.21	0.00	15.79	0.00
10yr3d	NSLRWCD C37	BASE	102.01	10.40	18.50	0	3.20	0.00	15.86	0.00
10yr3d	NSLRWCD C37	BASE	102.26	10.39	18.50	0	3.20	0.00	15.92	0.00
10yr3d	NSLRWCD C37	BASE	102.51	10.39	18.50	0	3.19	0.00	15.99	0.00
10yr3d	NSLRWCD C37	BASE	102.76	10.39	18.50	0	3.18	0.00	16.06	0.00
10yr3d	NSLRWCD C37	BASE	103.01	10.39	18.50	0	3.18	0.00	16.12	0.00
10yr3d	NSLRWCD C37	BASE	103.26	10.38	18.50	0	3.17	0.00	16.19	0.00
10yr3d	NSLRWCD C37	BASE	103.51	10.38	18.50	0	3.16	0.00	16.25	0.00
10yr3d	NSLRWCD C37	BASE	103.76	10.38	18.50	0	3.16	0.00	16.32	0.00
10yr3d	NSLRWCD C37	BASE	104.01	10.38	18.50	0	3.15	0.00	16.38	0.00
10yr3d	NSLRWCD C37	BASE	104.26	10.37	18.50	0	3.15	0.00	16.45	0.00
10yr3d	NSLRWCD C37	BASE	104.51	10.37	18.50	0	3.14	0.00	16.51	0.00
10yr3d	NSLRWCD C37	BASE	104.76	10.37	18.50	0	3.13	0.00	16.58	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	105.01	10.37	18.50	0	3.13	0.00	16.64	0.00
10yr3d	NSLRWCD C37	BASE	105.26	10.36	18.50	0	3.12	0.00	16.71	0.00
10yr3d	NSLRWCD C37	BASE	105.51	10.36	18.50	0	3.12	0.00	16.77	0.00
10yr3d	NSLRWCD C37	BASE	105.76	10.36	18.50	0	3.11	0.00	16.84	0.00
10yr3d	NSLRWCD C37	BASE	106.01	10.36	18.50	0	3.10	0.00	16.90	0.00
10yr3d	NSLRWCD C37	BASE	106.26	10.35	18.50	0	3.10	0.00	16.96	0.00
10yr3d	NSLRWCD C37	BASE	106.51	10.35	18.50	0	3.09	0.00	17.03	0.00
10yr3d	NSLRWCD C37	BASE	106.76	10.35	18.50	0	3.08	0.00	17.09	0.00
10yr3d	NSLRWCD C37	BASE	107.01	10.35	18.50	0	3.08	0.00	17.16	0.00
10yr3d	NSLRWCD C37	BASE	107.26	10.34	18.50	0	3.07	0.00	17.22	0.00
10yr3d	NSLRWCD C37	BASE	107.51	10.34	18.50	0	3.07	0.00	17.28	0.00
10yr3d	NSLRWCD C37	BASE	107.76	10.34	18.50	0	3.06	0.00	17.35	0.00
10yr3d	NSLRWCD C37	BASE	108.01	10.33	18.50	0	3.05	0.00	17.41	0.00
10yr3d	NSLRWCD C37	BASE	108.26	10.33	18.50	0	3.05	0.00	17.47	0.00
10yr3d	NSLRWCD C37	BASE	108.51	10.33	18.50	0	3.04	0.00	17.54	0.00
10yr3d	NSLRWCD C37	BASE	108.76	10.33	18.50	0	3.03	0.00	17.60	0.00
10yr3d	NSLRWCD C37	BASE	109.01	10.32	18.50	0	3.03	0.00	17.66	0.00
10yr3d	NSLRWCD C37	BASE	109.26	10.32	18.50	0	3.02	0.00	17.72	0.00
10yr3d	NSLRWCD C37	BASE	109.51	10.32	18.50	0	3.02	0.00	17.79	0.00
10yr3d	NSLRWCD C37	BASE	109.76	10.32	18.50	0	3.01	0.00	17.85	0.00
10yr3d	NSLRWCD C37	BASE	110.01	10.31	18.50	0	3.00	0.00	17.91	0.00
10yr3d	NSLRWCD C37	BASE	110.26	10.31	18.50	0	3.00	0.00	17.97	0.00
10yr3d	NSLRWCD C37	BASE	110.51	10.31	18.50	0	2.99	0.00	18.03	0.00
10yr3d	NSLRWCD C37	BASE	110.76	10.31	18.50	0	2.98	0.00	18.10	0.00
10yr3d	NSLRWCD C37	BASE	111.01	10.30	18.50	0	2.98	0.00	18.16	0.00
10yr3d	NSLRWCD C37	BASE	111.26	10.30	18.50	0	2.97	0.00	18.22	0.00
10yr3d	NSLRWCD C37	BASE	111.51	10.30	18.50	0	2.96	0.00	18.28	0.00
10yr3d	NSLRWCD C37	BASE	111.76	10.30	18.50	0	2.96	0.00	18.34	0.00
10yr3d	NSLRWCD C37	BASE	112.01	10.29	18.50	0	2.95	0.00	18.40	0.00
10yr3d	NSLRWCD C37	BASE	112.26	10.29	18.50	0	2.95	0.00	18.46	0.00
10yr3d	NSLRWCD C37	BASE	112.51	10.29	18.50	0	2.94	0.00	18.52	0.00
10yr3d	NSLRWCD C37	BASE	112.76	10.29	18.50	0	2.93	0.00	18.58	0.00
10yr3d	NSLRWCD C37	BASE	113.01	10.28	18.50	0	2.93	0.00	18.65	0.00
10yr3d	NSLRWCD C37	BASE	113.26	10.28	18.50	0	2.92	0.00	18.71	0.00
10yr3d	NSLRWCD C37	BASE	113.51	10.28	18.50	0	2.91	0.00	18.77	0.00
10yr3d	NSLRWCD C37	BASE	113.76	10.28	18.50	0	2.91	0.00	18.83	0.00
10yr3d	NSLRWCD C37	BASE	114.01	10.27	18.50	0	2.90	0.00	18.89	0.00
10yr3d	NSLRWCD C37	BASE	114.26	10.27	18.50	0	2.90	0.00	18.95	0.00
10yr3d	NSLRWCD C37	BASE	114.51	10.27	18.50	0	2.89	0.00	19.01	0.00
10yr3d	NSLRWCD C37	BASE	114.76	10.27	18.50	0	2.88	0.00	19.07	0.00
10yr3d	NSLRWCD C37	BASE	115.01	10.26	18.50	0	2.88	0.00	19.12	0.00
10yr3d	NSLRWCD C37	BASE	115.26	10.26	18.50	0	2.87	0.00	19.18	0.00
10yr3d	NSLRWCD C37	BASE	115.51	10.26	18.50	0	2.86	0.00	19.24	0.00
10yr3d	NSLRWCD C37	BASE	115.76	10.26	18.50	0	2.86	0.00	19.30	0.00
10yr3d	NSLRWCD C37	BASE	116.01	10.25	18.50	0	2.85	0.00	19.36	0.00
10yr3d	NSLRWCD C37	BASE	116.26	10.25	18.50	0	2.84	0.00	19.42	0.00
10yr3d	NSLRWCD C37	BASE	116.51	10.25	18.50	0	2.84	0.00	19.48	0.00
10yr3d	NSLRWCD C37	BASE	116.76	10.25	18.50	0	2.83	0.00	19.54	0.00
10yr3d	NSLRWCD C37	BASE	117.01	10.24	18.50	0	2.83	0.00	19.60	0.00
10yr3d	NSLRWCD C37	BASE	117.26	10.24	18.50	0	2.82	0.00	19.65	0.00
10yr3d	NSLRWCD C37	BASE	117.51	10.24	18.50	0	2.81	0.00	19.71	0.00
10yr3d	NSLRWCD C37	BASE	117.76	10.24	18.50	0	2.81	0.00	19.77	0.00
10yr3d	NSLRWCD C37	BASE	118.01	10.23	18.50	0	2.80	0.00	19.83	0.00
10yr3d	NSLRWCD C37	BASE	118.26	10.23	18.50	0	2.79	0.00	19.89	0.00
10yr3d	NSLRWCD C37	BASE	118.51	10.23	18.50	0	2.79	0.00	19.94	0.00
10yr3d	NSLRWCD C37	BASE	118.76	10.23	18.50	0	2.78	0.00	20.00	0.00
10yr3d	NSLRWCD C37	BASE	119.01	10.22	18.50	0	2.77	0.00	20.06	0.00
10yr3d	NSLRWCD C37	BASE	119.26	10.22	18.50	0	2.77	0.00	20.12	0.00
10yr3d	NSLRWCD C37	BASE	119.51	10.22	18.50	0	2.76	0.00	20.17	0.00
10yr3d	NSLRWCD C37	BASE	119.76	10.22	18.50	0	2.76	0.00	20.23	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	120.01	10.21	18.50	0	2.75	0.00	20.29	0.00
10yr3d	NSLRWCD C37	BASE	120.26	10.21	18.50	0	2.74	0.00	20.34	0.00
10yr3d	NSLRWCD C37	BASE	120.51	10.21	18.50	0	2.74	0.00	20.40	0.00
10yr3d	NSLRWCD C37	BASE	120.76	10.21	18.50	0	2.73	0.00	20.46	0.00
10yr3d	NSLRWCD C37	BASE	121.01	10.20	18.50	0	2.72	0.00	20.51	0.00
10yr3d	NSLRWCD C37	BASE	121.26	10.20	18.50	0	2.72	0.00	20.57	0.00
10yr3d	NSLRWCD C37	BASE	121.51	10.20	18.50	0	2.71	0.00	20.63	0.00
10yr3d	NSLRWCD C37	BASE	121.76	10.20	18.50	0	2.70	0.00	20.68	0.00
10yr3d	NSLRWCD C37	BASE	122.01	10.19	18.50	0	2.70	0.00	20.74	0.00
10yr3d	NSLRWCD C37	BASE	122.26	10.19	18.50	0	2.69	0.00	20.79	0.00
10yr3d	NSLRWCD C37	BASE	122.51	10.19	18.50	0	2.69	0.00	20.85	0.00
10yr3d	NSLRWCD C37	BASE	122.76	10.19	18.50	0	2.68	0.00	20.90	0.00
10yr3d	NSLRWCD C37	BASE	123.01	10.18	18.50	0	2.67	0.00	20.96	0.00
10yr3d	NSLRWCD C37	BASE	123.26	10.18	18.50	0	2.67	0.00	21.01	0.00
10yr3d	NSLRWCD C37	BASE	123.51	10.18	18.50	0	2.66	0.00	21.07	0.00
10yr3d	NSLRWCD C37	BASE	123.76	10.18	18.50	0	2.65	0.00	21.12	0.00
10yr3d	NSLRWCD C37	BASE	124.01	10.17	18.50	0	2.65	0.00	21.18	0.00
10yr3d	NSLRWCD C37	BASE	124.26	10.17	18.50	0	2.64	0.00	21.23	0.00
10yr3d	NSLRWCD C37	BASE	124.51	10.17	18.50	0	2.63	0.00	21.29	0.00
10yr3d	NSLRWCD C37	BASE	124.76	10.17	18.50	0	2.63	0.00	21.34	0.00
10yr3d	NSLRWCD C37	BASE	125.01	10.16	18.50	0	2.62	0.00	21.40	0.00
10yr3d	NSLRWCD C37	BASE	125.26	10.16	18.50	0	2.61	0.00	21.45	0.00
10yr3d	NSLRWCD C37	BASE	125.51	10.16	18.50	0	2.61	0.00	21.50	0.00
10yr3d	NSLRWCD C37	BASE	125.76	10.15	18.50	0	2.60	0.00	21.56	0.00
10yr3d	NSLRWCD C37	BASE	126.01	10.15	18.50	0	2.60	0.00	21.61	0.00
10yr3d	NSLRWCD C37	BASE	126.26	10.15	18.50	0	2.59	0.00	21.67	0.00
10yr3d	NSLRWCD C37	BASE	126.51	10.15	18.50	0	2.58	0.00	21.72	0.00
10yr3d	NSLRWCD C37	BASE	126.76	10.14	18.50	0	2.58	0.00	21.77	0.00
10yr3d	NSLRWCD C37	BASE	127.01	10.14	18.50	0	2.57	0.00	21.83	0.00
10yr3d	NSLRWCD C37	BASE	127.26	10.14	18.50	0	2.56	0.00	21.88	0.00
10yr3d	NSLRWCD C37	BASE	127.51	10.14	18.50	0	2.56	0.00	21.93	0.00
10yr3d	NSLRWCD C37	BASE	127.76	10.13	18.50	0	2.55	0.00	21.98	0.00
10yr3d	NSLRWCD C37	BASE	128.01	10.13	18.50	0	2.54	0.00	22.04	0.00
10yr3d	NSLRWCD C37	BASE	128.26	10.13	18.50	0	2.54	0.00	22.09	0.00
10yr3d	NSLRWCD C37	BASE	128.51	10.13	18.50	0	2.53	0.00	22.14	0.00
10yr3d	NSLRWCD C37	BASE	128.76	10.12	18.50	0	2.52	0.00	22.19	0.00
10yr3d	NSLRWCD C37	BASE	129.01	10.12	18.50	0	2.52	0.00	22.25	0.00
10yr3d	NSLRWCD C37	BASE	129.26	10.12	18.50	0	2.51	0.00	22.30	0.00
10yr3d	NSLRWCD C37	BASE	129.51	10.12	18.50	0	2.50	0.00	22.35	0.00
10yr3d	NSLRWCD C37	BASE	129.76	10.11	18.50	0	2.50	0.00	22.40	0.00
10yr3d	NSLRWCD C37	BASE	130.01	10.11	18.50	0	2.49	0.00	22.45	0.00
10yr3d	NSLRWCD C37	BASE	130.26	10.11	18.50	0	2.48	0.00	22.50	0.00
10yr3d	NSLRWCD C37	BASE	130.51	10.11	18.50	0	2.48	0.00	22.56	0.00
10yr3d	NSLRWCD C37	BASE	130.76	10.10	18.50	0	2.47	0.00	22.61	0.00
10yr3d	NSLRWCD C37	BASE	131.01	10.10	18.50	0	2.46	0.00	22.66	0.00
10yr3d	NSLRWCD C37	BASE	131.26	10.10	18.50	0	2.46	0.00	22.71	0.00
10yr3d	NSLRWCD C37	BASE	131.51	10.10	18.50	0	2.45	0.00	22.76	0.00
10yr3d	NSLRWCD C37	BASE	131.76	10.09	18.50	0	2.44	0.00	22.81	0.00
10yr3d	NSLRWCD C37	BASE	132.01	10.09	18.50	0	2.44	0.00	22.86	0.00
10yr3d	NSLRWCD C37	BASE	132.26	10.09	18.50	0	2.43	0.00	22.91	0.00
10yr3d	NSLRWCD C37	BASE	132.51	10.09	18.50	0	2.42	0.00	22.96	0.00
10yr3d	NSLRWCD C37	BASE	132.76	10.08	18.50	0	2.42	0.00	23.01	0.00
10yr3d	NSLRWCD C37	BASE	133.01	10.08	18.50	0	2.41	0.00	23.06	0.00
10yr3d	NSLRWCD C37	BASE	133.26	10.08	18.50	0	2.41	0.00	23.11	0.00
10yr3d	NSLRWCD C37	BASE	133.51	10.08	18.50	0	2.40	0.00	23.16	0.00
10yr3d	NSLRWCD C37	BASE	133.76	10.07	18.50	0	2.39	0.00	23.21	0.00
10yr3d	NSLRWCD C37	BASE	134.01	10.07	18.50	0	2.39	0.00	23.26	0.00
10yr3d	NSLRWCD C37	BASE	134.26	10.07	18.50	0	2.38	0.00	23.31	0.00
10yr3d	NSLRWCD C37	BASE	134.51	10.07	18.50	0	2.37	0.00	23.36	0.00
10yr3d	NSLRWCD C37	BASE	134.76	10.06	18.50	0	2.37	0.00	23.41	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	135.01	10.06	18.50	0	2.36	0.00	23.45	0.00
10yr3d	NSLRWCD C37	BASE	135.26	10.06	18.50	0	2.35	0.00	23.50	0.00
10yr3d	NSLRWCD C37	BASE	135.51	10.06	18.50	0	2.35	0.00	23.55	0.00
10yr3d	NSLRWCD C37	BASE	135.76	10.05	18.50	0	2.34	0.00	23.60	0.00
10yr3d	NSLRWCD C37	BASE	136.01	10.05	18.50	0	2.33	0.00	23.65	0.00
10yr3d	NSLRWCD C37	BASE	136.26	10.05	18.50	0	2.33	0.00	23.70	0.00
10yr3d	NSLRWCD C37	BASE	136.51	10.05	18.50	0	2.32	0.00	23.74	0.00
10yr3d	NSLRWCD C37	BASE	136.76	10.04	18.50	0	2.31	0.00	23.79	0.00
10yr3d	NSLRWCD C37	BASE	137.01	10.04	18.50	0	2.31	0.00	23.84	0.00
10yr3d	NSLRWCD C37	BASE	137.26	10.04	18.50	0	2.30	0.00	23.89	0.00
10yr3d	NSLRWCD C37	BASE	137.51	10.04	18.50	0	2.30	0.00	23.94	0.00
10yr3d	NSLRWCD C37	BASE	137.76	10.03	18.50	0	2.29	0.00	23.98	0.00
10yr3d	NSLRWCD C37	BASE	138.01	10.03	18.50	0	2.28	0.00	24.03	0.00
10yr3d	NSLRWCD C37	BASE	138.26	10.03	18.50	0	2.28	0.00	24.08	0.00
10yr3d	NSLRWCD C37	BASE	138.51	10.03	18.50	0	2.27	0.00	24.12	0.00
10yr3d	NSLRWCD C37	BASE	138.76	10.02	18.50	0	2.26	0.00	24.17	0.00
10yr3d	NSLRWCD C37	BASE	139.01	10.02	18.50	0	2.26	0.00	24.22	0.00
10yr3d	NSLRWCD C37	BASE	139.26	10.02	18.50	0	2.25	0.00	24.26	0.00
10yr3d	NSLRWCD C37	BASE	139.51	10.02	18.50	0	2.24	0.00	24.31	0.00
10yr3d	NSLRWCD C37	BASE	139.76	10.01	18.50	0	2.24	0.00	24.36	0.00
10yr3d	NSLRWCD C37	BASE	140.01	10.01	18.50	0	2.23	0.00	24.40	0.00
10yr3d	NSLRWCD C37	BASE	140.26	10.01	18.50	0	2.22	0.00	24.45	0.00
10yr3d	NSLRWCD C37	BASE	140.51	10.01	18.50	0	2.22	0.00	24.50	0.00
10yr3d	NSLRWCD C37	BASE	140.76	10.00	18.50	0	2.21	0.00	24.54	0.00
10yr3d	NSLRWCD C37	BASE	141.01	10.00	18.50	0	2.21	0.00	24.59	0.00
10yr3d	NSLRWCD C37	BASE	141.26	10.00	18.50	0	2.20	0.00	24.63	0.00
10yr3d	NSLRWCD C37	BASE	141.51	10.00	18.50	0	2.20	0.00	24.68	0.00
10yr3d	NSLRWCD C37	BASE	141.76	9.99	18.50	0	2.19	0.00	24.72	0.00
10yr3d	NSLRWCD C37	BASE	142.01	9.99	18.50	0	2.18	0.00	24.77	0.00
10yr3d	NSLRWCD C37	BASE	142.26	9.99	18.50	0	2.18	0.00	24.81	0.00
10yr3d	NSLRWCD C37	BASE	142.51	9.99	18.50	0	2.17	0.00	24.86	0.00
10yr3d	NSLRWCD C37	BASE	142.76	9.98	18.50	0	2.16	0.00	24.90	0.00
10yr3d	NSLRWCD C37	BASE	143.01	9.98	18.50	0	2.16	0.00	24.95	0.00
10yr3d	NSLRWCD C37	BASE	143.26	9.98	18.50	0	2.15	0.00	24.99	0.00
10yr3d	NSLRWCD C37	BASE	143.51	9.98	18.50	0	2.14	0.00	25.04	0.00
10yr3d	NSLRWCD C37	BASE	143.76	9.97	18.50	0	2.14	0.00	25.08	0.00
10yr3d	NSLRWCD C37	BASE	144.01	9.97	18.50	0	2.13	0.00	25.12	0.00
10yr3d	NSLRWCD C37	BASE	144.26	9.97	18.50	0	2.12	0.00	25.17	0.00
10yr3d	NSLRWCD C37	BASE	144.51	9.96	18.50	0	2.12	0.00	25.21	0.00
10yr3d	NSLRWCD C37	BASE	144.76	9.96	18.50	0	2.11	0.00	25.26	0.00
10yr3d	NSLRWCD C37	BASE	145.01	9.96	18.50	0	2.11	0.00	25.30	0.00
10yr3d	NSLRWCD C37	BASE	145.26	9.96	18.50	0	2.10	0.00	25.34	0.00
10yr3d	NSLRWCD C37	BASE	145.51	9.95	18.50	0	2.09	0.00	25.39	0.00
10yr3d	NSLRWCD C37	BASE	145.76	9.95	18.50	0	2.09	0.00	25.43	0.00
10yr3d	NSLRWCD C37	BASE	146.01	9.95	18.50	0	2.08	0.00	25.47	0.00
10yr3d	NSLRWCD C37	BASE	146.26	9.95	18.50	0	2.07	0.00	25.52	0.00
10yr3d	NSLRWCD C37	BASE	146.51	9.94	18.50	0	2.07	0.00	25.56	0.00
10yr3d	NSLRWCD C37	BASE	146.76	9.94	18.50	0	2.06	0.00	25.60	0.00
10yr3d	NSLRWCD C37	BASE	147.01	9.94	18.50	0	2.05	0.00	25.64	0.00
10yr3d	NSLRWCD C37	BASE	147.26	9.94	18.50	0	2.05	0.00	25.69	0.00
10yr3d	NSLRWCD C37	BASE	147.51	9.93	18.50	0	2.04	0.00	25.73	0.00
10yr3d	NSLRWCD C37	BASE	147.76	9.93	18.50	0	2.04	0.00	25.77	0.00
10yr3d	NSLRWCD C37	BASE	148.01	9.93	18.50	0	2.03	0.00	25.81	0.00
10yr3d	NSLRWCD C37	BASE	148.26	9.93	18.50	0	2.02	0.00	25.85	0.00
10yr3d	NSLRWCD C37	BASE	148.51	9.92	18.50	0	2.02	0.00	25.90	0.00
10yr3d	NSLRWCD C37	BASE	148.76	9.92	18.50	0	2.01	0.00	25.94	0.00
10yr3d	NSLRWCD C37	BASE	149.01	9.92	18.50	0	2.00	0.00	25.98	0.00
10yr3d	NSLRWCD C37	BASE	149.26	9.92	18.50	0	2.00	0.00	26.02	0.00
10yr3d	NSLRWCD C37	BASE	149.51	9.91	18.50	0	1.99	0.00	26.06	0.00
10yr3d	NSLRWCD C37	BASE	149.76	9.91	18.50	0	1.99	0.00	26.10	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	150.01	9.91	18.50	0	1.98	0.00	26.14	0.00
10yr3d	NSLRWCD C37	BASE	150.26	9.91	18.50	0	1.97	0.00	26.18	0.00
10yr3d	NSLRWCD C37	BASE	150.51	9.90	18.50	0	1.97	0.00	26.22	0.00
10yr3d	NSLRWCD C37	BASE	150.76	9.90	18.50	0	1.96	0.00	26.27	0.00
10yr3d	NSLRWCD C37	BASE	151.01	9.90	18.50	0	1.95	0.00	26.31	0.00
10yr3d	NSLRWCD C37	BASE	151.26	9.90	18.50	0	1.95	0.00	26.35	0.00
10yr3d	NSLRWCD C37	BASE	151.51	9.89	18.50	0	1.94	0.00	26.39	0.00
10yr3d	NSLRWCD C37	BASE	151.76	9.89	18.50	0	1.94	0.00	26.43	0.00
10yr3d	NSLRWCD C37	BASE	152.01	9.89	18.50	0	1.93	0.00	26.47	0.00
10yr3d	NSLRWCD C37	BASE	152.26	9.89	18.50	0	1.92	0.00	26.51	0.00
10yr3d	NSLRWCD C37	BASE	152.51	9.88	18.50	0	1.92	0.00	26.55	0.00
10yr3d	NSLRWCD C37	BASE	152.76	9.88	18.50	0	1.91	0.00	26.59	0.00
10yr3d	NSLRWCD C37	BASE	153.01	9.88	18.50	0	1.90	0.00	26.62	0.00
10yr3d	NSLRWCD C37	BASE	153.26	9.88	18.50	0	1.90	0.00	26.66	0.00
10yr3d	NSLRWCD C37	BASE	153.51	9.87	18.50	0	1.89	0.00	26.70	0.00
10yr3d	NSLRWCD C37	BASE	153.76	9.87	18.50	0	1.89	0.00	26.74	0.00
10yr3d	NSLRWCD C37	BASE	154.01	9.87	18.50	0	1.88	0.00	26.78	0.00
10yr3d	NSLRWCD C37	BASE	154.26	9.87	18.50	0	1.87	0.00	26.82	0.00
10yr3d	NSLRWCD C37	BASE	154.51	9.86	18.50	0	1.87	0.00	26.86	0.00
10yr3d	NSLRWCD C37	BASE	154.76	9.86	18.50	0	1.86	0.00	26.90	0.00
10yr3d	NSLRWCD C37	BASE	155.01	9.86	18.50	0	1.86	0.00	26.94	0.00
10yr3d	NSLRWCD C37	BASE	155.26	9.86	18.50	0	1.85	0.00	26.97	0.00
10yr3d	NSLRWCD C37	BASE	155.51	9.85	18.50	0	1.84	0.00	27.01	0.00
10yr3d	NSLRWCD C37	BASE	155.76	9.85	18.50	0	1.84	0.00	27.05	0.00
10yr3d	NSLRWCD C37	BASE	156.01	9.85	18.50	0	1.83	0.00	27.09	0.00
10yr3d	NSLRWCD C37	BASE	156.26	9.85	18.50	0	1.83	0.00	27.13	0.00
10yr3d	NSLRWCD C37	BASE	156.51	9.84	18.50	0	1.82	0.00	27.16	0.00
10yr3d	NSLRWCD C37	BASE	156.76	9.84	18.50	0	1.81	0.00	27.20	0.00
10yr3d	NSLRWCD C37	BASE	157.01	9.84	18.50	0	1.81	0.00	27.24	0.00
10yr3d	NSLRWCD C37	BASE	157.26	9.84	18.50	0	1.80	0.00	27.28	0.00
10yr3d	NSLRWCD C37	BASE	157.51	9.83	18.50	0	1.79	0.00	27.31	0.00
10yr3d	NSLRWCD C37	BASE	157.76	9.83	18.50	0	1.79	0.00	27.35	0.00
10yr3d	NSLRWCD C37	BASE	158.01	9.83	18.50	0	1.78	0.00	27.39	0.00
10yr3d	NSLRWCD C37	BASE	158.26	9.83	18.50	0	1.78	0.00	27.42	0.00
10yr3d	NSLRWCD C37	BASE	158.51	9.82	18.50	0	1.77	0.00	27.46	0.00
10yr3d	NSLRWCD C37	BASE	158.76	9.82	18.50	0	1.76	0.00	27.50	0.00
10yr3d	NSLRWCD C37	BASE	159.01	9.82	18.50	0	1.76	0.00	27.53	0.00
10yr3d	NSLRWCD C37	BASE	159.26	9.82	18.50	0	1.75	0.00	27.57	0.00
10yr3d	NSLRWCD C37	BASE	159.51	9.81	18.50	0	1.75	0.00	27.61	0.00
10yr3d	NSLRWCD C37	BASE	159.76	9.81	18.50	0	1.74	0.00	27.64	0.00
10yr3d	NSLRWCD C37	BASE	160.01	9.81	18.50	0	1.73	0.00	27.68	0.00
10yr3d	NSLRWCD C37	BASE	160.26	9.81	18.50	0	1.73	0.00	27.71	0.00
10yr3d	NSLRWCD C37	BASE	160.51	9.80	18.50	0	1.72	0.00	27.75	0.00
10yr3d	NSLRWCD C37	BASE	160.76	9.80	18.50	0	1.72	0.00	27.78	0.00
10yr3d	NSLRWCD C37	BASE	161.01	9.80	18.50	0	1.71	0.00	27.82	0.00
10yr3d	NSLRWCD C37	BASE	161.26	9.80	18.50	0	1.71	0.00	27.85	0.00
10yr3d	NSLRWCD C37	BASE	161.51	9.79	18.50	0	1.70	0.00	27.89	0.00
10yr3d	NSLRWCD C37	BASE	161.76	9.79	18.50	0	1.69	0.00	27.93	0.00
10yr3d	NSLRWCD C37	BASE	162.01	9.79	18.50	0	1.69	0.00	27.96	0.00
10yr3d	NSLRWCD C37	BASE	162.26	9.78	18.50	0	1.68	0.00	27.99	0.00
10yr3d	NSLRWCD C37	BASE	162.51	9.78	18.50	0	1.68	0.00	28.03	0.00
10yr3d	NSLRWCD C37	BASE	162.76	9.78	18.50	0	1.67	0.00	28.06	0.00
10yr3d	NSLRWCD C37	BASE	163.01	9.78	18.50	0	1.66	0.00	28.10	0.00
10yr3d	NSLRWCD C37	BASE	163.26	9.77	18.50	0	1.66	0.00	28.13	0.00
10yr3d	NSLRWCD C37	BASE	163.51	9.77	18.50	0	1.65	0.00	28.17	0.00
10yr3d	NSLRWCD C37	BASE	163.76	9.77	18.50	0	1.65	0.00	28.20	0.00
10yr3d	NSLRWCD C37	BASE	164.01	9.77	18.50	0	1.64	0.00	28.24	0.00
10yr3d	NSLRWCD C37	BASE	164.26	9.76	18.50	0	1.64	0.00	28.27	0.00
10yr3d	NSLRWCD C37	BASE	164.51	9.76	18.50	0	1.63	0.00	28.30	0.00
10yr3d	NSLRWCD C37	BASE	164.76	9.76	18.50	0	1.62	0.00	28.34	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	165.01	9.76	18.50	0	1.62	0.00	28.37	0.00
10yr3d	NSLRWCD C37	BASE	165.26	9.75	18.50	0	1.61	0.00	28.40	0.00
10yr3d	NSLRWCD C37	BASE	165.51	9.75	18.50	0	1.61	0.00	28.44	0.00
10yr3d	NSLRWCD C37	BASE	165.76	9.75	18.50	0	1.60	0.00	28.47	0.00
10yr3d	NSLRWCD C37	BASE	166.01	9.75	18.50	0	1.59	0.00	28.50	0.00
10yr3d	NSLRWCD C37	BASE	166.26	9.74	18.50	0	1.59	0.00	28.54	0.00
10yr3d	NSLRWCD C37	BASE	166.51	9.74	18.50	0	1.58	0.00	28.57	0.00
10yr3d	NSLRWCD C37	BASE	166.76	9.74	18.50	0	1.58	0.00	28.60	0.00
10yr3d	NSLRWCD C37	BASE	167.01	9.74	18.50	0	1.57	0.00	28.63	0.00
10yr3d	NSLRWCD C37	BASE	167.26	9.73	18.50	0	1.57	0.00	28.67	0.00
10yr3d	NSLRWCD C37	BASE	167.51	9.73	18.50	0	1.56	0.00	28.70	0.00
10yr3d	NSLRWCD C37	BASE	167.76	9.73	18.50	0	1.55	0.00	28.73	0.00
10yr3d	NSLRWCD C37	BASE	168.01	9.73	18.50	0	1.55	0.00	28.76	0.00
10yr3d	NSLRWCD C37	BASE	168.26	9.72	18.50	0	1.54	0.00	28.79	0.00
10yr3d	NSLRWCD C37	BASE	168.51	9.72	18.50	0	1.53	0.00	28.83	0.00
10yr3d	NSLRWCD C37	BASE	168.76	9.72	18.50	0	1.53	0.00	28.86	0.00
10yr3d	NSLRWCD C37	BASE	169.01	9.72	18.50	0	1.52	0.00	28.89	0.00
10yr3d	NSLRWCD C37	BASE	169.26	9.71	18.50	0	1.51	0.00	28.92	0.00
10yr3d	NSLRWCD C37	BASE	169.51	9.71	18.50	0	1.50	0.00	28.95	0.00
10yr3d	NSLRWCD C37	BASE	169.76	9.71	18.50	0	1.50	0.00	28.98	0.00
10yr3d	NSLRWCD C37	BASE	170.01	9.71	18.50	0	1.49	0.00	29.01	0.00
10yr3d	NSLRWCD C37	BASE	170.26	9.70	18.50	0	1.48	0.00	29.04	0.00
10yr3d	NSLRWCD C37	BASE	170.51	9.70	18.50	0	1.47	0.00	29.07	0.00
10yr3d	NSLRWCD C37	BASE	170.76	9.70	18.50	0	1.47	0.00	29.11	0.00
10yr3d	NSLRWCD C37	BASE	171.01	9.70	18.50	0	1.46	0.00	29.14	0.00
10yr3d	NSLRWCD C37	BASE	171.26	9.69	18.50	0	1.45	0.00	29.17	0.00
10yr3d	NSLRWCD C37	BASE	171.51	9.69	18.50	0	1.45	0.00	29.20	0.00
10yr3d	NSLRWCD C37	BASE	171.76	9.69	18.50	0	1.44	0.00	29.23	0.00
10yr3d	NSLRWCD C37	BASE	172.01	9.69	18.50	0	1.43	0.00	29.25	0.00
10yr3d	NSLRWCD C37	BASE	172.26	9.68	18.50	0	1.43	0.00	29.28	0.00
10yr3d	NSLRWCD C37	BASE	172.51	9.68	18.50	0	1.42	0.00	29.31	0.00
10yr3d	NSLRWCD C37	BASE	172.76	9.68	18.50	0	1.41	0.00	29.34	0.00
10yr3d	NSLRWCD C37	BASE	173.01	9.68	18.50	0	1.41	0.00	29.37	0.00
10yr3d	NSLRWCD C37	BASE	173.26	9.67	18.50	0	1.40	0.00	29.40	0.00
10yr3d	NSLRWCD C37	BASE	173.51	9.67	18.50	0	1.39	0.00	29.43	0.00
10yr3d	NSLRWCD C37	BASE	173.76	9.67	18.50	0	1.39	0.00	29.46	0.00
10yr3d	NSLRWCD C37	BASE	174.01	9.67	18.50	0	1.38	0.00	29.49	0.00
10yr3d	NSLRWCD C37	BASE	174.26	9.66	18.50	0	1.38	0.00	29.52	0.00
10yr3d	NSLRWCD C37	BASE	174.51	9.66	18.50	0	1.37	0.00	29.54	0.00
10yr3d	NSLRWCD C37	BASE	174.76	9.66	18.50	0	1.36	0.00	29.57	0.00
10yr3d	NSLRWCD C37	BASE	175.01	9.66	18.50	0	1.36	0.00	29.60	0.00
10yr3d	NSLRWCD C37	BASE	175.26	9.65	18.50	0	1.35	0.00	29.63	0.00
10yr3d	NSLRWCD C37	BASE	175.51	9.65	18.50	0	1.35	0.00	29.66	0.00
10yr3d	NSLRWCD C37	BASE	175.76	9.65	18.50	0	1.34	0.00	29.68	0.00
10yr3d	NSLRWCD C37	BASE	176.01	9.65	18.50	0	1.33	0.00	29.71	0.00
10yr3d	NSLRWCD C37	BASE	176.26	9.64	18.50	0	1.33	0.00	29.74	0.00
10yr3d	NSLRWCD C37	BASE	176.51	9.64	18.50	0	1.32	0.00	29.77	0.00
10yr3d	NSLRWCD C37	BASE	176.76	9.64	18.50	0	1.31	0.00	29.79	0.00
10yr3d	NSLRWCD C37	BASE	177.01	9.64	18.50	0	1.31	0.00	29.82	0.00
10yr3d	NSLRWCD C37	BASE	177.26	9.63	18.50	0	1.30	0.00	29.85	0.00
10yr3d	NSLRWCD C37	BASE	177.51	9.63	18.50	0	1.30	0.00	29.87	0.00
10yr3d	NSLRWCD C37	BASE	177.76	9.63	18.50	0	1.29	0.00	29.90	0.00
10yr3d	NSLRWCD C37	BASE	178.01	9.63	18.50	0	1.28	0.00	29.93	0.00
10yr3d	NSLRWCD C37	BASE	178.26	9.62	18.50	0	1.28	0.00	29.95	0.00
10yr3d	NSLRWCD C37	BASE	178.51	9.62	18.50	0	1.27	0.00	29.98	0.00
10yr3d	NSLRWCD C37	BASE	178.76	9.62	18.50	0	1.27	0.00	30.01	0.00
10yr3d	NSLRWCD C37	BASE	179.01	9.62	18.50	0	1.26	0.00	30.03	0.00
10yr3d	NSLRWCD C37	BASE	179.26	9.61	18.50	0	1.25	0.00	30.06	0.00
10yr3d	NSLRWCD C37	BASE	179.51	9.61	18.50	0	1.25	0.00	30.09	0.00
10yr3d	NSLRWCD C37	BASE	179.76	9.61	18.50	0	1.24	0.00	30.11	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	180.01	9.60	18.50	0	1.24	0.00	30.14	0.00
10yr3d	NSLRWCD C37	BASE	180.26	9.60	18.50	0	1.23	0.00	30.16	0.00
10yr3d	NSLRWCD C37	BASE	180.51	9.60	18.50	0	1.23	0.00	30.19	0.00
10yr3d	NSLRWCD C37	BASE	180.76	9.60	18.50	0	1.22	0.00	30.21	0.00
10yr3d	NSLRWCD C37	BASE	181.01	9.59	18.50	0	1.22	0.00	30.24	0.00
10yr3d	NSLRWCD C37	BASE	181.26	9.59	18.50	0	1.21	0.00	30.26	0.00
10yr3d	NSLRWCD C37	BASE	181.51	9.59	18.50	0	1.21	0.00	30.29	0.00
10yr3d	NSLRWCD C37	BASE	181.76	9.59	18.50	0	1.20	0.00	30.31	0.00
10yr3d	NSLRWCD C37	BASE	182.01	9.58	18.50	0	1.20	0.00	30.34	0.00
10yr3d	NSLRWCD C37	BASE	182.26	9.58	18.50	0	1.19	0.00	30.36	0.00
10yr3d	NSLRWCD C37	BASE	182.51	9.58	18.50	0	1.19	0.00	30.39	0.00
10yr3d	NSLRWCD C37	BASE	182.76	9.58	18.50	0	1.18	0.00	30.41	0.00
10yr3d	NSLRWCD C37	BASE	183.01	9.57	18.50	0	1.18	0.00	30.44	0.00
10yr3d	NSLRWCD C37	BASE	183.26	9.57	18.50	0	1.17	0.00	30.46	0.00
10yr3d	NSLRWCD C37	BASE	183.51	9.57	18.50	0	1.17	0.00	30.48	0.00
10yr3d	NSLRWCD C37	BASE	183.76	9.57	18.50	0	1.17	0.00	30.51	0.00
10yr3d	NSLRWCD C37	BASE	184.01	9.56	18.50	0	1.16	0.00	30.53	0.00
10yr3d	NSLRWCD C37	BASE	184.26	9.56	18.50	0	1.16	0.00	30.56	0.00
10yr3d	NSLRWCD C37	BASE	184.51	9.56	18.50	0	1.15	0.00	30.58	0.00
10yr3d	NSLRWCD C37	BASE	184.76	9.56	18.50	0	1.15	0.00	30.60	0.00
10yr3d	NSLRWCD C37	BASE	185.01	9.55	18.50	0	1.14	0.00	30.63	0.00
10yr3d	NSLRWCD C37	BASE	185.26	9.55	18.50	0	1.14	0.00	30.65	0.00
10yr3d	NSLRWCD C37	BASE	185.51	9.55	18.50	0	1.14	0.00	30.68	0.00
10yr3d	NSLRWCD C37	BASE	185.76	9.55	18.50	0	1.13	0.00	30.70	0.00
10yr3d	NSLRWCD C37	BASE	186.01	9.54	18.50	0	1.13	0.00	30.72	0.00
10yr3d	NSLRWCD C37	BASE	186.26	9.54	18.50	0	1.12	0.00	30.75	0.00
10yr3d	NSLRWCD C37	BASE	186.51	9.54	18.50	0	1.12	0.00	30.77	0.00
10yr3d	NSLRWCD C37	BASE	186.76	9.54	18.50	0	1.12	0.00	30.79	0.00
10yr3d	NSLRWCD C37	BASE	187.01	9.53	18.50	0	1.11	0.00	30.81	0.00
10yr3d	NSLRWCD C37	BASE	187.26	9.53	18.50	0	1.11	0.00	30.84	0.00
10yr3d	NSLRWCD C37	BASE	187.51	9.53	18.50	0	1.11	0.00	30.86	0.00
10yr3d	NSLRWCD C37	BASE	187.76	9.53	18.50	0	1.10	0.00	30.88	0.00
10yr3d	NSLRWCD C37	BASE	188.01	9.52	18.50	0	1.10	0.00	30.91	0.00
10yr3d	NSLRWCD C37	BASE	188.26	9.52	18.50	0	1.09	0.00	30.93	0.00
10yr3d	NSLRWCD C37	BASE	188.51	9.52	18.50	0	1.09	0.00	30.95	0.00
10yr3d	NSLRWCD C37	BASE	188.76	9.52	18.50	0	1.09	0.00	30.97	0.00
10yr3d	NSLRWCD C37	BASE	189.01	9.51	18.50	0	1.08	0.00	31.00	0.00
10yr3d	NSLRWCD C37	BASE	189.26	9.51	18.50	0	1.08	0.00	31.02	0.00
10yr3d	NSLRWCD C37	BASE	189.51	9.51	18.50	0	1.08	0.00	31.04	0.00
10yr3d	NSLRWCD C37	BASE	189.76	9.51	18.50	0	1.07	0.00	31.06	0.00
10yr3d	NSLRWCD C37	BASE	190.01	9.50	18.50	0	1.07	0.00	31.09	0.00
10yr3d	NSLRWCD C37	BASE	190.26	9.50	18.50	0	1.07	0.00	31.11	0.00
10yr3d	NSLRWCD C37	BASE	190.51	9.50	18.50	0	1.06	0.00	31.13	0.00
10yr3d	NSLRWCD C37	BASE	190.76	9.50	18.50	0	1.06	0.00	31.15	0.00
10yr3d	NSLRWCD C37	BASE	191.01	9.49	18.50	0	1.06	0.00	31.17	0.00
10yr3d	NSLRWCD C37	BASE	191.26	9.49	18.50	0	1.05	0.00	31.19	0.00
10yr3d	NSLRWCD C37	BASE	191.51	9.49	18.50	0	1.05	0.00	31.22	0.00
10yr3d	NSLRWCD C37	BASE	191.76	9.49	18.50	0	1.05	0.00	31.24	0.00
10yr3d	NSLRWCD C37	BASE	192.01	9.48	18.50	0	1.04	0.00	31.26	0.00
10yr3d	NSLRWCD C37	BASE	192.26	9.48	18.50	0	1.04	0.00	31.28	0.00
10yr3d	NSLRWCD C37	BASE	192.51	9.48	18.50	0	1.04	0.00	31.30	0.00
10yr3d	NSLRWCD C37	BASE	192.76	9.48	18.50	0	1.03	0.00	31.32	0.00
10yr3d	NSLRWCD C37	BASE	193.01	9.47	18.50	0	1.03	0.00	31.35	0.00
10yr3d	NSLRWCD C37	BASE	193.26	9.47	18.50	0	1.03	0.00	31.37	0.00
10yr3d	NSLRWCD C37	BASE	193.51	9.47	18.50	0	1.03	0.00	31.39	0.00
10yr3d	NSLRWCD C37	BASE	193.76	9.47	18.50	0	1.02	0.00	31.41	0.00
10yr3d	NSLRWCD C37	BASE	194.01	9.46	18.50	0	1.02	0.00	31.43	0.00
10yr3d	NSLRWCD C37	BASE	194.26	9.46	18.50	0	1.02	0.00	31.45	0.00
10yr3d	NSLRWCD C37	BASE	194.51	9.46	18.50	0	1.01	0.00	31.47	0.00
10yr3d	NSLRWCD C37	BASE	194.76	9.46	18.50	0	1.01	0.00	31.49	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	195.01	9.45	18.50	0	1.01	0.00	31.51	0.00
10yr3d	NSLRWCD C37	BASE	195.26	9.45	18.50	0	1.01	0.00	31.53	0.00
10yr3d	NSLRWCD C37	BASE	195.51	9.45	18.50	0	1.00	0.00	31.56	0.00
10yr3d	NSLRWCD C37	BASE	195.76	9.45	18.50	0	1.00	0.00	31.58	0.00
10yr3d	NSLRWCD C37	BASE	196.01	9.44	18.50	0	1.00	0.00	31.60	0.00
10yr3d	NSLRWCD C37	BASE	196.26	9.44	18.50	0	0.99	0.00	31.62	0.00
10yr3d	NSLRWCD C37	BASE	196.51	9.44	18.50	0	0.99	0.00	31.64	0.00
10yr3d	NSLRWCD C37	BASE	196.76	9.44	18.50	0	0.99	0.00	31.66	0.00
10yr3d	NSLRWCD C37	BASE	197.01	9.43	18.50	0	0.99	0.00	31.68	0.00
10yr3d	NSLRWCD C37	BASE	197.26	9.43	18.50	0	0.98	0.00	31.70	0.00
10yr3d	NSLRWCD C37	BASE	197.51	9.43	18.50	0	0.98	0.00	31.72	0.00
10yr3d	NSLRWCD C37	BASE	197.76	9.42	18.50	0	0.98	0.00	31.74	0.00
10yr3d	NSLRWCD C37	BASE	198.01	9.42	18.50	0	0.98	0.00	31.76	0.00
10yr3d	NSLRWCD C37	BASE	198.26	9.42	18.50	0	0.97	0.00	31.78	0.00
10yr3d	NSLRWCD C37	BASE	198.51	9.42	18.50	0	0.97	0.00	31.80	0.00
10yr3d	NSLRWCD C37	BASE	198.76	9.41	18.50	0	0.97	0.00	31.82	0.00
10yr3d	NSLRWCD C37	BASE	199.01	9.41	18.50	0	0.97	0.00	31.84	0.00
10yr3d	NSLRWCD C37	BASE	199.26	9.41	18.50	0	0.96	0.00	31.86	0.00
10yr3d	NSLRWCD C37	BASE	199.51	9.41	18.50	0	0.96	0.00	31.88	0.00
10yr3d	NSLRWCD C37	BASE	199.76	9.40	18.50	0	0.96	0.00	31.90	0.00
10yr3d	NSLRWCD C37	BASE	200.01	9.40	18.50	0	0.96	0.00	31.92	0.00
10yr3d	NSLRWCD C37	BASE	200.26	9.40	18.50	0	0.95	0.00	31.94	0.00
10yr3d	NSLRWCD C37	BASE	200.51	9.40	18.50	0	0.95	0.00	31.96	0.00
10yr3d	NSLRWCD C37	BASE	200.76	9.39	18.50	0	0.95	0.00	31.98	0.00
10yr3d	NSLRWCD C37	BASE	201.01	9.39	18.50	0	0.95	0.00	32.00	0.00
10yr3d	NSLRWCD C37	BASE	201.26	9.39	18.50	0	0.95	0.00	32.02	0.00
10yr3d	NSLRWCD C37	BASE	201.51	9.39	18.50	0	0.94	0.00	32.04	0.00
10yr3d	NSLRWCD C37	BASE	201.76	9.38	18.50	0	0.94	0.00	32.06	0.00
10yr3d	NSLRWCD C37	BASE	202.01	9.38	18.50	0	0.94	0.00	32.08	0.00
10yr3d	NSLRWCD C37	BASE	202.26	9.38	18.50	0	0.94	0.00	32.10	0.00
10yr3d	NSLRWCD C37	BASE	202.51	9.38	18.50	0	0.93	0.00	32.12	0.00
10yr3d	NSLRWCD C37	BASE	202.76	9.37	18.50	0	0.93	0.00	32.13	0.00
10yr3d	NSLRWCD C37	BASE	203.01	9.37	18.50	0	0.93	0.00	32.15	0.00
10yr3d	NSLRWCD C37	BASE	203.26	9.37	18.50	0	0.93	0.00	32.17	0.00
10yr3d	NSLRWCD C37	BASE	203.51	9.37	18.50	0	0.93	0.00	32.19	0.00
10yr3d	NSLRWCD C37	BASE	203.76	9.36	18.50	0	0.92	0.00	32.21	0.00
10yr3d	NSLRWCD C37	BASE	204.01	9.36	18.50	0	0.92	0.00	32.23	0.00
10yr3d	NSLRWCD C37	BASE	204.26	9.36	18.50	0	0.92	0.00	32.25	0.00
10yr3d	NSLRWCD C37	BASE	204.51	9.36	18.50	0	0.92	0.00	32.27	0.00
10yr3d	NSLRWCD C37	BASE	204.76	9.35	18.50	0	0.91	0.00	32.29	0.00
10yr3d	NSLRWCD C37	BASE	205.01	9.35	18.50	0	0.91	0.00	32.31	0.00
10yr3d	NSLRWCD C37	BASE	205.26	9.35	18.50	0	0.91	0.00	32.32	0.00
10yr3d	NSLRWCD C37	BASE	205.51	9.35	18.50	0	0.91	0.00	32.34	0.00
10yr3d	NSLRWCD C37	BASE	205.76	9.34	18.50	0	0.91	0.00	32.36	0.00
10yr3d	NSLRWCD C37	BASE	206.01	9.34	18.50	0	0.90	0.00	32.38	0.00
10yr3d	NSLRWCD C37	BASE	206.26	9.34	18.50	0	0.90	0.00	32.40	0.00
10yr3d	NSLRWCD C37	BASE	206.51	9.34	18.50	0	0.90	0.00	32.42	0.00
10yr3d	NSLRWCD C37	BASE	206.76	9.33	18.50	0	0.90	0.00	32.44	0.00
10yr3d	NSLRWCD C37	BASE	207.01	9.33	18.50	0	0.90	0.00	32.46	0.00
10yr3d	NSLRWCD C37	BASE	207.26	9.33	18.50	0	0.89	0.00	32.47	0.00
10yr3d	NSLRWCD C37	BASE	207.51	9.33	18.50	0	0.89	0.00	32.49	0.00
10yr3d	NSLRWCD C37	BASE	207.76	9.32	18.50	0	0.89	0.00	32.51	0.00
10yr3d	NSLRWCD C37	BASE	208.01	9.32	18.50	0	0.89	0.00	32.53	0.00
10yr3d	NSLRWCD C37	BASE	208.26	9.32	18.50	0	0.89	0.00	32.55	0.00
10yr3d	NSLRWCD C37	BASE	208.51	9.32	18.50	0	0.89	0.00	32.57	0.00
10yr3d	NSLRWCD C37	BASE	208.76	9.31	18.50	0	0.88	0.00	32.58	0.00
10yr3d	NSLRWCD C37	BASE	209.01	9.31	18.50	0	0.88	0.00	32.60	0.00
10yr3d	NSLRWCD C37	BASE	209.26	9.31	18.50	0	0.88	0.00	32.62	0.00
10yr3d	NSLRWCD C37	BASE	209.51	9.31	18.50	0	0.88	0.00	32.64	0.00
10yr3d	NSLRWCD C37	BASE	209.76	9.30	18.50	0	0.88	0.00	32.66	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	210.01	9.30	18.50	0	0.87	0.00	32.68	0.00
10yr3d	NSLRWCD C37	BASE	210.26	9.30	18.50	0	0.87	0.00	32.69	0.00
10yr3d	NSLRWCD C37	BASE	210.51	9.30	18.50	0	0.87	0.00	32.71	0.00
10yr3d	NSLRWCD C37	BASE	210.76	9.29	18.50	0	0.87	0.00	32.73	0.00
10yr3d	NSLRWCD C37	BASE	211.01	9.29	18.50	0	0.87	0.00	32.75	0.00
10yr3d	NSLRWCD C37	BASE	211.26	9.29	18.50	0	0.87	0.00	32.76	0.00
10yr3d	NSLRWCD C37	BASE	211.51	9.29	18.50	0	0.86	0.00	32.78	0.00
10yr3d	NSLRWCD C37	BASE	211.76	9.28	18.50	0	0.86	0.00	32.80	0.00
10yr3d	NSLRWCD C37	BASE	212.01	9.28	18.50	0	0.86	0.00	32.82	0.00
10yr3d	NSLRWCD C37	BASE	212.26	9.28	18.50	0	0.86	0.00	32.84	0.00
10yr3d	NSLRWCD C37	BASE	212.51	9.28	18.50	0	0.86	0.00	32.85	0.00
10yr3d	NSLRWCD C37	BASE	212.76	9.27	18.50	0	0.85	0.00	32.87	0.00
10yr3d	NSLRWCD C37	BASE	213.01	9.27	18.50	0	0.85	0.00	32.89	0.00
10yr3d	NSLRWCD C37	BASE	213.26	9.27	18.50	0	0.85	0.00	32.91	0.00
10yr3d	NSLRWCD C37	BASE	213.51	9.27	18.50	0	0.85	0.00	32.92	0.00
10yr3d	NSLRWCD C37	BASE	213.76	9.26	18.50	0	0.85	0.00	32.94	0.00
10yr3d	NSLRWCD C37	BASE	214.01	9.26	18.50	0	0.85	0.00	32.96	0.00
10yr3d	NSLRWCD C37	BASE	214.26	9.26	18.50	0	0.84	0.00	32.98	0.00
10yr3d	NSLRWCD C37	BASE	214.51	9.26	18.50	0	0.84	0.00	32.99	0.00
10yr3d	NSLRWCD C37	BASE	214.76	9.25	18.50	0	0.84	0.00	33.01	0.00
10yr3d	NSLRWCD C37	BASE	215.01	9.25	18.50	0	0.84	0.00	33.03	0.00
10yr3d	NSLRWCD C37	BASE	215.26	9.25	18.50	0	0.84	0.00	33.05	0.00
10yr3d	NSLRWCD C37	BASE	215.51	9.25	18.50	0	0.84	0.00	33.06	0.00
10yr3d	NSLRWCD C37	BASE	215.76	9.24	18.50	0	0.83	0.00	33.08	0.00
10yr3d	NSLRWCD C37	BASE	216.01	9.24	18.50	0	0.83	0.00	33.10	0.00
10yr3d	NSLRWCD C37	BASE	216.26	9.24	18.50	0	0.83	0.00	33.12	0.00
10yr3d	NSLRWCD C37	BASE	216.51	9.23	18.50	0	0.83	0.00	33.13	0.00
10yr3d	NSLRWCD C37	BASE	216.76	9.23	18.50	0	0.83	0.00	33.15	0.00
10yr3d	NSLRWCD C37	BASE	217.01	9.23	18.50	0	0.83	0.00	33.17	0.00
10yr3d	NSLRWCD C37	BASE	217.26	9.23	18.50	0	0.82	0.00	33.18	0.00
10yr3d	NSLRWCD C37	BASE	217.51	9.22	18.50	0	0.82	0.00	33.20	0.00
10yr3d	NSLRWCD C37	BASE	217.76	9.22	18.50	0	0.82	0.00	33.22	0.00
10yr3d	NSLRWCD C37	BASE	218.01	9.22	18.50	0	0.82	0.00	33.23	0.00
10yr3d	NSLRWCD C37	BASE	218.26	9.22	18.50	0	0.82	0.00	33.25	0.00
10yr3d	NSLRWCD C37	BASE	218.51	9.21	18.50	0	0.82	0.00	33.27	0.00
10yr3d	NSLRWCD C37	BASE	218.76	9.21	18.50	0	0.82	0.00	33.29	0.00
10yr3d	NSLRWCD C37	BASE	219.01	9.21	18.50	0	0.81	0.00	33.30	0.00
10yr3d	NSLRWCD C37	BASE	219.26	9.21	18.50	0	0.81	0.00	33.32	0.00
10yr3d	NSLRWCD C37	BASE	219.51	9.20	18.50	0	0.81	0.00	33.34	0.00
10yr3d	NSLRWCD C37	BASE	219.76	9.20	18.50	0	0.81	0.00	33.35	0.00
10yr3d	NSLRWCD C37	BASE	220.01	9.20	18.50	0	0.81	0.00	33.37	0.00
10yr3d	NSLRWCD C37	BASE	220.26	9.20	18.50	0	0.81	0.00	33.39	0.00
10yr3d	NSLRWCD C37	BASE	220.51	9.19	18.50	0	0.80	0.00	33.40	0.00
10yr3d	NSLRWCD C37	BASE	220.76	9.19	18.50	0	0.80	0.00	33.42	0.00
10yr3d	NSLRWCD C37	BASE	221.01	9.19	18.50	0	0.80	0.00	33.44	0.00
10yr3d	NSLRWCD C37	BASE	221.26	9.19	18.50	0	0.80	0.00	33.45	0.00
10yr3d	NSLRWCD C37	BASE	221.51	9.18	18.50	0	0.80	0.00	33.47	0.00
10yr3d	NSLRWCD C37	BASE	221.76	9.18	18.50	0	0.80	0.00	33.49	0.00
10yr3d	NSLRWCD C37	BASE	222.01	9.18	18.50	0	0.80	0.00	33.50	0.00
10yr3d	NSLRWCD C37	BASE	222.26	9.18	18.50	0	0.79	0.00	33.52	0.00
10yr3d	NSLRWCD C37	BASE	222.51	9.17	18.50	0	0.79	0.00	33.53	0.00
10yr3d	NSLRWCD C37	BASE	222.76	9.17	18.50	0	0.79	0.00	33.55	0.00
10yr3d	NSLRWCD C37	BASE	223.01	9.17	18.50	0	0.79	0.00	33.57	0.00
10yr3d	NSLRWCD C37	BASE	223.26	9.17	18.50	0	0.79	0.00	33.58	0.00
10yr3d	NSLRWCD C37	BASE	223.51	9.16	18.50	0	0.79	0.00	33.60	0.00
10yr3d	NSLRWCD C37	BASE	223.76	9.16	18.50	0	0.79	0.00	33.62	0.00
10yr3d	NSLRWCD C37	BASE	224.01	9.16	18.50	0	0.78	0.00	33.63	0.00
10yr3d	NSLRWCD C37	BASE	224.26	9.16	18.50	0	0.78	0.00	33.65	0.00
10yr3d	NSLRWCD C37	BASE	224.51	9.15	18.50	0	0.78	0.00	33.66	0.00
10yr3d	NSLRWCD C37	BASE	224.76	9.15	18.50	0	0.78	0.00	33.68	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	225.01	9.15	18.50	0	0.78	0.00	33.70	0.00
10yr3d	NSLRWCD C37	BASE	225.26	9.15	18.50	0	0.78	0.00	33.71	0.00
10yr3d	NSLRWCD C37	BASE	225.51	9.14	18.50	0	0.78	0.00	33.73	0.00
10yr3d	NSLRWCD C37	BASE	225.76	9.14	18.50	0	0.77	0.00	33.74	0.00
10yr3d	NSLRWCD C37	BASE	226.01	9.14	18.50	0	0.77	0.00	33.76	0.00
10yr3d	NSLRWCD C37	BASE	226.26	9.14	18.50	0	0.77	0.00	33.78	0.00
10yr3d	NSLRWCD C37	BASE	226.51	9.13	18.50	0	0.77	0.00	33.79	0.00
10yr3d	NSLRWCD C37	BASE	226.76	9.13	18.50	0	0.77	0.00	33.81	0.00
10yr3d	NSLRWCD C37	BASE	227.01	9.13	18.50	0	0.77	0.00	33.82	0.00
10yr3d	NSLRWCD C37	BASE	227.26	9.13	18.50	0	0.77	0.00	33.84	0.00
10yr3d	NSLRWCD C37	BASE	227.51	9.12	18.50	0	0.76	0.00	33.86	0.00
10yr3d	NSLRWCD C37	BASE	227.76	9.12	18.50	0	0.76	0.00	33.87	0.00
10yr3d	NSLRWCD C37	BASE	228.01	9.12	18.50	0	0.76	0.00	33.89	0.00
10yr3d	NSLRWCD C37	BASE	228.26	9.12	18.50	0	0.76	0.00	33.90	0.00
10yr3d	NSLRWCD C37	BASE	228.51	9.11	18.50	0	0.76	0.00	33.92	0.00
10yr3d	NSLRWCD C37	BASE	228.76	9.11	18.50	0	0.76	0.00	33.93	0.00
10yr3d	NSLRWCD C37	BASE	229.01	9.11	18.50	0	0.76	0.00	33.95	0.00
10yr3d	NSLRWCD C37	BASE	229.26	9.11	18.50	0	0.75	0.00	33.97	0.00
10yr3d	NSLRWCD C37	BASE	229.51	9.10	18.50	0	0.75	0.00	33.98	0.00
10yr3d	NSLRWCD C37	BASE	229.76	9.10	18.50	0	0.75	0.00	34.00	0.00
10yr3d	NSLRWCD C37	BASE	230.01	9.10	18.50	0	0.75	0.00	34.01	0.00
10yr3d	NSLRWCD C37	BASE	230.26	9.10	18.50	0	0.75	0.00	34.03	0.00
10yr3d	NSLRWCD C37	BASE	230.51	9.09	18.50	0	0.75	0.00	34.04	0.00
10yr3d	NSLRWCD C37	BASE	230.76	9.09	18.50	0	0.75	0.00	34.06	0.00
10yr3d	NSLRWCD C37	BASE	231.01	9.09	18.50	0	0.75	0.00	34.07	0.00
10yr3d	NSLRWCD C37	BASE	231.26	9.09	18.50	0	0.74	0.00	34.09	0.00
10yr3d	NSLRWCD C37	BASE	231.51	9.08	18.50	0	0.74	0.00	34.11	0.00
10yr3d	NSLRWCD C37	BASE	231.76	9.08	18.50	0	0.74	0.00	34.12	0.00
10yr3d	NSLRWCD C37	BASE	232.01	9.08	18.50	0	0.74	0.00	34.14	0.00
10yr3d	NSLRWCD C37	BASE	232.26	9.08	18.50	0	0.74	0.00	34.15	0.00
10yr3d	NSLRWCD C37	BASE	232.51	9.07	18.50	0	0.74	0.00	34.17	0.00
10yr3d	NSLRWCD C37	BASE	232.76	9.07	18.50	0	0.74	0.00	34.18	0.00
10yr3d	NSLRWCD C37	BASE	233.01	9.07	18.50	0	0.73	0.00	34.20	0.00
10yr3d	NSLRWCD C37	BASE	233.26	9.07	18.50	0	0.73	0.00	34.21	0.00
10yr3d	NSLRWCD C37	BASE	233.51	9.06	18.50	0	0.73	0.00	34.23	0.00
10yr3d	NSLRWCD C37	BASE	233.76	9.06	18.50	0	0.73	0.00	34.24	0.00
10yr3d	NSLRWCD C37	BASE	234.01	9.06	18.50	0	0.73	0.00	34.26	0.00
10yr3d	NSLRWCD C37	BASE	234.26	9.05	18.50	0	0.73	0.00	34.27	0.00
10yr3d	NSLRWCD C37	BASE	234.51	9.05	18.50	0	0.73	0.00	34.29	0.00
10yr3d	NSLRWCD C37	BASE	234.76	9.05	18.50	0	0.73	0.00	34.30	0.00
10yr3d	NSLRWCD C37	BASE	235.01	9.05	18.50	0	0.72	0.00	34.32	0.00
10yr3d	NSLRWCD C37	BASE	235.26	9.04	18.50	0	0.72	0.00	34.33	0.00
10yr3d	NSLRWCD C37	BASE	235.51	9.04	18.50	0	0.72	0.00	34.35	0.00
10yr3d	NSLRWCD C37	BASE	235.76	9.04	18.50	0	0.72	0.00	34.36	0.00
10yr3d	NSLRWCD C37	BASE	236.01	9.04	18.50	0	0.72	0.00	34.38	0.00
10yr3d	NSLRWCD C37	BASE	236.26	9.03	18.50	0	0.72	0.00	34.39	0.00
10yr3d	NSLRWCD C37	BASE	236.51	9.03	18.50	0	0.72	0.00	34.41	0.00
10yr3d	NSLRWCD C37	BASE	236.76	9.03	18.50	0	0.72	0.00	34.42	0.00
10yr3d	NSLRWCD C37	BASE	237.01	9.03	18.50	0	0.71	0.00	34.44	0.00
10yr3d	NSLRWCD C37	BASE	237.26	9.02	18.50	0	0.71	0.00	34.45	0.00
10yr3d	NSLRWCD C37	BASE	237.51	9.02	18.50	0	0.71	0.00	34.47	0.00
10yr3d	NSLRWCD C37	BASE	237.76	9.02	18.50	0	0.71	0.00	34.48	0.00
10yr3d	NSLRWCD C37	BASE	238.01	9.02	18.50	0	0.71	0.00	34.50	0.00
10yr3d	NSLRWCD C37	BASE	238.26	9.01	18.50	0	0.71	0.00	34.51	0.00
10yr3d	NSLRWCD C37	BASE	238.51	9.01	18.50	0	0.71	0.00	34.52	0.00
10yr3d	NSLRWCD C37	BASE	238.76	9.01	18.50	0	0.71	0.00	34.54	0.00
10yr3d	NSLRWCD C37	BASE	239.01	9.01	18.50	0	0.70	0.00	34.55	0.00
10yr3d	NSLRWCD C37	BASE	239.26	9.00	18.50	0	0.70	0.00	34.57	0.00
10yr3d	NSLRWCD C37	BASE	239.51	9.00	18.50	0	0.70	0.00	34.58	0.00
10yr3d	NSLRWCD C37	BASE	239.76	9.00	18.50	0	0.70	0.00	34.60	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	240.01	9.00	18.50	0	0.70	0.00	34.61	0.00
10yr3d	NSLRWCD C37	BASE	240.26	8.99	18.50	0	0.70	0.00	34.63	0.00
10yr3d	NSLRWCD C37	BASE	240.51	8.99	18.50	0	0.70	0.00	34.64	0.00
10yr3d	NSLRWCD C37	BASE	240.76	8.99	18.50	0	0.70	0.00	34.65	0.00
10yr3d	NSLRWCD C37	BASE	241.01	8.99	18.50	0	0.70	0.00	34.67	0.00
10yr3d	NSLRWCD C37	BASE	241.26	8.98	18.50	0	0.69	0.00	34.68	0.00
10yr3d	NSLRWCD C37	BASE	241.51	8.98	18.50	0	0.69	0.00	34.70	0.00
10yr3d	NSLRWCD C37	BASE	241.76	8.98	18.50	0	0.69	0.00	34.71	0.00
10yr3d	NSLRWCD C37	BASE	242.01	8.98	18.50	0	0.69	0.00	34.73	0.00
10yr3d	NSLRWCD C37	BASE	242.26	8.97	18.50	0	0.69	0.00	34.74	0.00
10yr3d	NSLRWCD C37	BASE	242.51	8.97	18.50	0	0.69	0.00	34.76	0.00
10yr3d	NSLRWCD C37	BASE	242.76	8.97	18.50	0	0.69	0.00	34.77	0.00
10yr3d	NSLRWCD C37	BASE	243.01	8.97	18.50	0	0.69	0.00	34.78	0.00
10yr3d	NSLRWCD C37	BASE	243.26	8.96	18.50	0	0.68	0.00	34.80	0.00
10yr3d	NSLRWCD C37	BASE	243.51	8.96	18.50	0	0.68	0.00	34.81	0.00
10yr3d	NSLRWCD C37	BASE	243.76	8.96	18.50	0	0.68	0.00	34.83	0.00
10yr3d	NSLRWCD C37	BASE	244.01	8.96	18.50	0	0.68	0.00	34.84	0.00
10yr3d	NSLRWCD C37	BASE	244.26	8.95	18.50	0	0.68	0.00	34.85	0.00
10yr3d	NSLRWCD C37	BASE	244.51	8.95	18.50	0	0.68	0.00	34.87	0.00
10yr3d	NSLRWCD C37	BASE	244.76	8.95	18.50	0	0.68	0.00	34.88	0.00
10yr3d	NSLRWCD C37	BASE	245.01	8.95	18.50	0	0.68	0.00	34.90	0.00
10yr3d	NSLRWCD C37	BASE	245.26	8.94	18.50	0	0.68	0.00	34.91	0.00
10yr3d	NSLRWCD C37	BASE	245.51	8.94	18.50	0	0.67	0.00	34.92	0.00
10yr3d	NSLRWCD C37	BASE	245.76	8.94	18.50	0	0.67	0.00	34.94	0.00
10yr3d	NSLRWCD C37	BASE	246.01	8.94	18.50	0	0.67	0.00	34.95	0.00
10yr3d	NSLRWCD C37	BASE	246.26	8.93	18.50	0	0.67	0.00	34.97	0.00
10yr3d	NSLRWCD C37	BASE	246.51	8.93	18.50	0	0.67	0.00	34.98	0.00
10yr3d	NSLRWCD C37	BASE	246.76	8.93	18.50	0	0.67	0.00	34.99	0.00
10yr3d	NSLRWCD C37	BASE	247.01	8.93	18.50	0	0.67	0.00	35.01	0.00
10yr3d	NSLRWCD C37	BASE	247.26	8.92	18.50	0	0.67	0.00	35.02	0.00
10yr3d	NSLRWCD C37	BASE	247.51	8.92	18.50	0	0.66	0.00	35.03	0.00
10yr3d	NSLRWCD C37	BASE	247.76	8.92	18.50	0	0.66	0.00	35.05	0.00
10yr3d	NSLRWCD C37	BASE	248.01	8.92	18.50	0	0.66	0.00	35.06	0.00
10yr3d	NSLRWCD C37	BASE	248.26	8.91	18.50	0	0.66	0.00	35.08	0.00
10yr3d	NSLRWCD C37	BASE	248.51	8.91	18.50	0	0.66	0.00	35.09	0.00
10yr3d	NSLRWCD C37	BASE	248.76	8.91	18.50	0	0.66	0.00	35.10	0.00
10yr3d	NSLRWCD C37	BASE	249.01	8.91	18.50	0	0.66	0.00	35.12	0.00
10yr3d	NSLRWCD C37	BASE	249.26	8.90	18.50	0	0.66	0.00	35.13	0.00
10yr3d	NSLRWCD C37	BASE	249.51	8.90	18.50	0	0.66	0.00	35.14	0.00
10yr3d	NSLRWCD C37	BASE	249.76	8.90	18.50	0	0.65	0.00	35.16	0.00
10yr3d	NSLRWCD C37	BASE	250.01	8.90	18.50	0	0.65	0.00	35.17	0.00
10yr3d	NSLRWCD C37	BASE	250.26	8.89	18.50	0	0.65	0.00	35.18	0.00
10yr3d	NSLRWCD C37	BASE	250.51	8.89	18.50	0	0.65	0.00	35.20	0.00
10yr3d	NSLRWCD C37	BASE	250.76	8.89	18.50	0	0.65	0.00	35.21	0.00
10yr3d	NSLRWCD C37	BASE	251.01	8.89	18.50	0	0.65	0.00	35.22	0.00
10yr3d	NSLRWCD C37	BASE	251.26	8.88	18.50	0	0.65	0.00	35.24	0.00
10yr3d	NSLRWCD C37	BASE	251.51	8.88	18.50	0	0.65	0.00	35.25	0.00
10yr3d	NSLRWCD C37	BASE	251.76	8.88	18.50	0	0.65	0.00	35.26	0.00
10yr3d	NSLRWCD C37	BASE	252.01	8.87	18.50	0	0.64	0.00	35.28	0.00
10yr3d	NSLRWCD C37	BASE	252.26	8.87	18.50	0	0.64	0.00	35.29	0.00
10yr3d	NSLRWCD C37	BASE	252.51	8.87	18.50	0	0.64	0.00	35.30	0.00
10yr3d	NSLRWCD C37	BASE	252.76	8.87	18.50	0	0.64	0.00	35.32	0.00
10yr3d	NSLRWCD C37	BASE	253.01	8.86	18.50	0	0.64	0.00	35.33	0.00
10yr3d	NSLRWCD C37	BASE	253.26	8.86	18.50	0	0.64	0.00	35.34	0.00
10yr3d	NSLRWCD C37	BASE	253.51	8.86	18.50	0	0.64	0.00	35.36	0.00
10yr3d	NSLRWCD C37	BASE	253.76	8.86	18.50	0	0.64	0.00	35.37	0.00
10yr3d	NSLRWCD C37	BASE	254.01	8.85	18.50	0	0.64	0.00	35.38	0.00
10yr3d	NSLRWCD C37	BASE	254.26	8.85	18.50	0	0.63	0.00	35.40	0.00
10yr3d	NSLRWCD C37	BASE	254.51	8.85	18.50	0	0.63	0.00	35.41	0.00
10yr3d	NSLRWCD C37	BASE	254.76	8.85	18.50	0	0.63	0.00	35.42	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	255.01	8.84	18.50	0	0.63	0.00	35.44	0.00
10yr3d	NSLRWCD C37	BASE	255.26	8.84	18.50	0	0.63	0.00	35.45	0.00
10yr3d	NSLRWCD C37	BASE	255.51	8.84	18.50	0	0.63	0.00	35.46	0.00
10yr3d	NSLRWCD C37	BASE	255.76	8.84	18.50	0	0.63	0.00	35.48	0.00
10yr3d	NSLRWCD C37	BASE	256.01	8.83	18.50	0	0.63	0.00	35.49	0.00
10yr3d	NSLRWCD C37	BASE	256.26	8.83	18.50	0	0.63	0.00	35.50	0.00
10yr3d	NSLRWCD C37	BASE	256.51	8.83	18.50	0	0.62	0.00	35.51	0.00
10yr3d	NSLRWCD C37	BASE	256.76	8.83	18.50	0	0.62	0.00	35.53	0.00
10yr3d	NSLRWCD C37	BASE	257.01	8.82	18.50	0	0.62	0.00	35.54	0.00
10yr3d	NSLRWCD C37	BASE	257.26	8.82	18.50	0	0.62	0.00	35.55	0.00
10yr3d	NSLRWCD C37	BASE	257.51	8.82	18.50	0	0.62	0.00	35.57	0.00
10yr3d	NSLRWCD C37	BASE	257.76	8.82	18.50	0	0.62	0.00	35.58	0.00
10yr3d	NSLRWCD C37	BASE	258.01	8.81	18.50	0	0.62	0.00	35.59	0.00
10yr3d	NSLRWCD C37	BASE	258.26	8.81	18.50	0	0.62	0.00	35.60	0.00
10yr3d	NSLRWCD C37	BASE	258.51	8.81	18.50	0	0.62	0.00	35.62	0.00
10yr3d	NSLRWCD C37	BASE	258.76	8.81	18.50	0	0.62	0.00	35.63	0.00
10yr3d	NSLRWCD C37	BASE	259.01	8.80	18.50	0	0.61	0.00	35.64	0.00
10yr3d	NSLRWCD C37	BASE	259.26	8.80	18.50	0	0.61	0.00	35.65	0.00
10yr3d	NSLRWCD C37	BASE	259.51	8.80	18.50	0	0.61	0.00	35.67	0.00
10yr3d	NSLRWCD C37	BASE	259.76	8.80	18.50	0	0.61	0.00	35.68	0.00
10yr3d	NSLRWCD C37	BASE	260.01	8.79	18.50	0	0.61	0.00	35.69	0.00
10yr3d	NSLRWCD C37	BASE	260.26	8.79	18.50	0	0.61	0.00	35.71	0.00
10yr3d	NSLRWCD C37	BASE	260.51	8.79	18.50	0	0.61	0.00	35.72	0.00
10yr3d	NSLRWCD C37	BASE	260.76	8.79	18.50	0	0.61	0.00	35.73	0.00
10yr3d	NSLRWCD C37	BASE	261.01	8.78	18.50	0	0.61	0.00	35.74	0.00
10yr3d	NSLRWCD C37	BASE	261.26	8.78	18.50	0	0.60	0.00	35.76	0.00
10yr3d	NSLRWCD C37	BASE	261.51	8.78	18.50	0	0.60	0.00	35.77	0.00
10yr3d	NSLRWCD C37	BASE	261.76	8.78	18.50	0	0.60	0.00	35.78	0.00
10yr3d	NSLRWCD C37	BASE	262.01	8.77	18.50	0	0.60	0.00	35.79	0.00
10yr3d	NSLRWCD C37	BASE	262.26	8.77	18.50	0	0.60	0.00	35.81	0.00
10yr3d	NSLRWCD C37	BASE	262.51	8.77	18.50	0	0.60	0.00	35.82	0.00
10yr3d	NSLRWCD C37	BASE	262.76	8.77	18.50	0	0.60	0.00	35.83	0.00
10yr3d	NSLRWCD C37	BASE	263.01	8.76	18.50	0	0.60	0.00	35.84	0.00
10yr3d	NSLRWCD C37	BASE	263.26	8.76	18.50	0	0.60	0.00	35.85	0.00
10yr3d	NSLRWCD C37	BASE	263.51	8.76	18.50	0	0.60	0.00	35.87	0.00
10yr3d	NSLRWCD C37	BASE	263.76	8.76	18.50	0	0.59	0.00	35.88	0.00
10yr3d	NSLRWCD C37	BASE	264.01	8.75	18.50	0	0.59	0.00	35.89	0.00
10yr3d	NSLRWCD C37	BASE	264.26	8.75	18.50	0	0.59	0.00	35.90	0.00
10yr3d	NSLRWCD C37	BASE	264.51	8.75	18.50	0	0.59	0.00	35.92	0.00
10yr3d	NSLRWCD C37	BASE	264.76	8.75	18.50	0	0.59	0.00	35.93	0.00
10yr3d	NSLRWCD C37	BASE	265.01	8.74	18.50	0	0.59	0.00	35.94	0.00
10yr3d	NSLRWCD C37	BASE	265.26	8.74	18.50	0	0.59	0.00	35.95	0.00
10yr3d	NSLRWCD C37	BASE	265.51	8.74	18.50	0	0.59	0.00	35.96	0.00
10yr3d	NSLRWCD C37	BASE	265.76	8.74	18.50	0	0.59	0.00	35.98	0.00
10yr3d	NSLRWCD C37	BASE	266.01	8.73	18.50	0	0.59	0.00	35.99	0.00
10yr3d	NSLRWCD C37	BASE	266.26	8.73	18.50	0	0.58	0.00	36.00	0.00
10yr3d	NSLRWCD C37	BASE	266.51	8.73	18.50	0	0.58	0.00	36.01	0.00
10yr3d	NSLRWCD C37	BASE	266.76	8.73	18.50	0	0.58	0.00	36.03	0.00
10yr3d	NSLRWCD C37	BASE	267.01	8.72	18.50	0	0.58	0.00	36.04	0.00
10yr3d	NSLRWCD C37	BASE	267.26	8.72	18.50	0	0.58	0.00	36.05	0.00
10yr3d	NSLRWCD C37	BASE	267.51	8.72	18.50	0	0.58	0.00	36.06	0.00
10yr3d	NSLRWCD C37	BASE	267.76	8.72	18.50	0	0.58	0.00	36.07	0.00
10yr3d	NSLRWCD C37	BASE	268.01	8.71	18.50	0	0.58	0.00	36.08	0.00
10yr3d	NSLRWCD C37	BASE	268.26	8.71	18.50	0	0.58	0.00	36.10	0.00
10yr3d	NSLRWCD C37	BASE	268.51	8.71	18.50	0	0.58	0.00	36.11	0.00
10yr3d	NSLRWCD C37	BASE	268.76	8.71	18.50	0	0.57	0.00	36.12	0.00
10yr3d	NSLRWCD C37	BASE	269.01	8.70	18.50	0	0.57	0.00	36.13	0.00
10yr3d	NSLRWCD C37	BASE	269.26	8.70	18.50	0	0.57	0.00	36.14	0.00
10yr3d	NSLRWCD C37	BASE	269.51	8.70	18.50	0	0.57	0.00	36.16	0.00
10yr3d	NSLRWCD C37	BASE	269.76	8.69	18.50	0	0.57	0.00	36.17	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	270.01	8.69	18.50	0	0.57	0.00	36.18	0.00
10yr3d	NSLRWCD C37	BASE	270.26	8.69	18.50	0	0.57	0.00	36.19	0.00
10yr3d	NSLRWCD C37	BASE	270.51	8.69	18.50	0	0.57	0.00	36.20	0.00
10yr3d	NSLRWCD C37	BASE	270.76	8.68	18.50	0	0.57	0.00	36.22	0.00
10yr3d	NSLRWCD C37	BASE	271.01	8.68	18.50	0	0.57	0.00	36.23	0.00
10yr3d	NSLRWCD C37	BASE	271.26	8.68	18.50	0	0.57	0.00	36.24	0.00
10yr3d	NSLRWCD C37	BASE	271.51	8.68	18.50	0	0.56	0.00	36.25	0.00
10yr3d	NSLRWCD C37	BASE	271.76	8.67	18.50	0	0.56	0.00	36.26	0.00
10yr3d	NSLRWCD C37	BASE	272.01	8.67	18.50	0	0.56	0.00	36.27	0.00
10yr3d	NSLRWCD C37	BASE	272.26	8.67	18.50	0	0.56	0.00	36.28	0.00
10yr3d	NSLRWCD C37	BASE	272.51	8.67	18.50	0	0.56	0.00	36.30	0.00
10yr3d	NSLRWCD C37	BASE	272.76	8.66	18.50	0	0.56	0.00	36.31	0.00
10yr3d	NSLRWCD C37	BASE	273.01	8.66	18.50	0	0.56	0.00	36.32	0.00
10yr3d	NSLRWCD C37	BASE	273.26	8.66	18.50	0	0.56	0.00	36.33	0.00
10yr3d	NSLRWCD C37	BASE	273.51	8.66	18.50	0	0.56	0.00	36.34	0.00
10yr3d	NSLRWCD C37	BASE	273.76	8.65	18.50	0	0.56	0.00	36.35	0.00
10yr3d	NSLRWCD C37	BASE	274.01	8.65	18.50	0	0.56	0.00	36.37	0.00
10yr3d	NSLRWCD C37	BASE	274.26	8.65	18.50	0	0.55	0.00	36.38	0.00
10yr3d	NSLRWCD C37	BASE	274.51	8.65	18.50	0	0.55	0.00	36.39	0.00
10yr3d	NSLRWCD C37	BASE	274.76	8.64	18.50	0	0.55	0.00	36.40	0.00
10yr3d	NSLRWCD C37	BASE	275.01	8.64	18.50	0	0.55	0.00	36.41	0.00
10yr3d	NSLRWCD C37	BASE	275.26	8.64	18.50	0	0.55	0.00	36.42	0.00
10yr3d	NSLRWCD C37	BASE	275.51	8.64	18.50	0	0.55	0.00	36.43	0.00
10yr3d	NSLRWCD C37	BASE	275.76	8.63	18.50	0	0.55	0.00	36.45	0.00
10yr3d	NSLRWCD C37	BASE	276.01	8.63	18.50	0	0.55	0.00	36.46	0.00
10yr3d	NSLRWCD C37	BASE	276.26	8.63	18.50	0	0.55	0.00	36.47	0.00
10yr3d	NSLRWCD C37	BASE	276.51	8.63	18.50	0	0.55	0.00	36.48	0.00
10yr3d	NSLRWCD C37	BASE	276.76	8.62	18.50	0	0.55	0.00	36.49	0.00
10yr3d	NSLRWCD C37	BASE	277.01	8.62	18.50	0	0.54	0.00	36.50	0.00
10yr3d	NSLRWCD C37	BASE	277.26	8.62	18.50	0	0.54	0.00	36.51	0.00
10yr3d	NSLRWCD C37	BASE	277.51	8.62	18.50	0	0.54	0.00	36.52	0.00
10yr3d	NSLRWCD C37	BASE	277.76	8.61	18.50	0	0.54	0.00	36.54	0.00
10yr3d	NSLRWCD C37	BASE	278.01	8.61	18.50	0	0.54	0.00	36.55	0.00
10yr3d	NSLRWCD C37	BASE	278.26	8.61	18.50	0	0.54	0.00	36.56	0.00
10yr3d	NSLRWCD C37	BASE	278.51	8.61	18.50	0	0.54	0.00	36.57	0.00
10yr3d	NSLRWCD C37	BASE	278.76	8.60	18.50	0	0.54	0.00	36.58	0.00
10yr3d	NSLRWCD C37	BASE	279.01	8.60	18.50	0	0.54	0.00	36.59	0.00
10yr3d	NSLRWCD C37	BASE	279.26	8.60	18.50	0	0.54	0.00	36.60	0.00
10yr3d	NSLRWCD C37	BASE	279.51	8.60	18.50	0	0.54	0.00	36.61	0.00
10yr3d	NSLRWCD C37	BASE	279.76	8.59	18.50	0	0.53	0.00	36.62	0.00
10yr3d	NSLRWCD C37	BASE	280.01	8.59	18.50	0	0.53	0.00	36.64	0.00
10yr3d	NSLRWCD C37	BASE	280.26	8.59	18.50	0	0.53	0.00	36.65	0.00
10yr3d	NSLRWCD C37	BASE	280.51	8.59	18.50	0	0.53	0.00	36.66	0.00
10yr3d	NSLRWCD C37	BASE	280.76	8.58	18.50	0	0.53	0.00	36.67	0.00
10yr3d	NSLRWCD C37	BASE	281.01	8.58	18.50	0	0.53	0.00	36.68	0.00
10yr3d	NSLRWCD C37	BASE	281.26	8.58	18.50	0	0.53	0.00	36.69	0.00
10yr3d	NSLRWCD C37	BASE	281.51	8.58	18.50	0	0.53	0.00	36.70	0.00
10yr3d	NSLRWCD C37	BASE	281.76	8.57	18.50	0	0.53	0.00	36.71	0.00
10yr3d	NSLRWCD C37	BASE	282.01	8.57	18.50	0	0.53	0.00	36.72	0.00
10yr3d	NSLRWCD C37	BASE	282.26	8.57	18.50	0	0.53	0.00	36.73	0.00
10yr3d	NSLRWCD C37	BASE	282.51	8.57	18.50	0	0.53	0.00	36.75	0.00
10yr3d	NSLRWCD C37	BASE	282.76	8.56	18.50	0	0.53	0.00	36.76	0.00
10yr3d	NSLRWCD C37	BASE	283.01	8.56	18.50	0	0.52	0.00	36.77	0.00
10yr3d	NSLRWCD C37	BASE	283.26	8.56	18.50	0	0.52	0.00	36.78	0.00
10yr3d	NSLRWCD C37	BASE	283.51	8.56	18.50	0	0.52	0.00	36.79	0.00
10yr3d	NSLRWCD C37	BASE	283.76	8.55	18.50	0	0.52	0.00	36.80	0.00
10yr3d	NSLRWCD C37	BASE	284.01	8.55	18.50	0	0.52	0.00	36.81	0.00
10yr3d	NSLRWCD C37	BASE	284.26	8.55	18.50	0	0.52	0.00	36.82	0.00
10yr3d	NSLRWCD C37	BASE	284.51	8.55	18.50	0	0.52	0.00	36.83	0.00
10yr3d	NSLRWCD C37	BASE	284.76	8.54	18.50	0	0.52	0.00	36.84	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	285.01	8.54	18.50	0	0.52	0.00	36.85	0.00
10yr3d	NSLRWCD C37	BASE	285.26	8.54	18.50	0	0.52	0.00	36.86	0.00
10yr3d	NSLRWCD C37	BASE	285.51	8.54	18.50	0	0.52	0.00	36.87	0.00
10yr3d	NSLRWCD C37	BASE	285.76	8.53	18.50	0	0.52	0.00	36.89	0.00
10yr3d	NSLRWCD C37	BASE	286.01	8.53	18.50	0	0.52	0.00	36.90	0.00
10yr3d	NSLRWCD C37	BASE	286.26	8.53	18.50	0	0.52	0.00	36.91	0.00
10yr3d	NSLRWCD C37	BASE	286.51	8.53	18.50	0	0.51	0.00	36.92	0.00
10yr3d	NSLRWCD C37	BASE	286.76	8.52	18.50	0	0.51	0.00	36.93	0.00
10yr3d	NSLRWCD C37	BASE	287.01	8.52	18.50	0	0.51	0.00	36.94	0.00
10yr3d	NSLRWCD C37	BASE	287.26	8.52	18.50	0	0.51	0.00	36.95	0.00
10yr3d	NSLRWCD C37	BASE	287.51	8.52	18.50	0	0.51	0.00	36.96	0.00
10yr3d	NSLRWCD C37	BASE	287.76	8.51	18.50	0	0.51	0.00	36.97	0.00
10yr3d	NSLRWCD C37	BASE	288.01	8.51	18.50	0	0.51	0.00	36.98	0.00
10yr3d	NSLRWCD C37	BASE	288.26	8.51	18.50	0	0.51	0.00	36.99	0.00
10yr3d	NSLRWCD C37	BASE	288.51	8.50	18.50	0	0.51	0.00	37.00	0.00
10yr3d	NSLRWCD C37	BASE	288.76	8.50	18.50	0	0.51	0.00	37.01	0.00
10yr3d	NSLRWCD C37	BASE	289.01	8.50	18.50	0	0.51	0.00	37.02	0.00
10yr3d	NSLRWCD C37	BASE	289.26	8.50	18.50	0	0.51	0.00	37.03	0.00
10yr3d	NSLRWCD C37	BASE	289.51	8.49	18.50	0	0.51	0.00	37.04	0.00
10yr3d	NSLRWCD C37	BASE	289.76	8.49	18.50	0	0.51	0.00	37.05	0.00
10yr3d	NSLRWCD C37	BASE	290.01	8.49	18.50	0	0.51	0.00	37.06	0.00
10yr3d	NSLRWCD C37	BASE	290.26	8.49	18.50	0	0.51	0.00	37.08	0.00
10yr3d	NSLRWCD C37	BASE	290.51	8.48	18.50	0	0.51	0.00	37.09	0.00
10yr3d	NSLRWCD C37	BASE	290.76	8.48	18.50	0	0.50	0.00	37.10	0.00
10yr3d	NSLRWCD C37	BASE	291.01	8.48	18.50	0	0.50	0.00	37.11	0.00
10yr3d	NSLRWCD C37	BASE	291.26	8.48	18.50	0	0.50	0.00	37.12	0.00
10yr3d	NSLRWCD C37	BASE	291.51	8.47	18.50	0	0.50	0.00	37.13	0.00
10yr3d	NSLRWCD C37	BASE	291.76	8.47	18.50	0	0.50	0.00	37.14	0.00
10yr3d	NSLRWCD C37	BASE	292.01	8.47	18.50	0	0.50	0.00	37.15	0.00
10yr3d	NSLRWCD C37	BASE	292.26	8.47	18.50	0	0.50	0.00	37.16	0.00
10yr3d	NSLRWCD C37	BASE	292.51	8.46	18.50	0	0.50	0.00	37.17	0.00
10yr3d	NSLRWCD C37	BASE	292.76	8.46	18.50	0	0.50	0.00	37.18	0.00
10yr3d	NSLRWCD C37	BASE	293.01	8.46	18.50	0	0.50	0.00	37.19	0.00
10yr3d	NSLRWCD C37	BASE	293.26	8.46	18.50	0	0.50	0.00	37.20	0.00
10yr3d	NSLRWCD C37	BASE	293.51	8.45	18.50	0	0.50	0.00	37.21	0.00
10yr3d	NSLRWCD C37	BASE	293.76	8.45	18.50	0	0.50	0.00	37.22	0.00
10yr3d	NSLRWCD C37	BASE	294.01	8.45	18.50	0	0.50	0.00	37.23	0.00
10yr3d	NSLRWCD C37	BASE	294.26	8.45	18.50	0	0.50	0.00	37.24	0.00
10yr3d	NSLRWCD C37	BASE	294.51	8.44	18.50	0	0.50	0.00	37.25	0.00
10yr3d	NSLRWCD C37	BASE	294.76	8.44	18.50	0	0.50	0.00	37.26	0.00
10yr3d	NSLRWCD C37	BASE	295.01	8.44	18.50	0	0.50	0.00	37.27	0.00
10yr3d	NSLRWCD C37	BASE	295.26	8.44	18.50	0	0.50	0.00	37.28	0.00
10yr3d	NSLRWCD C37	BASE	295.51	8.43	18.50	0	0.50	0.00	37.29	0.00
10yr3d	NSLRWCD C37	BASE	295.76	8.43	18.50	0	0.50	0.00	37.30	0.00
10yr3d	NSLRWCD C37	BASE	296.01	8.43	18.50	0	0.50	0.00	37.31	0.00
10yr3d	NSLRWCD C37	BASE	296.26	8.43	18.50	0	0.50	0.00	37.32	0.00
10yr3d	NSLRWCD C37	BASE	296.51	8.42	18.50	0	0.50	0.00	37.33	0.00
10yr3d	NSLRWCD C37	BASE	296.76	8.42	18.50	0	0.50	0.00	37.34	0.00
10yr3d	NSLRWCD C37	BASE	297.01	8.42	18.50	0	0.50	0.00	37.36	0.00
10yr3d	NSLRWCD C37	BASE	297.26	8.42	18.50	0	0.50	0.00	37.37	0.00
10yr3d	NSLRWCD C37	BASE	297.51	8.41	18.50	0	0.50	0.00	37.38	0.00
10yr3d	NSLRWCD C37	BASE	297.76	8.41	18.50	0	0.50	0.00	37.39	0.00
10yr3d	NSLRWCD C37	BASE	298.01	8.41	18.50	0	0.50	0.00	37.40	0.00
10yr3d	NSLRWCD C37	BASE	298.26	8.41	18.50	0	0.50	0.00	37.41	0.00
10yr3d	NSLRWCD C37	BASE	298.51	8.40	18.50	0	0.50	0.00	37.42	0.00
10yr3d	NSLRWCD C37	BASE	298.76	8.40	18.50	0	0.50	0.00	37.43	0.00
10yr3d	NSLRWCD C37	BASE	299.01	8.40	18.50	0	0.50	0.00	37.44	0.00
10yr3d	NSLRWCD C37	BASE	299.26	8.40	18.50	0	0.50	0.00	37.45	0.00
10yr3d	NSLRWCD C37	BASE	299.51	8.39	18.50	0	0.50	0.00	37.46	0.00
10yr3d	NSLRWCD C37	BASE	299.76	8.39	18.50	0	0.50	0.00	37.47	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	300.01	8.39	18.50	0	0.50	0.00	37.48	0.00
10yr3d	NSLRWCD C37	BASE	300.26	8.39	18.50	0	0.50	0.00	37.49	0.00
10yr3d	NSLRWCD C37	BASE	300.51	8.38	18.50	0	0.50	0.00	37.50	0.00
10yr3d	NSLRWCD C37	BASE	300.76	8.38	18.50	0	0.50	0.00	37.51	0.00
10yr3d	NSLRWCD C37	BASE	301.01	8.38	18.50	0	0.50	0.00	37.52	0.00
10yr3d	NSLRWCD C37	BASE	301.26	8.38	18.50	0	0.49	0.00	37.53	0.00
10yr3d	NSLRWCD C37	BASE	301.51	8.37	18.50	0	0.49	0.00	37.54	0.00
10yr3d	NSLRWCD C37	BASE	301.76	8.37	18.50	0	0.49	0.00	37.55	0.00
10yr3d	NSLRWCD C37	BASE	302.01	8.37	18.50	0	0.49	0.00	37.56	0.00
10yr3d	NSLRWCD C37	BASE	302.26	8.37	18.50	0	0.49	0.00	37.57	0.00
10yr3d	NSLRWCD C37	BASE	302.51	8.36	18.50	0	0.49	0.00	37.58	0.00
10yr3d	NSLRWCD C37	BASE	302.76	8.36	18.50	0	0.49	0.00	37.59	0.00
10yr3d	NSLRWCD C37	BASE	303.01	8.36	18.50	0	0.49	0.00	37.60	0.00
10yr3d	NSLRWCD C37	BASE	303.26	8.36	18.50	0	0.49	0.00	37.61	0.00
10yr3d	NSLRWCD C37	BASE	303.51	8.35	18.50	0	0.49	0.00	37.62	0.00
10yr3d	NSLRWCD C37	BASE	303.76	8.35	18.50	0	0.49	0.00	37.63	0.00
10yr3d	NSLRWCD C37	BASE	304.01	8.35	18.50	0	0.49	0.00	37.64	0.00
10yr3d	NSLRWCD C37	BASE	304.26	8.35	18.50	0	0.49	0.00	37.65	0.00
10yr3d	NSLRWCD C37	BASE	304.51	8.34	18.50	0	0.49	0.00	37.66	0.00
10yr3d	NSLRWCD C37	BASE	304.76	8.34	18.50	0	0.49	0.00	37.67	0.00
10yr3d	NSLRWCD C37	BASE	305.01	8.34	18.50	0	0.49	0.00	37.68	0.00
10yr3d	NSLRWCD C37	BASE	305.26	8.34	18.50	0	0.49	0.00	37.69	0.00
10yr3d	NSLRWCD C37	BASE	305.51	8.33	18.50	0	0.49	0.00	37.70	0.00
10yr3d	NSLRWCD C37	BASE	305.76	8.33	18.50	0	0.49	0.00	37.71	0.00
10yr3d	NSLRWCD C37	BASE	306.01	8.33	18.50	0	0.49	0.00	37.72	0.00
10yr3d	NSLRWCD C37	BASE	306.26	8.32	18.50	0	0.49	0.00	37.73	0.00
10yr3d	NSLRWCD C37	BASE	306.51	8.32	18.50	0	0.49	0.00	37.74	0.00
10yr3d	NSLRWCD C37	BASE	306.76	8.32	18.50	0	0.49	0.00	37.75	0.00
10yr3d	NSLRWCD C37	BASE	307.01	8.32	18.50	0	0.49	0.00	37.76	0.00
10yr3d	NSLRWCD C37	BASE	307.26	8.31	18.50	0	0.49	0.00	37.77	0.00
10yr3d	NSLRWCD C37	BASE	307.51	8.31	18.50	0	0.49	0.00	37.78	0.00
10yr3d	NSLRWCD C37	BASE	307.76	8.31	18.50	0	0.49	0.00	37.79	0.00
10yr3d	NSLRWCD C37	BASE	308.01	8.31	18.50	0	0.49	0.00	37.80	0.00
10yr3d	NSLRWCD C37	BASE	308.26	8.30	18.50	0	0.49	0.00	37.81	0.00
10yr3d	NSLRWCD C37	BASE	308.51	8.30	18.50	0	0.49	0.00	37.82	0.00
10yr3d	NSLRWCD C37	BASE	308.76	8.30	18.50	0	0.49	0.00	37.83	0.00
10yr3d	NSLRWCD C37	BASE	309.01	8.30	18.50	0	0.49	0.00	37.84	0.00
10yr3d	NSLRWCD C37	BASE	309.26	8.29	18.50	0	0.49	0.00	37.85	0.00
10yr3d	NSLRWCD C37	BASE	309.51	8.29	18.50	0	0.49	0.00	37.86	0.00
10yr3d	NSLRWCD C37	BASE	309.76	8.29	18.50	0	0.49	0.00	37.87	0.00
10yr3d	NSLRWCD C37	BASE	310.01	8.29	18.50	0	0.49	0.00	37.88	0.00
10yr3d	NSLRWCD C37	BASE	310.26	8.28	18.50	0	0.49	0.00	37.89	0.00
10yr3d	NSLRWCD C37	BASE	310.51	8.28	18.50	0	0.49	0.00	37.90	0.00
10yr3d	NSLRWCD C37	BASE	310.76	8.28	18.50	0	0.49	0.00	37.91	0.00
10yr3d	NSLRWCD C37	BASE	311.01	8.28	18.50	0	0.48	0.00	37.92	0.00
10yr3d	NSLRWCD C37	BASE	311.26	8.27	18.50	0	0.48	0.00	37.93	0.00
10yr3d	NSLRWCD C37	BASE	311.51	8.27	18.50	0	0.48	0.00	37.94	0.00
10yr3d	NSLRWCD C37	BASE	311.76	8.27	18.50	0	0.48	0.00	37.95	0.00
10yr3d	NSLRWCD C37	BASE	312.01	8.27	18.50	0	0.48	0.00	37.96	0.00
10yr3d	NSLRWCD C37	BASE	312.26	8.26	18.50	0	0.48	0.00	37.97	0.00
10yr3d	NSLRWCD C37	BASE	312.51	8.26	18.50	0	0.48	0.00	37.98	0.00
10yr3d	NSLRWCD C37	BASE	312.76	8.26	18.50	0	0.48	0.00	37.99	0.00
10yr3d	NSLRWCD C37	BASE	313.01	8.26	18.50	0	0.48	0.00	38.00	0.00
10yr3d	NSLRWCD C37	BASE	313.26	8.25	18.50	0	0.48	0.00	38.01	0.00
10yr3d	NSLRWCD C37	BASE	313.51	8.25	18.50	0	0.48	0.00	38.02	0.00
10yr3d	NSLRWCD C37	BASE	313.76	8.25	18.50	0	0.48	0.00	38.03	0.00
10yr3d	NSLRWCD C37	BASE	314.01	8.25	18.50	0	0.48	0.00	38.04	0.00
10yr3d	NSLRWCD C37	BASE	314.26	8.24	18.50	0	0.48	0.00	38.05	0.00
10yr3d	NSLRWCD C37	BASE	314.51	8.24	18.50	0	0.48	0.00	38.06	0.00
10yr3d	NSLRWCD C37	BASE	314.76	8.24	18.50	0	0.48	0.00	38.07	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	315.01	8.24	18.50	0	0.48	0.00	38.08	0.00
10yr3d	NSLRWCD C37	BASE	315.26	8.23	18.50	0	0.48	0.00	38.09	0.00
10yr3d	NSLRWCD C37	BASE	315.51	8.23	18.50	0	0.48	0.00	38.10	0.00
10yr3d	NSLRWCD C37	BASE	315.76	8.23	18.50	0	0.48	0.00	38.11	0.00
10yr3d	NSLRWCD C37	BASE	316.01	8.23	18.50	0	0.48	0.00	38.12	0.00
10yr3d	NSLRWCD C37	BASE	316.26	8.22	18.50	0	0.48	0.00	38.13	0.00
10yr3d	NSLRWCD C37	BASE	316.51	8.22	18.50	0	0.48	0.00	38.14	0.00
10yr3d	NSLRWCD C37	BASE	316.76	8.22	18.50	0	0.48	0.00	38.15	0.00
10yr3d	NSLRWCD C37	BASE	317.01	8.22	18.50	0	0.48	0.00	38.16	0.00
10yr3d	NSLRWCD C37	BASE	317.26	8.21	18.50	0	0.48	0.00	38.17	0.00
10yr3d	NSLRWCD C37	BASE	317.51	8.21	18.50	0	0.48	0.00	38.18	0.00
10yr3d	NSLRWCD C37	BASE	317.76	8.21	18.50	0	0.48	0.00	38.19	0.00
10yr3d	NSLRWCD C37	BASE	318.01	8.21	18.50	0	0.48	0.00	38.20	0.00
10yr3d	NSLRWCD C37	BASE	318.26	8.20	18.50	0	0.48	0.00	38.21	0.00
10yr3d	NSLRWCD C37	BASE	318.51	8.20	18.50	0	0.48	0.00	38.22	0.00
10yr3d	NSLRWCD C37	BASE	318.76	8.20	18.50	0	0.48	0.00	38.23	0.00
10yr3d	NSLRWCD C37	BASE	319.01	8.20	18.50	0	0.48	0.00	38.24	0.00
10yr3d	NSLRWCD C37	BASE	319.26	8.19	18.50	0	0.48	0.00	38.25	0.00
10yr3d	NSLRWCD C37	BASE	319.51	8.19	18.50	0	0.47	0.00	38.26	0.00
10yr3d	NSLRWCD C37	BASE	319.76	8.19	18.50	0	0.47	0.00	38.27	0.00
10yr3d	NSLRWCD C37	BASE	320.01	8.19	18.50	0	0.47	0.00	38.28	0.00
10yr3d	NSLRWCD C37	BASE	320.26	8.18	18.50	0	0.47	0.00	38.29	0.00
10yr3d	NSLRWCD C37	BASE	320.51	8.18	18.50	0	0.47	0.00	38.30	0.00
10yr3d	NSLRWCD C37	BASE	320.76	8.18	18.50	0	0.47	0.00	38.31	0.00
10yr3d	NSLRWCD C37	BASE	321.01	8.18	18.50	0	0.47	0.00	38.32	0.00
10yr3d	NSLRWCD C37	BASE	321.26	8.17	18.50	0	0.47	0.00	38.33	0.00
10yr3d	NSLRWCD C37	BASE	321.51	8.17	18.50	0	0.47	0.00	38.34	0.00
10yr3d	NSLRWCD C37	BASE	321.76	8.17	18.50	0	0.47	0.00	38.35	0.00
10yr3d	NSLRWCD C37	BASE	322.01	8.17	18.50	0	0.47	0.00	38.36	0.00
10yr3d	NSLRWCD C37	BASE	322.26	8.16	18.50	0	0.47	0.00	38.37	0.00
10yr3d	NSLRWCD C37	BASE	322.51	8.16	18.50	0	0.47	0.00	38.38	0.00
10yr3d	NSLRWCD C37	BASE	322.76	8.16	18.50	0	0.47	0.00	38.39	0.00
10yr3d	NSLRWCD C37	BASE	323.01	8.16	18.50	0	0.47	0.00	38.40	0.00
10yr3d	NSLRWCD C37	BASE	323.26	8.15	18.50	0	0.47	0.00	38.41	0.00
10yr3d	NSLRWCD C37	BASE	323.51	8.15	18.50	0	0.47	0.00	38.42	0.00
10yr3d	NSLRWCD C37	BASE	323.76	8.15	18.50	0	0.47	0.00	38.43	0.00
10yr3d	NSLRWCD C37	BASE	324.01	8.14	18.50	0	0.47	0.00	38.44	0.00
10yr3d	NSLRWCD C37	BASE	324.26	8.14	18.50	0	0.47	0.00	38.45	0.00
10yr3d	NSLRWCD C37	BASE	324.51	8.14	18.50	0	0.47	0.00	38.46	0.00
10yr3d	NSLRWCD C37	BASE	324.76	8.14	18.50	0	0.47	0.00	38.47	0.00
10yr3d	NSLRWCD C37	BASE	325.01	8.13	18.50	0	0.47	0.00	38.48	0.00
10yr3d	NSLRWCD C37	BASE	325.26	8.13	18.50	0	0.47	0.00	38.49	0.00
10yr3d	NSLRWCD C37	BASE	325.51	8.13	18.50	0	0.47	0.00	38.50	0.00
10yr3d	NSLRWCD C37	BASE	325.76	8.13	18.50	0	0.47	0.00	38.50	0.00
10yr3d	NSLRWCD C37	BASE	326.01	8.12	18.50	0	0.47	0.00	38.51	0.00
10yr3d	NSLRWCD C37	BASE	326.26	8.12	18.50	0	0.47	0.00	38.52	0.00
10yr3d	NSLRWCD C37	BASE	326.51	8.12	18.50	0	0.47	0.00	38.53	0.00
10yr3d	NSLRWCD C37	BASE	326.76	8.12	18.50	0	0.47	0.00	38.54	0.00
10yr3d	NSLRWCD C37	BASE	327.01	8.11	18.50	0	0.46	0.00	38.55	0.00
10yr3d	NSLRWCD C37	BASE	327.26	8.11	18.50	0	0.46	0.00	38.56	0.00
10yr3d	NSLRWCD C37	BASE	327.51	8.11	18.50	0	0.46	0.00	38.57	0.00
10yr3d	NSLRWCD C37	BASE	327.76	8.11	18.50	0	0.46	0.00	38.58	0.00
10yr3d	NSLRWCD C37	BASE	328.01	8.10	18.50	0	0.46	0.00	38.59	0.00
10yr3d	NSLRWCD C37	BASE	328.26	8.10	18.50	0	0.46	0.00	38.60	0.00
10yr3d	NSLRWCD C37	BASE	328.51	8.10	18.50	0	0.46	0.00	38.61	0.00
10yr3d	NSLRWCD C37	BASE	328.76	8.10	18.50	0	0.46	0.00	38.62	0.00
10yr3d	NSLRWCD C37	BASE	329.01	8.09	18.50	0	0.46	0.00	38.63	0.00
10yr3d	NSLRWCD C37	BASE	329.26	8.09	18.50	0	0.46	0.00	38.64	0.00
10yr3d	NSLRWCD C37	BASE	329.51	8.09	18.50	0	0.46	0.00	38.65	0.00
10yr3d	NSLRWCD C37	BASE	329.76	8.09	18.50	0	0.46	0.00	38.66	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	330.01	8.08	18.50	0	0.46	0.00	38.67	0.00
10yr3d	NSLRWCD C37	BASE	330.26	8.08	18.50	0	0.46	0.00	38.68	0.00
10yr3d	NSLRWCD C37	BASE	330.51	8.08	18.50	0	0.46	0.00	38.69	0.00
10yr3d	NSLRWCD C37	BASE	330.76	8.08	18.50	0	0.46	0.00	38.70	0.00
10yr3d	NSLRWCD C37	BASE	331.01	8.07	18.50	0	0.46	0.00	38.71	0.00
10yr3d	NSLRWCD C37	BASE	331.26	8.07	18.50	0	0.46	0.00	38.72	0.00
10yr3d	NSLRWCD C37	BASE	331.51	8.07	18.50	0	0.46	0.00	38.72	0.00
10yr3d	NSLRWCD C37	BASE	331.76	8.07	18.50	0	0.46	0.00	38.73	0.00
10yr3d	NSLRWCD C37	BASE	332.01	8.06	18.50	0	0.46	0.00	38.74	0.00
10yr3d	NSLRWCD C37	BASE	332.26	8.06	18.50	0	0.46	0.00	38.75	0.00
10yr3d	NSLRWCD C37	BASE	332.51	8.06	18.50	0	0.46	0.00	38.76	0.00
10yr3d	NSLRWCD C37	BASE	332.76	8.06	18.50	0	0.46	0.00	38.77	0.00
10yr3d	NSLRWCD C37	BASE	333.01	8.05	18.50	0	0.46	0.00	38.78	0.00
10yr3d	NSLRWCD C37	BASE	333.26	8.05	18.50	0	0.46	0.00	38.79	0.00
10yr3d	NSLRWCD C37	BASE	333.51	8.05	18.50	0	0.45	0.00	38.80	0.00
10yr3d	NSLRWCD C37	BASE	333.76	8.05	18.50	0	0.45	0.00	38.81	0.00
10yr3d	NSLRWCD C37	BASE	334.01	8.04	18.50	0	0.45	0.00	38.82	0.00
10yr3d	NSLRWCD C37	BASE	334.26	8.04	18.50	0	0.45	0.00	38.83	0.00
10yr3d	NSLRWCD C37	BASE	334.51	8.04	18.50	0	0.45	0.00	38.84	0.00
10yr3d	NSLRWCD C37	BASE	334.76	8.04	18.50	0	0.45	0.00	38.85	0.00
10yr3d	NSLRWCD C37	BASE	335.01	8.03	18.50	0	0.45	0.00	38.86	0.00
10yr3d	NSLRWCD C37	BASE	335.26	8.03	18.50	0	0.45	0.00	38.87	0.00
10yr3d	NSLRWCD C37	BASE	335.51	8.03	18.50	0	0.45	0.00	38.87	0.00
10yr3d	NSLRWCD C37	BASE	335.76	8.03	18.50	0	0.45	0.00	38.88	0.00
10yr3d	NSLRWCD C37	BASE	336.01	8.02	18.50	0	0.45	0.00	38.89	0.00
10yr3d	NSLRWCD C37	BASE	336.26	8.02	18.50	0	0.45	0.00	38.90	0.00
10yr3d	NSLRWCD C37	BASE	336.51	8.02	18.50	0	0.45	0.00	38.91	0.00
10yr3d	NSLRWCD C37	BASE	336.76	8.02	18.50	0	0.45	0.00	38.92	0.00
10yr3d	NSLRWCD C37	BASE	337.01	8.01	18.50	0	0.45	0.00	38.93	0.00
10yr3d	NSLRWCD C37	BASE	337.26	8.01	18.50	0	0.45	0.00	38.94	0.00
10yr3d	NSLRWCD C37	BASE	337.51	8.01	18.50	0	0.45	0.00	38.95	0.00
10yr3d	NSLRWCD C37	BASE	337.76	8.01	18.50	0	0.45	0.00	38.96	0.00
10yr3d	NSLRWCD C37	BASE	338.01	8.00	18.50	0	0.45	0.00	38.97	0.00
10yr3d	NSLRWCD C37	BASE	338.26	8.00	18.50	0	0.45	0.00	38.98	0.00
10yr3d	NSLRWCD C37	BASE	338.51	8.00	18.50	0	0.45	0.00	38.99	0.00
10yr3d	NSLRWCD C37	BASE	338.76	8.00	18.50	0	0.45	0.00	39.00	0.00
10yr3d	NSLRWCD C37	BASE	339.01	7.99	18.50	0	0.45	0.00	39.00	0.00
10yr3d	NSLRWCD C37	BASE	339.26	7.99	18.50	0	0.45	0.00	39.01	0.00
10yr3d	NSLRWCD C37	BASE	339.51	7.99	18.50	0	0.45	0.00	39.02	0.00
10yr3d	NSLRWCD C37	BASE	339.76	7.99	18.50	0	0.44	0.00	39.03	0.00
10yr3d	NSLRWCD C37	BASE	340.01	7.98	18.50	0	0.44	0.00	39.04	0.00
10yr3d	NSLRWCD C37	BASE	340.26	7.98	18.50	0	0.44	0.00	39.05	0.00
10yr3d	NSLRWCD C37	BASE	340.51	7.98	18.50	0	0.44	0.00	39.06	0.00
10yr3d	NSLRWCD C37	BASE	340.76	7.98	18.50	0	0.44	0.00	39.07	0.00
10yr3d	NSLRWCD C37	BASE	341.01	7.97	18.50	0	0.44	0.00	39.08	0.00
10yr3d	NSLRWCD C37	BASE	341.26	7.97	18.50	0	0.44	0.00	39.09	0.00
10yr3d	NSLRWCD C37	BASE	341.51	7.97	18.50	0	0.44	0.00	39.10	0.00
10yr3d	NSLRWCD C37	BASE	341.76	7.96	18.50	0	0.44	0.00	39.11	0.00
10yr3d	NSLRWCD C37	BASE	342.01	7.96	18.50	0	0.44	0.00	39.11	0.00
10yr3d	NSLRWCD C37	BASE	342.26	7.96	18.50	0	0.44	0.00	39.12	0.00
10yr3d	NSLRWCD C37	BASE	342.51	7.96	18.50	0	0.44	0.00	39.13	0.00
10yr3d	NSLRWCD C37	BASE	342.76	7.95	18.50	0	0.44	0.00	39.14	0.00
10yr3d	NSLRWCD C37	BASE	343.01	7.95	18.50	0	0.44	0.00	39.15	0.00
10yr3d	NSLRWCD C37	BASE	343.26	7.95	18.50	0	0.44	0.00	39.16	0.00
10yr3d	NSLRWCD C37	BASE	343.51	7.95	18.50	0	0.44	0.00	39.17	0.00
10yr3d	NSLRWCD C37	BASE	343.76	7.94	18.50	0	0.44	0.00	39.18	0.00
10yr3d	NSLRWCD C37	BASE	344.01	7.94	18.50	0	0.44	0.00	39.19	0.00
10yr3d	NSLRWCD C37	BASE	344.26	7.94	18.50	0	0.44	0.00	39.20	0.00
10yr3d	NSLRWCD C37	BASE	344.51	7.94	18.50	0	0.44	0.00	39.21	0.00
10yr3d	NSLRWCD C37	BASE	344.76	7.93	18.50	0	0.44	0.00	39.21	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	345.01	7.93	18.50	0	0.44	0.00	39.22	0.00
10yr3d	NSLRWCD C37	BASE	345.26	7.93	18.50	0	0.44	0.00	39.23	0.00
10yr3d	NSLRWCD C37	BASE	345.51	7.93	18.50	0	0.43	0.00	39.24	0.00
10yr3d	NSLRWCD C37	BASE	345.76	7.92	18.50	0	0.43	0.00	39.25	0.00
10yr3d	NSLRWCD C37	BASE	346.01	7.92	18.50	0	0.43	0.00	39.26	0.00
10yr3d	NSLRWCD C37	BASE	346.26	7.92	18.50	0	0.43	0.00	39.27	0.00
10yr3d	NSLRWCD C37	BASE	346.51	7.92	18.50	0	0.43	0.00	39.28	0.00
10yr3d	NSLRWCD C37	BASE	346.76	7.91	18.50	0	0.43	0.00	39.29	0.00
10yr3d	NSLRWCD C37	BASE	347.01	7.91	18.50	0	0.43	0.00	39.30	0.00
10yr3d	NSLRWCD C37	BASE	347.26	7.91	18.50	0	0.43	0.00	39.30	0.00
10yr3d	NSLRWCD C37	BASE	347.51	7.91	18.50	0	0.43	0.00	39.31	0.00
10yr3d	NSLRWCD C37	BASE	347.76	7.90	18.50	0	0.43	0.00	39.32	0.00
10yr3d	NSLRWCD C37	BASE	348.01	7.90	18.50	0	0.43	0.00	39.33	0.00
10yr3d	NSLRWCD C37	BASE	348.26	7.90	18.50	0	0.43	0.00	39.34	0.00
10yr3d	NSLRWCD C37	BASE	348.51	7.90	18.50	0	0.43	0.00	39.35	0.00
10yr3d	NSLRWCD C37	BASE	348.76	7.89	18.50	0	0.43	0.00	39.36	0.00
10yr3d	NSLRWCD C37	BASE	349.01	7.89	18.50	0	0.43	0.00	39.37	0.00
10yr3d	NSLRWCD C37	BASE	349.26	7.89	18.50	0	0.43	0.00	39.38	0.00
10yr3d	NSLRWCD C37	BASE	349.51	7.89	18.50	0	0.43	0.00	39.38	0.00
10yr3d	NSLRWCD C37	BASE	349.76	7.88	18.50	0	0.43	0.00	39.39	0.00
10yr3d	NSLRWCD C37	BASE	350.01	7.88	18.50	0	0.43	0.00	39.40	0.00
10yr3d	NSLRWCD C37	BASE	350.26	7.88	18.50	0	0.43	0.00	39.41	0.00
10yr3d	NSLRWCD C37	BASE	350.51	7.88	18.50	0	0.43	0.00	39.42	0.00
10yr3d	NSLRWCD C37	BASE	350.76	7.87	18.50	0	0.42	0.00	39.43	0.00
10yr3d	NSLRWCD C37	BASE	351.01	7.87	18.50	0	0.42	0.00	39.44	0.00
10yr3d	NSLRWCD C37	BASE	351.26	7.87	18.50	0	0.42	0.00	39.45	0.00
10yr3d	NSLRWCD C37	BASE	351.51	7.87	18.50	0	0.42	0.00	39.45	0.00
10yr3d	NSLRWCD C37	BASE	351.76	7.86	18.50	0	0.42	0.00	39.46	0.00
10yr3d	NSLRWCD C37	BASE	352.01	7.86	18.50	0	0.42	0.00	39.47	0.00
10yr3d	NSLRWCD C37	BASE	352.26	7.86	18.50	0	0.42	0.00	39.48	0.00
10yr3d	NSLRWCD C37	BASE	352.51	7.86	18.50	0	0.42	0.00	39.49	0.00
10yr3d	NSLRWCD C37	BASE	352.76	7.85	18.50	0	0.42	0.00	39.50	0.00
10yr3d	NSLRWCD C37	BASE	353.01	7.85	18.50	0	0.42	0.00	39.51	0.00
10yr3d	NSLRWCD C37	BASE	353.26	7.85	18.50	0	0.42	0.00	39.52	0.00
10yr3d	NSLRWCD C37	BASE	353.51	7.85	18.50	0	0.42	0.00	39.52	0.00
10yr3d	NSLRWCD C37	BASE	353.76	7.84	18.50	0	0.42	0.00	39.53	0.00
10yr3d	NSLRWCD C37	BASE	354.01	7.84	18.50	0	0.42	0.00	39.54	0.00
10yr3d	NSLRWCD C37	BASE	354.26	7.84	18.50	0	0.42	0.00	39.55	0.00
10yr3d	NSLRWCD C37	BASE	354.51	7.84	18.50	0	0.42	0.00	39.56	0.00
10yr3d	NSLRWCD C37	BASE	354.76	7.83	18.50	0	0.42	0.00	39.57	0.00
10yr3d	NSLRWCD C37	BASE	355.01	7.83	18.50	0	0.42	0.00	39.58	0.00
10yr3d	NSLRWCD C37	BASE	355.26	7.83	18.50	0	0.42	0.00	39.58	0.00
10yr3d	NSLRWCD C37	BASE	355.51	7.83	18.50	0	0.42	0.00	39.59	0.00
10yr3d	NSLRWCD C37	BASE	355.76	7.82	18.50	0	0.41	0.00	39.60	0.00
10yr3d	NSLRWCD C37	BASE	356.01	7.82	18.50	0	0.41	0.00	39.61	0.00
10yr3d	NSLRWCD C37	BASE	356.26	7.82	18.50	0	0.41	0.00	39.62	0.00
10yr3d	NSLRWCD C37	BASE	356.51	7.82	18.50	0	0.41	0.00	39.63	0.00
10yr3d	NSLRWCD C37	BASE	356.76	7.81	18.50	0	0.41	0.00	39.64	0.00
10yr3d	NSLRWCD C37	BASE	357.01	7.81	18.50	0	0.41	0.00	39.64	0.00
10yr3d	NSLRWCD C37	BASE	357.26	7.81	18.50	0	0.41	0.00	39.65	0.00
10yr3d	NSLRWCD C37	BASE	357.51	7.81	18.50	0	0.41	0.00	39.66	0.00
10yr3d	NSLRWCD C37	BASE	357.76	7.80	18.50	0	0.41	0.00	39.67	0.00
10yr3d	NSLRWCD C37	BASE	358.01	7.80	18.50	0	0.41	0.00	39.68	0.00
10yr3d	NSLRWCD C37	BASE	358.26	7.80	18.50	0	0.41	0.00	39.69	0.00
10yr3d	NSLRWCD C37	BASE	358.51	7.80	18.50	0	0.41	0.00	39.70	0.00
10yr3d	NSLRWCD C37	BASE	358.76	7.79	18.50	0	0.41	0.00	39.70	0.00
10yr3d	NSLRWCD C37	BASE	359.01	7.79	18.50	0	0.41	0.00	39.71	0.00
10yr3d	NSLRWCD C37	BASE	359.26	7.79	18.50	0	0.41	0.00	39.72	0.00
10yr3d	NSLRWCD C37	BASE	359.51	7.79	18.50	0	0.41	0.00	39.73	0.00
10yr3d	NSLRWCD C37	BASE	359.76	7.78	18.50	0	0.41	0.00	39.74	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	360.01	7.78	18.50	0	0.41	0.00	39.75	0.00
10yr3d	NSLRWCD C37	BASE	360.01	7.78	18.50	0	0.41	0.00	39.75	0.00

Appendix D - ICPR Routing
Existing Off-Site Condition Model

ENGINEERING DESIGN & CONSTRUCTION, INC
CIVIL ENGINEERS & SURVEYORS SPECIALIZING IN LAND DEVELOPMENT

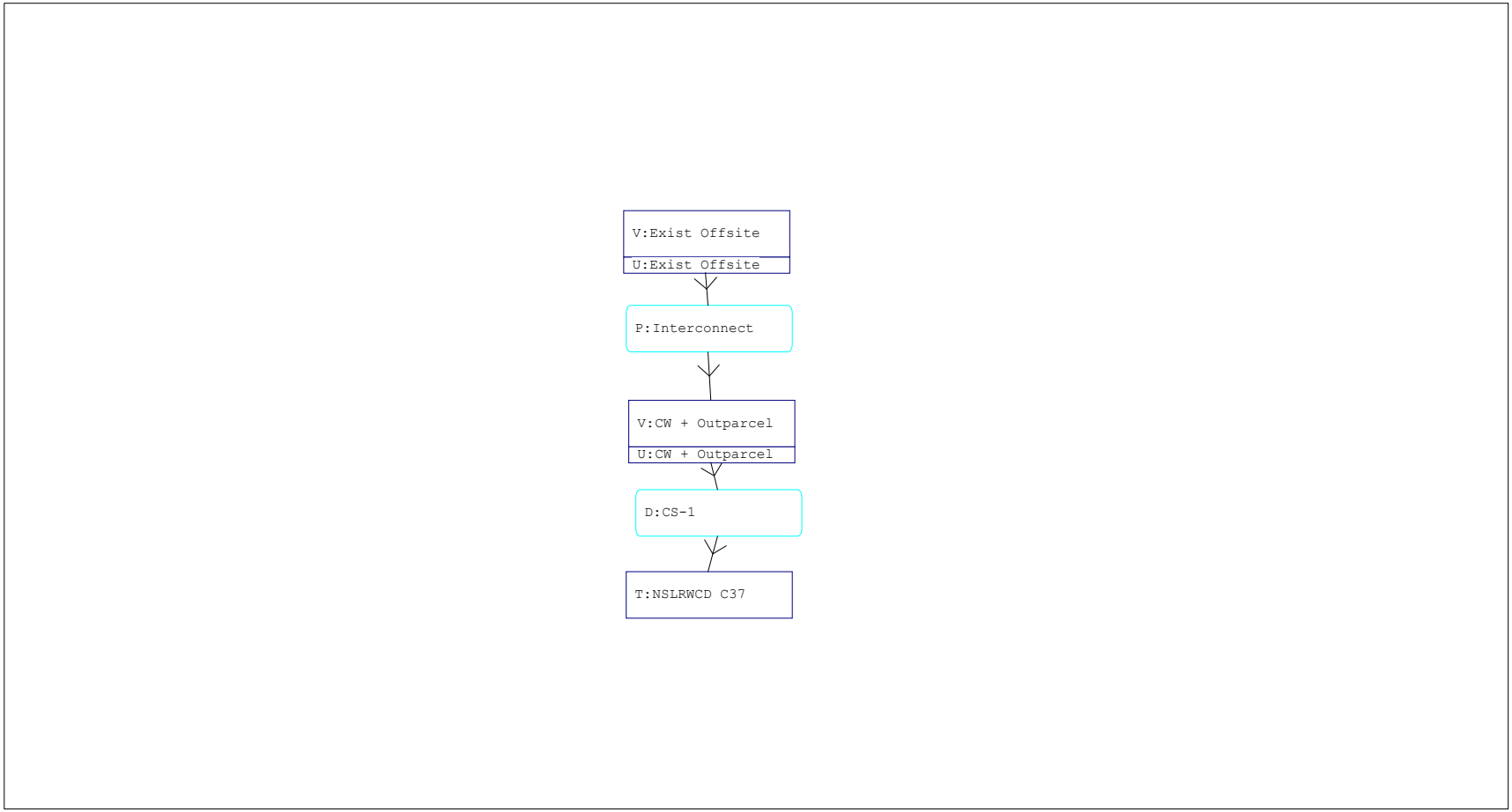
10250 SW Village Parkway, Suite 201
Port St. Lucie, FL 34987
772-462-2455

16-225 Camping World - Existing Off-Site Condition Storm Routing
Nodal Diagram

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc.

==========
==== Basins ====
==========

Name: CW + Outparcel Node: CW + Outparcel Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
Area(ac): 28.970 Time Shift(hrs): 0.00
Curve Number: 94.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Exist Offsite Node: Exist Offsite Status: Onsite
Group: Offsite Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
Area(ac): 16.030 Time Shift(hrs): 0.00
Curve Number: 64.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

==========
==== Nodes ====
==========

Name: CW + Outparcel Base Flow(cfs): 0.000 Init Stage(ft): 10.000
Group: BASE Warn Stage(ft): 18.500
Type: Stage/Volume

Stage(ft)	Volume(af)
10.000	0.0000
10.500	1.6100
11.000	3.2600
11.500	4.9500
12.000	6.6700
12.500	8.4300
13.500	12.0700
14.500	16.0600
15.500	20.6900
16.500	27.4700
17.500	41.7200
18.500	64.4700

Name: Exist Offsite Base Flow(cfs): 0.000 Init Stage(ft): 10.000
Group: Offsite Warn Stage(ft): 18.500
Type: Stage/Volume

Stage(ft)	Volume(af)
10.000	0.0000
10.500	0.3300
11.000	0.6600
11.500	0.9900
12.000	1.3200
12.500	1.6500
13.500	2.3200
14.500	5.5400
15.500	13.8900
16.500	27.3500
17.500	43.3800
18.500	59.4100

Name: NSLRWCD C37 Base Flow(cfs): 0.000 Init Stage(ft): 7.780
Group: BASE Warn Stage(ft): 18.500
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	7.780

62.00	7.780
360.00	7.780

==========
==== Operating Tables ====
==========

Name: 10yr1d Group: 10yr1d
Type: Rating Curve
Function: Time vs. Discharge

Time(hrs)	Discharge(cfs)
0.00	0.00
24.00	1.00
120.00	0.00

Name: 10yr3d Group: 10yr3d
Type: Rating Curve
Function: Time vs. Discharge

Time(hrs)	Discharge(cfs)
0.00	0.00
62.00	1.41
360.00	0.00

Name: 25yr3d Group: 25yr3d
Type: Rating Curve
Function: Time vs. Discharge

Time(hrs)	Discharge(cfs)
0.00	0.00
62.00	1.58
360.00	0.00

==========
==== Pipes ====
==========

Name: Interconnect From Node: Exist Offsite Length(ft): 144.00
Group: BASE To Node: CW + Outparcel Count: 1
Friction Equation: Automatic
Solution Algorithm: Most Restrictive
Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	36.00	36.00
Rise(in):	36.00	36.00
Invert(ft):	9.500	5.000
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

==========
==== Drop Structures ====
==========

Name: CS-1 From Node: CW + Outparcel Length(ft): 35.00
Group: Outfalls To Node: NSLRWCD C37 Count: 1

Friction Equation: Automatic
Solution Algorithm: Most Restrictive
Flow: Both
Entrance Loss Coef: 0.000
Exit Loss Coef: 1.000
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Solution Incs: 10

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	36.00	36.00
Rise(in):	36.00	36.00
Invert(ft):	8.650	8.440
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Groove end projecting

*** Weir 1 of 4 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Circular	Orifice Disc Coef:	0.600
Span(in):	4.00	Invert(ft):	10.000
Rise(in):	4.00	Control Elev(ft):	10.000

*** Weir 2 of 4 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	8.00	Invert(ft):	11.600
Rise(in):	6.00	Control Elev(ft):	11.600

*** Weir 3 of 4 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	54.00	Invert(ft):	15.250
Rise(in):	6.00	Control Elev(ft):	15.250

*** Weir 4 of 4 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	54.00	Invert(ft):	15.750
Rise(in):	18.00	Control Elev(ft):	15.750

==========
==== Hydrology Simulations ==========
==========

Name: 100yr3d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\100yr3d.R32

Override Defaults: Yes
Storm Duration(hrs): 72.00
Rainfall File: Sfwmd72
Rainfall Amount(in): 12.23

Time(hrs)	Print Inc(min)
360.000	5.00

Name: 10yr1d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr1d.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsiii
Rainfall Amount(in): 6.00

Time(hrs)	Print Inc(min)
360.000	5.00

Name: 10yr3d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr3d.R32

Override Defaults: Yes
Storm Duration(hrs): 72.00
Rainfall File: Sfwmd72
Rainfall Amount(in): 8.50

Time(hrs) Print Inc(min)
--- ---
360.000 5.00

Name: 25yr3d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\25yr3d.R32

Override Defaults: Yes
Storm Duration(hrs): 72.00
Rainfall File: Sfwmd72
Rainfall Amount(in): 9.50

Time(hrs) Print Inc(min)
--- ---
360.000 5.00

==========
==== Routing Simulations ==========
==========

Name: 100yr3d Hydrology Sim: 100yr3d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\100yr3d.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 360.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)
--- ---
360.000 15.000

Group Run
--- ---
BASE Yes
Offsite Yes

Name: 10yr1d Hydrology Sim: 10yr1d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr1d.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 360.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: 10yr1d Boundary Flows:

Time(hrs) Print Inc(min)
--- ---
360.000 15.000

Group Run
--- ---
10yr1d Yes
BASE Yes
Offsite Yes
Outfalls Yes

Name: 10yr3d Hydrology Sim: 10yr3d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\10yr3d.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 360.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: 10yr3d Boundary Flows:

Time(hrs)	Print Inc(min)
360.000	15.000

Group	Run
10yr3d	Yes
BASE	Yes
Offsite	Yes
Outfalls	Yes

Name: 25yr3d Hydrology Sim: 25yr3d
Filename: Z:\EDC-Fort-Pierce\16-projects\16-225(CampingWorld)\Civil\SWM\ICPR3\25yr3d.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 360.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: 10yr3d Boundary Flows:

Time(hrs)	Print Inc(min)
360.000	15.000

Group	Run
25yr3d	Yes
BASE	Yes
Offsite	Yes
Outfalls	Yes

==========
==== Boundary Conditions ====
==========

Name: 10yr1d Node: NSLRWCD C37 Type: Stage

Time(hrs)	Stage(ft)
0.000	7.780
1.330	9.420
2.670	9.730
4.000	10.770
5.330	10.140
6.670	9.590
8.000	9.420
9.330	9.530
10.670	9.770
12.000	11.060
13.330	10.300
14.670	9.650
16.000	9.450
17.330	9.650
18.670	10.010
20.000	11.950
21.330	10.810
22.670	9.830
24.000	9.530
360.000	7.780

Name: 10yr3d Node: NSLRWCD C37 Type: Stage

Time(hrs)	Stage(ft)
0.000	7.780
4.000	10.580
8.000	10.950
12.000	12.060
16.000	11.360
20.000	10.760
24.000	10.580
28.000	10.700
32.000	10.960
36.000	12.390
40.000	11.540
44.000	10.830
48.000	10.610
52.000	10.830

56.000	11.230
60.000	13.370
64.000	12.110
68.000	11.020
72.000	10.700
360.000	7.780

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
CW + Outparcel	BASE	100yr3d	72.88	15.57	18.50	0.0050	263581	60.00	134.38	0.00	0.00
CW + Outparcel	BASE	10yr1d	22.13	13.20	18.50	0.0050	163152	12.25	105.61	22.46	2.60
CW + Outparcel	BASE	10yr3d	68.48	14.45	18.50	0.0050	186591	60.00	102.60	72.00	3.39
CW + Outparcel	BASE	25yr3d	72.00	14.71	18.50	0.0050	200623	60.00	111.46	72.03	3.55
Exist Offsite	Offsite	100yr3d	73.03	15.57	18.50	0.0050	487057	60.00	68.72	33.42	5.55
Exist Offsite	Offsite	10yr1d	22.13	13.20	18.50	0.0050	68196	12.25	26.08	161.98	10.23
Exist Offsite	Offsite	10yr3d	68.52	14.45	18.50	0.0050	243084	60.00	40.99	246.24	11.36
Exist Offsite	Offsite	25yr3d	72.01	14.71	18.50	0.0050	299401	60.00	48.36	256.04	10.02
NSLRWCD C37	BASE	100yr3d	0.00	7.78	18.50	0.0000	0	0.00	0.00	0.00	0.00
NSLRWCD C37	BASE	10yr1d	20.00	11.94	18.50	0.0243	0	22.46	2.60	0.00	0.00
NSLRWCD C37	BASE	10yr3d	60.00	13.37	18.50	0.0117	0	72.00	3.39	0.00	0.00
NSLRWCD C37	BASE	25yr3d	60.00	13.37	18.50	0.0117	0	72.03	3.55	0.00	0.00

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	0.00	7.78	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	0.26	7.96	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	0.50	8.13	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	0.77	8.32	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	1.02	8.49	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	1.27	8.67	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	1.52	8.84	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	1.77	9.02	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	2.02	9.19	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	2.27	9.37	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	2.52	9.54	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	2.77	9.72	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	3.02	9.89	18.50	0	0.00	0.00	0.00	0.00
10yr3d	NSLRWCD C37	BASE	3.27	10.07	18.50	0	-0.01	0.00	-0.00	0.00
10yr3d	NSLRWCD C37	BASE	3.52	10.24	18.50	0	-0.10	0.00	-0.00	0.00
10yr3d	NSLRWCD C37	BASE	3.77	10.42	18.50	0	-0.21	0.00	-0.00	0.00
10yr3d	NSLRWCD C37	BASE	4.02	10.58	18.50	0	-0.27	0.00	-0.01	0.00
10yr3d	NSLRWCD C37	BASE	4.27	10.60	18.50	0	-0.28	0.00	-0.01	0.00
10yr3d	NSLRWCD C37	BASE	4.52	10.63	18.50	0	-0.28	0.00	-0.02	0.00
10yr3d	NSLRWCD C37	BASE	4.77	10.65	18.50	0	-0.29	0.00	-0.03	0.00
10yr3d	NSLRWCD C37	BASE	5.02	10.67	18.50	0	-0.30	0.00	-0.03	0.00
10yr3d	NSLRWCD C37	BASE	5.27	10.70	18.50	0	-0.31	0.00	-0.04	0.00
10yr3d	NSLRWCD C37	BASE	5.52	10.72	18.50	0	-0.31	0.00	-0.05	0.00
10yr3d	NSLRWCD C37	BASE	5.77	10.74	18.50	0	-0.32	0.00	-0.05	0.00
10yr3d	NSLRWCD C37	BASE	6.02	10.77	18.50	0	-0.32	0.00	-0.06	0.00
10yr3d	NSLRWCD C37	BASE	6.27	10.79	18.50	0	-0.33	0.00	-0.07	0.00
10yr3d	NSLRWCD C37	BASE	6.52	10.81	18.50	0	-0.34	0.00	-0.07	0.00
10yr3d	NSLRWCD C37	BASE	6.77	10.84	18.50	0	-0.34	0.00	-0.08	0.00
10yr3d	NSLRWCD C37	BASE	7.02	10.86	18.50	0	-0.35	0.00	-0.09	0.00
10yr3d	NSLRWCD C37	BASE	7.27	10.88	18.50	0	-0.35	0.00	-0.09	0.00
10yr3d	NSLRWCD C37	BASE	7.52	10.91	18.50	0	-0.36	0.00	-0.10	0.00
10yr3d	NSLRWCD C37	BASE	7.77	10.93	18.50	0	-0.37	0.00	-0.11	0.00
10yr3d	NSLRWCD C37	BASE	8.02	10.95	18.50	0	-0.37	0.00	-0.12	0.00
10yr3d	NSLRWCD C37	BASE	8.27	11.02	18.50	0	-0.39	0.00	-0.12	0.00
10yr3d	NSLRWCD C37	BASE	8.52	11.09	18.50	0	-0.40	0.00	-0.13	0.00
10yr3d	NSLRWCD C37	BASE	8.77	11.16	18.50	0	-0.42	0.00	-0.14	0.00
10yr3d	NSLRWCD C37	BASE	9.02	11.23	18.50	0	-0.43	0.00	-0.15	0.00
10yr3d	NSLRWCD C37	BASE	9.27	11.30	18.50	0	-0.45	0.00	-0.16	0.00
10yr3d	NSLRWCD C37	BASE	9.52	11.37	18.50	0	-0.46	0.00	-0.17	0.00
10yr3d	NSLRWCD C37	BASE	9.77	11.44	18.50	0	-0.47	0.00	-0.18	0.00
10yr3d	NSLRWCD C37	BASE	10.02	11.51	18.50	0	-0.49	0.00	-0.19	0.00
10yr3d	NSLRWCD C37	BASE	10.27	11.58	18.50	0	-0.50	0.00	-0.20	0.00
10yr3d	NSLRWCD C37	BASE	10.52	11.65	18.50	0	-0.53	0.00	-0.21	0.00
10yr3d	NSLRWCD C37	BASE	10.77	11.72	18.50	0	-0.61	0.00	-0.22	0.00
10yr3d	NSLRWCD C37	BASE	11.02	11.79	18.50	0	-0.70	0.00	-0.23	0.00
10yr3d	NSLRWCD C37	BASE	11.27	11.86	18.50	0	-0.81	0.00	-0.25	0.00
10yr3d	NSLRWCD C37	BASE	11.52	11.93	18.50	0	-0.94	0.00	-0.27	0.00
10yr3d	NSLRWCD C37	BASE	11.77	12.00	18.50	0	-1.08	0.00	-0.29	0.00
10yr3d	NSLRWCD C37	BASE	12.02	12.06	18.50	0	-1.22	0.00	-0.31	0.00
10yr3d	NSLRWCD C37	BASE	12.27	12.01	18.50	0	-1.12	0.00	-0.34	0.00
10yr3d	NSLRWCD C37	BASE	12.52	11.97	18.50	0	-1.03	0.00	-0.36	0.00
10yr3d	NSLRWCD C37	BASE	12.77	11.93	18.50	0	-0.94	0.00	-0.38	0.00
10yr3d	NSLRWCD C37	BASE	13.02	11.88	18.50	0	-0.86	0.00	-0.40	0.00
10yr3d	NSLRWCD C37	BASE	13.27	11.84	18.50	0	-0.78	0.00	-0.41	0.00
10yr3d	NSLRWCD C37	BASE	13.52	11.79	18.50	0	-0.71	0.00	-0.43	0.00
10yr3d	NSLRWCD C37	BASE	13.77	11.75	18.50	0	-0.64	0.00	-0.44	0.00
10yr3d	NSLRWCD C37	BASE	14.02	11.71	18.50	0	-0.59	0.00	-0.46	0.00
10yr3d	NSLRWCD C37	BASE	14.27	11.66	18.50	0	-0.54	0.00	-0.47	0.00
10yr3d	NSLRWCD C37	BASE	14.52	11.62	18.50	0	-0.50	0.00	-0.48	0.00
10yr3d	NSLRWCD C37	BASE	14.77	11.58	18.50	0	-0.49	0.00	-0.49	0.00

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	15.02	11.53	18.50	0	-0.48	0.00	-0.50	0.00
10yr3d	NSLRWCD C37	BASE	15.27	11.49	18.50	0	-0.47	0.00	-0.51	0.00
10yr3d	NSLRWCD C37	BASE	15.52	11.44	18.50	0	-0.46	0.00	-0.52	0.00
10yr3d	NSLRWCD C37	BASE	15.77	11.40	18.50	0	-0.45	0.00	-0.53	0.00
10yr3d	NSLRWCD C37	BASE	16.02	11.36	18.50	0	-0.44	0.00	-0.54	0.00
10yr3d	NSLRWCD C37	BASE	16.27	11.32	18.50	0	-0.43	0.00	-0.55	0.00
10yr3d	NSLRWCD C37	BASE	16.52	11.28	18.50	0	-0.42	0.00	-0.55	0.00
10yr3d	NSLRWCD C37	BASE	16.77	11.25	18.50	0	-0.41	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	17.02	11.21	18.50	0	-0.40	0.00	-0.57	0.00
10yr3d	NSLRWCD C37	BASE	17.27	11.17	18.50	0	-0.39	0.00	-0.58	0.00
10yr3d	NSLRWCD C37	BASE	17.52	11.13	18.50	0	-0.38	0.00	-0.59	0.00
10yr3d	NSLRWCD C37	BASE	17.77	11.10	18.50	0	-0.37	0.00	-0.59	0.00
10yr3d	NSLRWCD C37	BASE	18.02	11.06	18.50	0	-0.36	0.00	-0.60	0.00
10yr3d	NSLRWCD C37	BASE	18.27	11.02	18.50	0	-0.35	0.00	-0.61	0.00
10yr3d	NSLRWCD C37	BASE	18.52	10.98	18.50	0	-0.34	0.00	-0.62	0.00
10yr3d	NSLRWCD C37	BASE	18.77	10.95	18.50	0	-0.33	0.00	-0.62	0.00
10yr3d	NSLRWCD C37	BASE	19.02	10.91	18.50	0	-0.32	0.00	-0.63	0.00
10yr3d	NSLRWCD C37	BASE	19.27	10.87	18.50	0	-0.30	0.00	-0.64	0.00
10yr3d	NSLRWCD C37	BASE	19.52	10.83	18.50	0	-0.29	0.00	-0.64	0.00
10yr3d	NSLRWCD C37	BASE	19.77	10.80	18.50	0	-0.28	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	20.02	10.76	18.50	0	-0.26	0.00	-0.65	0.00
10yr3d	NSLRWCD C37	BASE	20.27	10.75	18.50	0	-0.26	0.00	-0.66	0.00
10yr3d	NSLRWCD C37	BASE	20.52	10.74	18.50	0	-0.25	0.00	-0.67	0.00
10yr3d	NSLRWCD C37	BASE	20.77	10.73	18.50	0	-0.25	0.00	-0.67	0.00
10yr3d	NSLRWCD C37	BASE	21.02	10.71	18.50	0	-0.24	0.00	-0.68	0.00
10yr3d	NSLRWCD C37	BASE	21.27	10.70	18.50	0	-0.23	0.00	-0.68	0.00
10yr3d	NSLRWCD C37	BASE	21.52	10.69	18.50	0	-0.23	0.00	-0.69	0.00
10yr3d	NSLRWCD C37	BASE	21.77	10.68	18.50	0	-0.22	0.00	-0.69	0.00
10yr3d	NSLRWCD C37	BASE	22.02	10.67	18.50	0	-0.21	0.00	-0.69	0.00
10yr3d	NSLRWCD C37	BASE	22.27	10.66	18.50	0	-0.21	0.00	-0.70	0.00
10yr3d	NSLRWCD C37	BASE	22.52	10.65	18.50	0	-0.20	0.00	-0.70	0.00
10yr3d	NSLRWCD C37	BASE	22.77	10.64	18.50	0	-0.19	0.00	-0.71	0.00
10yr3d	NSLRWCD C37	BASE	23.02	10.62	18.50	0	-0.18	0.00	-0.71	0.00
10yr3d	NSLRWCD C37	BASE	23.27	10.61	18.50	0	-0.18	0.00	-0.71	0.00
10yr3d	NSLRWCD C37	BASE	23.52	10.60	18.50	0	-0.17	0.00	-0.72	0.00
10yr3d	NSLRWCD C37	BASE	23.77	10.59	18.50	0	-0.16	0.00	-0.72	0.00
10yr3d	NSLRWCD C37	BASE	24.02	10.58	18.50	0	-0.15	0.00	-0.72	0.00
10yr3d	NSLRWCD C37	BASE	24.27	10.59	18.50	0	-0.15	0.00	-0.73	0.00
10yr3d	NSLRWCD C37	BASE	24.52	10.60	18.50	0	-0.15	0.00	-0.73	0.00
10yr3d	NSLRWCD C37	BASE	24.77	10.60	18.50	0	-0.15	0.00	-0.73	0.00
10yr3d	NSLRWCD C37	BASE	25.02	10.61	18.50	0	-0.15	0.00	-0.74	0.00
10yr3d	NSLRWCD C37	BASE	25.27	10.62	18.50	0	-0.15	0.00	-0.74	0.00
10yr3d	NSLRWCD C37	BASE	25.52	10.63	18.50	0	-0.15	0.00	-0.74	0.00
10yr3d	NSLRWCD C37	BASE	25.77	10.63	18.50	0	-0.15	0.00	-0.75	0.00
10yr3d	NSLRWCD C37	BASE	26.02	10.64	18.50	0	-0.15	0.00	-0.75	0.00
10yr3d	NSLRWCD C37	BASE	26.27	10.65	18.50	0	-0.15	0.00	-0.75	0.00
10yr3d	NSLRWCD C37	BASE	26.52	10.66	18.50	0	-0.15	0.00	-0.76	0.00
10yr3d	NSLRWCD C37	BASE	26.77	10.66	18.50	0	-0.15	0.00	-0.76	0.00
10yr3d	NSLRWCD C37	BASE	27.02	10.67	18.50	0	-0.15	0.00	-0.76	0.00
10yr3d	NSLRWCD C37	BASE	27.27	10.68	18.50	0	-0.15	0.00	-0.77	0.00
10yr3d	NSLRWCD C37	BASE	27.52	10.69	18.50	0	-0.15	0.00	-0.77	0.00
10yr3d	NSLRWCD C37	BASE	27.77	10.69	18.50	0	-0.15	0.00	-0.77	0.00
10yr3d	NSLRWCD C37	BASE	28.02	10.70	18.50	0	-0.15	0.00	-0.77	0.00
10yr3d	NSLRWCD C37	BASE	28.27	10.72	18.50	0	-0.15	0.00	-0.78	0.00
10yr3d	NSLRWCD C37	BASE	28.52	10.73	18.50	0	-0.16	0.00	-0.78	0.00
10yr3d	NSLRWCD C37	BASE	28.77	10.75	18.50	0	-0.16	0.00	-0.78	0.00
10yr3d	NSLRWCD C37	BASE	29.02	10.77	18.50	0	-0.17	0.00	-0.79	0.00
10yr3d	NSLRWCD C37	BASE	29.27	10.78	18.50	0	-0.17	0.00	-0.79	0.00
10yr3d	NSLRWCD C37	BASE	29.52	10.80	18.50	0	-0.18	0.00	-0.79	0.00
10yr3d	NSLRWCD C37	BASE	29.77	10.81	18.50	0	-0.18	0.00	-0.80	0.00

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	30.02	10.83	18.50	0	-0.18	0.00	-0.80	0.00
10yr3d	NSLRWCD C37	BASE	30.27	10.85	18.50	0	-0.19	0.00	-0.81	0.00
10yr3d	NSLRWCD C37	BASE	30.52	10.86	18.50	0	-0.19	0.00	-0.81	0.00
10yr3d	NSLRWCD C37	BASE	30.77	10.88	18.50	0	-0.19	0.00	-0.81	0.00
10yr3d	NSLRWCD C37	BASE	31.02	10.90	18.50	0	-0.20	0.00	-0.82	0.00
10yr3d	NSLRWCD C37	BASE	31.27	10.91	18.50	0	-0.20	0.00	-0.82	0.00
10yr3d	NSLRWCD C37	BASE	31.52	10.93	18.50	0	-0.20	0.00	-0.83	0.00
10yr3d	NSLRWCD C37	BASE	31.77	10.94	18.50	0	-0.21	0.00	-0.83	0.00
10yr3d	NSLRWCD C37	BASE	32.02	10.97	18.50	0	-0.21	0.00	-0.83	0.00
10yr3d	NSLRWCD C37	BASE	32.27	11.06	18.50	0	-0.24	0.00	-0.84	0.00
10yr3d	NSLRWCD C37	BASE	32.52	11.14	18.50	0	-0.27	0.00	-0.84	0.00
10yr3d	NSLRWCD C37	BASE	32.77	11.23	18.50	0	-0.30	0.00	-0.85	0.00
10yr3d	NSLRWCD C37	BASE	33.02	11.32	18.50	0	-0.32	0.00	-0.86	0.00
10yr3d	NSLRWCD C37	BASE	33.27	11.41	18.50	0	-0.34	0.00	-0.86	0.00
10yr3d	NSLRWCD C37	BASE	33.52	11.50	18.50	0	-0.36	0.00	-0.87	0.00
10yr3d	NSLRWCD C37	BASE	33.77	11.59	18.50	0	-0.38	0.00	-0.88	0.00
10yr3d	NSLRWCD C37	BASE	34.02	11.68	18.50	0	-0.44	0.00	-0.89	0.00
10yr3d	NSLRWCD C37	BASE	34.27	11.77	18.50	0	-0.56	0.00	-0.90	0.00
10yr3d	NSLRWCD C37	BASE	34.52	11.86	18.50	0	-0.71	0.00	-0.91	0.00
10yr3d	NSLRWCD C37	BASE	34.77	11.95	18.50	0	-0.88	0.00	-0.93	0.00
10yr3d	NSLRWCD C37	BASE	35.02	12.04	18.50	0	-1.06	0.00	-0.95	0.00
10yr3d	NSLRWCD C37	BASE	35.27	12.13	18.50	0	-1.26	0.00	-0.97	0.00
10yr3d	NSLRWCD C37	BASE	35.52	12.22	18.50	0	-1.44	0.00	-1.00	0.00
10yr3d	NSLRWCD C37	BASE	35.77	12.31	18.50	0	-1.57	0.00	-1.03	0.00
10yr3d	NSLRWCD C37	BASE	36.02	12.39	18.50	0	-1.67	0.00	-1.06	0.00
10yr3d	NSLRWCD C37	BASE	36.27	12.33	18.50	0	-1.60	0.00	-1.10	0.00
10yr3d	NSLRWCD C37	BASE	36.52	12.28	18.50	0	-1.52	0.00	-1.13	0.00
10yr3d	NSLRWCD C37	BASE	36.77	12.23	18.50	0	-1.44	0.00	-1.16	0.00
10yr3d	NSLRWCD C37	BASE	37.02	12.17	18.50	0	-1.34	0.00	-1.19	0.00
10yr3d	NSLRWCD C37	BASE	37.27	12.12	18.50	0	-1.23	0.00	-1.22	0.00
10yr3d	NSLRWCD C37	BASE	37.52	12.07	18.50	0	-1.10	0.00	-1.24	0.00
10yr3d	NSLRWCD C37	BASE	37.77	12.01	18.50	0	-0.98	0.00	-1.26	0.00
10yr3d	NSLRWCD C37	BASE	38.02	11.96	18.50	0	-0.86	0.00	-1.28	0.00
10yr3d	NSLRWCD C37	BASE	38.27	11.91	18.50	0	-0.75	0.00	-1.30	0.00
10yr3d	NSLRWCD C37	BASE	38.52	11.86	18.50	0	-0.65	0.00	-1.31	0.00
10yr3d	NSLRWCD C37	BASE	38.77	11.80	18.50	0	-0.55	0.00	-1.32	0.00
10yr3d	NSLRWCD C37	BASE	39.02	11.75	18.50	0	-0.47	0.00	-1.33	0.00
10yr3d	NSLRWCD C37	BASE	39.27	11.70	18.50	0	-0.39	0.00	-1.34	0.00
10yr3d	NSLRWCD C37	BASE	39.52	11.64	18.50	0	-0.33	0.00	-1.35	0.00
10yr3d	NSLRWCD C37	BASE	39.77	11.59	18.50	0	-0.30	0.00	-1.36	0.00
10yr3d	NSLRWCD C37	BASE	40.02	11.54	18.50	0	-0.28	0.00	-1.36	0.00
10yr3d	NSLRWCD C37	BASE	40.27	11.49	18.50	0	-0.26	0.00	-1.37	0.00
10yr3d	NSLRWCD C37	BASE	40.52	11.45	18.50	0	-0.24	0.00	-1.37	0.00
10yr3d	NSLRWCD C37	BASE	40.77	11.40	18.50	0	-0.22	0.00	-1.38	0.00
10yr3d	NSLRWCD C37	BASE	41.02	11.36	18.50	0	-0.19	0.00	-1.38	0.00
10yr3d	NSLRWCD C37	BASE	41.27	11.32	18.50	0	-0.17	0.00	-1.39	0.00
10yr3d	NSLRWCD C37	BASE	41.52	11.27	18.50	0	-0.14	0.00	-1.39	0.00
10yr3d	NSLRWCD C37	BASE	41.77	11.23	18.50	0	-0.10	0.00	-1.39	0.00
10yr3d	NSLRWCD C37	BASE	42.02	11.18	18.50	0	-0.01	0.00	-1.39	0.00
10yr3d	NSLRWCD C37	BASE	42.27	11.14	18.50	0	0.10	0.00	-1.39	0.00
10yr3d	NSLRWCD C37	BASE	42.52	11.09	18.50	0	0.14	0.00	-1.39	0.00
10yr3d	NSLRWCD C37	BASE	42.77	11.05	18.50	0	0.17	0.00	-1.39	0.00
10yr3d	NSLRWCD C37	BASE	43.02	11.00	18.50	0	0.19	0.00	-1.38	0.00
10yr3d	NSLRWCD C37	BASE	43.27	10.96	18.50	0	0.21	0.00	-1.38	0.00
10yr3d	NSLRWCD C37	BASE	43.52	10.92	18.50	0	0.24	0.00	-1.37	0.00
10yr3d	NSLRWCD C37	BASE	43.77	10.87	18.50	0	0.25	0.00	-1.37	0.00
10yr3d	NSLRWCD C37	BASE	44.02	10.83	18.50	0	0.27	0.00	-1.36	0.00
10yr3d	NSLRWCD C37	BASE	44.27	10.82	18.50	0	0.28	0.00	-1.36	0.00
10yr3d	NSLRWCD C37	BASE	44.52	10.80	18.50	0	0.28	0.00	-1.35	0.00
10yr3d	NSLRWCD C37	BASE	44.77	10.79	18.50	0	0.29	0.00	-1.35	0.00

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	45.02	10.77	18.50	0	0.30	0.00	-1.34	0.00
10yr3d	NSLRWCD C37	BASE	45.27	10.76	18.50	0	0.30	0.00	-1.33	0.00
10yr3d	NSLRWCD C37	BASE	45.52	10.75	18.50	0	0.31	0.00	-1.33	0.00
10yr3d	NSLRWCD C37	BASE	45.77	10.73	18.50	0	0.32	0.00	-1.32	0.00
10yr3d	NSLRWCD C37	BASE	46.02	10.72	18.50	0	0.32	0.00	-1.31	0.00
10yr3d	NSLRWCD C37	BASE	46.27	10.71	18.50	0	0.33	0.00	-1.31	0.00
10yr3d	NSLRWCD C37	BASE	46.52	10.69	18.50	0	0.33	0.00	-1.30	0.00
10yr3d	NSLRWCD C37	BASE	46.77	10.68	18.50	0	0.34	0.00	-1.29	0.00
10yr3d	NSLRWCD C37	BASE	47.02	10.66	18.50	0	0.34	0.00	-1.29	0.00
10yr3d	NSLRWCD C37	BASE	47.27	10.65	18.50	0	0.35	0.00	-1.28	0.00
10yr3d	NSLRWCD C37	BASE	47.52	10.64	18.50	0	0.35	0.00	-1.27	0.00
10yr3d	NSLRWCD C37	BASE	47.77	10.62	18.50	0	0.36	0.00	-1.27	0.00
10yr3d	NSLRWCD C37	BASE	48.02	10.61	18.50	0	0.36	0.00	-1.26	0.00
10yr3d	NSLRWCD C37	BASE	48.27	10.62	18.50	0	0.36	0.00	-1.25	0.00
10yr3d	NSLRWCD C37	BASE	48.52	10.64	18.50	0	0.36	0.00	-1.24	0.00
10yr3d	NSLRWCD C37	BASE	48.77	10.65	18.50	0	0.36	0.00	-1.24	0.00
10yr3d	NSLRWCD C37	BASE	49.02	10.67	18.50	0	0.36	0.00	-1.23	0.00
10yr3d	NSLRWCD C37	BASE	49.27	10.68	18.50	0	0.36	0.00	-1.22	0.00
10yr3d	NSLRWCD C37	BASE	49.52	10.69	18.50	0	0.36	0.00	-1.21	0.00
10yr3d	NSLRWCD C37	BASE	49.77	10.71	18.50	0	0.36	0.00	-1.21	0.00
10yr3d	NSLRWCD C37	BASE	50.02	10.72	18.50	0	0.35	0.00	-1.20	0.00
10yr3d	NSLRWCD C37	BASE	50.27	10.73	18.50	0	0.35	0.00	-1.19	0.00
10yr3d	NSLRWCD C37	BASE	50.52	10.75	18.50	0	0.35	0.00	-1.18	0.00
10yr3d	NSLRWCD C37	BASE	50.77	10.76	18.50	0	0.35	0.00	-1.18	0.00
10yr3d	NSLRWCD C37	BASE	51.02	10.78	18.50	0	0.35	0.00	-1.17	0.00
10yr3d	NSLRWCD C37	BASE	51.27	10.79	18.50	0	0.35	0.00	-1.16	0.00
10yr3d	NSLRWCD C37	BASE	51.52	10.80	18.50	0	0.35	0.00	-1.15	0.00
10yr3d	NSLRWCD C37	BASE	51.77	10.82	18.50	0	0.35	0.00	-1.15	0.00
10yr3d	NSLRWCD C37	BASE	52.02	10.83	18.50	0	0.35	0.00	-1.14	0.00
10yr3d	NSLRWCD C37	BASE	52.27	10.86	18.50	0	0.35	0.00	-1.13	0.00
10yr3d	NSLRWCD C37	BASE	52.52	10.88	18.50	0	0.34	0.00	-1.13	0.00
10yr3d	NSLRWCD C37	BASE	52.77	10.91	18.50	0	0.34	0.00	-1.12	0.00
10yr3d	NSLRWCD C37	BASE	53.02	10.93	18.50	0	0.34	0.00	-1.11	0.00
10yr3d	NSLRWCD C37	BASE	53.27	10.96	18.50	0	0.34	0.00	-1.11	0.00
10yr3d	NSLRWCD C37	BASE	53.52	10.98	18.50	0	0.34	0.00	-1.10	0.00
10yr3d	NSLRWCD C37	BASE	53.77	11.01	18.50	0	0.35	0.00	-1.09	0.00
10yr3d	NSLRWCD C37	BASE	54.02	11.03	18.50	0	0.37	0.00	-1.08	0.00
10yr3d	NSLRWCD C37	BASE	54.27	11.06	18.50	0	0.38	0.00	-1.08	0.00
10yr3d	NSLRWCD C37	BASE	54.52	11.08	18.50	0	0.41	0.00	-1.07	0.00
10yr3d	NSLRWCD C37	BASE	54.77	11.11	18.50	0	0.44	0.00	-1.06	0.00
10yr3d	NSLRWCD C37	BASE	55.02	11.13	18.50	0	0.47	0.00	-1.05	0.00
10yr3d	NSLRWCD C37	BASE	55.27	11.16	18.50	0	0.50	0.00	-1.04	0.00
10yr3d	NSLRWCD C37	BASE	55.52	11.18	18.50	0	0.54	0.00	-1.03	0.00
10yr3d	NSLRWCD C37	BASE	55.77	11.21	18.50	0	0.59	0.00	-1.02	0.00
10yr3d	NSLRWCD C37	BASE	56.02	11.24	18.50	0	0.64	0.00	-1.00	0.00
10yr3d	NSLRWCD C37	BASE	56.27	11.37	18.50	0	0.66	0.00	-0.99	0.00
10yr3d	NSLRWCD C37	BASE	56.52	11.51	18.50	0	0.69	0.00	-0.98	0.00
10yr3d	NSLRWCD C37	BASE	56.77	11.64	18.50	0	0.71	0.00	-0.96	0.00
10yr3d	NSLRWCD C37	BASE	57.02	11.77	18.50	0	0.68	0.00	-0.95	0.00
10yr3d	NSLRWCD C37	BASE	57.27	11.91	18.50	0	0.60	0.00	-0.93	0.00
10yr3d	NSLRWCD C37	BASE	57.52	12.04	18.50	0	0.36	0.00	-0.93	0.00
10yr3d	NSLRWCD C37	BASE	57.77	12.17	18.50	0	-0.43	0.00	-0.93	0.00
10yr3d	NSLRWCD C37	BASE	58.02	12.31	18.50	0	-0.72	0.00	-0.94	0.00
10yr3d	NSLRWCD C37	BASE	58.27	12.44	18.50	0	-0.91	0.00	-0.95	0.00
10yr3d	NSLRWCD C37	BASE	58.52	12.58	18.50	0	-1.07	0.00	-0.98	0.00
10yr3d	NSLRWCD C37	BASE	58.77	12.71	18.50	0	-1.19	0.00	-1.00	0.00
10yr3d	NSLRWCD C37	BASE	59.01	12.84	18.50	0	-1.28	0.00	-1.02	0.00
10yr3d	NSLRWCD C37	BASE	59.25	12.97	18.50	0	-1.35	0.00	-1.05	0.00
10yr3d	NSLRWCD C37	BASE	59.51	13.11	18.50	0	-1.38	0.00	-1.08	0.00
10yr3d	NSLRWCD C37	BASE	59.75	13.24	18.50	0	-1.14	0.00	-1.10	0.00

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	60.00	13.37	18.50	0	0.53	0.00	-1.11	0.00
10yr3d	NSLRWCD C37	BASE	60.25	13.29	18.50	0	1.50	0.00	-1.09	0.00
10yr3d	NSLRWCD C37	BASE	60.50	13.21	18.50	0	1.82	0.00	-1.05	0.00
10yr3d	NSLRWCD C37	BASE	60.76	13.13	18.50	0	2.01	0.00	-1.01	0.00
10yr3d	NSLRWCD C37	BASE	61.01	13.05	18.50	0	2.13	0.00	-0.97	0.00
10yr3d	NSLRWCD C37	BASE	61.25	12.98	18.50	0	2.23	0.00	-0.93	0.00
10yr3d	NSLRWCD C37	BASE	61.52	12.89	18.50	0	2.33	0.00	-0.88	0.00
10yr3d	NSLRWCD C37	BASE	61.77	12.81	18.50	0	2.42	0.00	-0.83	0.00
10yr3d	NSLRWCD C37	BASE	62.02	12.73	18.50	0	2.50	0.00	-0.78	0.00
10yr3d	NSLRWCD C37	BASE	62.27	12.66	18.50	0	2.58	0.00	-0.73	0.00
10yr3d	NSLRWCD C37	BASE	62.52	12.58	18.50	0	2.65	0.00	-0.67	0.00
10yr3d	NSLRWCD C37	BASE	62.77	12.50	18.50	0	2.72	0.00	-0.62	0.00
10yr3d	NSLRWCD C37	BASE	63.02	12.42	18.50	0	2.79	0.00	-0.56	0.00
10yr3d	NSLRWCD C37	BASE	63.27	12.34	18.50	0	2.85	0.00	-0.50	0.00
10yr3d	NSLRWCD C37	BASE	63.52	12.26	18.50	0	2.92	0.00	-0.44	0.00
10yr3d	NSLRWCD C37	BASE	63.77	12.18	18.50	0	2.98	0.00	-0.38	0.00
10yr3d	NSLRWCD C37	BASE	64.02	12.11	18.50	0	3.04	0.00	-0.32	0.00
10yr3d	NSLRWCD C37	BASE	64.27	12.04	18.50	0	3.09	0.00	-0.25	0.00
10yr3d	NSLRWCD C37	BASE	64.52	11.97	18.50	0	3.14	0.00	-0.19	0.00
10yr3d	NSLRWCD C37	BASE	64.77	11.90	18.50	0	3.18	0.00	-0.12	0.00
10yr3d	NSLRWCD C37	BASE	65.02	11.83	18.50	0	3.22	0.00	-0.06	0.00
10yr3d	NSLRWCD C37	BASE	65.27	11.77	18.50	0	3.23	0.00	0.01	0.00
10yr3d	NSLRWCD C37	BASE	65.52	11.70	18.50	0	3.25	0.00	0.08	0.00
10yr3d	NSLRWCD C37	BASE	65.77	11.63	18.50	0	3.26	0.00	0.14	0.00
10yr3d	NSLRWCD C37	BASE	66.02	11.56	18.50	0	3.28	0.00	0.21	0.00
10yr3d	NSLRWCD C37	BASE	66.27	11.49	18.50	0	3.29	0.00	0.28	0.00
10yr3d	NSLRWCD C37	BASE	66.52	11.42	18.50	0	3.30	0.00	0.35	0.00
10yr3d	NSLRWCD C37	BASE	66.77	11.36	18.50	0	3.31	0.00	0.41	0.00
10yr3d	NSLRWCD C37	BASE	67.02	11.29	18.50	0	3.32	0.00	0.48	0.00
10yr3d	NSLRWCD C37	BASE	67.27	11.22	18.50	0	3.33	0.00	0.55	0.00
10yr3d	NSLRWCD C37	BASE	67.52	11.15	18.50	0	3.34	0.00	0.62	0.00
10yr3d	NSLRWCD C37	BASE	67.77	11.08	18.50	0	3.35	0.00	0.69	0.00
10yr3d	NSLRWCD C37	BASE	68.02	11.02	18.50	0	3.36	0.00	0.76	0.00
10yr3d	NSLRWCD C37	BASE	68.27	11.00	18.50	0	3.36	0.00	0.83	0.00
10yr3d	NSLRWCD C37	BASE	68.52	10.98	18.50	0	3.36	0.00	0.90	0.00
10yr3d	NSLRWCD C37	BASE	68.77	10.96	18.50	0	3.36	0.00	0.97	0.00
10yr3d	NSLRWCD C37	BASE	69.02	10.94	18.50	0	3.37	0.00	1.04	0.00
10yr3d	NSLRWCD C37	BASE	69.27	10.92	18.50	0	3.37	0.00	1.11	0.00
10yr3d	NSLRWCD C37	BASE	69.52	10.90	18.50	0	3.37	0.00	1.18	0.00
10yr3d	NSLRWCD C37	BASE	69.77	10.88	18.50	0	3.37	0.00	1.24	0.00
10yr3d	NSLRWCD C37	BASE	70.02	10.86	18.50	0	3.37	0.00	1.31	0.00
10yr3d	NSLRWCD C37	BASE	70.27	10.84	18.50	0	3.37	0.00	1.38	0.00
10yr3d	NSLRWCD C37	BASE	70.52	10.82	18.50	0	3.38	0.00	1.45	0.00
10yr3d	NSLRWCD C37	BASE	70.77	10.80	18.50	0	3.38	0.00	1.52	0.00
10yr3d	NSLRWCD C37	BASE	71.02	10.78	18.50	0	3.38	0.00	1.59	0.00
10yr3d	NSLRWCD C37	BASE	71.27	10.76	18.50	0	3.38	0.00	1.66	0.00
10yr3d	NSLRWCD C37	BASE	71.52	10.74	18.50	0	3.38	0.00	1.73	0.00
10yr3d	NSLRWCD C37	BASE	71.77	10.72	18.50	0	3.39	0.00	1.80	0.00
10yr3d	NSLRWCD C37	BASE	72.02	10.70	18.50	0	3.39	0.00	1.87	0.00
10yr3d	NSLRWCD C37	BASE	72.27	10.70	18.50	0	3.39	0.00	1.94	0.00
10yr3d	NSLRWCD C37	BASE	72.52	10.69	18.50	0	3.38	0.00	2.01	0.00
10yr3d	NSLRWCD C37	BASE	72.77	10.69	18.50	0	3.38	0.00	2.08	0.00
10yr3d	NSLRWCD C37	BASE	73.02	10.69	18.50	0	3.37	0.00	2.15	0.00
10yr3d	NSLRWCD C37	BASE	73.27	10.69	18.50	0	3.37	0.00	2.22	0.00
10yr3d	NSLRWCD C37	BASE	73.52	10.68	18.50	0	3.37	0.00	2.29	0.00
10yr3d	NSLRWCD C37	BASE	73.77	10.68	18.50	0	3.36	0.00	2.36	0.00
10yr3d	NSLRWCD C37	BASE	74.02	10.68	18.50	0	3.36	0.00	2.43	0.00
10yr3d	NSLRWCD C37	BASE	74.27	10.68	18.50	0	3.35	0.00	2.50	0.00
10yr3d	NSLRWCD C37	BASE	74.52	10.67	18.50	0	3.35	0.00	2.57	0.00
10yr3d	NSLRWCD C37	BASE	74.77	10.67	18.50	0	3.35	0.00	2.64	0.00

Max Discharge Volume in 24-hrs = 6.49 acft
Less than Allowable 2" over 45 ac = 7.65 acft

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	75.02	10.67	18.50	0	3.34	0.00	2.71	0.00
10yr3d	NSLRWCD C37	BASE	75.27	10.67	18.50	0	3.34	0.00	2.78	0.00
10yr3d	NSLRWCD C37	BASE	75.52	10.66	18.50	0	3.33	0.00	2.85	0.00
10yr3d	NSLRWCD C37	BASE	75.77	10.66	18.50	0	3.33	0.00	2.91	0.00
10yr3d	NSLRWCD C37	BASE	76.02	10.66	18.50	0	3.32	0.00	2.98	0.00
10yr3d	NSLRWCD C37	BASE	76.27	10.66	18.50	0	3.32	0.00	3.05	0.00
10yr3d	NSLRWCD C37	BASE	76.52	10.65	18.50	0	3.32	0.00	3.12	0.00
10yr3d	NSLRWCD C37	BASE	76.77	10.65	18.50	0	3.31	0.00	3.19	0.00
10yr3d	NSLRWCD C37	BASE	77.02	10.65	18.50	0	3.31	0.00	3.26	0.00
10yr3d	NSLRWCD C37	BASE	77.27	10.65	18.50	0	3.30	0.00	3.33	0.00
10yr3d	NSLRWCD C37	BASE	77.52	10.64	18.50	0	3.30	0.00	3.39	0.00
10yr3d	NSLRWCD C37	BASE	77.77	10.64	18.50	0	3.29	0.00	3.46	0.00
10yr3d	NSLRWCD C37	BASE	78.02	10.64	18.50	0	3.29	0.00	3.53	0.00
10yr3d	NSLRWCD C37	BASE	78.27	10.64	18.50	0	3.29	0.00	3.60	0.00
10yr3d	NSLRWCD C37	BASE	78.52	10.63	18.50	0	3.28	0.00	3.67	0.00
10yr3d	NSLRWCD C37	BASE	78.77	10.63	18.50	0	3.28	0.00	3.73	0.00
10yr3d	NSLRWCD C37	BASE	79.02	10.63	18.50	0	3.27	0.00	3.80	0.00
10yr3d	NSLRWCD C37	BASE	79.27	10.63	18.50	0	3.27	0.00	3.87	0.00
10yr3d	NSLRWCD C37	BASE	79.52	10.62	18.50	0	3.26	0.00	3.94	0.00
10yr3d	NSLRWCD C37	BASE	79.77	10.62	18.50	0	3.26	0.00	4.00	0.00
10yr3d	NSLRWCD C37	BASE	80.02	10.62	18.50	0	3.25	0.00	4.07	0.00
10yr3d	NSLRWCD C37	BASE	80.27	10.62	18.50	0	3.25	0.00	4.14	0.00
10yr3d	NSLRWCD C37	BASE	80.52	10.61	18.50	0	3.25	0.00	4.21	0.00
10yr3d	NSLRWCD C37	BASE	80.77	10.61	18.50	0	3.24	0.00	4.27	0.00
10yr3d	NSLRWCD C37	BASE	81.02	10.61	18.50	0	3.24	0.00	4.34	0.00
10yr3d	NSLRWCD C37	BASE	81.27	10.61	18.50	0	3.23	0.00	4.41	0.00
10yr3d	NSLRWCD C37	BASE	81.52	10.60	18.50	0	3.23	0.00	4.47	0.00
10yr3d	NSLRWCD C37	BASE	81.77	10.60	18.50	0	3.22	0.00	4.54	0.00
10yr3d	NSLRWCD C37	BASE	82.02	10.60	18.50	0	3.22	0.00	4.61	0.00
10yr3d	NSLRWCD C37	BASE	82.27	10.60	18.50	0	3.21	0.00	4.67	0.00
10yr3d	NSLRWCD C37	BASE	82.52	10.59	18.50	0	3.21	0.00	4.74	0.00
10yr3d	NSLRWCD C37	BASE	82.77	10.59	18.50	0	3.20	0.00	4.81	0.00
10yr3d	NSLRWCD C37	BASE	83.02	10.59	18.50	0	3.20	0.00	4.87	0.00
10yr3d	NSLRWCD C37	BASE	83.27	10.59	18.50	0	3.19	0.00	4.94	0.00
10yr3d	NSLRWCD C37	BASE	83.52	10.58	18.50	0	3.19	0.00	5.00	0.00
10yr3d	NSLRWCD C37	BASE	83.77	10.58	18.50	0	3.18	0.00	5.07	0.00
10yr3d	NSLRWCD C37	BASE	84.02	10.58	18.50	0	3.18	0.00	5.13	0.00
10yr3d	NSLRWCD C37	BASE	84.27	10.58	18.50	0	3.18	0.00	5.20	0.00
10yr3d	NSLRWCD C37	BASE	84.52	10.57	18.50	0	3.17	0.00	5.27	0.00
10yr3d	NSLRWCD C37	BASE	84.77	10.57	18.50	0	3.17	0.00	5.33	0.00
10yr3d	NSLRWCD C37	BASE	85.02	10.57	18.50	0	3.16	0.00	5.40	0.00
10yr3d	NSLRWCD C37	BASE	85.27	10.57	18.50	0	3.16	0.00	5.46	0.00
10yr3d	NSLRWCD C37	BASE	85.52	10.56	18.50	0	3.15	0.00	5.53	0.00
10yr3d	NSLRWCD C37	BASE	85.77	10.56	18.50	0	3.15	0.00	5.59	0.00
10yr3d	NSLRWCD C37	BASE	86.02	10.56	18.50	0	3.14	0.00	5.66	0.00
10yr3d	NSLRWCD C37	BASE	86.27	10.56	18.50	0	3.14	0.00	5.72	0.00
10yr3d	NSLRWCD C37	BASE	86.52	10.55	18.50	0	3.13	0.00	5.79	0.00
10yr3d	NSLRWCD C37	BASE	86.77	10.55	18.50	0	3.13	0.00	5.85	0.00
10yr3d	NSLRWCD C37	BASE	87.02	10.55	18.50	0	3.12	0.00	5.92	0.00
10yr3d	NSLRWCD C37	BASE	87.27	10.55	18.50	0	3.12	0.00	5.98	0.00
10yr3d	NSLRWCD C37	BASE	87.52	10.54	18.50	0	3.11	0.00	6.04	0.00
10yr3d	NSLRWCD C37	BASE	87.77	10.54	18.50	0	3.10	0.00	6.11	0.00
10yr3d	NSLRWCD C37	BASE	88.02	10.54	18.50	0	3.10	0.00	6.17	0.00
10yr3d	NSLRWCD C37	BASE	88.27	10.54	18.50	0	3.09	0.00	6.24	0.00
10yr3d	NSLRWCD C37	BASE	88.52	10.53	18.50	0	3.09	0.00	6.30	0.00
10yr3d	NSLRWCD C37	BASE	88.77	10.53	18.50	0	3.08	0.00	6.36	0.00
10yr3d	NSLRWCD C37	BASE	89.02	10.53	18.50	0	3.08	0.00	6.43	0.00
10yr3d	NSLRWCD C37	BASE	89.27	10.52	18.50	0	3.07	0.00	6.49	0.00
10yr3d	NSLRWCD C37	BASE	89.52	10.52	18.50	0	3.07	0.00	6.56	0.00
10yr3d	NSLRWCD C37	BASE	89.77	10.52	18.50	0	3.06	0.00	6.62	0.00

Max Discharge Volume in 24-hrs = 6.49 acft
Less than Allowable 2" over 45 ac = 7.65 acft

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	90.02	10.52	18.50	0	3.06	0.00	6.68	0.00
10yr3d	NSLRWCD C37	BASE	90.27	10.51	18.50	0	3.05	0.00	6.74	0.00
10yr3d	NSLRWCD C37	BASE	90.52	10.51	18.50	0	3.05	0.00	6.81	0.00
10yr3d	NSLRWCD C37	BASE	90.77	10.51	18.50	0	3.04	0.00	6.87	0.00
10yr3d	NSLRWCD C37	BASE	91.02	10.51	18.50	0	3.04	0.00	6.93	0.00
10yr3d	NSLRWCD C37	BASE	91.27	10.50	18.50	0	3.03	0.00	7.00	0.00
10yr3d	NSLRWCD C37	BASE	91.52	10.50	18.50	0	3.02	0.00	7.06	0.00
10yr3d	NSLRWCD C37	BASE	91.77	10.50	18.50	0	3.02	0.00	7.12	0.00
10yr3d	NSLRWCD C37	BASE	92.02	10.50	18.50	0	3.01	0.00	7.18	0.00
10yr3d	NSLRWCD C37	BASE	92.27	10.49	18.50	0	3.01	0.00	7.25	0.00
10yr3d	NSLRWCD C37	BASE	92.52	10.49	18.50	0	3.00	0.00	7.31	0.00
10yr3d	NSLRWCD C37	BASE	92.77	10.49	18.50	0	3.00	0.00	7.37	0.00
10yr3d	NSLRWCD C37	BASE	93.02	10.49	18.50	0	2.99	0.00	7.43	0.00
10yr3d	NSLRWCD C37	BASE	93.27	10.48	18.50	0	2.98	0.00	7.49	0.00
10yr3d	NSLRWCD C37	BASE	93.52	10.48	18.50	0	2.98	0.00	7.55	0.00
10yr3d	NSLRWCD C37	BASE	93.77	10.48	18.50	0	2.97	0.00	7.62	0.00
10yr3d	NSLRWCD C37	BASE	94.02	10.48	18.50	0	2.97	0.00	7.68	0.00
10yr3d	NSLRWCD C37	BASE	94.27	10.47	18.50	0	2.96	0.00	7.74	0.00
10yr3d	NSLRWCD C37	BASE	94.52	10.47	18.50	0	2.95	0.00	7.80	0.00
10yr3d	NSLRWCD C37	BASE	94.77	10.47	18.50	0	2.95	0.00	7.86	0.00
10yr3d	NSLRWCD C37	BASE	95.02	10.47	18.50	0	2.94	0.00	7.92	0.00
10yr3d	NSLRWCD C37	BASE	95.27	10.46	18.50	0	2.94	0.00	7.98	0.00
10yr3d	NSLRWCD C37	BASE	95.52	10.46	18.50	0	2.93	0.00	8.04	0.00
10yr3d	NSLRWCD C37	BASE	95.77	10.46	18.50	0	2.92	0.00	8.10	0.00
10yr3d	NSLRWCD C37	BASE	96.02	10.46	18.50	0	2.92	0.00	8.16	0.00
10yr3d	NSLRWCD C37	BASE	96.27	10.45	18.50	0	2.91	0.00	8.22	0.00
10yr3d	NSLRWCD C37	BASE	96.52	10.45	18.50	0	2.91	0.00	8.28	0.00
10yr3d	NSLRWCD C37	BASE	96.77	10.45	18.50	0	2.90	0.00	8.34	0.00
10yr3d	NSLRWCD C37	BASE	97.02	10.45	18.50	0	2.89	0.00	8.40	0.00
10yr3d	NSLRWCD C37	BASE	97.27	10.44	18.50	0	2.89	0.00	8.46	0.00
10yr3d	NSLRWCD C37	BASE	97.52	10.44	18.50	0	2.88	0.00	8.52	0.00
10yr3d	NSLRWCD C37	BASE	97.77	10.44	18.50	0	2.87	0.00	8.58	0.00
10yr3d	NSLRWCD C37	BASE	98.02	10.44	18.50	0	2.87	0.00	8.64	0.00
10yr3d	NSLRWCD C37	BASE	98.27	10.43	18.50	0	2.86	0.00	8.70	0.00
10yr3d	NSLRWCD C37	BASE	98.52	10.43	18.50	0	2.85	0.00	8.76	0.00
10yr3d	NSLRWCD C37	BASE	98.77	10.43	18.50	0	2.85	0.00	8.82	0.00
10yr3d	NSLRWCD C37	BASE	99.02	10.43	18.50	0	2.84	0.00	8.88	0.00
10yr3d	NSLRWCD C37	BASE	99.27	10.42	18.50	0	2.83	0.00	8.94	0.00
10yr3d	NSLRWCD C37	BASE	99.52	10.42	18.50	0	2.83	0.00	9.00	0.00
10yr3d	NSLRWCD C37	BASE	99.77	10.42	18.50	0	2.82	0.00	9.05	0.00
10yr3d	NSLRWCD C37	BASE	100.02	10.42	18.50	0	2.81	0.00	9.11	0.00
10yr3d	NSLRWCD C37	BASE	100.27	10.41	18.50	0	2.81	0.00	9.17	0.00
10yr3d	NSLRWCD C37	BASE	100.52	10.41	18.50	0	2.80	0.00	9.23	0.00
10yr3d	NSLRWCD C37	BASE	100.77	10.41	18.50	0	2.79	0.00	9.29	0.00
10yr3d	NSLRWCD C37	BASE	101.02	10.41	18.50	0	2.78	0.00	9.34	0.00
10yr3d	NSLRWCD C37	BASE	101.27	10.40	18.50	0	2.78	0.00	9.40	0.00
10yr3d	NSLRWCD C37	BASE	101.52	10.40	18.50	0	2.77	0.00	9.46	0.00
10yr3d	NSLRWCD C37	BASE	101.77	10.40	18.50	0	2.76	0.00	9.51	0.00
10yr3d	NSLRWCD C37	BASE	102.02	10.40	18.50	0	2.76	0.00	9.57	0.00
10yr3d	NSLRWCD C37	BASE	102.27	10.39	18.50	0	2.75	0.00	9.63	0.00
10yr3d	NSLRWCD C37	BASE	102.52	10.39	18.50	0	2.74	0.00	9.69	0.00
10yr3d	NSLRWCD C37	BASE	102.77	10.39	18.50	0	2.73	0.00	9.74	0.00
10yr3d	NSLRWCD C37	BASE	103.02	10.39	18.50	0	2.73	0.00	9.80	0.00
10yr3d	NSLRWCD C37	BASE	103.27	10.38	18.50	0	2.72	0.00	9.85	0.00
10yr3d	NSLRWCD C37	BASE	103.52	10.38	18.50	0	2.71	0.00	9.91	0.00
10yr3d	NSLRWCD C37	BASE	103.77	10.38	18.50	0	2.70	0.00	9.97	0.00
10yr3d	NSLRWCD C37	BASE	104.02	10.38	18.50	0	2.70	0.00	10.02	0.00
10yr3d	NSLRWCD C37	BASE	104.27	10.37	18.50	0	2.69	0.00	10.08	0.00
10yr3d	NSLRWCD C37	BASE	104.52	10.37	18.50	0	2.68	0.00	10.13	0.00
10yr3d	NSLRWCD C37	BASE	104.77	10.37	18.50	0	2.67	0.00	10.19	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	105.02	10.37	18.50	0	2.67	0.00	10.24	0.00
10yr3d	NSLRWCD C37	BASE	105.27	10.36	18.50	0	2.66	0.00	10.30	0.00
10yr3d	NSLRWCD C37	BASE	105.52	10.36	18.50	0	2.65	0.00	10.35	0.00
10yr3d	NSLRWCD C37	BASE	105.77	10.36	18.50	0	2.64	0.00	10.41	0.00
10yr3d	NSLRWCD C37	BASE	106.02	10.36	18.50	0	2.64	0.00	10.46	0.00
10yr3d	NSLRWCD C37	BASE	106.27	10.35	18.50	0	2.63	0.00	10.52	0.00
10yr3d	NSLRWCD C37	BASE	106.52	10.35	18.50	0	2.62	0.00	10.57	0.00
10yr3d	NSLRWCD C37	BASE	106.77	10.35	18.50	0	2.61	0.00	10.63	0.00
10yr3d	NSLRWCD C37	BASE	107.02	10.34	18.50	0	2.61	0.00	10.68	0.00
10yr3d	NSLRWCD C37	BASE	107.27	10.34	18.50	0	2.60	0.00	10.73	0.00
10yr3d	NSLRWCD C37	BASE	107.52	10.34	18.50	0	2.59	0.00	10.79	0.00
10yr3d	NSLRWCD C37	BASE	107.77	10.34	18.50	0	2.58	0.00	10.84	0.00
10yr3d	NSLRWCD C37	BASE	108.02	10.33	18.50	0	2.57	0.00	10.89	0.00
10yr3d	NSLRWCD C37	BASE	108.27	10.33	18.50	0	2.57	0.00	10.95	0.00
10yr3d	NSLRWCD C37	BASE	108.52	10.33	18.50	0	2.56	0.00	11.00	0.00
10yr3d	NSLRWCD C37	BASE	108.77	10.33	18.50	0	2.55	0.00	11.05	0.00
10yr3d	NSLRWCD C37	BASE	109.02	10.32	18.50	0	2.54	0.00	11.11	0.00
10yr3d	NSLRWCD C37	BASE	109.27	10.32	18.50	0	2.54	0.00	11.16	0.00
10yr3d	NSLRWCD C37	BASE	109.52	10.32	18.50	0	2.53	0.00	11.21	0.00
10yr3d	NSLRWCD C37	BASE	109.77	10.32	18.50	0	2.52	0.00	11.26	0.00
10yr3d	NSLRWCD C37	BASE	110.02	10.31	18.50	0	2.51	0.00	11.31	0.00
10yr3d	NSLRWCD C37	BASE	110.27	10.31	18.50	0	2.50	0.00	11.37	0.00
10yr3d	NSLRWCD C37	BASE	110.52	10.31	18.50	0	2.50	0.00	11.42	0.00
10yr3d	NSLRWCD C37	BASE	110.77	10.31	18.50	0	2.49	0.00	11.47	0.00
10yr3d	NSLRWCD C37	BASE	111.02	10.30	18.50	0	2.48	0.00	11.52	0.00
10yr3d	NSLRWCD C37	BASE	111.27	10.30	18.50	0	2.47	0.00	11.57	0.00
10yr3d	NSLRWCD C37	BASE	111.52	10.30	18.50	0	2.46	0.00	11.62	0.00
10yr3d	NSLRWCD C37	BASE	111.77	10.30	18.50	0	2.45	0.00	11.67	0.00
10yr3d	NSLRWCD C37	BASE	112.02	10.29	18.50	0	2.45	0.00	11.72	0.00
10yr3d	NSLRWCD C37	BASE	112.27	10.29	18.50	0	2.44	0.00	11.77	0.00
10yr3d	NSLRWCD C37	BASE	112.52	10.29	18.50	0	2.43	0.00	11.82	0.00
10yr3d	NSLRWCD C37	BASE	112.77	10.29	18.50	0	2.42	0.00	11.87	0.00
10yr3d	NSLRWCD C37	BASE	113.02	10.28	18.50	0	2.41	0.00	11.92	0.00
10yr3d	NSLRWCD C37	BASE	113.27	10.28	18.50	0	2.41	0.00	11.97	0.00
10yr3d	NSLRWCD C37	BASE	113.52	10.28	18.50	0	2.40	0.00	12.02	0.00
10yr3d	NSLRWCD C37	BASE	113.77	10.28	18.50	0	2.39	0.00	12.07	0.00
10yr3d	NSLRWCD C37	BASE	114.02	10.27	18.50	0	2.38	0.00	12.12	0.00
10yr3d	NSLRWCD C37	BASE	114.27	10.27	18.50	0	2.37	0.00	12.17	0.00
10yr3d	NSLRWCD C37	BASE	114.52	10.27	18.50	0	2.36	0.00	12.22	0.00
10yr3d	NSLRWCD C37	BASE	114.77	10.27	18.50	0	2.35	0.00	12.27	0.00
10yr3d	NSLRWCD C37	BASE	115.02	10.26	18.50	0	2.35	0.00	12.32	0.00
10yr3d	NSLRWCD C37	BASE	115.27	10.26	18.50	0	2.34	0.00	12.37	0.00
10yr3d	NSLRWCD C37	BASE	115.52	10.26	18.50	0	2.33	0.00	12.41	0.00
10yr3d	NSLRWCD C37	BASE	115.77	10.26	18.50	0	2.32	0.00	12.46	0.00
10yr3d	NSLRWCD C37	BASE	116.02	10.25	18.50	0	2.31	0.00	12.51	0.00
10yr3d	NSLRWCD C37	BASE	116.27	10.25	18.50	0	2.30	0.00	12.56	0.00
10yr3d	NSLRWCD C37	BASE	116.52	10.25	18.50	0	2.29	0.00	12.61	0.00
10yr3d	NSLRWCD C37	BASE	116.77	10.25	18.50	0	2.28	0.00	12.65	0.00
10yr3d	NSLRWCD C37	BASE	117.02	10.24	18.50	0	2.28	0.00	12.70	0.00
10yr3d	NSLRWCD C37	BASE	117.27	10.24	18.50	0	2.27	0.00	12.75	0.00
10yr3d	NSLRWCD C37	BASE	117.52	10.24	18.50	0	2.26	0.00	12.79	0.00
10yr3d	NSLRWCD C37	BASE	117.77	10.24	18.50	0	2.25	0.00	12.84	0.00
10yr3d	NSLRWCD C37	BASE	118.02	10.23	18.50	0	2.24	0.00	12.89	0.00
10yr3d	NSLRWCD C37	BASE	118.27	10.23	18.50	0	2.23	0.00	12.93	0.00
10yr3d	NSLRWCD C37	BASE	118.52	10.23	18.50	0	2.22	0.00	12.98	0.00
10yr3d	NSLRWCD C37	BASE	118.77	10.23	18.50	0	2.21	0.00	13.02	0.00
10yr3d	NSLRWCD C37	BASE	119.02	10.22	18.50	0	2.20	0.00	13.07	0.00
10yr3d	NSLRWCD C37	BASE	119.27	10.22	18.50	0	2.19	0.00	13.12	0.00
10yr3d	NSLRWCD C37	BASE	119.52	10.22	18.50	0	2.19	0.00	13.16	0.00
10yr3d	NSLRWCD C37	BASE	119.77	10.22	18.50	0	2.18	0.00	13.21	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	120.02	10.21	18.50	0	2.17	0.00	13.25	0.00
10yr3d	NSLRWCD C37	BASE	120.27	10.21	18.50	0	2.16	0.00	13.30	0.00
10yr3d	NSLRWCD C37	BASE	120.52	10.21	18.50	0	2.15	0.00	13.34	0.00
10yr3d	NSLRWCD C37	BASE	120.77	10.21	18.50	0	2.14	0.00	13.38	0.00
10yr3d	NSLRWCD C37	BASE	121.02	10.20	18.50	0	2.13	0.00	13.43	0.00
10yr3d	NSLRWCD C37	BASE	121.27	10.20	18.50	0	2.12	0.00	13.47	0.00
10yr3d	NSLRWCD C37	BASE	121.52	10.20	18.50	0	2.11	0.00	13.52	0.00
10yr3d	NSLRWCD C37	BASE	121.77	10.20	18.50	0	2.10	0.00	13.56	0.00
10yr3d	NSLRWCD C37	BASE	122.02	10.19	18.50	0	2.09	0.00	13.60	0.00
10yr3d	NSLRWCD C37	BASE	122.27	10.19	18.50	0	2.08	0.00	13.65	0.00
10yr3d	NSLRWCD C37	BASE	122.52	10.19	18.50	0	2.07	0.00	13.69	0.00
10yr3d	NSLRWCD C37	BASE	122.77	10.19	18.50	0	2.06	0.00	13.73	0.00
10yr3d	NSLRWCD C37	BASE	123.02	10.18	18.50	0	2.05	0.00	13.77	0.00
10yr3d	NSLRWCD C37	BASE	123.27	10.18	18.50	0	2.04	0.00	13.82	0.00
10yr3d	NSLRWCD C37	BASE	123.52	10.18	18.50	0	2.03	0.00	13.86	0.00
10yr3d	NSLRWCD C37	BASE	123.77	10.18	18.50	0	2.02	0.00	13.90	0.00
10yr3d	NSLRWCD C37	BASE	124.02	10.17	18.50	0	2.01	0.00	13.94	0.00
10yr3d	NSLRWCD C37	BASE	124.27	10.17	18.50	0	2.00	0.00	13.98	0.00
10yr3d	NSLRWCD C37	BASE	124.52	10.17	18.50	0	1.99	0.00	14.03	0.00
10yr3d	NSLRWCD C37	BASE	124.77	10.17	18.50	0	1.98	0.00	14.07	0.00
10yr3d	NSLRWCD C37	BASE	125.02	10.16	18.50	0	1.97	0.00	14.11	0.00
10yr3d	NSLRWCD C37	BASE	125.27	10.16	18.50	0	1.96	0.00	14.15	0.00
10yr3d	NSLRWCD C37	BASE	125.52	10.16	18.50	0	1.95	0.00	14.19	0.00
10yr3d	NSLRWCD C37	BASE	125.77	10.15	18.50	0	1.94	0.00	14.23	0.00
10yr3d	NSLRWCD C37	BASE	126.02	10.15	18.50	0	1.93	0.00	14.27	0.00
10yr3d	NSLRWCD C37	BASE	126.27	10.15	18.50	0	1.92	0.00	14.31	0.00
10yr3d	NSLRWCD C37	BASE	126.52	10.15	18.50	0	1.91	0.00	14.35	0.00
10yr3d	NSLRWCD C37	BASE	126.77	10.14	18.50	0	1.90	0.00	14.39	0.00
10yr3d	NSLRWCD C37	BASE	127.02	10.14	18.50	0	1.89	0.00	14.43	0.00
10yr3d	NSLRWCD C37	BASE	127.27	10.14	18.50	0	1.88	0.00	14.47	0.00
10yr3d	NSLRWCD C37	BASE	127.52	10.14	18.50	0	1.87	0.00	14.50	0.00
10yr3d	NSLRWCD C37	BASE	127.77	10.13	18.50	0	1.86	0.00	14.54	0.00
10yr3d	NSLRWCD C37	BASE	128.02	10.13	18.50	0	1.85	0.00	14.58	0.00
10yr3d	NSLRWCD C37	BASE	128.27	10.13	18.50	0	1.84	0.00	14.62	0.00
10yr3d	NSLRWCD C37	BASE	128.52	10.13	18.50	0	1.83	0.00	14.66	0.00
10yr3d	NSLRWCD C37	BASE	128.77	10.12	18.50	0	1.81	0.00	14.69	0.00
10yr3d	NSLRWCD C37	BASE	129.02	10.12	18.50	0	1.80	0.00	14.73	0.00
10yr3d	NSLRWCD C37	BASE	129.27	10.12	18.50	0	1.79	0.00	14.77	0.00
10yr3d	NSLRWCD C37	BASE	129.52	10.12	18.50	0	1.78	0.00	14.81	0.00
10yr3d	NSLRWCD C37	BASE	129.77	10.11	18.50	0	1.77	0.00	14.84	0.00
10yr3d	NSLRWCD C37	BASE	130.02	10.11	18.50	0	1.76	0.00	14.88	0.00
10yr3d	NSLRWCD C37	BASE	130.27	10.11	18.50	0	1.75	0.00	14.92	0.00
10yr3d	NSLRWCD C37	BASE	130.52	10.11	18.50	0	1.74	0.00	14.95	0.00
10yr3d	NSLRWCD C37	BASE	130.77	10.10	18.50	0	1.73	0.00	14.99	0.00
10yr3d	NSLRWCD C37	BASE	131.02	10.10	18.50	0	1.72	0.00	15.02	0.00
10yr3d	NSLRWCD C37	BASE	131.27	10.10	18.50	0	1.71	0.00	15.06	0.00
10yr3d	NSLRWCD C37	BASE	131.52	10.10	18.50	0	1.69	0.00	15.09	0.00
10yr3d	NSLRWCD C37	BASE	131.77	10.09	18.50	0	1.68	0.00	15.13	0.00
10yr3d	NSLRWCD C37	BASE	132.02	10.09	18.50	0	1.67	0.00	15.16	0.00
10yr3d	NSLRWCD C37	BASE	132.27	10.09	18.50	0	1.66	0.00	15.20	0.00
10yr3d	NSLRWCD C37	BASE	132.52	10.09	18.50	0	1.65	0.00	15.23	0.00
10yr3d	NSLRWCD C37	BASE	132.77	10.08	18.50	0	1.64	0.00	15.27	0.00
10yr3d	NSLRWCD C37	BASE	133.02	10.08	18.50	0	1.63	0.00	15.30	0.00
10yr3d	NSLRWCD C37	BASE	133.27	10.08	18.50	0	1.62	0.00	15.33	0.00
10yr3d	NSLRWCD C37	BASE	133.52	10.08	18.50	0	1.61	0.00	15.37	0.00
10yr3d	NSLRWCD C37	BASE	133.77	10.07	18.50	0	1.59	0.00	15.40	0.00
10yr3d	NSLRWCD C37	BASE	134.02	10.07	18.50	0	1.58	0.00	15.43	0.00
10yr3d	NSLRWCD C37	BASE	134.27	10.07	18.50	0	1.57	0.00	15.46	0.00
10yr3d	NSLRWCD C37	BASE	134.52	10.07	18.50	0	1.56	0.00	15.50	0.00
10yr3d	NSLRWCD C37	BASE	134.77	10.06	18.50	0	1.55	0.00	15.53	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	135.02	10.06	18.50	0	1.53	0.00	15.56	0.00
10yr3d	NSLRWCD C37	BASE	135.27	10.06	18.50	0	1.52	0.00	15.59	0.00
10yr3d	NSLRWCD C37	BASE	135.52	10.06	18.50	0	1.50	0.00	15.62	0.00
10yr3d	NSLRWCD C37	BASE	135.77	10.05	18.50	0	1.49	0.00	15.65	0.00
10yr3d	NSLRWCD C37	BASE	136.02	10.05	18.50	0	1.47	0.00	15.68	0.00
10yr3d	NSLRWCD C37	BASE	136.27	10.05	18.50	0	1.46	0.00	15.72	0.00
10yr3d	NSLRWCD C37	BASE	136.52	10.05	18.50	0	1.44	0.00	15.75	0.00
10yr3d	NSLRWCD C37	BASE	136.77	10.04	18.50	0	1.43	0.00	15.77	0.00
10yr3d	NSLRWCD C37	BASE	137.02	10.04	18.50	0	1.41	0.00	15.80	0.00
10yr3d	NSLRWCD C37	BASE	137.27	10.04	18.50	0	1.40	0.00	15.83	0.00
10yr3d	NSLRWCD C37	BASE	137.52	10.04	18.50	0	1.38	0.00	15.86	0.00
10yr3d	NSLRWCD C37	BASE	137.77	10.03	18.50	0	1.37	0.00	15.89	0.00
10yr3d	NSLRWCD C37	BASE	138.02	10.03	18.50	0	1.36	0.00	15.92	0.00
10yr3d	NSLRWCD C37	BASE	138.27	10.03	18.50	0	1.34	0.00	15.95	0.00
10yr3d	NSLRWCD C37	BASE	138.52	10.03	18.50	0	1.33	0.00	15.97	0.00
10yr3d	NSLRWCD C37	BASE	138.77	10.02	18.50	0	1.31	0.00	16.00	0.00
10yr3d	NSLRWCD C37	BASE	139.02	10.02	18.50	0	1.30	0.00	16.03	0.00
10yr3d	NSLRWCD C37	BASE	139.27	10.02	18.50	0	1.28	0.00	16.05	0.00
10yr3d	NSLRWCD C37	BASE	139.52	10.02	18.50	0	1.27	0.00	16.08	0.00
10yr3d	NSLRWCD C37	BASE	139.77	10.01	18.50	0	1.25	0.00	16.11	0.00
10yr3d	NSLRWCD C37	BASE	140.02	10.01	18.50	0	1.24	0.00	16.13	0.00
10yr3d	NSLRWCD C37	BASE	140.27	10.01	18.50	0	1.22	0.00	16.16	0.00
10yr3d	NSLRWCD C37	BASE	140.52	10.01	18.50	0	1.21	0.00	16.18	0.00
10yr3d	NSLRWCD C37	BASE	140.77	10.00	18.50	0	1.20	0.00	16.21	0.00
10yr3d	NSLRWCD C37	BASE	141.02	10.00	18.50	0	1.18	0.00	16.23	0.00
10yr3d	NSLRWCD C37	BASE	141.27	10.00	18.50	0	1.17	0.00	16.26	0.00
10yr3d	NSLRWCD C37	BASE	141.52	10.00	18.50	0	1.16	0.00	16.28	0.00
10yr3d	NSLRWCD C37	BASE	141.77	9.99	18.50	0	1.14	0.00	16.30	0.00
10yr3d	NSLRWCD C37	BASE	142.02	9.99	18.50	0	1.13	0.00	16.33	0.00
10yr3d	NSLRWCD C37	BASE	142.27	9.99	18.50	0	1.12	0.00	16.35	0.00
10yr3d	NSLRWCD C37	BASE	142.52	9.99	18.50	0	1.11	0.00	16.37	0.00
10yr3d	NSLRWCD C37	BASE	142.77	9.98	18.50	0	1.09	0.00	16.40	0.00
10yr3d	NSLRWCD C37	BASE	143.02	9.98	18.50	0	1.08	0.00	16.42	0.00
10yr3d	NSLRWCD C37	BASE	143.27	9.98	18.50	0	1.07	0.00	16.44	0.00
10yr3d	NSLRWCD C37	BASE	143.52	9.97	18.50	0	1.06	0.00	16.46	0.00
10yr3d	NSLRWCD C37	BASE	143.77	9.97	18.50	0	1.05	0.00	16.49	0.00
10yr3d	NSLRWCD C37	BASE	144.02	9.97	18.50	0	1.04	0.00	16.51	0.00
10yr3d	NSLRWCD C37	BASE	144.27	9.97	18.50	0	1.03	0.00	16.53	0.00
10yr3d	NSLRWCD C37	BASE	144.52	9.96	18.50	0	1.02	0.00	16.55	0.00
10yr3d	NSLRWCD C37	BASE	144.77	9.96	18.50	0	1.01	0.00	16.57	0.00
10yr3d	NSLRWCD C37	BASE	145.02	9.96	18.50	0	1.00	0.00	16.59	0.00
10yr3d	NSLRWCD C37	BASE	145.27	9.96	18.50	0	0.99	0.00	16.61	0.00
10yr3d	NSLRWCD C37	BASE	145.52	9.95	18.50	0	0.98	0.00	16.63	0.00
10yr3d	NSLRWCD C37	BASE	145.77	9.95	18.50	0	0.97	0.00	16.65	0.00
10yr3d	NSLRWCD C37	BASE	146.02	9.95	18.50	0	0.96	0.00	16.67	0.00
10yr3d	NSLRWCD C37	BASE	146.27	9.95	18.50	0	0.95	0.00	16.69	0.00
10yr3d	NSLRWCD C37	BASE	146.52	9.94	18.50	0	0.94	0.00	16.71	0.00
10yr3d	NSLRWCD C37	BASE	146.77	9.94	18.50	0	0.93	0.00	16.73	0.00
10yr3d	NSLRWCD C37	BASE	147.02	9.94	18.50	0	0.92	0.00	16.75	0.00
10yr3d	NSLRWCD C37	BASE	147.27	9.94	18.50	0	0.91	0.00	16.77	0.00
10yr3d	NSLRWCD C37	BASE	147.52	9.93	18.50	0	0.90	0.00	16.79	0.00
10yr3d	NSLRWCD C37	BASE	147.77	9.93	18.50	0	0.89	0.00	16.81	0.00
10yr3d	NSLRWCD C37	BASE	148.02	9.93	18.50	0	0.89	0.00	16.82	0.00
10yr3d	NSLRWCD C37	BASE	148.27	9.93	18.50	0	0.88	0.00	16.84	0.00
10yr3d	NSLRWCD C37	BASE	148.52	9.92	18.50	0	0.87	0.00	16.86	0.00
10yr3d	NSLRWCD C37	BASE	148.77	9.92	18.50	0	0.86	0.00	16.88	0.00
10yr3d	NSLRWCD C37	BASE	149.02	9.92	18.50	0	0.85	0.00	16.90	0.00
10yr3d	NSLRWCD C37	BASE	149.27	9.92	18.50	0	0.85	0.00	16.91	0.00
10yr3d	NSLRWCD C37	BASE	149.52	9.91	18.50	0	0.84	0.00	16.93	0.00
10yr3d	NSLRWCD C37	BASE	149.77	9.91	18.50	0	0.83	0.00	16.95	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	150.02	9.91	18.50	0	0.82	0.00	16.97	0.00
10yr3d	NSLRWCD C37	BASE	150.27	9.91	18.50	0	0.82	0.00	16.98	0.00
10yr3d	NSLRWCD C37	BASE	150.52	9.90	18.50	0	0.81	0.00	17.00	0.00
10yr3d	NSLRWCD C37	BASE	150.77	9.90	18.50	0	0.80	0.00	17.02	0.00
10yr3d	NSLRWCD C37	BASE	151.02	9.90	18.50	0	0.79	0.00	17.03	0.00
10yr3d	NSLRWCD C37	BASE	151.27	9.90	18.50	0	0.79	0.00	17.05	0.00
10yr3d	NSLRWCD C37	BASE	151.52	9.89	18.50	0	0.78	0.00	17.06	0.00
10yr3d	NSLRWCD C37	BASE	151.77	9.89	18.50	0	0.77	0.00	17.08	0.00
10yr3d	NSLRWCD C37	BASE	152.02	9.89	18.50	0	0.77	0.00	17.10	0.00
10yr3d	NSLRWCD C37	BASE	152.27	9.89	18.50	0	0.76	0.00	17.11	0.00
10yr3d	NSLRWCD C37	BASE	152.52	9.88	18.50	0	0.75	0.00	17.13	0.00
10yr3d	NSLRWCD C37	BASE	152.77	9.88	18.50	0	0.75	0.00	17.14	0.00
10yr3d	NSLRWCD C37	BASE	153.02	9.88	18.50	0	0.74	0.00	17.16	0.00
10yr3d	NSLRWCD C37	BASE	153.27	9.88	18.50	0	0.74	0.00	17.17	0.00
10yr3d	NSLRWCD C37	BASE	153.52	9.87	18.50	0	0.73	0.00	17.19	0.00
10yr3d	NSLRWCD C37	BASE	153.77	9.87	18.50	0	0.72	0.00	17.20	0.00
10yr3d	NSLRWCD C37	BASE	154.02	9.87	18.50	0	0.72	0.00	17.22	0.00
10yr3d	NSLRWCD C37	BASE	154.27	9.87	18.50	0	0.71	0.00	17.23	0.00
10yr3d	NSLRWCD C37	BASE	154.52	9.86	18.50	0	0.71	0.00	17.25	0.00
10yr3d	NSLRWCD C37	BASE	154.77	9.86	18.50	0	0.70	0.00	17.26	0.00
10yr3d	NSLRWCD C37	BASE	155.02	9.86	18.50	0	0.70	0.00	17.28	0.00
10yr3d	NSLRWCD C37	BASE	155.27	9.86	18.50	0	0.69	0.00	17.29	0.00
10yr3d	NSLRWCD C37	BASE	155.52	9.85	18.50	0	0.69	0.00	17.31	0.00
10yr3d	NSLRWCD C37	BASE	155.77	9.85	18.50	0	0.68	0.00	17.32	0.00
10yr3d	NSLRWCD C37	BASE	156.02	9.85	18.50	0	0.68	0.00	17.33	0.00
10yr3d	NSLRWCD C37	BASE	156.27	9.85	18.50	0	0.67	0.00	17.35	0.00
10yr3d	NSLRWCD C37	BASE	156.52	9.84	18.50	0	0.67	0.00	17.36	0.00
10yr3d	NSLRWCD C37	BASE	156.77	9.84	18.50	0	0.66	0.00	17.38	0.00
10yr3d	NSLRWCD C37	BASE	157.02	9.84	18.50	0	0.66	0.00	17.39	0.00
10yr3d	NSLRWCD C37	BASE	157.27	9.84	18.50	0	0.65	0.00	17.40	0.00
10yr3d	NSLRWCD C37	BASE	157.52	9.83	18.50	0	0.65	0.00	17.42	0.00
10yr3d	NSLRWCD C37	BASE	157.77	9.83	18.50	0	0.64	0.00	17.43	0.00
10yr3d	NSLRWCD C37	BASE	158.02	9.83	18.50	0	0.64	0.00	17.44	0.00
10yr3d	NSLRWCD C37	BASE	158.27	9.83	18.50	0	0.63	0.00	17.46	0.00
10yr3d	NSLRWCD C37	BASE	158.52	9.82	18.50	0	0.63	0.00	17.47	0.00
10yr3d	NSLRWCD C37	BASE	158.77	9.82	18.50	0	0.63	0.00	17.48	0.00
10yr3d	NSLRWCD C37	BASE	159.02	9.82	18.50	0	0.62	0.00	17.50	0.00
10yr3d	NSLRWCD C37	BASE	159.27	9.82	18.50	0	0.62	0.00	17.51	0.00
10yr3d	NSLRWCD C37	BASE	159.52	9.81	18.50	0	0.61	0.00	17.52	0.00
10yr3d	NSLRWCD C37	BASE	159.77	9.81	18.50	0	0.61	0.00	17.53	0.00
10yr3d	NSLRWCD C37	BASE	160.02	9.81	18.50	0	0.61	0.00	17.55	0.00
10yr3d	NSLRWCD C37	BASE	160.27	9.81	18.50	0	0.60	0.00	17.56	0.00
10yr3d	NSLRWCD C37	BASE	160.52	9.80	18.50	0	0.60	0.00	17.57	0.00
10yr3d	NSLRWCD C37	BASE	160.77	9.80	18.50	0	0.59	0.00	17.58	0.00
10yr3d	NSLRWCD C37	BASE	161.02	9.80	18.50	0	0.59	0.00	17.60	0.00
10yr3d	NSLRWCD C37	BASE	161.27	9.79	18.50	0	0.59	0.00	17.61	0.00
10yr3d	NSLRWCD C37	BASE	161.52	9.79	18.50	0	0.58	0.00	17.62	0.00
10yr3d	NSLRWCD C37	BASE	161.77	9.79	18.50	0	0.58	0.00	17.63	0.00
10yr3d	NSLRWCD C37	BASE	162.02	9.79	18.50	0	0.58	0.00	17.64	0.00
10yr3d	NSLRWCD C37	BASE	162.27	9.78	18.50	0	0.57	0.00	17.66	0.00
10yr3d	NSLRWCD C37	BASE	162.52	9.78	18.50	0	0.57	0.00	17.67	0.00
10yr3d	NSLRWCD C37	BASE	162.77	9.78	18.50	0	0.57	0.00	17.68	0.00
10yr3d	NSLRWCD C37	BASE	163.02	9.78	18.50	0	0.56	0.00	17.69	0.00
10yr3d	NSLRWCD C37	BASE	163.27	9.77	18.50	0	0.56	0.00	17.70	0.00
10yr3d	NSLRWCD C37	BASE	163.52	9.77	18.50	0	0.56	0.00	17.71	0.00
10yr3d	NSLRWCD C37	BASE	163.77	9.77	18.50	0	0.56	0.00	17.73	0.00
10yr3d	NSLRWCD C37	BASE	164.02	9.77	18.50	0	0.55	0.00	17.74	0.00
10yr3d	NSLRWCD C37	BASE	164.27	9.76	18.50	0	0.55	0.00	17.75	0.00
10yr3d	NSLRWCD C37	BASE	164.52	9.76	18.50	0	0.55	0.00	17.76	0.00
10yr3d	NSLRWCD C37	BASE	164.77	9.76	18.50	0	0.54	0.00	17.77	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	165.02	9.76	18.50	0	0.54	0.00	17.78	0.00
10yr3d	NSLRWCD C37	BASE	165.27	9.75	18.50	0	0.54	0.00	17.79	0.00
10yr3d	NSLRWCD C37	BASE	165.52	9.75	18.50	0	0.54	0.00	17.80	0.00
10yr3d	NSLRWCD C37	BASE	165.77	9.75	18.50	0	0.53	0.00	17.82	0.00
10yr3d	NSLRWCD C37	BASE	166.02	9.75	18.50	0	0.53	0.00	17.83	0.00
10yr3d	NSLRWCD C37	BASE	166.27	9.74	18.50	0	0.53	0.00	17.84	0.00
10yr3d	NSLRWCD C37	BASE	166.52	9.74	18.50	0	0.53	0.00	17.85	0.00
10yr3d	NSLRWCD C37	BASE	166.77	9.74	18.50	0	0.53	0.00	17.86	0.00
10yr3d	NSLRWCD C37	BASE	167.02	9.74	18.50	0	0.52	0.00	17.87	0.00
10yr3d	NSLRWCD C37	BASE	167.27	9.73	18.50	0	0.52	0.00	17.88	0.00
10yr3d	NSLRWCD C37	BASE	167.52	9.73	18.50	0	0.52	0.00	17.89	0.00
10yr3d	NSLRWCD C37	BASE	167.77	9.73	18.50	0	0.52	0.00	17.90	0.00
10yr3d	NSLRWCD C37	BASE	168.02	9.73	18.50	0	0.52	0.00	17.91	0.00
10yr3d	NSLRWCD C37	BASE	168.27	9.72	18.50	0	0.51	0.00	17.92	0.00
10yr3d	NSLRWCD C37	BASE	168.52	9.72	18.50	0	0.51	0.00	17.93	0.00
10yr3d	NSLRWCD C37	BASE	168.77	9.72	18.50	0	0.51	0.00	17.95	0.00
10yr3d	NSLRWCD C37	BASE	169.02	9.72	18.50	0	0.51	0.00	17.96	0.00
10yr3d	NSLRWCD C37	BASE	169.27	9.71	18.50	0	0.51	0.00	17.97	0.00
10yr3d	NSLRWCD C37	BASE	169.52	9.71	18.50	0	0.51	0.00	17.98	0.00
10yr3d	NSLRWCD C37	BASE	169.77	9.71	18.50	0	0.51	0.00	17.99	0.00
10yr3d	NSLRWCD C37	BASE	170.02	9.71	18.50	0	0.50	0.00	18.00	0.00
10yr3d	NSLRWCD C37	BASE	170.27	9.70	18.50	0	0.50	0.00	18.01	0.00
10yr3d	NSLRWCD C37	BASE	170.52	9.70	18.50	0	0.50	0.00	18.02	0.00
10yr3d	NSLRWCD C37	BASE	170.77	9.70	18.50	0	0.50	0.00	18.03	0.00
10yr3d	NSLRWCD C37	BASE	171.02	9.70	18.50	0	0.50	0.00	18.04	0.00
10yr3d	NSLRWCD C37	BASE	171.27	9.69	18.50	0	0.50	0.00	18.05	0.00
10yr3d	NSLRWCD C37	BASE	171.52	9.69	18.50	0	0.50	0.00	18.06	0.00
10yr3d	NSLRWCD C37	BASE	171.77	9.69	18.50	0	0.50	0.00	18.07	0.00
10yr3d	NSLRWCD C37	BASE	172.02	9.69	18.50	0	0.50	0.00	18.08	0.00
10yr3d	NSLRWCD C37	BASE	172.27	9.68	18.50	0	0.50	0.00	18.09	0.00
10yr3d	NSLRWCD C37	BASE	172.52	9.68	18.50	0	0.50	0.00	18.10	0.00
10yr3d	NSLRWCD C37	BASE	172.77	9.68	18.50	0	0.50	0.00	18.11	0.00
10yr3d	NSLRWCD C37	BASE	173.02	9.68	18.50	0	0.50	0.00	18.12	0.00
10yr3d	NSLRWCD C37	BASE	173.27	9.67	18.50	0	0.50	0.00	18.13	0.00
10yr3d	NSLRWCD C37	BASE	173.52	9.67	18.50	0	0.50	0.00	18.14	0.00
10yr3d	NSLRWCD C37	BASE	173.77	9.67	18.50	0	0.50	0.00	18.15	0.00
10yr3d	NSLRWCD C37	BASE	174.02	9.67	18.50	0	0.50	0.00	18.16	0.00
10yr3d	NSLRWCD C37	BASE	174.27	9.66	18.50	0	0.50	0.00	18.17	0.00
10yr3d	NSLRWCD C37	BASE	174.52	9.66	18.50	0	0.50	0.00	18.18	0.00
10yr3d	NSLRWCD C37	BASE	174.77	9.66	18.50	0	0.50	0.00	18.19	0.00
10yr3d	NSLRWCD C37	BASE	175.02	9.66	18.50	0	0.49	0.00	18.20	0.00
10yr3d	NSLRWCD C37	BASE	175.27	9.65	18.50	0	0.49	0.00	18.21	0.00
10yr3d	NSLRWCD C37	BASE	175.52	9.65	18.50	0	0.49	0.00	18.22	0.00
10yr3d	NSLRWCD C37	BASE	175.77	9.65	18.50	0	0.49	0.00	18.23	0.00
10yr3d	NSLRWCD C37	BASE	176.02	9.65	18.50	0	0.49	0.00	18.24	0.00
10yr3d	NSLRWCD C37	BASE	176.27	9.64	18.50	0	0.49	0.00	18.25	0.00
10yr3d	NSLRWCD C37	BASE	176.52	9.64	18.50	0	0.49	0.00	18.26	0.00
10yr3d	NSLRWCD C37	BASE	176.77	9.64	18.50	0	0.49	0.00	18.28	0.00
10yr3d	NSLRWCD C37	BASE	177.02	9.64	18.50	0	0.49	0.00	18.29	0.00
10yr3d	NSLRWCD C37	BASE	177.27	9.63	18.50	0	0.49	0.00	18.30	0.00
10yr3d	NSLRWCD C37	BASE	177.52	9.63	18.50	0	0.49	0.00	18.31	0.00
10yr3d	NSLRWCD C37	BASE	177.77	9.63	18.50	0	0.49	0.00	18.32	0.00
10yr3d	NSLRWCD C37	BASE	178.02	9.63	18.50	0	0.49	0.00	18.33	0.00
10yr3d	NSLRWCD C37	BASE	178.27	9.62	18.50	0	0.49	0.00	18.34	0.00
10yr3d	NSLRWCD C37	BASE	178.52	9.62	18.50	0	0.49	0.00	18.35	0.00
10yr3d	NSLRWCD C37	BASE	178.77	9.62	18.50	0	0.49	0.00	18.36	0.00
10yr3d	NSLRWCD C37	BASE	179.02	9.61	18.50	0	0.49	0.00	18.37	0.00
10yr3d	NSLRWCD C37	BASE	179.27	9.61	18.50	0	0.49	0.00	18.38	0.00
10yr3d	NSLRWCD C37	BASE	179.52	9.61	18.50	0	0.49	0.00	18.39	0.00
10yr3d	NSLRWCD C37	BASE	179.77	9.61	18.50	0	0.49	0.00	18.40	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	180.02	9.60	18.50	0	0.49	0.00	18.41	0.00
10yr3d	NSLRWCD C37	BASE	180.27	9.60	18.50	0	0.49	0.00	18.42	0.00
10yr3d	NSLRWCD C37	BASE	180.52	9.60	18.50	0	0.48	0.00	18.43	0.00
10yr3d	NSLRWCD C37	BASE	180.77	9.60	18.50	0	0.48	0.00	18.44	0.00
10yr3d	NSLRWCD C37	BASE	181.02	9.59	18.50	0	0.48	0.00	18.45	0.00
10yr3d	NSLRWCD C37	BASE	181.27	9.59	18.50	0	0.48	0.00	18.46	0.00
10yr3d	NSLRWCD C37	BASE	181.52	9.59	18.50	0	0.48	0.00	18.47	0.00
10yr3d	NSLRWCD C37	BASE	181.77	9.59	18.50	0	0.48	0.00	18.48	0.00
10yr3d	NSLRWCD C37	BASE	182.02	9.58	18.50	0	0.48	0.00	18.49	0.00
10yr3d	NSLRWCD C37	BASE	182.27	9.58	18.50	0	0.48	0.00	18.50	0.00
10yr3d	NSLRWCD C37	BASE	182.52	9.58	18.50	0	0.48	0.00	18.51	0.00
10yr3d	NSLRWCD C37	BASE	182.77	9.58	18.50	0	0.48	0.00	18.52	0.00
10yr3d	NSLRWCD C37	BASE	183.02	9.57	18.50	0	0.48	0.00	18.53	0.00
10yr3d	NSLRWCD C37	BASE	183.27	9.57	18.50	0	0.48	0.00	18.54	0.00
10yr3d	NSLRWCD C37	BASE	183.52	9.57	18.50	0	0.48	0.00	18.55	0.00
10yr3d	NSLRWCD C37	BASE	183.77	9.57	18.50	0	0.48	0.00	18.56	0.00
10yr3d	NSLRWCD C37	BASE	184.02	9.56	18.50	0	0.48	0.00	18.57	0.00
10yr3d	NSLRWCD C37	BASE	184.27	9.56	18.50	0	0.48	0.00	18.58	0.00
10yr3d	NSLRWCD C37	BASE	184.52	9.56	18.50	0	0.48	0.00	18.59	0.00
10yr3d	NSLRWCD C37	BASE	184.77	9.56	18.50	0	0.48	0.00	18.60	0.00
10yr3d	NSLRWCD C37	BASE	185.02	9.55	18.50	0	0.48	0.00	18.61	0.00
10yr3d	NSLRWCD C37	BASE	185.27	9.55	18.50	0	0.48	0.00	18.62	0.00
10yr3d	NSLRWCD C37	BASE	185.52	9.55	18.50	0	0.48	0.00	18.62	0.00
10yr3d	NSLRWCD C37	BASE	185.77	9.55	18.50	0	0.48	0.00	18.63	0.00
10yr3d	NSLRWCD C37	BASE	186.02	9.54	18.50	0	0.48	0.00	18.64	0.00
10yr3d	NSLRWCD C37	BASE	186.27	9.54	18.50	0	0.47	0.00	18.65	0.00
10yr3d	NSLRWCD C37	BASE	186.52	9.54	18.50	0	0.47	0.00	18.66	0.00
10yr3d	NSLRWCD C37	BASE	186.77	9.54	18.50	0	0.47	0.00	18.67	0.00
10yr3d	NSLRWCD C37	BASE	187.02	9.53	18.50	0	0.47	0.00	18.68	0.00
10yr3d	NSLRWCD C37	BASE	187.27	9.53	18.50	0	0.47	0.00	18.69	0.00
10yr3d	NSLRWCD C37	BASE	187.52	9.53	18.50	0	0.47	0.00	18.70	0.00
10yr3d	NSLRWCD C37	BASE	187.77	9.53	18.50	0	0.47	0.00	18.71	0.00
10yr3d	NSLRWCD C37	BASE	188.02	9.52	18.50	0	0.47	0.00	18.72	0.00
10yr3d	NSLRWCD C37	BASE	188.27	9.52	18.50	0	0.47	0.00	18.73	0.00
10yr3d	NSLRWCD C37	BASE	188.52	9.52	18.50	0	0.47	0.00	18.74	0.00
10yr3d	NSLRWCD C37	BASE	188.77	9.52	18.50	0	0.47	0.00	18.75	0.00
10yr3d	NSLRWCD C37	BASE	189.02	9.51	18.50	0	0.47	0.00	18.76	0.00
10yr3d	NSLRWCD C37	BASE	189.27	9.51	18.50	0	0.47	0.00	18.77	0.00
10yr3d	NSLRWCD C37	BASE	189.52	9.51	18.50	0	0.47	0.00	18.78	0.00
10yr3d	NSLRWCD C37	BASE	189.77	9.51	18.50	0	0.47	0.00	18.79	0.00
10yr3d	NSLRWCD C37	BASE	190.02	9.50	18.50	0	0.47	0.00	18.80	0.00
10yr3d	NSLRWCD C37	BASE	190.27	9.50	18.50	0	0.47	0.00	18.81	0.00
10yr3d	NSLRWCD C37	BASE	190.52	9.50	18.50	0	0.47	0.00	18.82	0.00
10yr3d	NSLRWCD C37	BASE	190.77	9.50	18.50	0	0.47	0.00	18.83	0.00
10yr3d	NSLRWCD C37	BASE	191.02	9.49	18.50	0	0.47	0.00	18.84	0.00
10yr3d	NSLRWCD C37	BASE	191.27	9.49	18.50	0	0.47	0.00	18.85	0.00
10yr3d	NSLRWCD C37	BASE	191.52	9.49	18.50	0	0.47	0.00	18.86	0.00
10yr3d	NSLRWCD C37	BASE	191.77	9.49	18.50	0	0.46	0.00	18.87	0.00
10yr3d	NSLRWCD C37	BASE	192.02	9.48	18.50	0	0.46	0.00	18.88	0.00
10yr3d	NSLRWCD C37	BASE	192.27	9.48	18.50	0	0.46	0.00	18.89	0.00
10yr3d	NSLRWCD C37	BASE	192.52	9.48	18.50	0	0.46	0.00	18.90	0.00
10yr3d	NSLRWCD C37	BASE	192.77	9.48	18.50	0	0.46	0.00	18.91	0.00
10yr3d	NSLRWCD C37	BASE	193.02	9.47	18.50	0	0.46	0.00	18.92	0.00
10yr3d	NSLRWCD C37	BASE	193.27	9.47	18.50	0	0.46	0.00	18.93	0.00
10yr3d	NSLRWCD C37	BASE	193.52	9.47	18.50	0	0.46	0.00	18.93	0.00
10yr3d	NSLRWCD C37	BASE	193.77	9.47	18.50	0	0.46	0.00	18.94	0.00
10yr3d	NSLRWCD C37	BASE	194.02	9.46	18.50	0	0.46	0.00	18.95	0.00
10yr3d	NSLRWCD C37	BASE	194.27	9.46	18.50	0	0.46	0.00	18.96	0.00
10yr3d	NSLRWCD C37	BASE	194.52	9.46	18.50	0	0.46	0.00	18.97	0.00
10yr3d	NSLRWCD C37	BASE	194.77	9.46	18.50	0	0.46	0.00	18.98	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	195.02	9.45	18.50	0	0.46	0.00	18.99	0.00
10yr3d	NSLRWCD C37	BASE	195.27	9.45	18.50	0	0.46	0.00	19.00	0.00
10yr3d	NSLRWCD C37	BASE	195.52	9.45	18.50	0	0.46	0.00	19.01	0.00
10yr3d	NSLRWCD C37	BASE	195.77	9.45	18.50	0	0.46	0.00	19.02	0.00
10yr3d	NSLRWCD C37	BASE	196.02	9.44	18.50	0	0.46	0.00	19.03	0.00
10yr3d	NSLRWCD C37	BASE	196.27	9.44	18.50	0	0.46	0.00	19.04	0.00
10yr3d	NSLRWCD C37	BASE	196.52	9.44	18.50	0	0.46	0.00	19.05	0.00
10yr3d	NSLRWCD C37	BASE	196.77	9.44	18.50	0	0.46	0.00	19.06	0.00
10yr3d	NSLRWCD C37	BASE	197.02	9.43	18.50	0	0.46	0.00	19.07	0.00
10yr3d	NSLRWCD C37	BASE	197.27	9.43	18.50	0	0.45	0.00	19.08	0.00
10yr3d	NSLRWCD C37	BASE	197.52	9.43	18.50	0	0.45	0.00	19.09	0.00
10yr3d	NSLRWCD C37	BASE	197.77	9.42	18.50	0	0.45	0.00	19.10	0.00
10yr3d	NSLRWCD C37	BASE	198.02	9.42	18.50	0	0.45	0.00	19.11	0.00
10yr3d	NSLRWCD C37	BASE	198.27	9.42	18.50	0	0.45	0.00	19.11	0.00
10yr3d	NSLRWCD C37	BASE	198.52	9.42	18.50	0	0.45	0.00	19.12	0.00
10yr3d	NSLRWCD C37	BASE	198.77	9.41	18.50	0	0.45	0.00	19.13	0.00
10yr3d	NSLRWCD C37	BASE	199.02	9.41	18.50	0	0.45	0.00	19.14	0.00
10yr3d	NSLRWCD C37	BASE	199.27	9.41	18.50	0	0.45	0.00	19.15	0.00
10yr3d	NSLRWCD C37	BASE	199.52	9.41	18.50	0	0.45	0.00	19.16	0.00
10yr3d	NSLRWCD C37	BASE	199.77	9.40	18.50	0	0.45	0.00	19.17	0.00
10yr3d	NSLRWCD C37	BASE	200.02	9.40	18.50	0	0.45	0.00	19.18	0.00
10yr3d	NSLRWCD C37	BASE	200.27	9.40	18.50	0	0.45	0.00	19.19	0.00
10yr3d	NSLRWCD C37	BASE	200.52	9.40	18.50	0	0.45	0.00	19.20	0.00
10yr3d	NSLRWCD C37	BASE	200.77	9.39	18.50	0	0.45	0.00	19.21	0.00
10yr3d	NSLRWCD C37	BASE	201.02	9.39	18.50	0	0.45	0.00	19.22	0.00
10yr3d	NSLRWCD C37	BASE	201.27	9.39	18.50	0	0.45	0.00	19.23	0.00
10yr3d	NSLRWCD C37	BASE	201.52	9.39	18.50	0	0.45	0.00	19.24	0.00
10yr3d	NSLRWCD C37	BASE	201.77	9.38	18.50	0	0.45	0.00	19.24	0.00
10yr3d	NSLRWCD C37	BASE	202.02	9.38	18.50	0	0.45	0.00	19.25	0.00
10yr3d	NSLRWCD C37	BASE	202.27	9.38	18.50	0	0.45	0.00	19.26	0.00
10yr3d	NSLRWCD C37	BASE	202.52	9.38	18.50	0	0.45	0.00	19.27	0.00
10yr3d	NSLRWCD C37	BASE	202.77	9.37	18.50	0	0.44	0.00	19.28	0.00
10yr3d	NSLRWCD C37	BASE	203.02	9.37	18.50	0	0.44	0.00	19.29	0.00
10yr3d	NSLRWCD C37	BASE	203.27	9.37	18.50	0	0.44	0.00	19.30	0.00
10yr3d	NSLRWCD C37	BASE	203.52	9.37	18.50	0	0.44	0.00	19.31	0.00
10yr3d	NSLRWCD C37	BASE	203.77	9.36	18.50	0	0.44	0.00	19.32	0.00
10yr3d	NSLRWCD C37	BASE	204.02	9.36	18.50	0	0.44	0.00	19.33	0.00
10yr3d	NSLRWCD C37	BASE	204.27	9.36	18.50	0	0.44	0.00	19.34	0.00
10yr3d	NSLRWCD C37	BASE	204.52	9.36	18.50	0	0.44	0.00	19.35	0.00
10yr3d	NSLRWCD C37	BASE	204.77	9.35	18.50	0	0.44	0.00	19.35	0.00
10yr3d	NSLRWCD C37	BASE	205.02	9.35	18.50	0	0.44	0.00	19.36	0.00
10yr3d	NSLRWCD C37	BASE	205.27	9.35	18.50	0	0.44	0.00	19.37	0.00
10yr3d	NSLRWCD C37	BASE	205.52	9.35	18.50	0	0.44	0.00	19.38	0.00
10yr3d	NSLRWCD C37	BASE	205.77	9.34	18.50	0	0.44	0.00	19.39	0.00
10yr3d	NSLRWCD C37	BASE	206.02	9.34	18.50	0	0.44	0.00	19.40	0.00
10yr3d	NSLRWCD C37	BASE	206.27	9.34	18.50	0	0.44	0.00	19.41	0.00
10yr3d	NSLRWCD C37	BASE	206.52	9.34	18.50	0	0.44	0.00	19.42	0.00
10yr3d	NSLRWCD C37	BASE	206.77	9.33	18.50	0	0.44	0.00	19.43	0.00
10yr3d	NSLRWCD C37	BASE	207.02	9.33	18.50	0	0.44	0.00	19.44	0.00
10yr3d	NSLRWCD C37	BASE	207.27	9.33	18.50	0	0.44	0.00	19.45	0.00
10yr3d	NSLRWCD C37	BASE	207.52	9.33	18.50	0	0.44	0.00	19.45	0.00
10yr3d	NSLRWCD C37	BASE	207.77	9.32	18.50	0	0.44	0.00	19.46	0.00
10yr3d	NSLRWCD C37	BASE	208.02	9.32	18.50	0	0.44	0.00	19.47	0.00
10yr3d	NSLRWCD C37	BASE	208.27	9.32	18.50	0	0.44	0.00	19.48	0.00
10yr3d	NSLRWCD C37	BASE	208.52	9.32	18.50	0	0.43	0.00	19.49	0.00
10yr3d	NSLRWCD C37	BASE	208.77	9.31	18.50	0	0.43	0.00	19.50	0.00
10yr3d	NSLRWCD C37	BASE	209.02	9.31	18.50	0	0.43	0.00	19.51	0.00
10yr3d	NSLRWCD C37	BASE	209.27	9.31	18.50	0	0.43	0.00	19.52	0.00
10yr3d	NSLRWCD C37	BASE	209.52	9.31	18.50	0	0.43	0.00	19.53	0.00
10yr3d	NSLRWCD C37	BASE	209.77	9.30	18.50	0	0.43	0.00	19.54	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	210.02	9.30	18.50	0	0.43	0.00	19.54	0.00
10yr3d	NSLRWCD C37	BASE	210.27	9.30	18.50	0	0.43	0.00	19.55	0.00
10yr3d	NSLRWCD C37	BASE	210.52	9.30	18.50	0	0.43	0.00	19.56	0.00
10yr3d	NSLRWCD C37	BASE	210.77	9.29	18.50	0	0.43	0.00	19.57	0.00
10yr3d	NSLRWCD C37	BASE	211.02	9.29	18.50	0	0.43	0.00	19.58	0.00
10yr3d	NSLRWCD C37	BASE	211.27	9.29	18.50	0	0.43	0.00	19.59	0.00
10yr3d	NSLRWCD C37	BASE	211.52	9.29	18.50	0	0.43	0.00	19.60	0.00
10yr3d	NSLRWCD C37	BASE	211.77	9.28	18.50	0	0.43	0.00	19.61	0.00
10yr3d	NSLRWCD C37	BASE	212.02	9.28	18.50	0	0.43	0.00	19.62	0.00
10yr3d	NSLRWCD C37	BASE	212.27	9.28	18.50	0	0.43	0.00	19.62	0.00
10yr3d	NSLRWCD C37	BASE	212.52	9.28	18.50	0	0.43	0.00	19.63	0.00
10yr3d	NSLRWCD C37	BASE	212.77	9.27	18.50	0	0.43	0.00	19.64	0.00
10yr3d	NSLRWCD C37	BASE	213.02	9.27	18.50	0	0.43	0.00	19.65	0.00
10yr3d	NSLRWCD C37	BASE	213.27	9.27	18.50	0	0.43	0.00	19.66	0.00
10yr3d	NSLRWCD C37	BASE	213.52	9.27	18.50	0	0.43	0.00	19.67	0.00
10yr3d	NSLRWCD C37	BASE	213.77	9.26	18.50	0	0.43	0.00	19.68	0.00
10yr3d	NSLRWCD C37	BASE	214.02	9.26	18.50	0	0.42	0.00	19.69	0.00
10yr3d	NSLRWCD C37	BASE	214.27	9.26	18.50	0	0.42	0.00	19.69	0.00
10yr3d	NSLRWCD C37	BASE	214.52	9.26	18.50	0	0.42	0.00	19.70	0.00
10yr3d	NSLRWCD C37	BASE	214.77	9.25	18.50	0	0.42	0.00	19.71	0.00
10yr3d	NSLRWCD C37	BASE	215.02	9.25	18.50	0	0.42	0.00	19.72	0.00
10yr3d	NSLRWCD C37	BASE	215.27	9.25	18.50	0	0.42	0.00	19.73	0.00
10yr3d	NSLRWCD C37	BASE	215.52	9.24	18.50	0	0.42	0.00	19.74	0.00
10yr3d	NSLRWCD C37	BASE	215.77	9.24	18.50	0	0.42	0.00	19.75	0.00
10yr3d	NSLRWCD C37	BASE	216.02	9.24	18.50	0	0.42	0.00	19.76	0.00
10yr3d	NSLRWCD C37	BASE	216.27	9.24	18.50	0	0.42	0.00	19.76	0.00
10yr3d	NSLRWCD C37	BASE	216.52	9.23	18.50	0	0.42	0.00	19.77	0.00
10yr3d	NSLRWCD C37	BASE	216.77	9.23	18.50	0	0.42	0.00	19.78	0.00
10yr3d	NSLRWCD C37	BASE	217.02	9.23	18.50	0	0.42	0.00	19.79	0.00
10yr3d	NSLRWCD C37	BASE	217.27	9.23	18.50	0	0.42	0.00	19.80	0.00
10yr3d	NSLRWCD C37	BASE	217.52	9.22	18.50	0	0.42	0.00	19.81	0.00
10yr3d	NSLRWCD C37	BASE	217.77	9.22	18.50	0	0.42	0.00	19.82	0.00
10yr3d	NSLRWCD C37	BASE	218.02	9.22	18.50	0	0.42	0.00	19.82	0.00
10yr3d	NSLRWCD C37	BASE	218.27	9.22	18.50	0	0.42	0.00	19.83	0.00
10yr3d	NSLRWCD C37	BASE	218.52	9.21	18.50	0	0.42	0.00	19.84	0.00
10yr3d	NSLRWCD C37	BASE	218.77	9.21	18.50	0	0.42	0.00	19.85	0.00
10yr3d	NSLRWCD C37	BASE	219.02	9.21	18.50	0	0.42	0.00	19.86	0.00
10yr3d	NSLRWCD C37	BASE	219.27	9.21	18.50	0	0.42	0.00	19.87	0.00
10yr3d	NSLRWCD C37	BASE	219.52	9.20	18.50	0	0.41	0.00	19.88	0.00
10yr3d	NSLRWCD C37	BASE	219.77	9.20	18.50	0	0.41	0.00	19.88	0.00
10yr3d	NSLRWCD C37	BASE	220.02	9.20	18.50	0	0.41	0.00	19.89	0.00
10yr3d	NSLRWCD C37	BASE	220.27	9.20	18.50	0	0.41	0.00	19.90	0.00
10yr3d	NSLRWCD C37	BASE	220.52	9.19	18.50	0	0.41	0.00	19.91	0.00
10yr3d	NSLRWCD C37	BASE	220.77	9.19	18.50	0	0.41	0.00	19.92	0.00
10yr3d	NSLRWCD C37	BASE	221.02	9.19	18.50	0	0.41	0.00	19.93	0.00
10yr3d	NSLRWCD C37	BASE	221.27	9.19	18.50	0	0.41	0.00	19.94	0.00
10yr3d	NSLRWCD C37	BASE	221.52	9.18	18.50	0	0.41	0.00	19.94	0.00
10yr3d	NSLRWCD C37	BASE	221.77	9.18	18.50	0	0.41	0.00	19.95	0.00
10yr3d	NSLRWCD C37	BASE	222.02	9.18	18.50	0	0.41	0.00	19.96	0.00
10yr3d	NSLRWCD C37	BASE	222.27	9.18	18.50	0	0.41	0.00	19.97	0.00
10yr3d	NSLRWCD C37	BASE	222.52	9.17	18.50	0	0.41	0.00	19.98	0.00
10yr3d	NSLRWCD C37	BASE	222.77	9.17	18.50	0	0.41	0.00	19.99	0.00
10yr3d	NSLRWCD C37	BASE	223.02	9.17	18.50	0	0.41	0.00	20.00	0.00
10yr3d	NSLRWCD C37	BASE	223.27	9.17	18.50	0	0.41	0.00	20.00	0.00
10yr3d	NSLRWCD C37	BASE	223.52	9.16	18.50	0	0.41	0.00	20.01	0.00
10yr3d	NSLRWCD C37	BASE	223.77	9.16	18.50	0	0.41	0.00	20.02	0.00
10yr3d	NSLRWCD C37	BASE	224.02	9.16	18.50	0	0.41	0.00	20.03	0.00
10yr3d	NSLRWCD C37	BASE	224.27	9.16	18.50	0	0.41	0.00	20.04	0.00
10yr3d	NSLRWCD C37	BASE	224.52	9.15	18.50	0	0.41	0.00	20.05	0.00
10yr3d	NSLRWCD C37	BASE	224.77	9.15	18.50	0	0.41	0.00	20.05	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	225.02	9.15	18.50	0	0.40	0.00	20.06	0.00
10yr3d	NSLRWCD C37	BASE	225.27	9.15	18.50	0	0.40	0.00	20.07	0.00
10yr3d	NSLRWCD C37	BASE	225.52	9.14	18.50	0	0.40	0.00	20.08	0.00
10yr3d	NSLRWCD C37	BASE	225.77	9.14	18.50	0	0.40	0.00	20.09	0.00
10yr3d	NSLRWCD C37	BASE	226.02	9.14	18.50	0	0.40	0.00	20.10	0.00
10yr3d	NSLRWCD C37	BASE	226.27	9.14	18.50	0	0.40	0.00	20.10	0.00
10yr3d	NSLRWCD C37	BASE	226.52	9.13	18.50	0	0.40	0.00	20.11	0.00
10yr3d	NSLRWCD C37	BASE	226.77	9.13	18.50	0	0.40	0.00	20.12	0.00
10yr3d	NSLRWCD C37	BASE	227.02	9.13	18.50	0	0.40	0.00	20.13	0.00
10yr3d	NSLRWCD C37	BASE	227.27	9.13	18.50	0	0.40	0.00	20.14	0.00
10yr3d	NSLRWCD C37	BASE	227.52	9.12	18.50	0	0.40	0.00	20.15	0.00
10yr3d	NSLRWCD C37	BASE	227.77	9.12	18.50	0	0.40	0.00	20.15	0.00
10yr3d	NSLRWCD C37	BASE	228.02	9.12	18.50	0	0.40	0.00	20.16	0.00
10yr3d	NSLRWCD C37	BASE	228.27	9.12	18.50	0	0.40	0.00	20.17	0.00
10yr3d	NSLRWCD C37	BASE	228.52	9.11	18.50	0	0.40	0.00	20.18	0.00
10yr3d	NSLRWCD C37	BASE	228.77	9.11	18.50	0	0.40	0.00	20.19	0.00
10yr3d	NSLRWCD C37	BASE	229.02	9.11	18.50	0	0.40	0.00	20.20	0.00
10yr3d	NSLRWCD C37	BASE	229.27	9.11	18.50	0	0.40	0.00	20.20	0.00
10yr3d	NSLRWCD C37	BASE	229.52	9.10	18.50	0	0.40	0.00	20.21	0.00
10yr3d	NSLRWCD C37	BASE	229.77	9.10	18.50	0	0.40	0.00	20.22	0.00
10yr3d	NSLRWCD C37	BASE	230.02	9.10	18.50	0	0.40	0.00	20.23	0.00
10yr3d	NSLRWCD C37	BASE	230.27	9.10	18.50	0	0.40	0.00	20.24	0.00
10yr3d	NSLRWCD C37	BASE	230.52	9.09	18.50	0	0.39	0.00	20.24	0.00
10yr3d	NSLRWCD C37	BASE	230.77	9.09	18.50	0	0.39	0.00	20.25	0.00
10yr3d	NSLRWCD C37	BASE	231.02	9.09	18.50	0	0.39	0.00	20.26	0.00
10yr3d	NSLRWCD C37	BASE	231.27	9.09	18.50	0	0.39	0.00	20.27	0.00
10yr3d	NSLRWCD C37	BASE	231.52	9.08	18.50	0	0.39	0.00	20.28	0.00
10yr3d	NSLRWCD C37	BASE	231.77	9.08	18.50	0	0.39	0.00	20.28	0.00
10yr3d	NSLRWCD C37	BASE	232.02	9.08	18.50	0	0.39	0.00	20.29	0.00
10yr3d	NSLRWCD C37	BASE	232.27	9.08	18.50	0	0.39	0.00	20.30	0.00
10yr3d	NSLRWCD C37	BASE	232.52	9.07	18.50	0	0.39	0.00	20.31	0.00
10yr3d	NSLRWCD C37	BASE	232.77	9.07	18.50	0	0.39	0.00	20.32	0.00
10yr3d	NSLRWCD C37	BASE	233.02	9.07	18.50	0	0.39	0.00	20.33	0.00
10yr3d	NSLRWCD C37	BASE	233.27	9.06	18.50	0	0.39	0.00	20.33	0.00
10yr3d	NSLRWCD C37	BASE	233.52	9.06	18.50	0	0.39	0.00	20.34	0.00
10yr3d	NSLRWCD C37	BASE	233.77	9.06	18.50	0	0.39	0.00	20.35	0.00
10yr3d	NSLRWCD C37	BASE	234.02	9.06	18.50	0	0.39	0.00	20.36	0.00
10yr3d	NSLRWCD C37	BASE	234.27	9.05	18.50	0	0.39	0.00	20.37	0.00
10yr3d	NSLRWCD C37	BASE	234.52	9.05	18.50	0	0.39	0.00	20.37	0.00
10yr3d	NSLRWCD C37	BASE	234.77	9.05	18.50	0	0.39	0.00	20.38	0.00
10yr3d	NSLRWCD C37	BASE	235.02	9.05	18.50	0	0.39	0.00	20.39	0.00
10yr3d	NSLRWCD C37	BASE	235.27	9.04	18.50	0	0.39	0.00	20.40	0.00
10yr3d	NSLRWCD C37	BASE	235.52	9.04	18.50	0	0.39	0.00	20.41	0.00
10yr3d	NSLRWCD C37	BASE	235.77	9.04	18.50	0	0.39	0.00	20.41	0.00
10yr3d	NSLRWCD C37	BASE	236.02	9.04	18.50	0	0.38	0.00	20.42	0.00
10yr3d	NSLRWCD C37	BASE	236.27	9.03	18.50	0	0.38	0.00	20.43	0.00
10yr3d	NSLRWCD C37	BASE	236.52	9.03	18.50	0	0.38	0.00	20.44	0.00
10yr3d	NSLRWCD C37	BASE	236.77	9.03	18.50	0	0.38	0.00	20.45	0.00
10yr3d	NSLRWCD C37	BASE	237.02	9.03	18.50	0	0.38	0.00	20.45	0.00
10yr3d	NSLRWCD C37	BASE	237.27	9.02	18.50	0	0.38	0.00	20.46	0.00
10yr3d	NSLRWCD C37	BASE	237.52	9.02	18.50	0	0.38	0.00	20.47	0.00
10yr3d	NSLRWCD C37	BASE	237.77	9.02	18.50	0	0.38	0.00	20.48	0.00
10yr3d	NSLRWCD C37	BASE	238.02	9.02	18.50	0	0.38	0.00	20.48	0.00
10yr3d	NSLRWCD C37	BASE	238.27	9.01	18.50	0	0.38	0.00	20.49	0.00
10yr3d	NSLRWCD C37	BASE	238.52	9.01	18.50	0	0.38	0.00	20.50	0.00
10yr3d	NSLRWCD C37	BASE	238.77	9.01	18.50	0	0.38	0.00	20.51	0.00
10yr3d	NSLRWCD C37	BASE	239.02	9.01	18.50	0	0.38	0.00	20.52	0.00
10yr3d	NSLRWCD C37	BASE	239.27	9.00	18.50	0	0.38	0.00	20.52	0.00
10yr3d	NSLRWCD C37	BASE	239.52	9.00	18.50	0	0.38	0.00	20.53	0.00
10yr3d	NSLRWCD C37	BASE	239.77	9.00	18.50	0	0.38	0.00	20.54	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	240.02	9.00	18.50	0	0.38	0.00	20.55	0.00
10yr3d	NSLRWCD C37	BASE	240.27	8.99	18.50	0	0.38	0.00	20.56	0.00
10yr3d	NSLRWCD C37	BASE	240.52	8.99	18.50	0	0.38	0.00	20.56	0.00
10yr3d	NSLRWCD C37	BASE	240.77	8.99	18.50	0	0.38	0.00	20.57	0.00
10yr3d	NSLRWCD C37	BASE	241.02	8.99	18.50	0	0.38	0.00	20.58	0.00
10yr3d	NSLRWCD C37	BASE	241.27	8.98	18.50	0	0.38	0.00	20.59	0.00
10yr3d	NSLRWCD C37	BASE	241.52	8.98	18.50	0	0.37	0.00	20.59	0.00
10yr3d	NSLRWCD C37	BASE	241.77	8.98	18.50	0	0.37	0.00	20.60	0.00
10yr3d	NSLRWCD C37	BASE	242.02	8.98	18.50	0	0.37	0.00	20.61	0.00
10yr3d	NSLRWCD C37	BASE	242.27	8.97	18.50	0	0.37	0.00	20.62	0.00
10yr3d	NSLRWCD C37	BASE	242.52	8.97	18.50	0	0.37	0.00	20.62	0.00
10yr3d	NSLRWCD C37	BASE	242.77	8.97	18.50	0	0.37	0.00	20.63	0.00
10yr3d	NSLRWCD C37	BASE	243.02	8.97	18.50	0	0.37	0.00	20.64	0.00
10yr3d	NSLRWCD C37	BASE	243.27	8.96	18.50	0	0.37	0.00	20.65	0.00
10yr3d	NSLRWCD C37	BASE	243.52	8.96	18.50	0	0.37	0.00	20.66	0.00
10yr3d	NSLRWCD C37	BASE	243.77	8.96	18.50	0	0.37	0.00	20.66	0.00
10yr3d	NSLRWCD C37	BASE	244.02	8.96	18.50	0	0.37	0.00	20.67	0.00
10yr3d	NSLRWCD C37	BASE	244.27	8.95	18.50	0	0.37	0.00	20.68	0.00
10yr3d	NSLRWCD C37	BASE	244.52	8.95	18.50	0	0.37	0.00	20.69	0.00
10yr3d	NSLRWCD C37	BASE	244.77	8.95	18.50	0	0.37	0.00	20.69	0.00
10yr3d	NSLRWCD C37	BASE	245.02	8.95	18.50	0	0.37	0.00	20.70	0.00
10yr3d	NSLRWCD C37	BASE	245.27	8.94	18.50	0	0.37	0.00	20.71	0.00
10yr3d	NSLRWCD C37	BASE	245.51	8.94	18.50	0	0.37	0.00	20.72	0.00
10yr3d	NSLRWCD C37	BASE	245.75	8.94	18.50	0	0.37	0.00	20.72	0.00
10yr3d	NSLRWCD C37	BASE	246.01	8.94	18.50	0	0.37	0.00	20.73	0.00
10yr3d	NSLRWCD C37	BASE	246.25	8.93	18.50	0	0.37	0.00	20.74	0.00
10yr3d	NSLRWCD C37	BASE	246.51	8.93	18.50	0	0.37	0.00	20.75	0.00
10yr3d	NSLRWCD C37	BASE	246.76	8.93	18.50	0	0.37	0.00	20.75	0.00
10yr3d	NSLRWCD C37	BASE	247.01	8.93	18.50	0	0.36	0.00	20.76	0.00
10yr3d	NSLRWCD C37	BASE	247.26	8.92	18.50	0	0.36	0.00	20.77	0.00
10yr3d	NSLRWCD C37	BASE	247.51	8.92	18.50	0	0.36	0.00	20.78	0.00
10yr3d	NSLRWCD C37	BASE	247.76	8.92	18.50	0	0.36	0.00	20.78	0.00
10yr3d	NSLRWCD C37	BASE	248.01	8.92	18.50	0	0.36	0.00	20.79	0.00
10yr3d	NSLRWCD C37	BASE	248.26	8.91	18.50	0	0.36	0.00	20.80	0.00
10yr3d	NSLRWCD C37	BASE	248.51	8.91	18.50	0	0.36	0.00	20.81	0.00
10yr3d	NSLRWCD C37	BASE	248.76	8.91	18.50	0	0.36	0.00	20.81	0.00
10yr3d	NSLRWCD C37	BASE	249.01	8.91	18.50	0	0.36	0.00	20.82	0.00
10yr3d	NSLRWCD C37	BASE	249.26	8.90	18.50	0	0.36	0.00	20.83	0.00
10yr3d	NSLRWCD C37	BASE	249.51	8.90	18.50	0	0.36	0.00	20.84	0.00
10yr3d	NSLRWCD C37	BASE	249.76	8.90	18.50	0	0.36	0.00	20.84	0.00
10yr3d	NSLRWCD C37	BASE	250.01	8.90	18.50	0	0.36	0.00	20.85	0.00
10yr3d	NSLRWCD C37	BASE	250.26	8.89	18.50	0	0.36	0.00	20.86	0.00
10yr3d	NSLRWCD C37	BASE	250.51	8.89	18.50	0	0.36	0.00	20.87	0.00
10yr3d	NSLRWCD C37	BASE	250.76	8.89	18.50	0	0.36	0.00	20.87	0.00
10yr3d	NSLRWCD C37	BASE	251.01	8.89	18.50	0	0.36	0.00	20.88	0.00
10yr3d	NSLRWCD C37	BASE	251.26	8.88	18.50	0	0.36	0.00	20.89	0.00
10yr3d	NSLRWCD C37	BASE	251.51	8.88	18.50	0	0.36	0.00	20.90	0.00
10yr3d	NSLRWCD C37	BASE	251.76	8.88	18.50	0	0.36	0.00	20.90	0.00
10yr3d	NSLRWCD C37	BASE	252.01	8.87	18.50	0	0.36	0.00	20.91	0.00
10yr3d	NSLRWCD C37	BASE	252.26	8.87	18.50	0	0.36	0.00	20.92	0.00
10yr3d	NSLRWCD C37	BASE	252.51	8.87	18.50	0	0.35	0.00	20.93	0.00
10yr3d	NSLRWCD C37	BASE	252.76	8.87	18.50	0	0.35	0.00	20.93	0.00
10yr3d	NSLRWCD C37	BASE	253.01	8.86	18.50	0	0.35	0.00	20.94	0.00
10yr3d	NSLRWCD C37	BASE	253.26	8.86	18.50	0	0.35	0.00	20.95	0.00
10yr3d	NSLRWCD C37	BASE	253.51	8.86	18.50	0	0.35	0.00	20.95	0.00
10yr3d	NSLRWCD C37	BASE	253.76	8.86	18.50	0	0.35	0.00	20.96	0.00
10yr3d	NSLRWCD C37	BASE	254.01	8.85	18.50	0	0.35	0.00	20.97	0.00
10yr3d	NSLRWCD C37	BASE	254.26	8.85	18.50	0	0.35	0.00	20.98	0.00
10yr3d	NSLRWCD C37	BASE	254.51	8.85	18.50	0	0.35	0.00	20.98	0.00
10yr3d	NSLRWCD C37	BASE	254.76	8.85	18.50	0	0.35	0.00	20.99	0.00

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10yr3d	NSLRWCD C37	BASE	255.01	8.84	18.50	0	0.35	0.00	21.00	0.00
10yr3d	NSLRWCD C37	BASE	255.26	8.84	18.50	0	0.35	0.00	21.01	0.00
10yr3d	NSLRWCD C37	BASE	255.51	8.84	18.50	0	0.35	0.00	21.01	0.00
10yr3d	NSLRWCD C37	BASE	255.76	8.84	18.50	0	0.35	0.00	21.02	0.00
10yr3d	NSLRWCD C37	BASE	256.01	8.83	18.50	0	0.35	0.00	21.03	0.00
10yr3d	NSLRWCD C37	BASE	256.26	8.83	18.50	0	0.35	0.00	21.03	0.00
10yr3d	NSLRWCD C37	BASE	256.51	8.83	18.50	0	0.35	0.00	21.04	0.00
10yr3d	NSLRWCD C37	BASE	256.76	8.83	18.50	0	0.35	0.00	21.05	0.00
10yr3d	NSLRWCD C37	BASE	257.01	8.82	18.50	0	0.35	0.00	21.06	0.00
10yr3d	NSLRWCD C37	BASE	257.26	8.82	18.50	0	0.35	0.00	21.06	0.00
10yr3d	NSLRWCD C37	BASE	257.51	8.82	18.50	0	0.35	0.00	21.07	0.00
10yr3d	NSLRWCD C37	BASE	257.76	8.82	18.50	0	0.35	0.00	21.08	0.00
10yr3d	NSLRWCD C37	BASE	258.01	8.81	18.50	0	0.34	0.00	21.08	0.00
10yr3d	NSLRWCD C37	BASE	258.26	8.81	18.50	0	0.34	0.00	21.09	0.00
10yr3d	NSLRWCD C37	BASE	258.51	8.81	18.50	0	0.34	0.00	21.10	0.00
10yr3d	NSLRWCD C37	BASE	258.76	8.81	18.50	0	0.34	0.00	21.11	0.00
10yr3d	NSLRWCD C37	BASE	259.01	8.80	18.50	0	0.34	0.00	21.11	0.00
10yr3d	NSLRWCD C37	BASE	259.26	8.80	18.50	0	0.34	0.00	21.12	0.00
10yr3d	NSLRWCD C37	BASE	259.51	8.80	18.50	0	0.34	0.00	21.13	0.00
10yr3d	NSLRWCD C37	BASE	259.76	8.80	18.50	0	0.34	0.00	21.13	0.00
10yr3d	NSLRWCD C37	BASE	260.01	8.79	18.50	0	0.34	0.00	21.14	0.00
10yr3d	NSLRWCD C37	BASE	260.26	8.79	18.50	0	0.34	0.00	21.15	0.00
10yr3d	NSLRWCD C37	BASE	260.51	8.79	18.50	0	0.34	0.00	21.15	0.00
10yr3d	NSLRWCD C37	BASE	260.76	8.79	18.50	0	0.34	0.00	21.16	0.00
10yr3d	NSLRWCD C37	BASE	261.01	8.78	18.50	0	0.34	0.00	21.17	0.00
10yr3d	NSLRWCD C37	BASE	261.26	8.78	18.50	0	0.34	0.00	21.18	0.00
10yr3d	NSLRWCD C37	BASE	261.51	8.78	18.50	0	0.34	0.00	21.18	0.00
10yr3d	NSLRWCD C37	BASE	261.76	8.78	18.50	0	0.34	0.00	21.19	0.00
10yr3d	NSLRWCD C37	BASE	262.01	8.77	18.50	0	0.34	0.00	21.20	0.00
10yr3d	NSLRWCD C37	BASE	262.26	8.77	18.50	0	0.34	0.00	21.20	0.00
10yr3d	NSLRWCD C37	BASE	262.51	8.77	18.50	0	0.34	0.00	21.21	0.00
10yr3d	NSLRWCD C37	BASE	262.76	8.77	18.50	0	0.34	0.00	21.22	0.00
10yr3d	NSLRWCD C37	BASE	263.01	8.76	18.50	0	0.34	0.00	21.22	0.00
10yr3d	NSLRWCD C37	BASE	263.26	8.76	18.50	0	0.33	0.00	21.23	0.00
10yr3d	NSLRWCD C37	BASE	263.51	8.76	18.50	0	0.33	0.00	21.24	0.00
10yr3d	NSLRWCD C37	BASE	263.76	8.76	18.50	0	0.33	0.00	21.25	0.00
10yr3d	NSLRWCD C37	BASE	264.01	8.75	18.50	0	0.33	0.00	21.25	0.00
10yr3d	NSLRWCD C37	BASE	264.26	8.75	18.50	0	0.33	0.00	21.26	0.00
10yr3d	NSLRWCD C37	BASE	264.51	8.75	18.50	0	0.33	0.00	21.27	0.00
10yr3d	NSLRWCD C37	BASE	264.76	8.75	18.50	0	0.33	0.00	21.27	0.00
10yr3d	NSLRWCD C37	BASE	265.01	8.74	18.50	0	0.33	0.00	21.28	0.00
10yr3d	NSLRWCD C37	BASE	265.26	8.74	18.50	0	0.33	0.00	21.29	0.00
10yr3d	NSLRWCD C37	BASE	265.51	8.74	18.50	0	0.33	0.00	21.29	0.00
10yr3d	NSLRWCD C37	BASE	265.76	8.74	18.50	0	0.33	0.00	21.30	0.00
10yr3d	NSLRWCD C37	BASE	266.01	8.73	18.50	0	0.33	0.00	21.31	0.00
10yr3d	NSLRWCD C37	BASE	266.26	8.73	18.50	0	0.33	0.00	21.31	0.00
10yr3d	NSLRWCD C37	BASE	266.51	8.73	18.50	0	0.33	0.00	21.32	0.00
10yr3d	NSLRWCD C37	BASE	266.76	8.73	18.50	0	0.33	0.00	21.33	0.00
10yr3d	NSLRWCD C37	BASE	267.01	8.72	18.50	0	0.33	0.00	21.33	0.00
10yr3d	NSLRWCD C37	BASE	267.26	8.72	18.50	0	0.33	0.00	21.34	0.00
10yr3d	NSLRWCD C37	BASE	267.51	8.72	18.50	0	0.33	0.00	21.35	0.00
10yr3d	NSLRWCD C37	BASE	267.76	8.72	18.50	0	0.33	0.00	21.35	0.00
10yr3d	NSLRWCD C37	BASE	268.01	8.71	18.50	0	0.33	0.00	21.36	0.00
10yr3d	NSLRWCD C37	BASE	268.26	8.71	18.50	0	0.33	0.00	21.37	0.00
10yr3d	NSLRWCD C37	BASE	268.51	8.71	18.50	0	0.33	0.00	21.37	0.00
10yr3d	NSLRWCD C37	BASE	268.76	8.71	18.50	0	0.32	0.00	21.38	0.00
10yr3d	NSLRWCD C37	BASE	269.01	8.70	18.50	0	0.32	0.00	21.39	0.00
10yr3d	NSLRWCD C37	BASE	269.26	8.70	18.50	0	0.32	0.00	21.39	0.00
10yr3d	NSLRWCD C37	BASE	269.51	8.70	18.50	0	0.32	0.00	21.40	0.00
10yr3d	NSLRWCD C37	BASE	269.76	8.69	18.50	0	0.32	0.00	21.41	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	270.01	8.69	18.50	0	0.32	0.00	21.42	0.00
10yr3d	NSLRWCD C37	BASE	270.26	8.69	18.50	0	0.32	0.00	21.42	0.00
10yr3d	NSLRWCD C37	BASE	270.51	8.69	18.50	0	0.32	0.00	21.43	0.00
10yr3d	NSLRWCD C37	BASE	270.76	8.68	18.50	0	0.32	0.00	21.43	0.00
10yr3d	NSLRWCD C37	BASE	271.01	8.68	18.50	0	0.32	0.00	21.44	0.00
10yr3d	NSLRWCD C37	BASE	271.26	8.68	18.50	0	0.32	0.00	21.45	0.00
10yr3d	NSLRWCD C37	BASE	271.51	8.68	18.50	0	0.32	0.00	21.45	0.00
10yr3d	NSLRWCD C37	BASE	271.76	8.67	18.50	0	0.32	0.00	21.46	0.00
10yr3d	NSLRWCD C37	BASE	272.01	8.67	18.50	0	0.32	0.00	21.47	0.00
10yr3d	NSLRWCD C37	BASE	272.26	8.67	18.50	0	0.32	0.00	21.47	0.00
10yr3d	NSLRWCD C37	BASE	272.51	8.67	18.50	0	0.32	0.00	21.48	0.00
10yr3d	NSLRWCD C37	BASE	272.76	8.66	18.50	0	0.32	0.00	21.49	0.00
10yr3d	NSLRWCD C37	BASE	273.01	8.66	18.50	0	0.32	0.00	21.49	0.00
10yr3d	NSLRWCD C37	BASE	273.26	8.66	18.50	0	0.32	0.00	21.50	0.00
10yr3d	NSLRWCD C37	BASE	273.51	8.66	18.50	0	0.32	0.00	21.51	0.00
10yr3d	NSLRWCD C37	BASE	273.76	8.65	18.50	0	0.32	0.00	21.51	0.00
10yr3d	NSLRWCD C37	BASE	274.01	8.65	18.50	0	0.32	0.00	21.52	0.00
10yr3d	NSLRWCD C37	BASE	274.26	8.65	18.50	0	0.31	0.00	21.53	0.00
10yr3d	NSLRWCD C37	BASE	274.51	8.65	18.50	0	0.31	0.00	21.53	0.00
10yr3d	NSLRWCD C37	BASE	274.76	8.64	18.50	0	0.31	0.00	21.54	0.00
10yr3d	NSLRWCD C37	BASE	275.01	8.64	18.50	0	0.31	0.00	21.55	0.00
10yr3d	NSLRWCD C37	BASE	275.26	8.64	18.50	0	0.31	0.00	21.55	0.00
10yr3d	NSLRWCD C37	BASE	275.51	8.64	18.50	0	0.31	0.00	21.56	0.00
10yr3d	NSLRWCD C37	BASE	275.76	8.63	18.50	0	0.31	0.00	21.57	0.00
10yr3d	NSLRWCD C37	BASE	276.01	8.63	18.50	0	0.31	0.00	21.57	0.00
10yr3d	NSLRWCD C37	BASE	276.26	8.63	18.50	0	0.31	0.00	21.58	0.00
10yr3d	NSLRWCD C37	BASE	276.51	8.63	18.50	0	0.31	0.00	21.59	0.00
10yr3d	NSLRWCD C37	BASE	276.76	8.62	18.50	0	0.31	0.00	21.59	0.00
10yr3d	NSLRWCD C37	BASE	277.01	8.62	18.50	0	0.31	0.00	21.60	0.00
10yr3d	NSLRWCD C37	BASE	277.26	8.62	18.50	0	0.31	0.00	21.60	0.00
10yr3d	NSLRWCD C37	BASE	277.51	8.62	18.50	0	0.31	0.00	21.61	0.00
10yr3d	NSLRWCD C37	BASE	277.76	8.61	18.50	0	0.31	0.00	21.62	0.00
10yr3d	NSLRWCD C37	BASE	278.01	8.61	18.50	0	0.31	0.00	21.62	0.00
10yr3d	NSLRWCD C37	BASE	278.26	8.61	18.50	0	0.31	0.00	21.63	0.00
10yr3d	NSLRWCD C37	BASE	278.51	8.61	18.50	0	0.31	0.00	21.64	0.00
10yr3d	NSLRWCD C37	BASE	278.76	8.60	18.50	0	0.31	0.00	21.64	0.00
10yr3d	NSLRWCD C37	BASE	279.01	8.60	18.50	0	0.31	0.00	21.65	0.00
10yr3d	NSLRWCD C37	BASE	279.26	8.60	18.50	0	0.31	0.00	21.66	0.00
10yr3d	NSLRWCD C37	BASE	279.51	8.60	18.50	0	0.31	0.00	21.66	0.00
10yr3d	NSLRWCD C37	BASE	279.76	8.59	18.50	0	0.30	0.00	21.67	0.00
10yr3d	NSLRWCD C37	BASE	280.01	8.59	18.50	0	0.30	0.00	21.67	0.00
10yr3d	NSLRWCD C37	BASE	280.26	8.59	18.50	0	0.30	0.00	21.68	0.00
10yr3d	NSLRWCD C37	BASE	280.51	8.59	18.50	0	0.30	0.00	21.69	0.00
10yr3d	NSLRWCD C37	BASE	280.76	8.58	18.50	0	0.30	0.00	21.69	0.00
10yr3d	NSLRWCD C37	BASE	281.01	8.58	18.50	0	0.30	0.00	21.70	0.00
10yr3d	NSLRWCD C37	BASE	281.26	8.58	18.50	0	0.30	0.00	21.71	0.00
10yr3d	NSLRWCD C37	BASE	281.51	8.58	18.50	0	0.30	0.00	21.71	0.00
10yr3d	NSLRWCD C37	BASE	281.76	8.57	18.50	0	0.30	0.00	21.72	0.00
10yr3d	NSLRWCD C37	BASE	282.01	8.57	18.50	0	0.30	0.00	21.72	0.00
10yr3d	NSLRWCD C37	BASE	282.26	8.57	18.50	0	0.30	0.00	21.73	0.00
10yr3d	NSLRWCD C37	BASE	282.51	8.57	18.50	0	0.30	0.00	21.74	0.00
10yr3d	NSLRWCD C37	BASE	282.76	8.56	18.50	0	0.30	0.00	21.74	0.00
10yr3d	NSLRWCD C37	BASE	283.01	8.56	18.50	0	0.30	0.00	21.75	0.00
10yr3d	NSLRWCD C37	BASE	283.26	8.56	18.50	0	0.30	0.00	21.75	0.00
10yr3d	NSLRWCD C37	BASE	283.51	8.56	18.50	0	0.30	0.00	21.76	0.00
10yr3d	NSLRWCD C37	BASE	283.76	8.55	18.50	0	0.30	0.00	21.77	0.00
10yr3d	NSLRWCD C37	BASE	284.01	8.55	18.50	0	0.30	0.00	21.77	0.00
10yr3d	NSLRWCD C37	BASE	284.26	8.55	18.50	0	0.30	0.00	21.78	0.00
10yr3d	NSLRWCD C37	BASE	284.51	8.55	18.50	0	0.30	0.00	21.79	0.00
10yr3d	NSLRWCD C37	BASE	284.76	8.54	18.50	0	0.30	0.00	21.79	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	285.01	8.54	18.50	0	0.29	0.00	21.80	0.00
10yr3d	NSLRWCD C37	BASE	285.26	8.54	18.50	0	0.29	0.00	21.80	0.00
10yr3d	NSLRWCD C37	BASE	285.51	8.54	18.50	0	0.29	0.00	21.81	0.00
10yr3d	NSLRWCD C37	BASE	285.76	8.53	18.50	0	0.29	0.00	21.82	0.00
10yr3d	NSLRWCD C37	BASE	286.01	8.53	18.50	0	0.29	0.00	21.82	0.00
10yr3d	NSLRWCD C37	BASE	286.26	8.53	18.50	0	0.29	0.00	21.83	0.00
10yr3d	NSLRWCD C37	BASE	286.51	8.53	18.50	0	0.29	0.00	21.83	0.00
10yr3d	NSLRWCD C37	BASE	286.76	8.52	18.50	0	0.29	0.00	21.84	0.00
10yr3d	NSLRWCD C37	BASE	287.01	8.52	18.50	0	0.29	0.00	21.85	0.00
10yr3d	NSLRWCD C37	BASE	287.26	8.52	18.50	0	0.29	0.00	21.85	0.00
10yr3d	NSLRWCD C37	BASE	287.51	8.52	18.50	0	0.29	0.00	21.86	0.00
10yr3d	NSLRWCD C37	BASE	287.76	8.51	18.50	0	0.29	0.00	21.86	0.00
10yr3d	NSLRWCD C37	BASE	288.01	8.51	18.50	0	0.29	0.00	21.87	0.00
10yr3d	NSLRWCD C37	BASE	288.26	8.51	18.50	0	0.29	0.00	21.88	0.00
10yr3d	NSLRWCD C37	BASE	288.51	8.50	18.50	0	0.29	0.00	21.88	0.00
10yr3d	NSLRWCD C37	BASE	288.76	8.50	18.50	0	0.29	0.00	21.89	0.00
10yr3d	NSLRWCD C37	BASE	289.01	8.50	18.50	0	0.29	0.00	21.89	0.00
10yr3d	NSLRWCD C37	BASE	289.26	8.50	18.50	0	0.29	0.00	21.90	0.00
10yr3d	NSLRWCD C37	BASE	289.51	8.49	18.50	0	0.29	0.00	21.91	0.00
10yr3d	NSLRWCD C37	BASE	289.76	8.49	18.50	0	0.29	0.00	21.91	0.00
10yr3d	NSLRWCD C37	BASE	290.01	8.49	18.50	0	0.29	0.00	21.92	0.00
10yr3d	NSLRWCD C37	BASE	290.26	8.49	18.50	0	0.29	0.00	21.92	0.00
10yr3d	NSLRWCD C37	BASE	290.51	8.48	18.50	0	0.28	0.00	21.93	0.00
10yr3d	NSLRWCD C37	BASE	290.76	8.48	18.50	0	0.28	0.00	21.94	0.00
10yr3d	NSLRWCD C37	BASE	291.01	8.48	18.50	0	0.28	0.00	21.94	0.00
10yr3d	NSLRWCD C37	BASE	291.26	8.48	18.50	0	0.28	0.00	21.95	0.00
10yr3d	NSLRWCD C37	BASE	291.51	8.47	18.50	0	0.28	0.00	21.95	0.00
10yr3d	NSLRWCD C37	BASE	291.76	8.47	18.50	0	0.28	0.00	21.96	0.00
10yr3d	NSLRWCD C37	BASE	292.01	8.47	18.50	0	0.28	0.00	21.96	0.00
10yr3d	NSLRWCD C37	BASE	292.26	8.47	18.50	0	0.28	0.00	21.97	0.00
10yr3d	NSLRWCD C37	BASE	292.51	8.46	18.50	0	0.28	0.00	21.98	0.00
10yr3d	NSLRWCD C37	BASE	292.76	8.46	18.50	0	0.28	0.00	21.98	0.00
10yr3d	NSLRWCD C37	BASE	293.01	8.46	18.50	0	0.28	0.00	21.99	0.00
10yr3d	NSLRWCD C37	BASE	293.26	8.46	18.50	0	0.28	0.00	21.99	0.00
10yr3d	NSLRWCD C37	BASE	293.51	8.45	18.50	0	0.28	0.00	22.00	0.00
10yr3d	NSLRWCD C37	BASE	293.76	8.45	18.50	0	0.28	0.00	22.01	0.00
10yr3d	NSLRWCD C37	BASE	294.01	8.45	18.50	0	0.28	0.00	22.01	0.00
10yr3d	NSLRWCD C37	BASE	294.26	8.45	18.50	0	0.28	0.00	22.02	0.00
10yr3d	NSLRWCD C37	BASE	294.51	8.44	18.50	0	0.28	0.00	22.02	0.00
10yr3d	NSLRWCD C37	BASE	294.76	8.44	18.50	0	0.28	0.00	22.03	0.00
10yr3d	NSLRWCD C37	BASE	295.01	8.44	18.50	0	0.28	0.00	22.03	0.00
10yr3d	NSLRWCD C37	BASE	295.26	8.44	18.50	0	0.28	0.00	22.04	0.00
10yr3d	NSLRWCD C37	BASE	295.51	8.43	18.50	0	0.28	0.00	22.05	0.00
10yr3d	NSLRWCD C37	BASE	295.76	8.43	18.50	0	0.28	0.00	22.05	0.00
10yr3d	NSLRWCD C37	BASE	296.01	8.43	18.50	0	0.27	0.00	22.06	0.00
10yr3d	NSLRWCD C37	BASE	296.26	8.43	18.50	0	0.27	0.00	22.06	0.00
10yr3d	NSLRWCD C37	BASE	296.51	8.42	18.50	0	0.27	0.00	22.07	0.00
10yr3d	NSLRWCD C37	BASE	296.76	8.42	18.50	0	0.27	0.00	22.07	0.00
10yr3d	NSLRWCD C37	BASE	297.01	8.42	18.50	0	0.27	0.00	22.08	0.00
10yr3d	NSLRWCD C37	BASE	297.26	8.42	18.50	0	0.27	0.00	22.08	0.00
10yr3d	NSLRWCD C37	BASE	297.51	8.41	18.50	0	0.27	0.00	22.09	0.00
10yr3d	NSLRWCD C37	BASE	297.76	8.41	18.50	0	0.27	0.00	22.10	0.00
10yr3d	NSLRWCD C37	BASE	298.01	8.41	18.50	0	0.27	0.00	22.10	0.00
10yr3d	NSLRWCD C37	BASE	298.26	8.41	18.50	0	0.27	0.00	22.11	0.00
10yr3d	NSLRWCD C37	BASE	298.51	8.40	18.50	0	0.27	0.00	22.11	0.00
10yr3d	NSLRWCD C37	BASE	298.76	8.40	18.50	0	0.27	0.00	22.12	0.00
10yr3d	NSLRWCD C37	BASE	299.01	8.40	18.50	0	0.27	0.00	22.12	0.00
10yr3d	NSLRWCD C37	BASE	299.26	8.40	18.50	0	0.27	0.00	22.13	0.00
10yr3d	NSLRWCD C37	BASE	299.51	8.39	18.50	0	0.27	0.00	22.14	0.00
10yr3d	NSLRWCD C37	BASE	299.76	8.39	18.50	0	0.27	0.00	22.14	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	300.01	8.39	18.50	0	0.27	0.00	22.15	0.00
10yr3d	NSLRWCD C37	BASE	300.26	8.39	18.50	0	0.27	0.00	22.15	0.00
10yr3d	NSLRWCD C37	BASE	300.51	8.38	18.50	0	0.27	0.00	22.16	0.00
10yr3d	NSLRWCD C37	BASE	300.76	8.38	18.50	0	0.27	0.00	22.16	0.00
10yr3d	NSLRWCD C37	BASE	301.01	8.38	18.50	0	0.27	0.00	22.17	0.00
10yr3d	NSLRWCD C37	BASE	301.26	8.38	18.50	0	0.26	0.00	22.17	0.00
10yr3d	NSLRWCD C37	BASE	301.51	8.37	18.50	0	0.26	0.00	22.18	0.00
10yr3d	NSLRWCD C37	BASE	301.76	8.37	18.50	0	0.26	0.00	22.18	0.00
10yr3d	NSLRWCD C37	BASE	302.01	8.37	18.50	0	0.26	0.00	22.19	0.00
10yr3d	NSLRWCD C37	BASE	302.26	8.37	18.50	0	0.26	0.00	22.20	0.00
10yr3d	NSLRWCD C37	BASE	302.51	8.36	18.50	0	0.26	0.00	22.20	0.00
10yr3d	NSLRWCD C37	BASE	302.76	8.36	18.50	0	0.26	0.00	22.21	0.00
10yr3d	NSLRWCD C37	BASE	303.01	8.36	18.50	0	0.26	0.00	22.21	0.00
10yr3d	NSLRWCD C37	BASE	303.26	8.36	18.50	0	0.26	0.00	22.22	0.00
10yr3d	NSLRWCD C37	BASE	303.51	8.35	18.50	0	0.26	0.00	22.22	0.00
10yr3d	NSLRWCD C37	BASE	303.76	8.35	18.50	0	0.26	0.00	22.23	0.00
10yr3d	NSLRWCD C37	BASE	304.01	8.35	18.50	0	0.26	0.00	22.23	0.00
10yr3d	NSLRWCD C37	BASE	304.26	8.35	18.50	0	0.26	0.00	22.24	0.00
10yr3d	NSLRWCD C37	BASE	304.51	8.34	18.50	0	0.26	0.00	22.24	0.00
10yr3d	NSLRWCD C37	BASE	304.76	8.34	18.50	0	0.26	0.00	22.25	0.00
10yr3d	NSLRWCD C37	BASE	305.01	8.34	18.50	0	0.26	0.00	22.25	0.00
10yr3d	NSLRWCD C37	BASE	305.26	8.34	18.50	0	0.26	0.00	22.26	0.00
10yr3d	NSLRWCD C37	BASE	305.51	8.33	18.50	0	0.26	0.00	22.27	0.00
10yr3d	NSLRWCD C37	BASE	305.76	8.33	18.50	0	0.26	0.00	22.27	0.00
10yr3d	NSLRWCD C37	BASE	306.01	8.33	18.50	0	0.26	0.00	22.28	0.00
10yr3d	NSLRWCD C37	BASE	306.26	8.32	18.50	0	0.26	0.00	22.28	0.00
10yr3d	NSLRWCD C37	BASE	306.51	8.32	18.50	0	0.26	0.00	22.29	0.00
10yr3d	NSLRWCD C37	BASE	306.76	8.32	18.50	0	0.25	0.00	22.29	0.00
10yr3d	NSLRWCD C37	BASE	307.01	8.32	18.50	0	0.25	0.00	22.30	0.00
10yr3d	NSLRWCD C37	BASE	307.26	8.31	18.50	0	0.25	0.00	22.30	0.00
10yr3d	NSLRWCD C37	BASE	307.51	8.31	18.50	0	0.25	0.00	22.31	0.00
10yr3d	NSLRWCD C37	BASE	307.76	8.31	18.50	0	0.25	0.00	22.31	0.00
10yr3d	NSLRWCD C37	BASE	308.01	8.31	18.50	0	0.25	0.00	22.32	0.00
10yr3d	NSLRWCD C37	BASE	308.26	8.30	18.50	0	0.25	0.00	22.32	0.00
10yr3d	NSLRWCD C37	BASE	308.51	8.30	18.50	0	0.25	0.00	22.33	0.00
10yr3d	NSLRWCD C37	BASE	308.76	8.30	18.50	0	0.25	0.00	22.33	0.00
10yr3d	NSLRWCD C37	BASE	309.01	8.30	18.50	0	0.25	0.00	22.34	0.00
10yr3d	NSLRWCD C37	BASE	309.26	8.29	18.50	0	0.25	0.00	22.34	0.00
10yr3d	NSLRWCD C37	BASE	309.51	8.29	18.50	0	0.25	0.00	22.35	0.00
10yr3d	NSLRWCD C37	BASE	309.76	8.29	18.50	0	0.25	0.00	22.35	0.00
10yr3d	NSLRWCD C37	BASE	310.01	8.29	18.50	0	0.25	0.00	22.36	0.00
10yr3d	NSLRWCD C37	BASE	310.26	8.28	18.50	0	0.25	0.00	22.36	0.00
10yr3d	NSLRWCD C37	BASE	310.51	8.28	18.50	0	0.25	0.00	22.37	0.00
10yr3d	NSLRWCD C37	BASE	310.76	8.28	18.50	0	0.25	0.00	22.37	0.00
10yr3d	NSLRWCD C37	BASE	311.01	8.28	18.50	0	0.25	0.00	22.38	0.00
10yr3d	NSLRWCD C37	BASE	311.26	8.27	18.50	0	0.25	0.00	22.38	0.00
10yr3d	NSLRWCD C37	BASE	311.51	8.27	18.50	0	0.25	0.00	22.39	0.00
10yr3d	NSLRWCD C37	BASE	311.76	8.27	18.50	0	0.25	0.00	22.40	0.00
10yr3d	NSLRWCD C37	BASE	312.01	8.27	18.50	0	0.24	0.00	22.40	0.00
10yr3d	NSLRWCD C37	BASE	312.26	8.26	18.50	0	0.24	0.00	22.41	0.00
10yr3d	NSLRWCD C37	BASE	312.51	8.26	18.50	0	0.24	0.00	22.41	0.00
10yr3d	NSLRWCD C37	BASE	312.76	8.26	18.50	0	0.24	0.00	22.42	0.00
10yr3d	NSLRWCD C37	BASE	313.01	8.26	18.50	0	0.24	0.00	22.42	0.00
10yr3d	NSLRWCD C37	BASE	313.26	8.25	18.50	0	0.24	0.00	22.43	0.00
10yr3d	NSLRWCD C37	BASE	313.51	8.25	18.50	0	0.24	0.00	22.43	0.00
10yr3d	NSLRWCD C37	BASE	313.76	8.25	18.50	0	0.24	0.00	22.44	0.00
10yr3d	NSLRWCD C37	BASE	314.01	8.25	18.50	0	0.24	0.00	22.44	0.00
10yr3d	NSLRWCD C37	BASE	314.26	8.24	18.50	0	0.24	0.00	22.45	0.00
10yr3d	NSLRWCD C37	BASE	314.51	8.24	18.50	0	0.24	0.00	22.45	0.00
10yr3d	NSLRWCD C37	BASE	314.76	8.24	18.50	0	0.24	0.00	22.46	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	315.01	8.24	18.50	0	0.24	0.00	22.46	0.00
10yr3d	NSLRWCD C37	BASE	315.26	8.23	18.50	0	0.24	0.00	22.47	0.00
10yr3d	NSLRWCD C37	BASE	315.51	8.23	18.50	0	0.24	0.00	22.47	0.00
10yr3d	NSLRWCD C37	BASE	315.76	8.23	18.50	0	0.24	0.00	22.48	0.00
10yr3d	NSLRWCD C37	BASE	316.01	8.23	18.50	0	0.24	0.00	22.48	0.00
10yr3d	NSLRWCD C37	BASE	316.26	8.22	18.50	0	0.24	0.00	22.48	0.00
10yr3d	NSLRWCD C37	BASE	316.51	8.22	18.50	0	0.24	0.00	22.49	0.00
10yr3d	NSLRWCD C37	BASE	316.76	8.22	18.50	0	0.24	0.00	22.49	0.00
10yr3d	NSLRWCD C37	BASE	317.01	8.22	18.50	0	0.24	0.00	22.50	0.00
10yr3d	NSLRWCD C37	BASE	317.26	8.21	18.50	0	0.24	0.00	22.50	0.00
10yr3d	NSLRWCD C37	BASE	317.51	8.21	18.50	0	0.23	0.00	22.51	0.00
10yr3d	NSLRWCD C37	BASE	317.76	8.21	18.50	0	0.23	0.00	22.51	0.00
10yr3d	NSLRWCD C37	BASE	318.01	8.21	18.50	0	0.23	0.00	22.52	0.00
10yr3d	NSLRWCD C37	BASE	318.26	8.20	18.50	0	0.23	0.00	22.52	0.00
10yr3d	NSLRWCD C37	BASE	318.51	8.20	18.50	0	0.23	0.00	22.53	0.00
10yr3d	NSLRWCD C37	BASE	318.76	8.20	18.50	0	0.23	0.00	22.53	0.00
10yr3d	NSLRWCD C37	BASE	319.01	8.20	18.50	0	0.23	0.00	22.54	0.00
10yr3d	NSLRWCD C37	BASE	319.26	8.19	18.50	0	0.23	0.00	22.54	0.00
10yr3d	NSLRWCD C37	BASE	319.51	8.19	18.50	0	0.23	0.00	22.55	0.00
10yr3d	NSLRWCD C37	BASE	319.76	8.19	18.50	0	0.23	0.00	22.55	0.00
10yr3d	NSLRWCD C37	BASE	320.01	8.19	18.50	0	0.23	0.00	22.56	0.00
10yr3d	NSLRWCD C37	BASE	320.26	8.18	18.50	0	0.23	0.00	22.56	0.00
10yr3d	NSLRWCD C37	BASE	320.51	8.18	18.50	0	0.23	0.00	22.57	0.00
10yr3d	NSLRWCD C37	BASE	320.76	8.18	18.50	0	0.23	0.00	22.57	0.00
10yr3d	NSLRWCD C37	BASE	321.01	8.18	18.50	0	0.23	0.00	22.58	0.00
10yr3d	NSLRWCD C37	BASE	321.26	8.17	18.50	0	0.23	0.00	22.58	0.00
10yr3d	NSLRWCD C37	BASE	321.51	8.17	18.50	0	0.23	0.00	22.59	0.00
10yr3d	NSLRWCD C37	BASE	321.76	8.17	18.50	0	0.23	0.00	22.59	0.00
10yr3d	NSLRWCD C37	BASE	322.01	8.17	18.50	0	0.23	0.00	22.59	0.00
10yr3d	NSLRWCD C37	BASE	322.26	8.16	18.50	0	0.23	0.00	22.60	0.00
10yr3d	NSLRWCD C37	BASE	322.51	8.16	18.50	0	0.23	0.00	22.60	0.00
10yr3d	NSLRWCD C37	BASE	322.76	8.16	18.50	0	0.23	0.00	22.61	0.00
10yr3d	NSLRWCD C37	BASE	323.01	8.16	18.50	0	0.22	0.00	22.61	0.00
10yr3d	NSLRWCD C37	BASE	323.26	8.15	18.50	0	0.22	0.00	22.62	0.00
10yr3d	NSLRWCD C37	BASE	323.51	8.15	18.50	0	0.22	0.00	22.62	0.00
10yr3d	NSLRWCD C37	BASE	323.76	8.15	18.50	0	0.22	0.00	22.63	0.00
10yr3d	NSLRWCD C37	BASE	324.01	8.14	18.50	0	0.22	0.00	22.63	0.00
10yr3d	NSLRWCD C37	BASE	324.26	8.14	18.50	0	0.22	0.00	22.64	0.00
10yr3d	NSLRWCD C37	BASE	324.51	8.14	18.50	0	0.22	0.00	22.64	0.00
10yr3d	NSLRWCD C37	BASE	324.76	8.14	18.50	0	0.22	0.00	22.65	0.00
10yr3d	NSLRWCD C37	BASE	325.01	8.13	18.50	0	0.22	0.00	22.65	0.00
10yr3d	NSLRWCD C37	BASE	325.26	8.13	18.50	0	0.22	0.00	22.65	0.00
10yr3d	NSLRWCD C37	BASE	325.51	8.13	18.50	0	0.22	0.00	22.66	0.00
10yr3d	NSLRWCD C37	BASE	325.76	8.13	18.50	0	0.22	0.00	22.66	0.00
10yr3d	NSLRWCD C37	BASE	326.01	8.12	18.50	0	0.22	0.00	22.67	0.00
10yr3d	NSLRWCD C37	BASE	326.26	8.12	18.50	0	0.22	0.00	22.67	0.00
10yr3d	NSLRWCD C37	BASE	326.51	8.12	18.50	0	0.22	0.00	22.68	0.00
10yr3d	NSLRWCD C37	BASE	326.76	8.12	18.50	0	0.22	0.00	22.68	0.00
10yr3d	NSLRWCD C37	BASE	327.01	8.11	18.50	0	0.22	0.00	22.69	0.00
10yr3d	NSLRWCD C37	BASE	327.26	8.11	18.50	0	0.22	0.00	22.69	0.00
10yr3d	NSLRWCD C37	BASE	327.51	8.11	18.50	0	0.22	0.00	22.70	0.00
10yr3d	NSLRWCD C37	BASE	327.76	8.11	18.50	0	0.22	0.00	22.70	0.00
10yr3d	NSLRWCD C37	BASE	328.01	8.10	18.50	0	0.22	0.00	22.70	0.00
10yr3d	NSLRWCD C37	BASE	328.26	8.10	18.50	0	0.21	0.00	22.71	0.00
10yr3d	NSLRWCD C37	BASE	328.51	8.10	18.50	0	0.21	0.00	22.71	0.00
10yr3d	NSLRWCD C37	BASE	328.76	8.10	18.50	0	0.21	0.00	22.72	0.00
10yr3d	NSLRWCD C37	BASE	329.01	8.09	18.50	0	0.21	0.00	22.72	0.00
10yr3d	NSLRWCD C37	BASE	329.26	8.09	18.50	0	0.21	0.00	22.73	0.00
10yr3d	NSLRWCD C37	BASE	329.51	8.09	18.50	0	0.21	0.00	22.73	0.00
10yr3d	NSLRWCD C37	BASE	329.76	8.09	18.50	0	0.21	0.00	22.74	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	330.01	8.08	18.50	0	0.21	0.00	22.74	0.00
10yr3d	NSLRWCD C37	BASE	330.26	8.08	18.50	0	0.21	0.00	22.74	0.00
10yr3d	NSLRWCD C37	BASE	330.51	8.08	18.50	0	0.21	0.00	22.75	0.00
10yr3d	NSLRWCD C37	BASE	330.76	8.08	18.50	0	0.21	0.00	22.75	0.00
10yr3d	NSLRWCD C37	BASE	331.01	8.07	18.50	0	0.21	0.00	22.76	0.00
10yr3d	NSLRWCD C37	BASE	331.26	8.07	18.50	0	0.21	0.00	22.76	0.00
10yr3d	NSLRWCD C37	BASE	331.51	8.07	18.50	0	0.21	0.00	22.77	0.00
10yr3d	NSLRWCD C37	BASE	331.76	8.07	18.50	0	0.21	0.00	22.77	0.00
10yr3d	NSLRWCD C37	BASE	332.01	8.06	18.50	0	0.21	0.00	22.77	0.00
10yr3d	NSLRWCD C37	BASE	332.26	8.06	18.50	0	0.21	0.00	22.78	0.00
10yr3d	NSLRWCD C37	BASE	332.51	8.06	18.50	0	0.21	0.00	22.78	0.00
10yr3d	NSLRWCD C37	BASE	332.76	8.06	18.50	0	0.21	0.00	22.79	0.00
10yr3d	NSLRWCD C37	BASE	333.01	8.05	18.50	0	0.21	0.00	22.79	0.00
10yr3d	NSLRWCD C37	BASE	333.26	8.05	18.50	0	0.21	0.00	22.80	0.00
10yr3d	NSLRWCD C37	BASE	333.51	8.05	18.50	0	0.20	0.00	22.80	0.00
10yr3d	NSLRWCD C37	BASE	333.76	8.05	18.50	0	0.20	0.00	22.80	0.00
10yr3d	NSLRWCD C37	BASE	334.01	8.04	18.50	0	0.20	0.00	22.81	0.00
10yr3d	NSLRWCD C37	BASE	334.26	8.04	18.50	0	0.20	0.00	22.81	0.00
10yr3d	NSLRWCD C37	BASE	334.51	8.04	18.50	0	0.20	0.00	22.82	0.00
10yr3d	NSLRWCD C37	BASE	334.76	8.04	18.50	0	0.20	0.00	22.82	0.00
10yr3d	NSLRWCD C37	BASE	335.01	8.03	18.50	0	0.20	0.00	22.83	0.00
10yr3d	NSLRWCD C37	BASE	335.26	8.03	18.50	0	0.20	0.00	22.83	0.00
10yr3d	NSLRWCD C37	BASE	335.51	8.03	18.50	0	0.20	0.00	22.83	0.00
10yr3d	NSLRWCD C37	BASE	335.76	8.03	18.50	0	0.20	0.00	22.84	0.00
10yr3d	NSLRWCD C37	BASE	336.01	8.02	18.50	0	0.20	0.00	22.84	0.00
10yr3d	NSLRWCD C37	BASE	336.26	8.02	18.50	0	0.20	0.00	22.85	0.00
10yr3d	NSLRWCD C37	BASE	336.51	8.02	18.50	0	0.20	0.00	22.85	0.00
10yr3d	NSLRWCD C37	BASE	336.76	8.02	18.50	0	0.20	0.00	22.85	0.00
10yr3d	NSLRWCD C37	BASE	337.01	8.01	18.50	0	0.20	0.00	22.86	0.00
10yr3d	NSLRWCD C37	BASE	337.26	8.01	18.50	0	0.19	0.00	22.86	0.00
10yr3d	NSLRWCD C37	BASE	337.51	8.01	18.50	0	0.19	0.00	22.87	0.00
10yr3d	NSLRWCD C37	BASE	337.76	8.01	18.50	0	0.19	0.00	22.87	0.00
10yr3d	NSLRWCD C37	BASE	338.01	8.00	18.50	0	0.19	0.00	22.87	0.00
10yr3d	NSLRWCD C37	BASE	338.26	8.00	18.50	0	0.19	0.00	22.88	0.00
10yr3d	NSLRWCD C37	BASE	338.51	8.00	18.50	0	0.19	0.00	22.88	0.00
10yr3d	NSLRWCD C37	BASE	338.76	8.00	18.50	0	0.19	0.00	22.89	0.00
10yr3d	NSLRWCD C37	BASE	339.01	7.99	18.50	0	0.19	0.00	22.89	0.00
10yr3d	NSLRWCD C37	BASE	339.26	7.99	18.50	0	0.19	0.00	22.89	0.00
10yr3d	NSLRWCD C37	BASE	339.51	7.99	18.50	0	0.19	0.00	22.90	0.00
10yr3d	NSLRWCD C37	BASE	339.76	7.99	18.50	0	0.19	0.00	22.90	0.00
10yr3d	NSLRWCD C37	BASE	340.01	7.98	18.50	0	0.19	0.00	22.91	0.00
10yr3d	NSLRWCD C37	BASE	340.26	7.98	18.50	0	0.19	0.00	22.91	0.00
10yr3d	NSLRWCD C37	BASE	340.51	7.98	18.50	0	0.18	0.00	22.91	0.00
10yr3d	NSLRWCD C37	BASE	340.76	7.98	18.50	0	0.18	0.00	22.92	0.00
10yr3d	NSLRWCD C37	BASE	341.01	7.97	18.50	0	0.18	0.00	22.92	0.00
10yr3d	NSLRWCD C37	BASE	341.26	7.97	18.50	0	0.18	0.00	22.92	0.00
10yr3d	NSLRWCD C37	BASE	341.51	7.97	18.50	0	0.18	0.00	22.93	0.00
10yr3d	NSLRWCD C37	BASE	341.76	7.96	18.50	0	0.18	0.00	22.93	0.00
10yr3d	NSLRWCD C37	BASE	342.01	7.96	18.50	0	0.18	0.00	22.94	0.00
10yr3d	NSLRWCD C37	BASE	342.26	7.96	18.50	0	0.18	0.00	22.94	0.00
10yr3d	NSLRWCD C37	BASE	342.51	7.96	18.50	0	0.18	0.00	22.94	0.00
10yr3d	NSLRWCD C37	BASE	342.76	7.95	18.50	0	0.18	0.00	22.95	0.00
10yr3d	NSLRWCD C37	BASE	343.01	7.95	18.50	0	0.18	0.00	22.95	0.00
10yr3d	NSLRWCD C37	BASE	343.26	7.95	18.50	0	0.18	0.00	22.95	0.00
10yr3d	NSLRWCD C37	BASE	343.51	7.95	18.50	0	0.18	0.00	22.96	0.00
10yr3d	NSLRWCD C37	BASE	343.76	7.94	18.50	0	0.18	0.00	22.96	0.00
10yr3d	NSLRWCD C37	BASE	344.01	7.94	18.50	0	0.17	0.00	22.96	0.00
10yr3d	NSLRWCD C37	BASE	344.26	7.94	18.50	0	0.17	0.00	22.97	0.00
10yr3d	NSLRWCD C37	BASE	344.51	7.94	18.50	0	0.17	0.00	22.97	0.00
10yr3d	NSLRWCD C37	BASE	344.76	7.93	18.50	0	0.17	0.00	22.98	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	345.01	7.93	18.50	0	0.17	0.00	22.98	0.00
10yr3d	NSLRWCD C37	BASE	345.26	7.93	18.50	0	0.17	0.00	22.98	0.00
10yr3d	NSLRWCD C37	BASE	345.51	7.93	18.50	0	0.17	0.00	22.99	0.00
10yr3d	NSLRWCD C37	BASE	345.76	7.92	18.50	0	0.17	0.00	22.99	0.00
10yr3d	NSLRWCD C37	BASE	346.01	7.92	18.50	0	0.17	0.00	22.99	0.00
10yr3d	NSLRWCD C37	BASE	346.26	7.92	18.50	0	0.17	0.00	23.00	0.00
10yr3d	NSLRWCD C37	BASE	346.51	7.92	18.50	0	0.17	0.00	23.00	0.00
10yr3d	NSLRWCD C37	BASE	346.76	7.91	18.50	0	0.17	0.00	23.00	0.00
10yr3d	NSLRWCD C37	BASE	347.01	7.91	18.50	0	0.17	0.00	23.01	0.00
10yr3d	NSLRWCD C37	BASE	347.26	7.91	18.50	0	0.17	0.00	23.01	0.00
10yr3d	NSLRWCD C37	BASE	347.51	7.91	18.50	0	0.17	0.00	23.01	0.00
10yr3d	NSLRWCD C37	BASE	347.76	7.90	18.50	0	0.16	0.00	23.02	0.00
10yr3d	NSLRWCD C37	BASE	348.01	7.90	18.50	0	0.16	0.00	23.02	0.00
10yr3d	NSLRWCD C37	BASE	348.26	7.90	18.50	0	0.16	0.00	23.02	0.00
10yr3d	NSLRWCD C37	BASE	348.51	7.90	18.50	0	0.16	0.00	23.03	0.00
10yr3d	NSLRWCD C37	BASE	348.76	7.89	18.50	0	0.16	0.00	23.03	0.00
10yr3d	NSLRWCD C37	BASE	349.01	7.89	18.50	0	0.16	0.00	23.03	0.00
10yr3d	NSLRWCD C37	BASE	349.26	7.89	18.50	0	0.16	0.00	23.04	0.00
10yr3d	NSLRWCD C37	BASE	349.51	7.89	18.50	0	0.16	0.00	23.04	0.00
10yr3d	NSLRWCD C37	BASE	349.76	7.88	18.50	0	0.16	0.00	23.04	0.00
10yr3d	NSLRWCD C37	BASE	350.01	7.88	18.50	0	0.16	0.00	23.05	0.00
10yr3d	NSLRWCD C37	BASE	350.26	7.88	18.50	0	0.16	0.00	23.05	0.00
10yr3d	NSLRWCD C37	BASE	350.51	7.88	18.50	0	0.16	0.00	23.05	0.00
10yr3d	NSLRWCD C37	BASE	350.76	7.87	18.50	0	0.16	0.00	23.06	0.00
10yr3d	NSLRWCD C37	BASE	351.01	7.87	18.50	0	0.16	0.00	23.06	0.00
10yr3d	NSLRWCD C37	BASE	351.26	7.87	18.50	0	0.16	0.00	23.06	0.00
10yr3d	NSLRWCD C37	BASE	351.51	7.87	18.50	0	0.15	0.00	23.07	0.00
10yr3d	NSLRWCD C37	BASE	351.76	7.86	18.50	0	0.15	0.00	23.07	0.00
10yr3d	NSLRWCD C37	BASE	352.01	7.86	18.50	0	0.15	0.00	23.07	0.00
10yr3d	NSLRWCD C37	BASE	352.26	7.86	18.50	0	0.15	0.00	23.08	0.00
10yr3d	NSLRWCD C37	BASE	352.51	7.86	18.50	0	0.15	0.00	23.08	0.00
10yr3d	NSLRWCD C37	BASE	352.76	7.85	18.50	0	0.15	0.00	23.08	0.00
10yr3d	NSLRWCD C37	BASE	353.01	7.85	18.50	0	0.15	0.00	23.09	0.00
10yr3d	NSLRWCD C37	BASE	353.26	7.85	18.50	0	0.15	0.00	23.09	0.00
10yr3d	NSLRWCD C37	BASE	353.51	7.85	18.50	0	0.15	0.00	23.09	0.00
10yr3d	NSLRWCD C37	BASE	353.76	7.84	18.50	0	0.15	0.00	23.10	0.00
10yr3d	NSLRWCD C37	BASE	354.01	7.84	18.50	0	0.15	0.00	23.10	0.00
10yr3d	NSLRWCD C37	BASE	354.26	7.84	18.50	0	0.15	0.00	23.10	0.00
10yr3d	NSLRWCD C37	BASE	354.51	7.84	18.50	0	0.15	0.00	23.10	0.00
10yr3d	NSLRWCD C37	BASE	354.76	7.83	18.50	0	0.15	0.00	23.11	0.00
10yr3d	NSLRWCD C37	BASE	355.01	7.83	18.50	0	0.15	0.00	23.11	0.00
10yr3d	NSLRWCD C37	BASE	355.26	7.83	18.50	0	0.15	0.00	23.11	0.00
10yr3d	NSLRWCD C37	BASE	355.51	7.83	18.50	0	0.15	0.00	23.12	0.00
10yr3d	NSLRWCD C37	BASE	355.76	7.82	18.50	0	0.15	0.00	23.12	0.00
10yr3d	NSLRWCD C37	BASE	356.01	7.82	18.50	0	0.15	0.00	23.12	0.00
10yr3d	NSLRWCD C37	BASE	356.26	7.82	18.50	0	0.15	0.00	23.13	0.00
10yr3d	NSLRWCD C37	BASE	356.51	7.82	18.50	0	0.15	0.00	23.13	0.00
10yr3d	NSLRWCD C37	BASE	356.76	7.81	18.50	0	0.15	0.00	23.13	0.00
10yr3d	NSLRWCD C37	BASE	357.01	7.81	18.50	0	0.15	0.00	23.14	0.00
10yr3d	NSLRWCD C37	BASE	357.26	7.81	18.50	0	0.15	0.00	23.14	0.00
10yr3d	NSLRWCD C37	BASE	357.51	7.81	18.50	0	0.15	0.00	23.14	0.00
10yr3d	NSLRWCD C37	BASE	357.76	7.80	18.50	0	0.15	0.00	23.14	0.00
10yr3d	NSLRWCD C37	BASE	358.01	7.80	18.50	0	0.15	0.00	23.15	0.00
10yr3d	NSLRWCD C37	BASE	358.26	7.80	18.50	0	0.15	0.00	23.15	0.00
10yr3d	NSLRWCD C37	BASE	358.51	7.80	18.50	0	0.14	0.00	23.15	0.00
10yr3d	NSLRWCD C37	BASE	358.76	7.79	18.50	0	0.14	0.00	23.16	0.00
10yr3d	NSLRWCD C37	BASE	359.01	7.79	18.50	0	0.14	0.00	23.16	0.00
10yr3d	NSLRWCD C37	BASE	359.26	7.79	18.50	0	0.14	0.00	23.16	0.00
10yr3d	NSLRWCD C37	BASE	359.51	7.79	18.50	0	0.14	0.00	23.17	0.00
10yr3d	NSLRWCD C37	BASE	359.76	7.78	18.50	0	0.14	0.00	23.17	0.00

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10yr3d	NSLRWCD C37	BASE	360.01	7.78	18.50	0	0.14	0.00	23.17	0.00
10yr3d	NSLRWCD C37	BASE	360.01	7.78	18.50	0	0.14	0.00	23.17	0.00

Appendix E – Net Improvement Analysis

ENGINEERING DESIGN & CONSTRUCTION, INC
CIVIL ENGINEERS & SURVEYORS SPECIALIZING IN LAND DEVELOPMENT

10250 SW Village Parkway, Suite 201
Port St. Lucie, FL 34987
772-462-2455

GENERAL SITE INFORMATION: V 8.6 | GO TO INTRODUCTION PAGE | 6/18/2018 | Blue Numbers = Input data | Red Numbers = Calculated or Carryover

Select the appropriate Meteorological Zone, input the appropriate Mean Annual Rainfall amount and select the type of analysis

NAME OF PROJECT: Camping World

HELP Rainfall

VIEW ZONE MAP

Meteorological Zone (Please use zone map): CLICK ON CELL BELOW TO SELECT → Zone 5

Mean Annual Rainfall (Please use rainfall map): 55.00 Inches

VIEW MEAN ANNUAL RAINFALL MAP

Type of analysis: CLICK ON CELL BELOW TO SELECT → Net improvement

Treatment efficiency (N, P) (ex 80 70 (no decimal points) **use only for specified removal efficiency**): % %

GO TO WATERSHED CHARACTERISTICS

Select the STORMWATER TREATMENT ANALYSIS Button below to begin analyzing the effectiveness of Best Management Practices.

Model documentation and example problems.

STORMWATER TREATMENT ANALYSIS

Systems available for analysis:
Retention Basin with option for calculating effluent concentration
Wet Detention
Exfiltration Trench
Pervious Pavement
Stormwater Harvesting
Biofiltration
Greenroof
Rainwater Harvesting
Managed Aquatic Plants Detention
Vegetated Natural Buffer
Vegetated Filter Strip
Swale
Rain Garden
Tree Well
Lined reuse pond
User Defined BMP

There is a user's manual for the BMPTRAINS model. It can be downloaded from www.stormwater.ucf.edu. The results from the example problems shown in the manual however may not reflect current model results due to ongoing updates of the model.

RESET INPUT FOR STORMWATER TREATMENT ANALYSIS

METHODOLOGY FOR CALCULATING REQUIRED TREATMENT EFFICIENCY

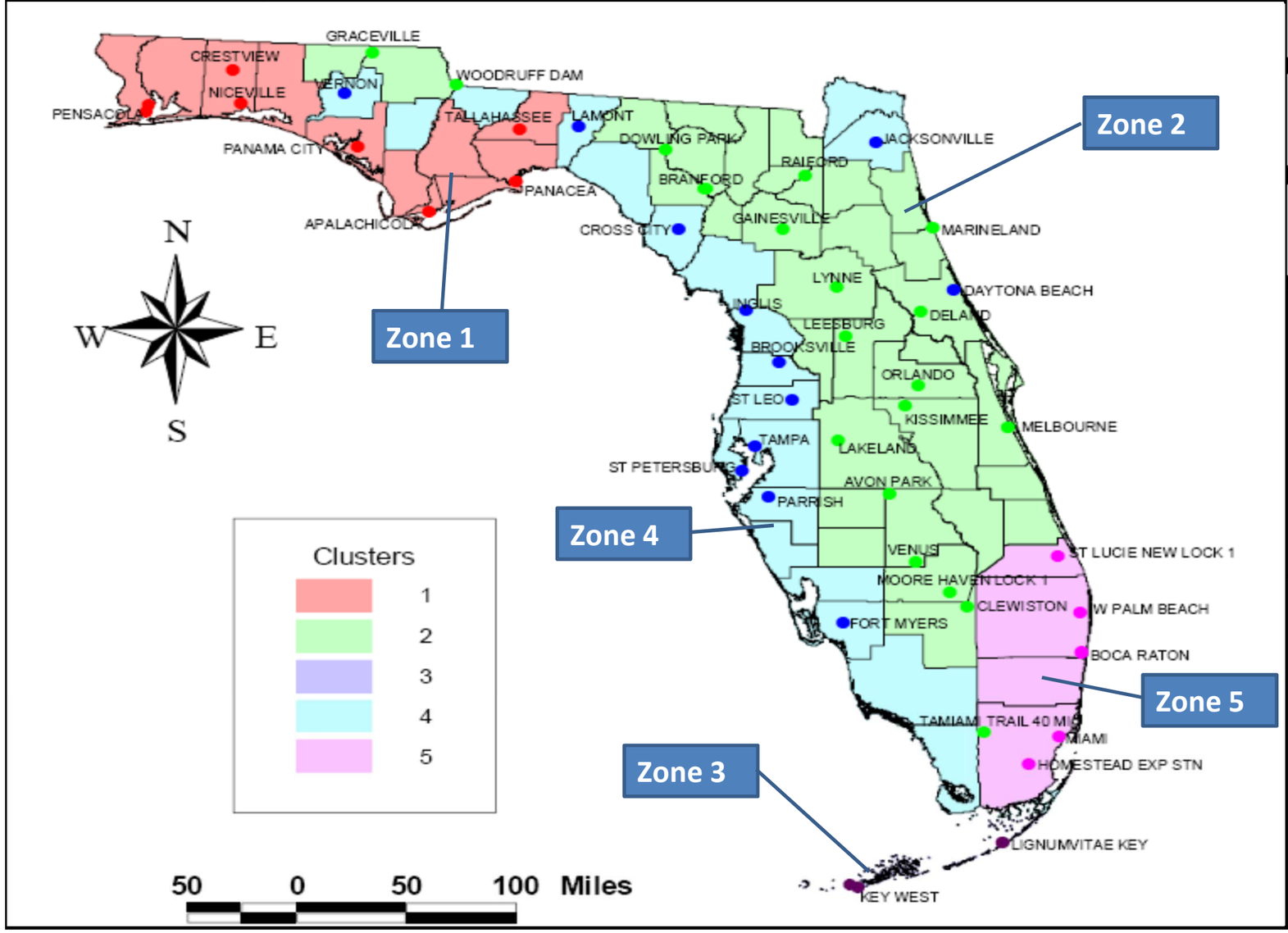
METHODOLOGY FOR RETENTION SYSTEMS

METHODOLOGY FOR WET DETENTION SYSTEMS

METHODOLOGY FOR GREENROOF SYSTEMS

METHODOLOGY FOR WATER HARVESTING SYSTEMS

ZONE MAP	DESIGNATED METEOROLOGICAL REGIONS (ZONES) IN FLORIDA



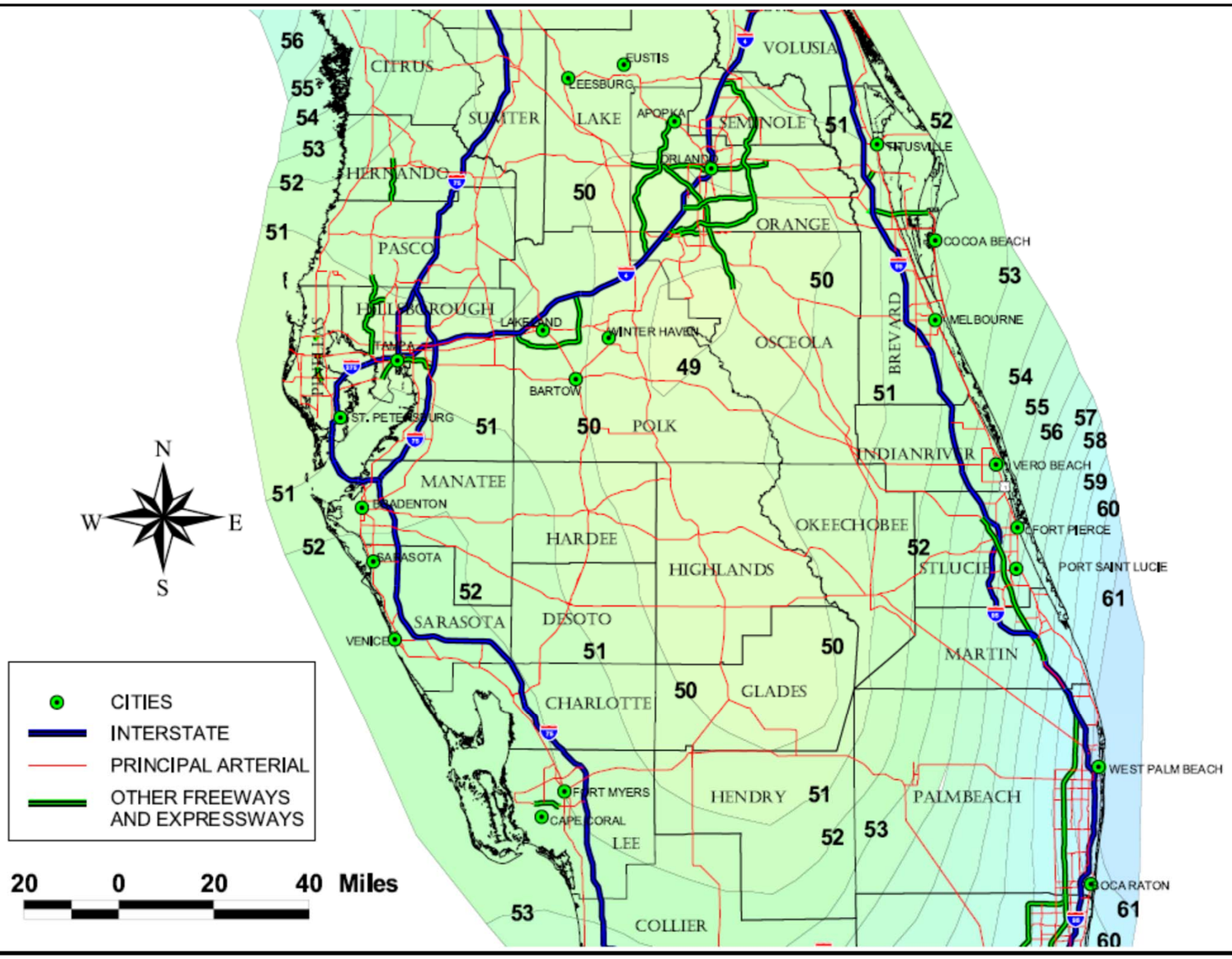
GO TO GENERAL SITE INFORMATION

GO TO STORMWATER HARVESTING SYSTEM

GO TO RAINWATER HARVESTING SYSTEM

Source: ***Evaluation of Current Stormwater Design Criteria within the State of Florida*** dated June 2007 by Harvey H. Harper, P.E., PhD., available at: http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/SW_TreatmentReportFinal_71907.pdf

MEAN ANNUAL RAINFALL MAP



Isopleths of Mean Annual Precipitation in Florida from 1971-2000.

Source: ***Evaluation of Current Stormwater Design Criteria within the State of Florida*** dated June 2007 by Harvey H. Harper, P.E., PhD., available at: http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/SW_TreatmentReportFinal_71907.pdf

GO TO GENERAL SITE

GO TO MAIN MAP

WATERSHED CHARACTERISTICS V 8.6

GO TO STORMWATER TREATMENT ANALYSIS

Blue Numbers = Input data
Red Numbers = Calculated

LAND USES/EMC

SELECT CATCHMENT CONFIGURATION 6/18/2018

CLICK ON CELL BELOW TO SELECT CONFIGURATION

B - 2 Catchment-Series

VIEW CATCHMENT CONFIGURATION

For comingling, the off-site catchment must be upstream. The delay is only for retention BMPs and must be used in hours as measured by the time of concentration at a one inch/hour rain

COMINGLING | MULTI-LAND USE

GO TO GENERAL SITE INFORMATION PAGE

VIEW AVERAGE ANNUAL RUNOFF "C" Factor

VIEW EMC & FLUCCS

GO TO GIS LANDUSE DATA

CATCHMENT NO.1 NAME: Existing Offsite

Delay [hrs] | max delay = 15 hrs.

Pre-development land use:	CLICK ON CELL BELOW TO SELECT: Agricultural - Citrus: TN=2.240 TP=0.183
with default EMCs	
Post-development land use:	CLICK ON CELL BELOW TO SELECT: Agricultural - Citrus: TN=2.240 TP=0.183
with default EMCs	

OVERWRITE DEFAULT CONCENTRATIONS USING:

	PRE:	POST:
EMC(N):	mg/L	mg/L
EMC(P):	mg/L	mg/L

USE DEFAULT CONCENTRATIONS

Total pre-development catchment area:	16.030	AC	Average annual pre runoff volume:	7.385 ac-ft/year
Total post-development catchment or for BMP analysis:	16.030	AC	Average annual post runoff volume (note no BMP area):	7.385 ac-ft/year
Pre-development Non DCIA CN:	64.00		Pre-development Annual Mass Loading - **Nitrogen:**	20.402 kg/year
Pre-development DCIA percentage:	4.13	%	Pre-development Annual Mass Loading - **Phosphorus:**	1.667 kg/year
Post-development Non DCIA CN:	64.00		Post-development Annual Mass Loading - **Nitrogen:**	20.402 kg/year
Post-development DCIA percentage:	4.13	%	Post-development Annual Mass Loading - **Phosphorus:**	1.667 kg/year
Estimated BMP Area (No loading from this area)	0.000	AC		

CATCHMENT NO.2 NAME: Camping World & Outparcel

Pre-development land use:	CLICK ON CELL BELOW TO SELECT: Agricultural - Citrus: TN=2.240 TP=0.183
with default EMCs	
Post-development land use:	CLICK ON CELL BELOW TO SELECT: Low-Intensity Commercial: TN=1.13 TP=0.188
with default EMCs	

OVERWRITE DEFAULT CONCENTRATIONS:

	PRE:	POST:
EMC(N):	mg/L	mg/L
EMC(P):	mg/L	mg/L

USE DEFAULT CONCENTRATIONS

Total pre-development catchment area:	28.970	AC	Average annual pre runoff volume:	11.716 ac-ft/year
Total post-development catchment or BMP analysis area:	28.970	AC	Average annual post runoff volume (note no BMP area):	48.436 ac-ft/year
Pre-development Non DCIA CN:	64.00		Pre-development Annual Mass Loading - **Nitrogen:**	32.365 kg/year
Pre-development DCIA percentage:	2.48	%	Pre-development Annual Mass Loading - **Phosphorus:**	2.644 kg/year
Post-development Non DCIA CN:	94.00		Post-development Annual Mass Loading - **Nitrogen:**	67.500 kg/year
Post-development DCIA percentage:	1.86	%	Post-development Annual Mass Loading - **Phosphorus:**	11.230 kg/year
Estimated BMP Area (No loading from this area)	3.927	AC		

CATCHMENT NO.3 NAME:

Pre-development land use:	CLICK ON CELL BELOW TO SELECT
with default EMCs	
Post-development land use:	CLICK ON CELL BELOW TO SELECT
with default EMCs	

OVERWRITE DEFAULT CONCENTRATIONS:

	PRE:	POST:
EMC(N):	mg/L	mg/L
EMC(P):	mg/L	mg/L

USE DEFAULT CONCENTRATIONS

Total pre-development catchment area:		AC	Average annual pre runoff volume:	ac-ft/year
Total post-development catchment or BMP analysis area:		AC	Average annual post runoff volume (note no BMP area):	ac-ft/year
Pre-development Non DCIA CN:			Pre-development Annual Mass Loading - **Nitrogen:**	kg/year
Pre-development DCIA percentage:		%	Pre-development Annual Mass Loading - **Phosphorus:**	kg/year
Post-development Non DCIA CN:			Post-development Annual Mass Loading - **Nitrogen:**	kg/year
Post-development DCIA percentage:		%	Post-development Annual Mass Loading - **Phosphorus:**	kg/year
Estimated BMP Area (no loading from this area)		AC		

CATCHMENT NO.4 NAME:

Pre-development land use:	CLICK ON CELL BELOW TO SELECT
with default EMCs	
Post-development land use:	CLICK ON CELL BELOW TO SELECT
with default EMCs	

OVERWRITE DEFAULT CONCENTRATIONS:

	PRE:	POST:
EMC(N):	mg/L	mg/L
EMC(P):	mg/L	mg/L

USE DEFAULT CONCENTRATIONS

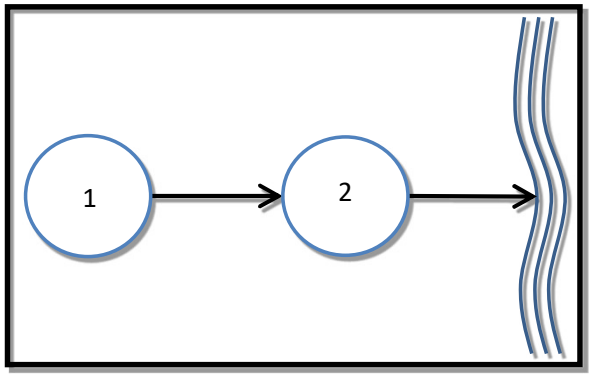
Total pre-development catchment area:		AC	Average annual pre runoff volume:	ac-ft/year
Total post-development catchment or BMP analysis area:		AC	Average annual post runoff volume (note no BMP area):	ac-ft/year
Pre-development Non DCIA CN:			Pre-development Annual Mass Loading - **Nitrogen:**	kg/year
Pre-development DCIA percentage:		%	Pre-development Annual Mass Loading - **Phosphorus:**	kg/year
Post-development Non DCIA CN:			Post-development Annual Mass Loading - **Nitrogen:**	kg/year
Post-development DCIA percentage:		%	Post-development Annual Mass Loading - **Phosphorus:**	kg/year
Estimated BMP Area (no loading from this area)		AC		

STORMWATER TREATMENT ANALYSIS:	V 8.6	GO TO GENERAL SITE INFORMATION PAGE	Blue Numbers =	Input data
			Red Numbers =	Calculated

If not done, specify pre- and post-development watershed characteristics.

6/18/2018

GO TO WATERSHED CHARACTERISTICS



Total Required Treatment Efficiency:

Required Treatment Eff (**Nitrogen**):	40 %
Required Treatment Eff (**Phosphorus**):	67 %

Select one of the BMPs below to analyze efficiency or review the summary data.

RETENTION BASIN	WET DETENTION / MAP	EXFILTRATION TRENCH	RAIN GARDEN / depression storage	SWALE	USER DEFINED BMP
PERVIOUS PAVEMENT	STORMWATER HARVESTING	FILTRATION	View Media Mixes	NOTE !!!: All individual system must be sized prior to being analyzed in conjunction with other systems. Please read instructions in the CATCHMENT AND TREATMENT SUMMARY RESULTS tab for more information.	
GREENROOF	RAINWATER HARVESTING	LINED REUSE POND & UNDERDRAIN INPUT	GO TO COST ANALYSIS WORKSHEET		
VEGETATED NATURAL BUFFER	VEGETATED FILTER STRIP	TREE WELL	CATCHMENT AND TREATMENT SURFACE		

Wet Detention Lake Permanent Pool Volume

ELEVATION (NAVD)	AREA (ACRE)	INCREMENTAL VOLUME (ACFT)	CUMULATIVE VOLUME (ACFT)
10.00	3.19		0.00
		6.10	
8.00	2.91		6.10
		25.80	
-2.00	2.25		31.90

Anoxic depth assumed at 12 feet below control elevation

ENGINEERING DESIGN & CONSTRUCTION, INC
CIVIL ENGINEERS & SURVEYORS SPECIALIZING IN LAND DEVELOPMENT

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Port St. Lucie, FL 34987
772-462-2455

WET DETENTION / MANAGED AQUATIC PLANTS: 6/18/2018 V 8.6

Blue Numbers =	Input data
Red Numbers =	Calculated or Carryover

Also called: FLOATING ISLANDS and includes a wet detention pond:

Camping World

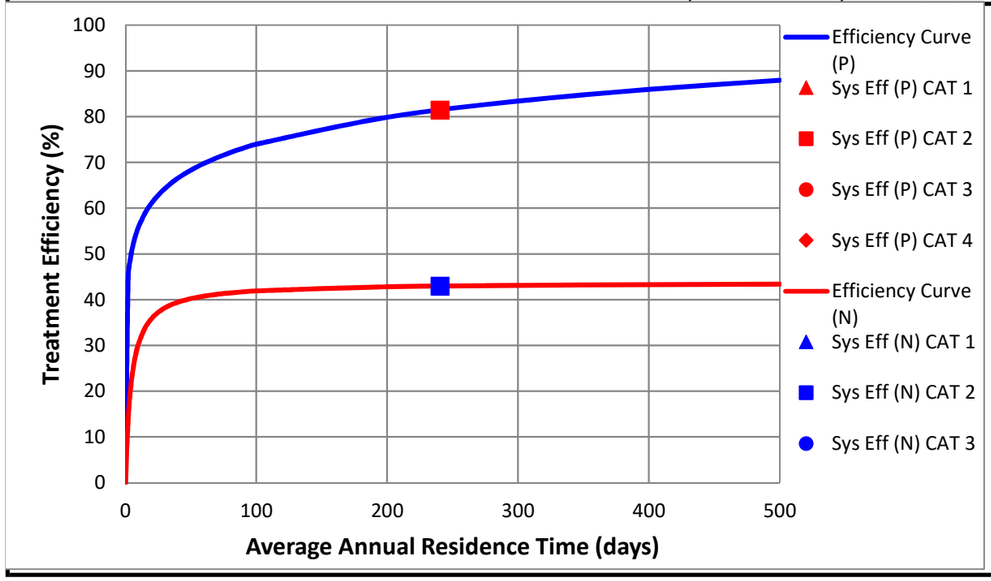
GO TO STORMWATER TREATMENT ANALYSIS

	Existing Offsite	World & Ou	Catchment 3	Catchment 4	
Total pre-development catchment area:	16.030	28.970	0.000	0.000	ac
Total post-development catchment area:	16.030	25.043	0.000	0.000	ac
Average annual residence time (between 1 and 500 days)		240.40			days
Littoral Zone or other improvements used?*		NO			
Littoral Zone or other improvement efficiency credit:					%
Floating Wetland or Mats used in the design:		NO			
Floating Wetland or Mats credit:					%
Total **Nitrogen** removal required:	0.000	52.051			%
Total **Phosphorus** removal required:	0.000	76.455			%
Total **Nitrogen** removal efficiency:	0.000	42.967	0.000	0.000	%
Total **Phosphorous** removal efficiency:	0.000	81.465	0.000	0.000	%
Is the wet detention sufficient:		NO			
Average annual runoff volume:	7.385	48.436			ac-ft/yr

* pond coverage must follow Regulatory Requirements

Wet Detention Pond Characteristic:

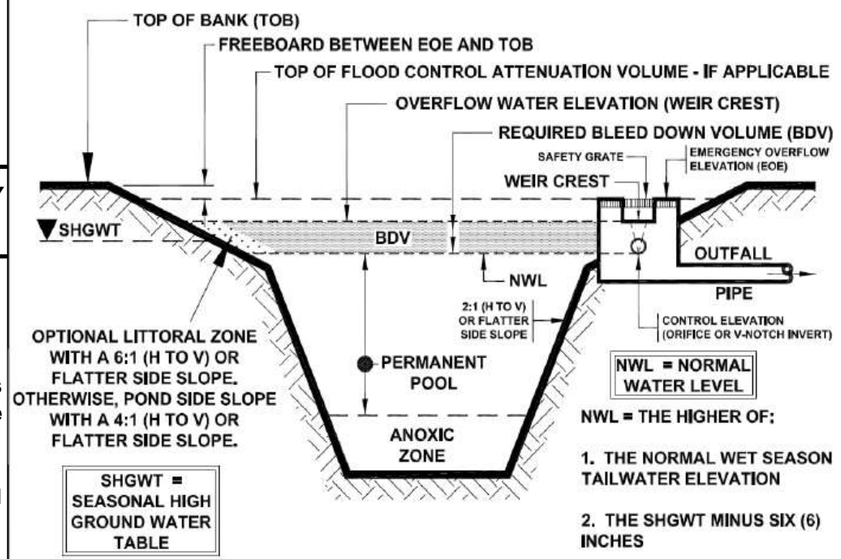
Minimum Pond Permanent Pool Volume:		31.901			ac-ft



NOTE FOR TREATMENT EFFICIENCY GRAPH:

The purpose of the treatment efficiency graphs is to help illustrate the treatment efficiency of the wet detention system as the function of average annual residence time (and permanent pool volume). The graph illustrates that there is a point of diminished return as the permanent pool volume is substantially increased. Therefore, to provide the most economical BMP treatment system, other alternatives such as "treatment trains" and compensatory treatment should be considered.

REQUIRED REMAINING TREATMENT EFFICIENCIES OF TREATMENT SYSTEM IN SERIES WITH FLOATING ISLANDS WITH WET DETENTION. USE FOR SIZING OF TREATMENT SYSTEM IN SERIES WITH FLOATING ISLANDS WITH WET DETENTION.



TYPICAL X-SECTION OF A WET DETENTION SYSTEM

Source of Graphic: draft **STORMWATER QUALITY APPLICANT'S HANDBOOK** dated March 2010, by the Department of Environmental Protection, available at: http://www.dep.state.fl.us/water/wetlands/erp/rules/stormwater, March 2010

CATCHMENTS AND TREATMENT SURFACE DISCHARGE SUMMARY V 8.6

CALCULATION METHODS:

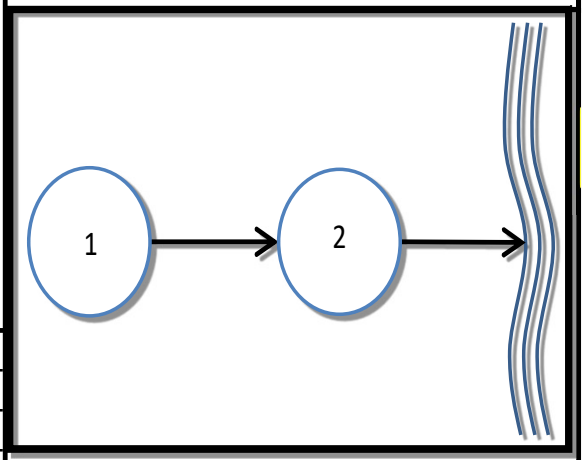
1. The effectiveness of each BMP in a single catchment is converted to an equivalent capture volume.
2. Certain BMP treatment train combinations have not been evaluated and in practice they are at this time not used, an example is a greenroof following a tree well.
3. Wet detention is last when used in a single catchment with other BMPs, except when followed by filtration

PROJECT TITLE	Camping World	Optional Identification		
	Existing Offsite	mping World & Outpar	Catchment 3	Catchment 4
BMP Name		Wet Detention/ MAPs		
BMP Name				
BMP Name				

REVIEW, ONE OR MORE CATCHMENT HAS BEEN SPECIFIED WITHOUT A BMP

Surface Water Discharge Summary Performance of Entire Watershed

Catchment Configuration	B - 2 Catchment-Series		6/18/2018
Nitrogen Pre Load (kg/yr)	52.77	Treatment Objectives or Target for TN MET TP MET	BMPTRAINS MODEL
Phosphorus Pre Load (kg/yr)	4.31		
Nitrogen Post Load (kg/yr)	87.90		
Phosphorus Post Load (kg/yr)	12.90		
Target Load Reduction (N) %	40		
Target Load Reduction (P) %	67		
Target Discharge Load, N (kg/yr)	52.74		
Target Discharge Load, P (kg/yr)	4.26		
Provided Overall Efficiency, N (%):	41		
Provided Overall Efficiency, P (%):	80		
Discharged Load, N (kg/yr & lb/yr):	51.59	113.63	
Discharged Load, P (kg/yr & lb/yr):	2.59	5.71	
Load Removed, N (kg/yr & lb/yr):	36.31	79.98	
Load Removed, P (kg/yr & lb/yr):	10.30	22.69	



Appendix F – Supporting Documentation

ENGINEERING DESIGN & CONSTRUCTION, INC
CIVIL ENGINEERS & SURVEYORS SPECIALIZING IN LAND DEVELOPMENT

10250 SW Village Parkway, Suite 201
Port St. Lucie, FL 34987
772-462-2455

C-37 CANAL TAILWATER FROM ERP APP 060412-11

THESE VALUES ARE IN THE NGVD 1929 DATUM, CONVERTED TO NAVD 1988 IN CALCULATIONS OF THE CAMPING WORLD SYSTEM DESIGN

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
STANDARD GENERAL PERMIT NO. 56-02469-P
DATE ISSUED: June 28, 2006

Form #0941
08/95

PERMITTEE: SCHOOL BOARD OF ST LUCIE COUNTY
327 N W COMMERCE PARK DR
PORT ST LUCIE, FL 34986

PROJECT DESCRIPTION: Construction and operation of a surface water management system to serve a 17.72-acre project known as Jenkins Road K-8 School.

PROJECT LOCATION: ST LUCIE COUNTY, SEC 19 TWP 35S RGE 40E

PERMIT DURATION: See Special Condition No:1. See attached Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Notice of Intent for Permit Application No. 060412-11, dated April 12, 2006. This action is taken pursuant to Rule 40E-1.603 and Chapter 40E-40 , Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and an Environmental Resource General Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 19 General Conditions (See Pages : 2 - 4 of 6) ,
3. the attached 17 Special Conditions (See Pages : 5 - 6 of 6) and
4. the attached 2 Exhibit(s)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 28th day of June, 2006, in accordance with Section 120.60(3), Florida Statutes.

BY: _____

For Anthony M. Waterhouse, P.E.
Director - Surface Water Management
Palm Beach Service Center

Certified mail number 7005 0390 0005 9815 0488

Name: 10 Yr 72 Hr Hydrology Sim: 10 Yr 72 Hr
Filename: P:\Proj-2005\05-560 SBSLC Jenkins Rd\Drainage\10 Yr 72 Hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 150.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: 10 Yr 72 Hr Boundary Flows:

Time(hrs)	Print Inc(min)
200.000	15.000

Group	Run
BASE	Yes

Name: 25 Yr 72 Hr Hydrology Sim: 25 Yr 72 Hr
Filename: P:\Proj-2005\05-560 SBSLC Jenkins Rd\Drainage\25 Yr 72 Hr.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 100.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: 10 Yr 72 Hr Boundary Flows:

Time(hrs)	Print Inc(min)
100.000	15.000

Group	Run
BASE	Yes

C-37 CANAL TAILWATER FROM ERP APP 060412-11

THESE VALUES ARE IN THE NGVD 1929 DATUM, CONVERTED TO NAVD 1988 IN CALCULATIONS OF THE CAMPING WORLD SYSTEM DESIGN

==== Boundary Conditions ====

Name: 10 Yr 24 Hr Node: Bndy Type: Stage

Time(hrs)	Stage(ft)
0.000	9.250
1.330	10.890
2.670	11.230
4.000	12.240
5.330	11.610
6.670	11.060
8.000	10.890
9.330	11.000
10.670	11.240
12.000	12.530
13.330	11.770
14.670	11.120
16.000	10.920
17.330	11.120
18.670	11.480
20.000	13.420
21.330	12.280
22.670	11.300
24.000	11.000

Name: 10 Yr 72 Hr Node: Bndy Type: Stage

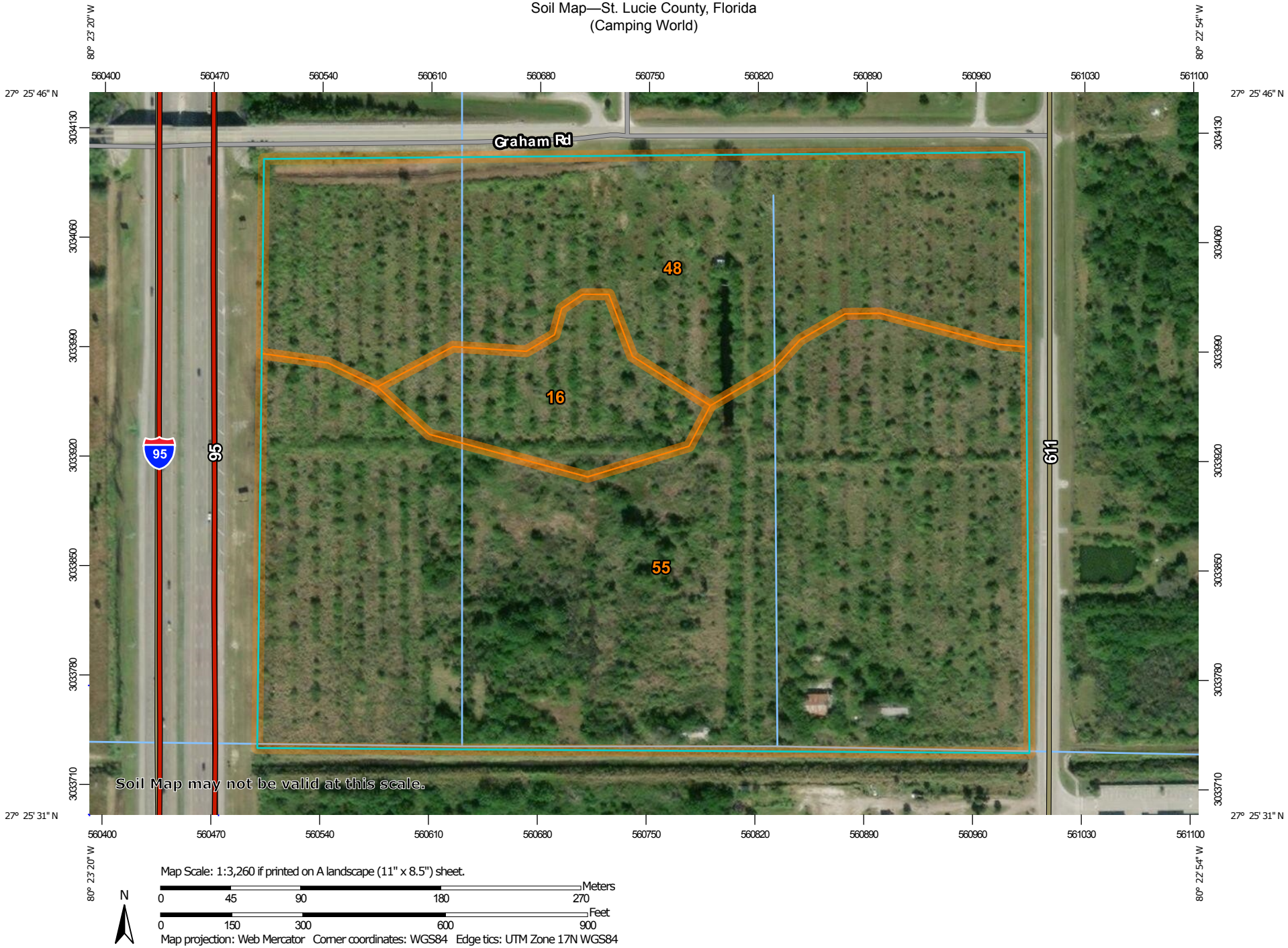
Time(hrs)	Stage(ft)
0.000	9.250
4.000	12.050
8.000	12.420
12.000	13.530
16.000	12.830
20.000	12.230

C-37 CANAL TAILWATER FROM ERP APP 060412-11

THESE VALUES ARE IN THE NGVD 1929 DATUM, CONVERTED TO NAVD 1988 IN CALCULATIONS OF THE CAMPING WORLD SYSTEM DESIGN

24.000	12.050
28.000	12.170
32.000	12.430
36.000	13.860
40.000	13.010
44.000	12.300
48.000	12.080
52.000	12.300
56.000	12.700
60.000	14.840
64.000	13.580
68.000	12.490
72.000	12.170

Soil Map—St. Lucie County, Florida
(Camping World)



Map Scale: 1:3,260 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 45 90 180 270

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 10, Oct 6, 2017

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

Date(s) aerial images were photographed: Dec 31, 2009—Dec 15, 2017

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
16	Hilolo loamy sand	3.3	7.2%
48	Wabasso sand, 0 to 2 percent slopes	15.1	32.4%
55	Winder loamy sand	28.1	60.5%
Totals for Area of Interest		**46.6**	**100.0%**

RANGE 38 EAST

RANGE 39 EAST

RANGE 40 EAST

TOWNSHIP 35 SOUTH

TOWNSHIP 36 SOUTH

FORT PIERCE

INDIAN RIVER

ORANGE AVE.

Site Location

PROPOSED STRUCTURE

PROPOSED STRUCTURE

PROPOSED STRUCTURE

PROPOSED STRUCTURE

GENERAL WATER ELEVATIONS

DRY SEASON	WET SEASON
19.4	17.0
18.4	14.2
18.2	14.0
17.4	14.0
17.0–17.6	14.3
16	16
14.0	11.0
13.0	10.0
12	12
11	11
9.5	6.5
9.25	6
8.5	8.5
?	8
6	6
?	4
3.1	3.1
TIDAL	TIDAL

NOTES

1. The canal right-of-ways shown hereon are based on the Original Plan of Reclamation, Order of Taking and Deeds. Where discrepancies were found, the right-of-way width indicated in Order of Taking and Deeds were used.
2. The n-numbered canals are right-of-ways deeded to the District subsequent to the Adoption of the Plan of Reclamation.
3. Some portions of right-of-ways as shown hereon have been deeded to Federal, State, County and Local Agencies for road and drainage purposes.
4. The bench marks shown hereon (NO1 through NO48) were established in June 1975 and refer to elevations established by the F.C.E. for MON. 1442.
5. The elevations denoted thus were taken from the District Map prepared by Others, copies of which are on file in the District Office. Culvert and invert elevations or other structure may affect control elevations throughout the system. It is recommended that the District be consulted on Control.
6. Designer should not rely solely on this drawing

LEGEND

Applicable Right-of-Way Width Each Side of Line

Center of Section

Section or 1/4 Section Line

Change in Right-of-Way Width at Section, 1/4 Section or 1/4-1/4 Section Corners

Roadways

Railroad

Bridges

Private Pumping Station

District Back Pump

NSLRWCD WATER QUALITY TESTING FOR DEP CONTRACT No. WAP055

1. STRUCTURE 23-1
2. NF ST. LUCIE RIVER @ MIDWAY ROAD
3. PUMP STATION NO. 3
4. STRUCTURE 44-1
5. PUMP STATION NO. 1
6. PUMP STATION NO. 2
7. STRUCTURE 58-1
8. STRUCTURE 71-2
9. STRUCTURE 88-1
10. STRUCTURE 40-1
11. STRUCTURE 29-3
12. STRUCTURE 56-2

NSLRWCD IMPROVEMENTS

- TRASH BOOM
- WATER CONTROL STRUCTURE
- C-25 DIVERSION

STRUCTURE LEGEND

- FLASHBOARD RISER
- SINGLE SLIDE GATE
- DOUBLE SLIDE GATE
- FIXED WEIR
- RADIAL GATE
- SLUICE GATE
- ??-?-? CANAL NUMBER / STRUCTURE NUMBER / NUMBER OF GATES

PROPOSED STRUCTURES

- PROPOSED FIXED WEIR
- S = STAGE RECORDER, F = FLOW MEASUREMENT, R = RAINFALL GAUGE

N

0 1/4 1/2 3/4 1

SCALE IN MILES

GENERALIZED CANAL ELEVATIONS MAP FOR THE NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT

ST. LUCIE COUNTY, FLORIDA

2721 S. JENKINS ROAD FORT PIERCE, FLORIDA 34981
PHONE: (561) 461-5050 FAX: (561) 461-9446

ORIGINAL MAP BY:
S. P. Mulk, P.L.S.
Vero Beach, FL (1987)

UPDATED BY:
LBFH, Inc., Ft. Pierce, FL
(REVISED 01-23-02)

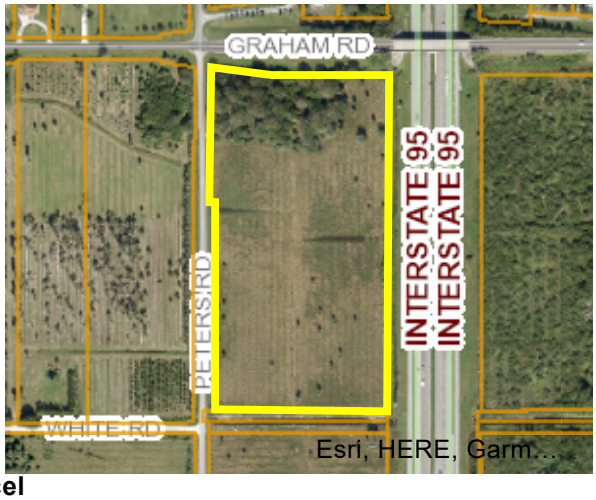
P\74-0901\CONTROLS.DWG

P:\74-0901\Maps\CONTROLS2-02-05-2004.dwg, 03/05/2004 11:08:45 AM, Russ-C, LBFH Inc.

Saint Lucie County Property Appraiser
Michelle Franklin CFA

Report generated: Tuesday, April 6, 2021

Parcel Report



Parcel

PARCELNO:	2313-432-0000-000-4
Property ID:	13775
Owner1:	R V Development Llc
SiteAddress:	2192 COPENHAVER RD

Owner

Owner1:	R V Development Llc
Owner2:	
Owner3:	
MailingAddress:	%Bud Wynne 547 Wash Roberts Ln McMinnville, TN 37110-4971

Overview

PrimaryLandUse:	6000 - GRZNG SLD CP
DistrictGroup:	0002 - Saint Lucie County
Subdivision:	Metes and Bounds
Just/Market Value:	$308,400
FinishedArea:	
Acres:	16.81
TotalArea:	732,243.6

Legal Description

LegalDescription: 13 35 39 W 1/2 OF SW 1/4 OF SE 1/4 LYG SLY AND WLY OF I-95 R/W (16.81 AC) (OR 1828-2810)

Value History

Year	Just/Market Value	Building Value	Land Value	SFYI Value	Assessed Value	Exemption Amount	County Taxable	Save Our Home OR 10% Cap Differential	Ag Credit
2020	$308,400	$0	$308,400	$0	$15,149	$0	$15,149	$17,651	$275,600
2019	$315,600	$7,200	$308,400	$0	$23,712	$0	$23,712	$16,288	$275,600
2018	$287,900	$7,500	$280,400	$0	$22,911	$0	$22,911	$17,389	$247,600

Tax Links

SLC Tax Collector's Office taxes for this parcel

Download TRIM notice for this parcel

Special Assessments

Description	Start Year	Units	Amount
North St. Lucie Water Management District	2013	16.81	$310.99
County Solid Waste	2009	12	$276.14

Land Lines

Line Number	Units	Unit Type
1	16	MACR
2	16	CACR
3	0.81	Acre

Sales History

Sale Date	Sale Price	Sale Code	Deed Type	Grantor	Book Page	View Document
09/24/2003	$1,750,100	XX02	WD	Griffin Chester B	1828-2810	Clerk of Courts
12/31/1899	$0				-	Clerk of Courts

Photos



Technical Review Committee **3. c.**

Meeting Date: 05/20/2021

REQUESTED ACTION

Rezoning (Planned Development) and Preliminary Plat - Oleander Oaks - Parcel ID: 2433-144-0002-000-3

LOCATION

Parcel ID: 2433-144-0002-000-3

RESPONSIBLE STAFF

Brandon C. Creagan, MCRP, LEED Green Associate, Planner

RECOMMENDATION

Review & Provide Comments

Attachments

TRC Packet

Form Review

Form Started By: Brandon Creagan Started On: 04/30/2021 11:39 PM

Final Approval Date: 05/01/2021

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO: JACK ANDREWS, PE, CITY ENGINEER
MIKE REALS, FP PUBLIC WORKS MANAGER
CHIEF HOBLEY-BURNEY, FP POLICE DEPARTMENT
PAUL THOMAS, FP BUILDING OFFICIAL
JAMES CARNES, PE, FPUA ENGINEERING (WATER/WASTEWATER)
PAUL LAGUERRE, PE, FPUA ENGINEERING (ELECTRIC)
ROD REED, PLS, SLC SURVEYING
GRANT CHAMBERS, PE, SLC ENGINEERING
LESLIE OLSON, AICP, SLC PLANNING & DEVELOPMENT DIRECTOR
DIVISION CHIEF PAUL LANGEL, SLC FIRE DISTRICT
PEGGY ARRAIZ, FP CODE ENFORCEMENT
PETER BUCHWALD, AICP, SLC TRANSPORTATION PLANNING ORGANIZATION
MURRIAH DECKLE, AICP, SLC TRANSIT SERVICES

FROM: BRANDON CREAGAN, LEED GREEN ASSOCIATE, PLANNER

RE: TECHNICAL REVIEW PROJECT# 21-43900001 & 21-09000001

DATE: APRIL30, 2021

Planned Development – Oleander Oaks – Parcel ID: 2433-144-0002-000-3

This is an application for a Zoning Atlas Map Amendment to a Planned Development, Subdivision, and Design Review. The development will consist of 50 single family homes along with associated site improvements. The current zoning on the property is Medium Density Residential (R-4) with a Future Land Use of Medium Density Residential (RM). The property size is approximately 13.18 acres. The parcel ID is 2433-144-0002-000-3.

Please review and provide comments on the project. Please send all comments to my email Bcreagan@cityoffortpierce.com or through interoffice mail to the Planning Department. If you have comments, please respond by May 18, 2021.

Please do not hesitate to contact me should you require any additional information at 772-467-3742.

Thank you.

Brandon Creagan

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Application for Zoning Atlas Map Amendment

Application submission shall include the following:

•**TRC** (*Initial Submission): One (1) original and (8) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**Planning Board**: One (1) original and (16) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

•**City Commission**: One (1) original and (11) paper copies of the application and support documents and provide one (1) electronic copy of the application packet as described below.

In addition to a complete application, packets shall include:

- ☐ Warranty Deed & Legal Description
- ☐ St. Lucie County Property Record Card
- ☐ Statement of why there is a need for the proposed future land use map amendment and how the amendment will result in an orderly and logical development pattern; statements how amendment(s) are consistent with Comprehensive Plan; how future land use designation is compatible with future land use designations and existing land uses surrounding the amended lands; identify future land use designations and existing land uses within a ½ mile of the subject property that have the same or greater type of proposed future land use designation; data and analysis to support conclusions.
- ☐ Current Survey
- ☐ Environmental Study
- ☐ Traffic Impact Report
- ☐ *** Capacity Analysis-Separate Form
- ☐ Drainage Analysis
- ☐ Historical Report
- ☐ 1 CD of all documents submitted in PDF
- ☐ Other_____

1. Property Address/Location: 0 Oleander Avenue, Fort Pierce, FL
2. Property Tax ID(s): 2433-144-0002-000-3
3. Total Acreage: 13.18 Acres
4. Existing Future Land Use Designation: RM - Medium Density Residential
5. Existing Zoning Classification: RM-4 Single Family
6. Proposed Zoning Classification: PD
7. Other applications being submitted concurrent with this application, if any: _____

8. Describe the existing uses, improvements and structures on the amendment lands: Currently a vacant site, proposing to develop into a Single Family Site.

9. Are there any identified or possible historical structures on the amendment lands? No

10. The reason for making this request: Currently the site is Zoned RM 4 with a Future Land Use of RM (Medium Density Residential)

11. **CAPACITY ANALYSIS**

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Vacant Commercial	General Commercial	Fort Pierce, General Commercial
South	Sing Family Residential	Medium Density Residential	Fort Pierce, Medium Density
East	Single Family Residential	Low Density Residential and High Density Residential	Fort Pierce - Medium Density and SLC - RM -11
West	Single Family Residential	Single Family Residential	SLC - RS-3

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	RM	RS-4-Single Family	6.5-12 DU/AC	12.92	X
Proposed	PD	PD	3.87 DU/AC	12.92	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6 = persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 40,000
Proposed Zoning	Total gallons per day 40,000
Change in Demand	**Total gallons per day** 0

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning	Total gallons per day 40,000
Proposed Zoning	Total gallons per day 40,000
Change in Demand	**Total gallons per day** 0

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	8	8	0
Urban District	5 acres per 1,000 people	2	2	0
Community	2.5 acres per 1,000 people	1	1	0
Neighborhood	1.36 acres per 1,000 people	.55	.55	0

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High) N/A

	K-8	High
School Name	Savanna Ridge Elementary	Port St. Lucie High
City	Port St. Lucie	Port St. Lucie, FL
Distance	4 Miles	8 Miles
Current Zoning Enrollment Demand	44	19
Proposed Zoning Enrollment Demand	44	19
Change in Demand	0	0

E. Solid Waste:
2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units

Demand Analysis	Maximum
Current Zoning	20 Yards
Proposed Zoning	20 Yard
Change in Demand	0

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	The impervious area will be increased but the 25 year 3 day will be less in the post development than it is in the pre development

III. Transportation Analysis

G. Traffic Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning	680	50/65
Proposed Zoning	680	50/65
Change in Demand	Trips 0	Trips 0
Impact to Capacity	No change to overall capacity	

12. Name of Owner(s): Alva Stone Group LLC
Mailing Address: 591 Evernia St #1603
City West Palm Beach State FL Zip 33401
Phone # 954-850-0618
E-mail: pedro@alvastonegroup.com

13. Name of Applicant: Diego Quijada, Alva Stone Group
Mailing Address: 2030 S Ocean Dr #2221
City Hallandale Beach State FL Zip 33009
Phone # 954-850-0619 Fax #
E-mail: diego@alvastonegroup.com

14. Name of Representative: Blaine Bergstresser, P.E.
Mailing Address: 445 24th Street, Suite 200
City Vero Beach State FL Zip 32960
Phone # 772-794-4061 Fax #
E-mail: Blaine.Bergstresser@Kimley-Horn.com

15. Applicant Acknowledgements (Owner's signature must be notarized)

I certify that: (Check One)

☐ I (we) do hereby certify that I (we) own in fee simple the above referenced described property for which a change in Zoning Classification is requested.

☑ I (we) are not the owner of the above described property; however, the owners signature below authorizes the applicants the authority to act as agent for the owner(s) of record.

Applicant's Signature Date

2030 S Ocean Drive, #2221	FL	33009
Address	State	Zip

954-850-0619		diego@alvastonegroup.com
Phone	Fax	E-mail Address

16. Property Owners Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application for a change in zoning classification. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Agent to act in his/her behalf for the purposes of seeking this change to the City' Land Development Regulations for the property described herein.

Diego Quijada	954-850-0618
Property Owner's Name (Please Print)	Phone

591 Evernia Street #1603, West Palm Beach	FL	33401
Address	State	Zip

Property Owner's Signature — Date: 4/28/21

STATE OF FLORIDA)
ST LUCIE COUNTY)

The foregoing instrument was acknowledged before me this 28 day of April, 2021, by Diego Quijada who is personally known to me or has produced _____ as id

Signature of Notary (seal)

Marina Renom
Notary Public
State of Florida
Comm# HH014256
Expires 6/24/2024

OFFICE USE:		
DATE RECEIVED: _____	Signed: _____	
File Number: _____	Check No: _____	Receipt No: _____
TRC Review: _____	Planning Board Review: _____	City Commission: _____
Ordinance No: _____	Date Approved: _____	

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

DEVELOPMENT REVIEW

Property address or Location 0 Oleander Avenue, Fort Pierce FL

Parcel ID #(s) 2433-144-0002-000-3

Project description Single Family Residential Development

Alva Stone Group LLC	Diego Quijada, Alva Stone Group
Property Owner(s)	**Applicant/Representative, Title, Company**
591 Evernia Street #1603	2030 S Ocean Dr #2221
Street Address	Street Address
West Palm Beach FL 33401	Hallandale FL 33009
City State Zip	City State Zip
954-850-0618	954-850-0619
Phone Number	Phone Number
Pedro@Alvastonegroup.com	Diego@Alvastonegroup.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 21 day of April, 2021, by Diego Quijada who is personally known to me or has produced _____ as identification.

Signature of Notary

Marina Renon
Notary Public
State of Florida (seal)
Comm# HH014256
Expires 6/24/2024

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____ Fees_____ Control #_____ B. Permit #_____

Intake Planner_____

Planner Assigned_____

Approved By_____ Date _____

Comments_____

Intake Date Stamp

❑ DEVELOPMENT REVIEW

General Information

- ❑ Incomplete application packets cannot be accepted.
- ❑ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
■ Site Plan	❑ Conditional Use with New Const.	❑ Major Amendment
❑ Conceptual Development Plan		❑ Minor Amendment

Site Information:

Non-Residential: Proposed Sq. Ft.: _____ Residential: Proposed Units: 50

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West
VACANT INDUSTRIAL	SINGE FAMILY RES	SINGLE FAMILY RES	SINGLE FAMILY RES

Application Outlook



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ❑ Complete notarized application
- ❑ Warranty Deed
- ❑ SLC Property Record Card
- ❑ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ❑ General location map (see Section 22-58.d.2)
- ❑ Survey (see Section 22-58.d.3)
- ❑ Site Plan (see Section 22-58.d.4)
- ❑ Landscaping Plan (see Section 22-187)
- ❑ Storm Drainage Plan (see Section 22-58.d.6)
- ❑ Environmental Impact Report
- ❑ Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ❑ Lighting Plan (see Section 22-58.d.8)
- ❑ Design Review submittals (see Design Review application)
- ❑ Traffic Impact Report
- ❑ Concurrency Review submittals (see Concurrency Review application)

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North			
South			
East			
West			

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current					
****Proposed**					N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day
**Proposed Zoning/FLU	Total gallons per day
**Change in Demand	Total gallons per day

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day
**Proposed Zoning/FLU	Total gallons per day
**Change in Demand	Total gallons per day

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people			
Urban District	5 acres per 1,000 people			
Community	2.5 acres per 1,000 people			
Neighborhood	1.36 acres per 1,000 people			

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name		
City		
Distance		
Current Zoning/FLU Enrollment Demand		
****Proposed Zoning/FLU Enrollment Demand**		
****Change in Demand**		

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)	
Demand Analysis	Maximum
Current Zoning/FLU	
****Proposed Zoning/FLU**	
***Change in Demand**	

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU		
****Proposed Zoning/FLU**		
***Change in Demand**	Trips	Trips
Impact to Capacity		

IV. Project Description

PHASING
Is this project (phase) part of a larger project? [ ] Yes [ ] No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: Single Family: Multifamily:
Non-residential (square footage):
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA

Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family					
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. [ ] Yes [ ] No

B. 1. Does this application involve demolition or re-use of any structure(s)? [ ] Yes [ ] No
If yes, what is the size of the structure(s) to be demolished or re-used? _____
2. What is the current use of the structure to be demolished or re-used? _____
3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? [ ] Yes [ ] No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Subdivision

Property address or Location 0 Oleander Avenue, Fort Pierce FL

Parcel ID #(s) 2433-144-0002-000-3

Project description Single Family Residential Development

Alva Stone Group LLC	Diego Quijada, Alva Stone Group
Property Owner(s)	**Applicant/Representative, Title, Company**
591 Evernia St #1603	2030 S Ocean Dr #2221
Street Address	Street Address
West Palm Beach, FL, 33401	Hallandale Beach FL 33009
City State Zip	City State Zip
954-850-0618	954-850-0619
Phone Number	Phone Number
pedro@alvastonegroup.com	diego@alvastonegroup.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 21 day of April, 20 21, by Diego Quijada who is personally known to me or has produced _____ as identification.

Signature of Notary

Marina Renom
Notary Public
State of Florida (Seal)
Comm# HH014256
Expires 6/24/2024

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

To Be Completed by Staff

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____
Intake Planner_____
Planner Assigned_____
Approved By_____Date _____
Comments_____

Fees_____ Control #_____ B. Permit #_____

Intake Date Stamp

☑ SUBDIVISION: PRELIMINARY PLAT

Please submit one (1) original and thirteen (13) hard copies and one (1) CD of the following:

- ☐ Preliminary Plat prepared by a surveyor registered in the State of Florida meeting the requirements of Sections 18-5, & 18-10 (a) (1-3) & (c)
- ☐ A copy of the deed
- ☐ **Signed and sealed survey**
- ☐ Concurrency application, complete
- ☐ Complete, notarized application

☐ SUBDIVISION: INFRASTRUCTURE PLAN REVIEW

Please submit one (1) original and four (4) hard copies and one (1) CD of the following, stamped by a state of Florida registered engineer meeting the requirements of 18-10 (a) (4) :

- ☐ Street construction plans
- ☐ Water & Sewer system construction plans
- ☐ Stormwater Retention plans
- ☐ Electric Infrastructure plans
- ☐ Gas Infrastructure plans
- ☐ Complete, notarized application

☐ SUBDIVISION: FINAL PLAT

Please submit one (1) original and thirteen (13) hard copies and one (1) CD of the following:

- ☐ A copy of the deed
- ☐ **Signed and sealed survey**
- ☐ Final Plat stamped by a state of Florida registered surveyor meeting the requirements of 18-5, & 18-10 (b & c):
- ☐ Complete, notarized application

☐ SUBDIVISION: MINOR REPLAT

Please submit one (1) original and thirteen (13) hard copies and one (1) CD of the following:

- ☐ A copy of the deed
- ☐ As-built survey of original parcel stamped by a registered surveyor in the State of Florida
- ☐ Scaled drawing, stamped by a registered surveyor in the State of Florida, of surveyed parcel indicating
  - proposed lots, including acreage, square footage, & dimensions.
  - any & all easements, rights-of-way, or similar instruments found on or adjacent to the subject property
- ☐ Complete, notarized application

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Design Review

Property address or Location 0 Oleander Avenue, Fort Pierce FL

Parcel ID #(s) 2433-144-0002-000-3

Project Description Single Family Residential Development

Alva Stone Group LLC	Diego Quijada, Alva Stone Group
Property Owner(s)	Applicant/Representative, Title, Company
591 Evernia Street #1603	2030 S Ocean Dr #2221
Street Address	Street Address
West Palm Beach FL 33401	Hallandale Beach FL 33009
City State Zip	City State Zip
954-850-0618	954-850-0619
Phone Number	Phone Number
pedro@alvastonegroup.com	Diego@Alvastonegroup.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Application (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein.*

Amy T.

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 21 day of April, 2021, by

Diego Quijada who is personally known to me or has produced

_____ as identification.

Signature of Notary

Marina Reno
Notary Public
State of Florida
Comm# HH014296
Expires 6/24/2024

(seal)

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic Districts	Historic Designation

Pre-Application Meeting Date_____ Fees _____ Control #_____ B. Permit _____

Intake Planner_____

Planner Assigned_____

Approved _____ Date_____

Comments _____

Intake Date Stamp

Design Review Application Checklist
(City Code of Ordinances 22-59)

Submittal for Administrative Approval

a. A survey (1" = 30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of section 22-194, location of bordering streets and, if applicable, wetlands and beaches.
b. A site analysis study to include a discussion of specimen trees and other natural vegetation, access, significant topography, wetlands, buffers, setbacks, views, orientation, the surrounding built environment and other site features that may influence design elements.
c. A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis study results.
d. Context photographs of neighboring uses and architectural styles.
e. Photographs and/or drawings of architectural buildings or objects that serve as a precedent for the proposed building design. Models should be taken from local exemplary buildings, either existing or demolished. Documentation of such buildings is available in the city's planning department.
f. Photographs of all existing structures located on the property. If existing structures on the property are more than fifty (50) years of age, documentation of these structures with data from the Florida Master Site File form is also required.
g. Conceptual site plan (to scale) showing proposed location of all buildings, structures, parking areas, signs and landscaping.
h. Landscape plan, at the same scale as the site plan. The planning director or designee may request enlarged plans of detailed planting areas. Planting schedule with sizes of proposed plantings must be included.
i. Accurate color rendering of proposed signs showing dimensions, type of lettering, materials and actual color samples that demonstrates cohesiveness with the project design.
j. Exterior elevations showing architectural character, external architectural features and streetscape of the proposed development, including materials, colors, shadow lines and landscaping. The street elevation shall encompass the entire proposed project and generally identify the major elements of the adjacent two (2) properties on either side of the site. If the adjacent properties are vacant or underutilized, a diagram shall be provided that identifies the mass and form that is allowable under current zoning. If the street elevation must be drawn at such a scale as to render architectural details of the building unreadable, drawings of individual buildings at a larger scale should be provided as well.
k. Design review concurrent with conceptual development plan procedure according to subsection 22-58(e) is also available.

Submittal for Board Approval

a. A written narrative describing how the project conforms to administrative approval and design review guidelines of this section.
b. A final site plan meeting the requirements of section 22-58
c. A final site lighting plan that meets the requirements of subsection 22-58(d)(8).
d. A final landscape plan that meets the requirements of Article XII, Landscaping and Trees.
e. Final floor plans and elevation drawings (1/8" = 1'-0" minimum scale), as detailed under administrative approval, showing exterior building materials and colors with architectural sections and details to adequately describe the project.
f. A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

Kimley»Horn

April 23, 2021

Jennifer Hofmeister, AICP
City of Fort Pierce
Planning Director
100 N. U.S. Highway 1
Fort Pierce, FL 34950
(772) 567-8000

Re: Oleander Oaks- Design and Development Review Project Narrative

Dear Ms. Hofmeister:

We are proposing fifty (50) single family homes on approximately 12.92 acres of land on Oleander Avenue (Parcel ID # 2433-144-0002-000-3). Currently the site is a vacant wooded lot that has single family zoning to the west and south with commercial zoning to the north. The layout of the site consists of a divide entrance off of Oleander Avenue with a looped road throughout the development. There is a proposed wet pond in the middle of the looped road that will be used for stormwater storage but also act as an amenity for the neighborhood. An amenity parcel is proposed north of the wet pond which will give the residents an open space area with views of the wet pond.

There is an existing 1.42-acre wetland on the northern portion of the site that borders a North St. Lucie Water Control District canal. We are proposing to preserve the wetland as well as a twenty-five foot buffer. This will preserve a large portion of specimen trees as well as add an enhanced buffer between the neighborhood and the commercial zoned parcel to the north. It will also act as an amenity for the neighborhood as the houses that back up to it will have a view of natural habitat for local wildlife. The four corners of the property will contain large open space areas that will be planted with large trees to buffer the project from surrounding parcels.

We performed a Traffic Impact Study to look at the potential impact of the project on the surrounding roadways. We looked at the intersections along Oleander Avenue from Midway Road to Edwards Road. All intersections are projected to operate at an acceptable Level of Service (LOS) at 2026 buildout conditions, we also looked at the proposed site entrance off of Oleander Avenue. Based off the AM and PM peak trips neither a northbound left-turn lane or southbound right-turn lane are warranted for the project.

As part of our application we are requesting to rezone the property from R-4 to a Planned Development (PD). The reason for the request is due to the proposed right-of-way width.

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City code requires a 60’ right-of-way for a local road. We are proposing a 50’ right-of-way with a 24’ wide asphalt road. This is typical of what we see in other municipalities as well as existing single-family projects in Fort Pierce. This will the neighborhood to have 82’ deep lots instead of the code minimum 70’ and allow us to preserve the wetland to the north.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.
Very truly yours,



Blaine Bergstresser, P.E.

K:\VRB_LDEV\147811000 - Oleander Oaks\PERMITTING\APPLICATIONS\City of Fort Pierce\Project Narrative.doc

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Prepared By and Return To:
Global Closing Company LLC
Attn: Benjamin Bell
1056 Willa Springs Drive
Winter Springs, FL 32708

Order No.: 1526-18FL-0330

Property Appraiser's Parcel I.D. (folio) Number:
243314400020003

WARRANTY DEED

THIS WARRANTY DEED dated March 19, 2021, by Oleander Oaks LLC, a Florida limited liability company, existing under the laws of Florida, and having its principal place of business at 5801 S US Highway 1, Fort Pierce, Florida 34982 (the "Grantor"), to Alva Stone Group LLC, a Florida Limited Liability Company, whose post office address is 591 Evernia Street Apt 1603, West Palm Beach, Florida 33401 (the "Grantee").

(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

WITNESSETH: That the Grantor, for and in consideration of the sum of Ten And No/100 Dollars ($10.00) and other valuable consideration, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys, and confirms unto the Grantee, all that certain land situated in County of Saint Lucie, State of Florida, viz:

A portion of the East One Half of the Northeast One Quarter of the Southeast One Quarter of Section 33, Township 35 South, Range 40 East and the Southeast One Quarter of the Southeast One Quarter of the Northeast One Quarter of Section 33, Township 35 South, Range 40 East, being more particularly described as follows:

Commence at the East One Quarter corner of said Section 33, thence South 89 degrees 46 minutes 13 seconds West, a distance of 90.00 feet to the Point of Beginning: thence continue South 89 degrees 46 minutes 13 seconds West, a distance of 32.00 feet; thence South 00 degrees 17 minutes 01 seconds West, along the West line of the North Saint Lucie River Water Control District Canal 14, a distance of 701.78 feet, said canal 14 being shown and described in that certain fee simple deed of donation, as recorded in Official Records Book 4480, Page 2690 of the Public Records of Saint Lucie County. Said West line being parallel to and 62.00 feet West of as measured at right angles to the West right of way line of Oleander Avenue, Also Known As State Road 605, as shown on that certain Florida Department of Transportation right of way Map Section 9456, dated June 19, 1952. Said West right of way line being parallel to and 60.00 feet West of as measured at right angles to the centerline of said Oleander Avenue; thence South 89 degrees 47 minutes 15 seconds West, along a line parallel to and 630.00 feet North of as measured at right angles to the South line of the said East One Half of the Northeast One Quarter of the Southeast One Quarter of Section 33, a distance of 548.98 feet, said South line also being the centerline of Tumblin King Road; thence North 00 degrees 21 minutes 03

seconds West, along the West line of said East One Half a distance of 701.59 feet to the North line of the said East One Half, said West line also being the East line of the Revised Plat of "The Tropics Pete Robinson Subdivision, according to the plat thereof as recorded in Plat Book 6, Page 21 of the Public Records of Saint Lucie County; thence North 89 degrees 46 minutes 13 seconds East along the North line of said East One Half, a distance of 12.40 feet; thence North 00 degrees 00 minutes 21 seconds West, along a livestock fence 0.3 feet to the West of the West line of the said Southeast One Quarter of the Southeast One Quarter of the Northeast One Quarter of Section 33, a distance of 275.98 feet to the South top of bank of the North Saint Lucie River Water Control District Canal 15, Also Known As Platts Branch; thence meandering along the South top of bank of said Platts Branch, the following Ten courses, North 83 degrees 47 minutes 48 seconds East, a distance of 43.46 feet; thence North 86 degrees 49 minutes 25 seconds East, a distance of 72.02 feet; thence South 85 degrees 07 minutes 47 seconds East, a distance of 48.47 feet; thence North 74 degrees 57 minutes 21 seconds East, a distance of 44.51 feet; thence North 80 degrees 24 minutes 14 seconds East, a distance of 92.67 feet, thence North 82 degrees 38 minutes 55 seconds East, a distance of 67.53 feet; thence North 85 degrees 47 minutes 34 seconds East, a distance of 117.62 feet; thence North 85 degrees 35 minutes 04 seconds East, a distance of 70.14 feet; thence North 73 degrees 25 minutes 57 seconds East a distance of 15.73 feet; thence North 55 degrees 26 minutes 14 seconds East, a distance of 12.85 feet to the West line of said canal 14, said West line being parallel to and 30.000 feet West of the West right of way line of said State Road 605, said West right of way line being parallel to and 60.000 feet West of as measured at right angles to the East line of said Northeast One Quarter of Section 33; thence South 00 degrees 12 minutes 46 seconds West, along the West line of said canal 14 a distance of 339.69 feet to the Point of Beginning.

Said lands lying in Saint Lucie County, Florida.

Subject to easements, restrictions, reservations and limitations of record, if any.

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD the same in Fee Simple forever.

AND the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land; that the Grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to: 2020.

IN WITNESS WHEREOF, the said Grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in presence of

Oleander Oaks LLC, a Florida limited liability company

BY: _____
Michael J Bradley, JR
Manager

Witness Signature

Candy Quintall

Printed Name of First Witness

Witness Signature

PETER QUINTALL

Printed Name of Second Witness

BY: _____

Grantor Address:
632 SE Starflower Avenue
Port Saint Lucie, FL 34983

STATE OF FLORIDA

COUNTY OF St Lucie

The foregoing instrument was acknowledged before me by means of ✓ physical presence or ____ online notarization, this 19th of March, 2021 by Oleander Oaks LLC, a Florida limited liability company, who is personally known to me or who has produced drivers license as identification.

Witness my hand and official seal, this the 19th of March, 2021.

_____
Notary Public

My Commission Expires: 01/10/2023

(SEAL)

Notary Public State of Florida
Candy Quintall
My Commission GG 290488
Expires 01/10/2023

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

Property Identification

Site Address: OLEANDER AVE
Sec/Town/Range: 33/35S/40E
Parcel ID: 2433-144-0002-000-3
Jurisdiction: Fort Pierce

Use Type: 0000
Account #: 185292
Map ID: 24/33S
Zoning: RM-9 Count

Ownership

Oleander Oaks LLC
5801 S US Highway 1
Fort Pierce, FL 34982-3946

Legal Description

33 35 40 E 1/2 OF NE 1/4 OF SE 1/4 - LESS S 630 FT AND LESS RD AND CANAL RS/W - AND THAT PART OF SE 1/4 OF SE 1/4 OF NE 1/4 LYG S OF CANAL NO. 15 (13.18 AC - 574,121 SF) (OR 3988 - 1547; 3994 - 1479: 3995 - 2451; 4050 - 2327)



Current Values

Just/Market Value:	$480,800
Assessed Value:	$480,800
Exemptions:	$0
Taxable Value:	$480,800

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	13.18
Land Size (SF):	574,121

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	160	160

Sources/links:

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
Oct 5, 2017	4050 / 2327	0111	QC	MJT Holdings Inc	$100

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:

Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Sketch Area Legend

Sub Area	Description	Area	Fin. Area	Perimeter

Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$480,800
Just/Market:	$480,800
Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$480,800
Exemption(s):	$0
Taxable:	$480,800

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2019	0054	13.18	North St. Lucie Water Management District	$243.83

Start Year	AssessCode	Units	Description	Amount
2019	0041	35.9	Fort Pierce Stormwater Charge	$2,477.10

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office.

Historical Values

Year	Just/Market	Assessed	Exemptions	Taxable
2020	$480,800	$480,800	$0	$480,800
2019	$527,200	$527,200	$0	$527,200

Permits

Number	Issue Date	Description	Amount	Fee

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

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

LOCATED IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST

CITY OF FORT PIERCE, FLORIDA

LEGAL DESCRIPTION PARENT TRACT

PARCEL 1:

ALL OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING NORTH OF LAND OWNED BY MRS. HARRY E. KESLER ON THE 7TH DAY OF MARCH 1956, LESS LAND FOR ROADS AND DRAINAGE CANALS. THE SAID LAND IS ALSO DESCRIBED AS THE EAST ½ OF THE NORTHEAST ¼ OF THE SOUTHEAST ¼ OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS THE SOUTH 630.00 FEET THEREOF.

AND

PARCEL 2:

THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS AND EXCEPTING THEREFROM ALL RIGHTS OF WAY AND EASEMENTS FOR PUBLIC ROAD AND DRAINAGE CANALS.

TOGETHER WITH A PARCEL OF LAND NOT DESCRIBED BY DEED OR PLAT

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST ¼ OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, THENCE RUN S89°36'52"W ALONG THE NORTH LINE OF THE AFORESAID SOUTHEAST ¼, A DISTANCE OF 650.33 FEET TO THE POINT OF BEGINNING; THENCE RUN S00°38'52"W, ALONG THE WEST LINE OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 33, A DISTANCE OF 701.88 FEET; THENCE S89°47'29W, A DISTANCE OF 13.30 FEET TO THE EAST LINE OF TROPIC ACERS AS RECORDED IN PLAT BOOK 6, PAGE 21, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE N00°16'22"E ALONG THE EAST LINE OF SAID PLAT, A DISTANCE OF 701.77 FEET TO THE NORTH LINE OF THE SOUTHEAST ¼ OF SAID SECTION 33; THENCE N89°36'52"E A DISTANCE OF 17.89 FEET TO THE POINT OF BEGINNING.

CONTAINING 17.93 ACRES MORE OR LESS.

LEGAL DESCRIPTION NEW PARCEL "A"

ALL OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING NORTH OF LAND OWNED BY MRS. HARRY E. KESLER ON THE 7TH DAY OF MARCH 1956, LESS LAND FOR ROADS AND DRAINAGE CANALS. THE SAID LAND IS ALSO DESCRIBED AS THE EAST ½ OF THE NORTHEAST ¼ OF THE SOUTHEAST ¼ OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS THE SOUTH 630.00 FEET THEREOF.

AND TOGETHER WITH A PARCEL OF LAND NOT DESCRIBED BY DEED OR PLAT

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST ¼ OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, THENCE RUN S89°36'52"W ALONG THE NORTH LINE OF THE AFORESAID SOUTHEAST ¼, A DISTANCE OF 650.33 FEET TO THE POINT OF BEGINNING; THENCE RUN S00°38'52"W, ALONG THE WEST LINE OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 33, A DISTANCE OF 701.88 FEET; THENCE S89°47'29W, A DISTANCE OF 13.30 FEET TO THE EAST LINE OF TROPIC ACERS AS RECORDED IN PLAT BOOK 6, PAGE 21, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE N00°16'22"E ALONG THE EAST LINE OF SAID PLAT, A DISTANCE OF 701.77 FEET TO THE NORTH LINE OF THE SOUTHEAST ¼ OF SAID SECTION 33; THENCE N89°36'52"E A DISTANCE OF 17.89 FEET TO THE POINT OF BEGINNING.

AND TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST ¼ OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, THENCE RUN S89°36'52"W ALONG THE NORTH LINE OF THE AFORESAID SOUTHEAST ¼, A DISTANCE OF 92.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID NORTH LINE S89°36'52"W, A DISTANCE OF 558.33 FEET; THENCE N00°38'52"E, A DISTANCE OF 277.18 FEET TO THE SOUTH TOP OF BANK OF PLATTS BRANCH; THENCE ALONG SAID TOP OF BANK N85°42'13"E, A DISTANCE OF 29.58 FEET; THENCE N87°07'45"E, A DISTANCE OF 77.61 FEET; THENCE N82°42'45"E, A DISTANCE OF 308.22 FEET; THENCE N83°52'02"E, A DISTANCE OF 144.57 FEET TO THE WEST RIGHT OF WAY OF A 32 FEET DRAINAGE DITCH; THENCE ALONG SAID RIGHT OF WAY S00°12'40"W, A DISTANCE OF 334.05 FEET TO THE POINT OF BEGINNING.

CONTAINING 13.16 ACRES MORE OR LESS.

LEGAL DESCRIPTION NEW PARCEL "B"

THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS AND EXCEPTING THEREFROM ALL RIGHTS OF WAY AND EASEMENTS FOR PUBLIC ROAD AND DRAINAGE CANALS.

LESS AND EXCEPT ALL LANDS SOUTH OF THE FOLLOWING DESCRIBED LINE;

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST ¼ OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, THENCE RUN S89°36'52"W ALONG THE NORTH LINE OF THE AFORESAID SOUTHEAST ¼, A DISTANCE OF 650.33 FEET; THENCE N00°38'52"E, A DISTANCE OF 317.33 FEET TO THE NORTH TOP OF BANK OF PLATTS BRANCH ALSO BEING THE POINT OF BEGINNING; THENCE N85°42'13"E, ALONG SAID TOP OF BANK A DISTANCE OF 26.61 FEET; THENCE N87°07'45"E, A DISTANCE OF 76.56 FEET; THENCE N82°42'45"E, A DISTANCE OF 307.08 FEET; THENCE N83°52'02"E, A DISTANCE OF 123.44 FEET; THENCE N27°27'44"E, A DISTANCE OF 56.38 FEET TO THE WEST RIGHT OF WAY OF A 32 FEET DRAINAGE DITCH ALSO BEING THE POINT OF TERMINATION.

CONTAINING 4.24 ACRES MORE OR LESS.

GLOBAL POSITIONING SYSTEM (GPS) NOTES

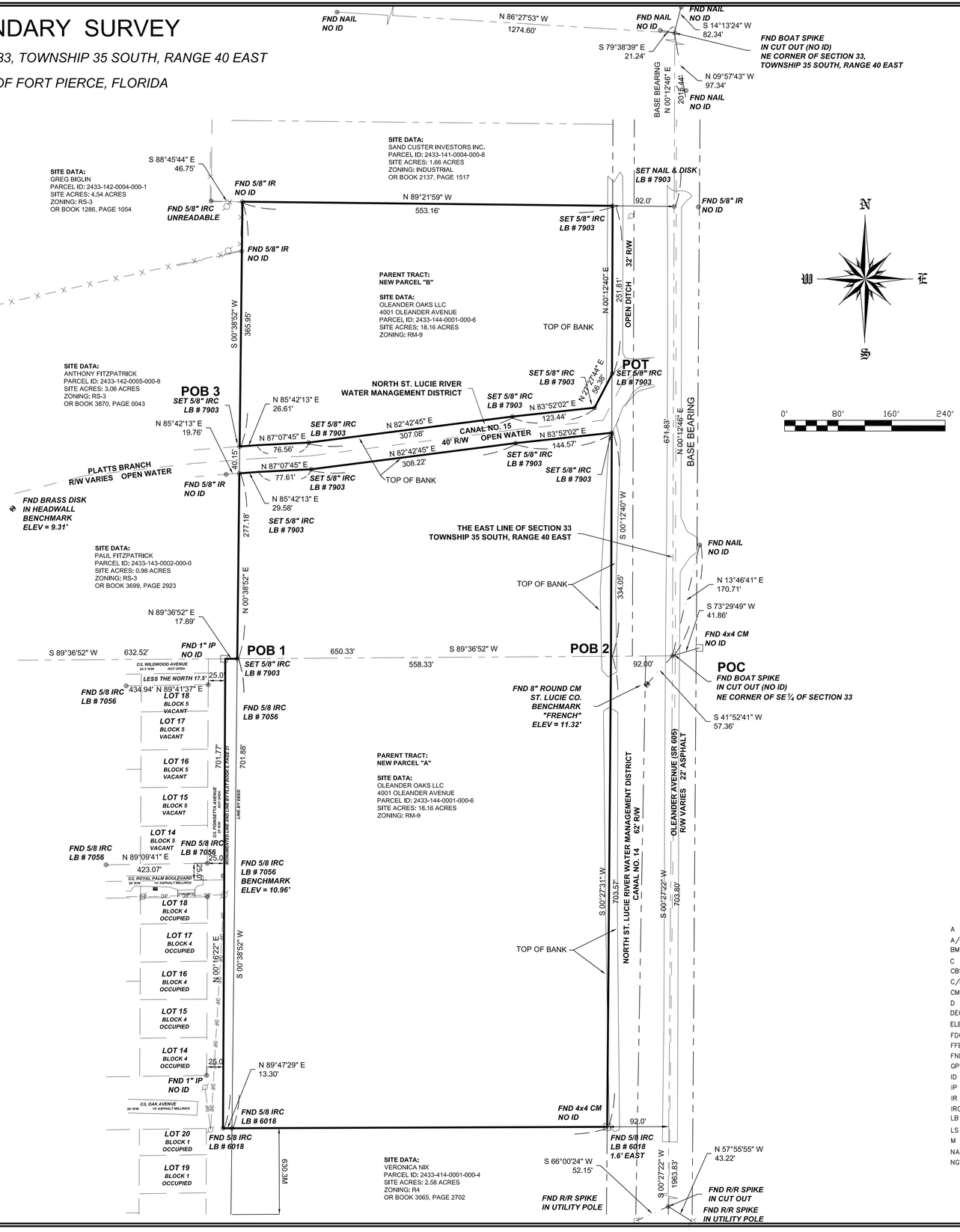
1. G.P.S. SURVEY METHOD: REAL TIME KINEMATICS (RTK)

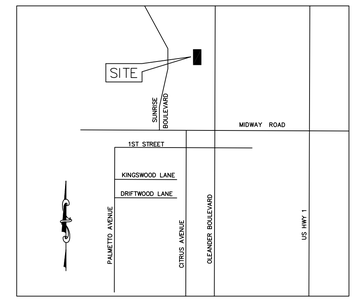
2. G.P.S. RECEIVER TYPE: TWO (2) DUAL FREQUENCY TOPCON HIPER GA-II SYSTEM WITH CHANNELS (L1 & L2).

3. THE ORIGINAL GPS RTK MEASUREMENTS LOCATED ON DECEMBER 25, 2018. TYPICALLY, A BASE RECEIVER IS SET UP ON AN ESTABLISHED CONTROL STATION WHILE A ROVING RECEIVER LOCATES EXISTING MONUMENTS, IMPROVEMENTS AND/OR TOPOGRAPHIC DATA AND CONTROL THROUGHOUT THE PROJECT AREA. REAL-TIME COORDINATE COMPUTATIONS AND PRECISION INFORMATION ARE DETERMINED VIA RADIO/MODEM LINK WITH THE BASE STATION AND RECORDED AS THREE DIMENSIONAL (3D) POSITIONS.

4. G.P.S. SURVEY MEASUREMENTS WERE PROCESSED AND ADJUSTED USING CARLSON SURVEY 2008 AND A CARLSON SURVEY + DATA COLLECTOR.

5. THE HORIZONTAL TARGET ACCURACY FOR THIS SURVEY IS AS FOLLOWS:
HORIZONTAL: 10MM + 1PPM (RMS)
VERTICAL: 20MM + 1PPM (RMS).





LOCATION MAP

NOT TO SCALE

STREET ADDRESS

4001 OLEANDER AVENUE, FORT PIERCE, FL 34982

GENERAL NOTES

1. THE BEARINGS SHOWN HEREON ARE BASED UPON THE EAST LINE OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, (ASSUMED DATUM). BETWEEN TWO MONUMENTS, AS SHOWN.

2. ALL ABOVE GROUND FIXED IMPROVEMENTS, IF ANY, HAVE BEEN LOCATED AND SHOWN HEREON.

3. THE SURVEYOR HAS NO KNOWLEDGE OF UNDERGROUND FOUNDATIONS WHICH MAY OCCUPY LANDS OF OTHERS.

4. UNDERGROUND UTILITIES AND UTILITY SERVICES HAVE NOT BEEN LOCATED ON THIS SURVEY.

5. FLOOD NOTE: BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONES "X & AE", ACCORDING TO THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 12111 C 0189 J.

6. REPRODUCTIONS OF THIS MAP ARE NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR & MAPPER.

7. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.

8. INFORMATION SHOWN HEREON IS BASED ON DEED AND FIELD MEASURED DATA, ALL MEASUREMENTS ARE IN ACCORDANCE WITH THE UNITED STATES STANDARD FEET.

9. THE LAST DATE OF FIELD WORK WAS DECEMBER 27, 2018.

10. LANDS SHOWN HEREON WERE NOT ABSTRACTED BY THIS OFFICE FOR RIGHTS-OF-WAY, EASEMENTS OF RECORD, OWNERSHIP, ABANDONMENT'S DEED RESTRICTIONS OF MURPHY ACT DEEDS.

11. ELEVATIONS IF SHOWN HEREON ARE IN FEET AND BASED UPON NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988, BASED ON ST. LUCIE COUNTY BENCHMARK "FRENCH", WITH AN ELEVATION OF 11.32' .

12. THE PROPOSED USE OF THIS SURVEY IS FOR A LOT SPLIT.

13. THE PROPOSED USAGE OF THE PROPERTY IS RESIDENTIAL.

LEGEND & ABBREVIATIONS

A	ARC LENGTH	NO OR #	NUMBER
A/C	AIR CONDITIONER	NTS	NOT TO SCALE
BM OR ⌖	BENCHMARK	OHP	OVERHEAD UTILITIES
C	CALCULATED FROM FIELD MEASUREMENTS	ORB	OFFICIAL RECORDS BOOK
CBS	CONCRETE BLOCK STRUCTURE	P	PLAT DATA
C/L	CENTERLINE	PG(S)	PAGE(S)
CM	CONCRETE MONUMENT	PLS	PROFESSIONAL LAND SURVEYOR
D	DEED	POB	POINT OF BEGINNING
DEG OR °	DEGREE	POC	POINT OF COMMENCEMENT
ELEV	ELEVATION	POT	POINT OF TERMINATION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION	PRM	PERMANENT REFERENCE MONUMENT
FFE	FINISH FLOOR ELEVATION	PSM	PROFESSIONAL SURVEYOR AND MAPPER
FND	FOUND	R	RADIUS
GPS	GLOBAL POSITIONING SYSTEM	RLS	REGISTERED LAND SURVEYOR
ID	IDENTIFICATION NUMBER	R/W	RIGHT-OF-WAY
IP	IRON PIPE	Ⓜ	WATER METER
IR	IRON ROD	&	AND
IRC	IRON ROD & CAP	@	AT
LB	LICENSED BUSINESS	△	DELTA
LS	LICENSED SURVEYOR	∅	UTILITY POLE
M	MEASURED DATA	Ⓜ	MANHOLE
NAVD	NORTH AMERICAN VERTICAL DATUM		
NGVD	NATIONAL GEODETIC VERTICAL DATUM		

ARNOLD SURVEYING, INC.
PROFESSIONAL SURVEYORS & MAPPERS
FLORIDA LICENSED BUSINESS NUMBER 7903
4888 N. KINGS HIGHWAY #425, FORT PIERCE, FLORIDA 34951
24 VERDE VISTA, FORT PIERCE, FLORIDA 34951
PHONE (772) 708-1819 SURVEY@ASI-SURVEY.COM

DATE	BY	REVISIONS

CERTIFICATIONS
MATTHEW TOENISKOETTER
MJT HOLDINGS, INC.
ANCHOR LAND TITLE, INC.
ST LUCIE COUNTY FLORIDA

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DRAWN BY: CA
CHECKED BY: CA
DATE: JANUARY 01, 2019
HORIZONTAL SCALE: 1"=80'

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

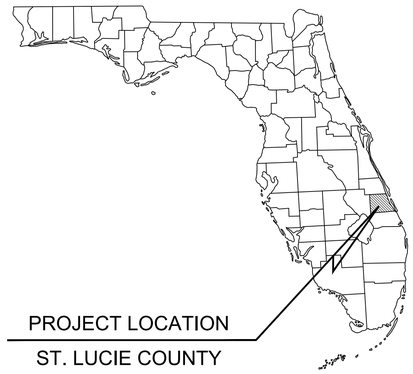
SEAL

CHARLES ARNOLD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NO. 4971

PRINTED DATE

SHEET 1 OF 1

PROJECT NO. 18-705



CONSTRUCTION PLANS

FOR

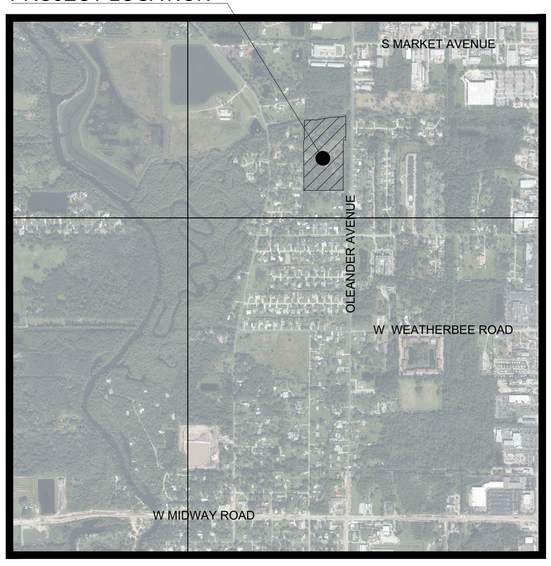
OLEANDER OAKS

LOCATED AT

OLEANDER AVENUE, FORT PIERCE, FLORIDA

SECTION 33, TOWNSHIP 35S, RANGE 40E

PROJECT LOCATION



LOCATION MAP

1"=1000'

LEGAL DESCRIPTION

PER OFFICIAL RECORDS BOOK 4050, PAGE 2327

PARCEL ONE:
ALL OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING NORTH OF LAND OWNED BY MRS. HARRY E KESLER ON THE 7TH DAY OF MARCH 1956, LESS LAND FOR ROADS AND DRAINAGE CANALS. THE SAID LAND IS ALSO DESCRIBED AS THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS THE SOUTH 630 FEET THEREOF.

PARCEL TWO: THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS AND EXCEPTING THEREFROM ALL RIGHTS OF WAY AND EASEMENTS FOR PUBLIC ROAD AND DRAINAGE CANALS.

METES AND BOUNDS DESCRIPTION PREPARED BY THE UNDERSIGNED:

A PORTION OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST AND THE SOUTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONEQUARTER OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE EAST ONE-QUARTER CORNER OF SAID SECTION 33, THENCE SOUTH 89°46'13" WEST, A DISTANCE OF 90.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89°46'13" WEST, A DISTANCE OF 32.00 FEET; THENCE SOUTH 00°17'01" WEST, ALONG THE WEST LINE OF THE NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT CANAL 14, A DISTANCE OF 701.78 FEET, SAID CANAL 14 BEING SHOWN AND DESCRIBED IN THAT CERTAIN FEE SIMPLE DEED OF DONATION, AS RECORDED IN OFFICIAL RECORDS BOOK 4480, PAGE 2690 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY. SAID WEST LINE BEING PARALLEL TO AND 62.00 FEET WEST OF AS MEASURED AT RIGHT ANGLES TO THE WEST RIGHT-OF-WAY LINE OF OLEANDER AVENUE, ALSO KNOWN AS STATE ROAD 605, AS SHOWN ON THAT CERTAIN FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAP SECTION 9456, DATED JUNE 19, 1952. SAID WEST RIGHT-OF-WAY LINE BEING PARALLEL TO AND 60.00 FEET WEST OF AS MEASURED AT RIGHT ANGLES TO THE CENTERLINE OF SAID OLEANDER AVENUE; THENCE SOUTH 89°47'15" WEST, ALONG A LINE PARALLEL TO AND 630.00 FEET NORTH OF AS MEASURED AT RIGHT ANGLES TO THE SOUTH LINE OF THE SAID EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF SECTION 33, A DISTANCE OF 548.98 FEET, SAID SOUTH LINE ALSO BEING THE CENTERLINE OF TUMBLIN KING ROAD; THENCE NORTH 00°21'03" WEST, ALONG THE WEST LINE OF SAID EAST ONE-HALF A DISTANCE OF 701.59 FEET TO THE NORTH LINE OF THE SAID EAST ONE-HALF, SAID WEST LINE ALSO BEING THE EAST LINE OF THE REVISED PLAT OF "THE TROPICS" PETE ROBINSON SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 6, PAGE 21 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY; THENCE NORTH 89°46'13" EAST ALONG THE NORTH LINE OF SAID EAST ONE-HALF, A DISTANCE OF 12.40 FEET; THENCE NORTH 00°00'21" WEST, ALONG A LIVESTOCK FENCE 0.3' TO THE WEST OF THE WEST LINE OF THE SAID SOUTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SECTION 33, A DISTANCE OF 275.98 FEET TO THE SOUTH TOP OF BANK OF THE NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT CANAL 15, ALSO KNOWN AS PLATTS BRANCH; THENCE MEANDERING ALONG THE SOUTH TOP OF BANK OF SAID PLATTS BRANCH, THE FOLLOWING TEN COURSES; NORTH 83°47'48" EAST, A DISTANCE OF 43.46 FEET; THENCE NORTH 86°49'25" EAST, A DISTANCE OF 72.02 FEET; THENCE SOUTH 85°07'47" EAST, A DISTANCE OF 48.47 FEET; THENCE NORTH 74°57'21" EAST, A DISTANCE OF 44.51 FEET; THENCE NORTH 80°24'14" EAST, A DISTANCE OF 92.67 FEET; THENCE NORTH 82°38'55" EAST, A DISTANCE OF 67.53 FEET; THENCE NORTH 85°47'34" EAST, A DISTANCE OF 117.62 FEET; THENCE NORTH 85°35'04" EAST, A DISTANCE OF 70.14 FEET; THENCE NORTH 73°25'57" EAST, A DISTANCE OF 15.73 FEET; THENCE NORTH 55°26'14" EAST, A DISTANCE OF 12.85 FEET TO THE WEST LINE OF SAID CANAL 14, SAID WEST LINE BEING PARALLEL TO AND 30.000 FEET WEST OF THE WEST RIGHT-OF-WAY LINE OF SAID STATE ROAD 605, SAID WEST RIGHT-OF-WAY LINE BEING PARALLEL TO AND 60.000 FEET WEST OF AS MEASURED AT RIGHT ANGLES TO THE EAST LINE OF SAID NORTHEAST ONE-QUARTER OF SECTION 33; THENCE SOUTH 00°12'46" WEST, ALONG THE WEST LINE OF SAID CANAL 14 A DISTANCE OF 339.69 FEET TO THE POINT OF BEGINNING.

SAID LANDS LYING IN ST. LUCIE COUNTY AND CONTAIN 12.919 ACRES MORE OR LESS.

PROJECT TEAM

OWNER/DEVELOPER
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SURVEYOR
HSQ GROUP, INC.
1001 YAMATO ROAD, SUITE 105
BOCA RATON, FLORIDA 33431
561-392-0221

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C-005	DEMOLITION AND EROSION CONTROL PLAN – PHASE 2
C-006	EROSION CONTROL DETAILS
C-100	SITE PLAN
C-200	PAVING GRADING AND DRAINAGE PLAN
C-201	PAVING GRADING AND DRAINAGE DETAILS
C-202	PAVING GRADING AND DRAINAGE DETAILS
C-203	PAVING GRADING AND DRAINAGE DETAILS
C-300	UTILITY PLAN
C-301	SANITARY PROFILES
C-400	FPUA DETAILS
C-401	FPUA DETAILS
C-402	FPUA DETAILS
C-403	FPUA DETAILS
L-100	LANDSCAPE PLAN
L-101	LANDSCAPE DETAILS
L-102	LANDSCAPE SPECIFICATIONS
E-100	PHOTOMETRIC SITE PLAN

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

CALL 48 HOURS BEFORE YOU DIG

IT'S THE LAW! DIAL 811

Know what's below. Call before you dig.

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY BLAINE BERGSTRESSER, P.E. ON THE DATE ADJACENT TO THE SEAL.

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

No.	REVISIONS	DATE	BY

Kimley»Horn

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445 24TH STREET, SUITE 200, VERO BEACH, FL 32960
PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

STATE OF FLORIDA · BLAINE RUSSELL BERGSTRESSER · LICENSE NO. 84998 · DATE 4/2/2021 · REGISTERED PROFESSIONAL ENGINEER

KHA PROJECT	147811000
DATE	04/12/2021
SCALE	AS SHOWN
DESIGNED BY	BRB
DRAWN BY	TJE
CHECKED BY	BRB

COVER SHEET

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP
CITY OF FORT PIERCE FL

SHEET NUMBER
C-000

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-000 COVER SHEET April 23, 2021 09:45:31am K:\VRB_LDE\147811000 - oleander oaks\CAD\signsheets\C-000 COVER SHEET.dwg
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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.
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"

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.

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 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 NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
11. THE CONTRAC

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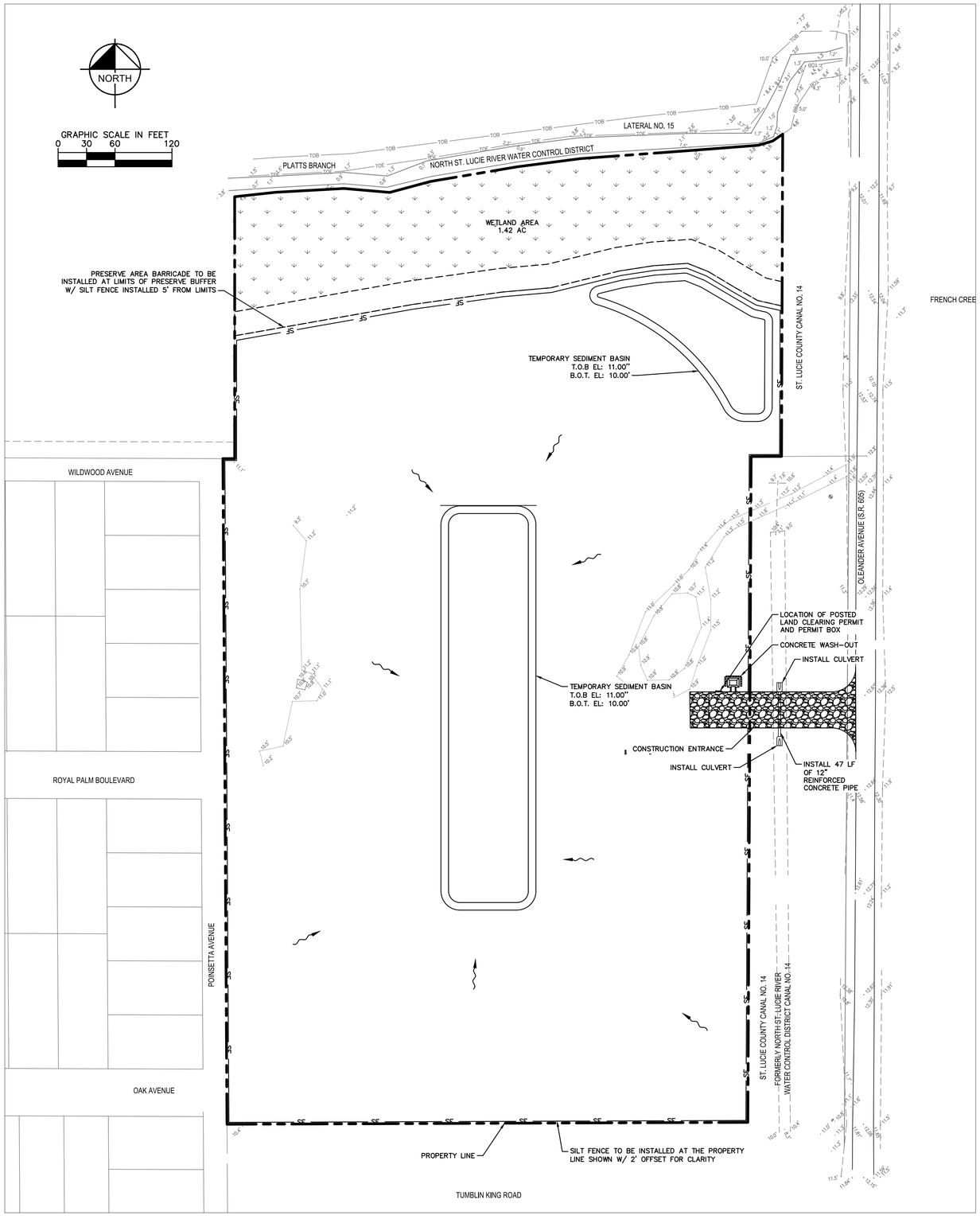

SEQUENCE OF CONSTRUCTION

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.

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

EROSION & SEDIMENTATION CONTROL

1. THE LAND DISTURBING ACTIVITY SHALL CONFORM TO EXISTING TOPOGRAPHY AND SOIL TYPE SO AS TO CREATE THE LOWEST PRACTICAL EROSION POTENTIAL
2. LAND-DISTURBING ACTIVITIES SHALL BE CONDUCTED IN A MANNER MINIMIZING EROSION
3. THE DISTURBED AREA AND THE DURATION OF EXPOSURE TO EROSIVE ELEMENTS SHALL BE KEPT TO A PRACTICABLE MINIMUM
4. EROSION CONTROL MUST BE STRICTLY MAINTAINED DURING CUT AND FILL OPERATIONS
5. DISTURBED SOIL SHALL BE STABILIZED AS QUICKLY AS PRACTICABLE
6. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED AND SUPPLEMENTED
7. TEMPORARY VEGETATION OR MULCHING SHALL BE EMPLOYED TO PROTECT EXPOSED CRITICAL AREAS DURING DEVELOPMENT
8. PERMANENT VEGETATION AND STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS PRACTICABLE
9. ADEQUATE PROVISIONS MUST BE PROVIDED TO MINIMIZE DAMAGE FROM SURFACE WATER TO THE CUT FACE OF EXCAVATIONS OR THE SLOPING SURFACE FILLS
10. TO THE EXTENT NECESSARY, SEDIMENT IN RUNOFF WATER MUST BE TRAPPED BY THE USE OF DEBRIS BASINS, SEDIMENT BASINS, SILT TRAPS OR SIMILAR MEASURES UNTIL THE DISTURBED AREA IS STABILIZED
11. CUTS AND FILLS MUST BE CONSTRUCTED IN SUCH A MANNER THAT EROSION AND RUNOFF FROM THE SITES DOES NOT ENDANGER ADJOINING PROPERTY
12. FILLS MAY NOT ENCROACH UPON NATURAL WATERCOURSES OR CONSTRUCTED CHANNELS IN A MANNER SO AS TO ADVERSELY AFFECT OTHER PROPERTY OWNERS WITHOUT ADEQUATE PROVISIONS FOR AN EQUIVALENT ALTERNATE SYSTEM WITH A POSITIVE OUTFALL
13. ALL R.O.W.S WATERWAYS, STREETS AND SIDEWALKS SHALL BE BUFFERED BY A TWENTY FOOT WIDE STRIP OF GRASS OR OTHER SUITABLE MEANS
14. GRADING EQUIPMENT MUST CROSS FLOWING STREAMS BY MEANS OF BRIDGES OR CULVERTS EXCEPT WHEN SUCH METHODS ARE NOT FEASIBLE AND PROVIDED IN ANY CASE, THAT SUCH CROSSINGS ARE KEPT TO A MINIMUM AND SEDIMENTATION CONTROL DEVICES ARE PROVIDED

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%.

1" OVER 562,732 SF SITE = 46,895 CF OF RUNOFF
SEDIMENT BASIN = 51,353 CF OF STORAGE

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																								

EROSION CONTROL LEGEND

SF — PROPOSED SILT FENCE

PROPOSED PRESERVE AREA BARRICADE

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

CALL 48 HOURS BEFORE YOU DIG

IT'S THE LAW! DIAL 811

Know what's below. Call before you dig.

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

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BLAINE BERGSTRESSER ☆ LICENSE ☆ No. 84598 ☆ DATE: 4/2/2021 ☆ STATE OF FLORIDA ☆ PROFESSIONAL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
445 24TH STREET, SUITE 200, VERO BEACH, FL 32960
PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

KHA PROJECT 147811000
DATE
SCALE AS SHOWN
DESIGNED BY
DRAWN BY
CHECKED BY

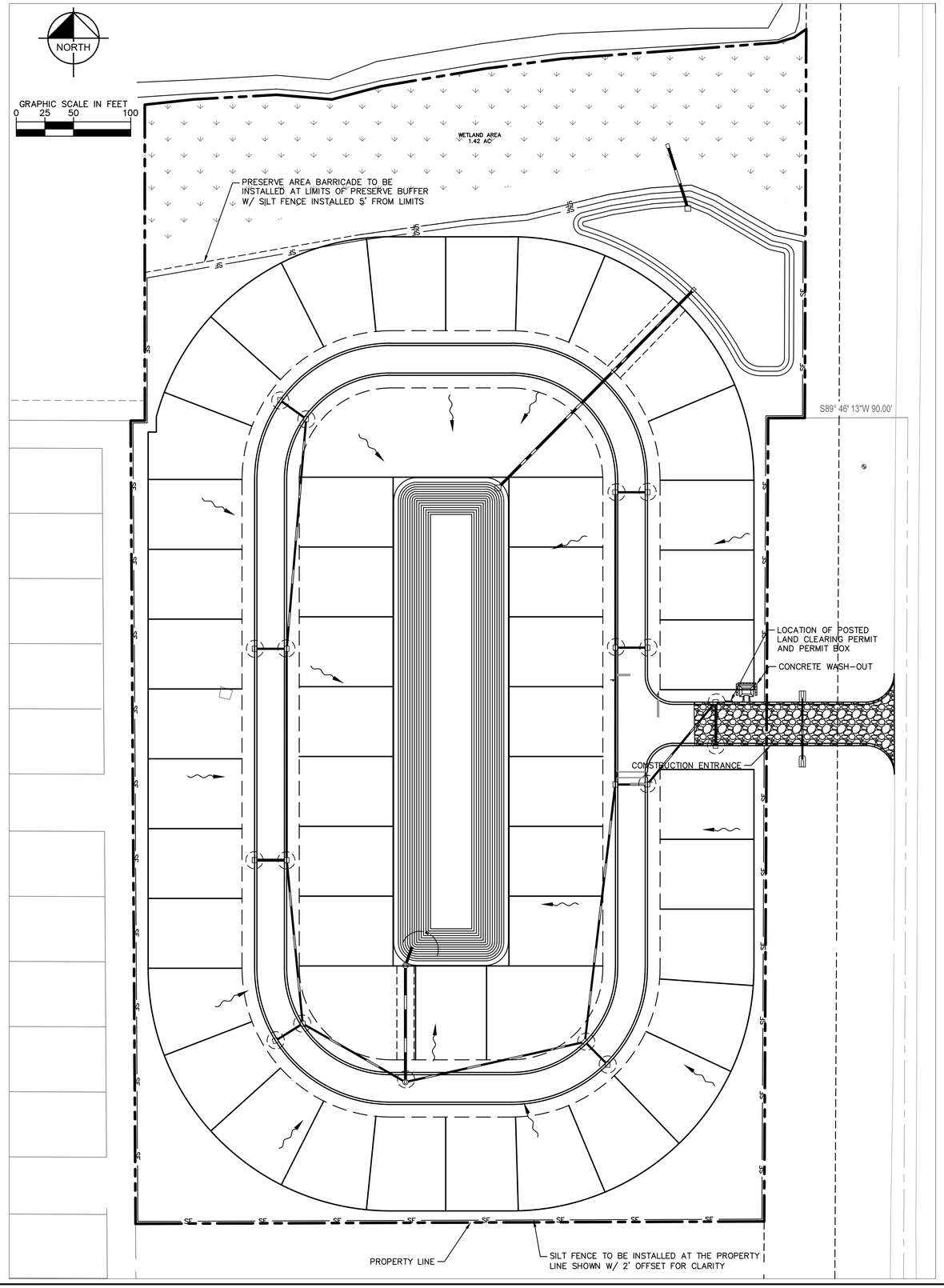
DEMOLITION AND EROSION CONTROL PLAN - PHASE 1

OLEANDER OAKS

PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE

SHEET NUMBER
C-004



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.

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

EROSION & SEDIMENTATION CONTROL

1. THE LAND DISTURBING ACTIVITY SHALL CONFORM TO EXISTING TOPOGRAPHY AND SOIL TYPE SO AS TO CREATE THE LOWEST PRACTICAL EROSION POTENTIAL
2. LAND-DISTURBING ACTIVITIES SHALL BE CONDUCTED IN A MANNER MINIMIZING EROSION
3. THE DISTURBED AREA AND THE DURATION OF EXPOSURE TO EROSIVE ELEMENTS SHALL BE KEPT TO A PRACTICABLE MINIMUM
4. EROSION CONTROL MUST BE STRICTLY MAINTAINED DURING CUT AND FILL OPERATIONS
5. DISTURBED SOIL SHALL BE STABILIZED AS QUICKLY AS PRACTICABLE
6. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED AND SUPPLEMENTED
7. TEMPORARY VEGETATION OR MULCHING SHALL BE EMPLOYED TO PROTECT EXPOSED CRITICAL AREAS DURING DEVELOPMENT
8. PERMANENT VEGETATION AND STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS PRACTICABLE
9. ADEQUATE PROVISIONS MUST BE PROVIDED TO MINIMIZE DAMAGE FROM SURFACE WATER TO THE CUT FACE OF EXCAVATIONS OR THE SLOPING SURFACE FILLS
10. TO THE EXTENT NECESSARY, SEDIMENT IN RUNOFF WATER MUST BE TRAPPED BY THE USE OF DEBRIS BASINS, SEDIMENT BASINS, SILT TRAPS OR SIMILAR MEASURES UNTIL THE DISTURBED AREA IS STABILIZED
11. CUTS AND FILLS MUST BE CONSTRUCTED IN SUCH A MANNER THAT EROSION AND RUNOFF FROM THE SITES DOES NOT ENDANGER ADJOINING PROPERTY
12. FILLS MAY NOT ENCROACH UPON NATURAL WATERCOURSES OR CONSTRUCTED CHANNELS IN A MANNER SO AS TO ADVERSELY AFFECT OTHER PROPERTY OWNERS WITHOUT ADEQUATE PROVISIONS FOR AN EQUIVALENT ALTERNATE SYSTEM WITH A POSITIVE OUTFALL
13. ALL R.O.W'S WATERWAYS, STREETS AND SIDEWALKS SHALL BE BUFFERED BY A TWENTY FOOT WIDE STRIP OF GRASS OR OTHER SUITABLE MEANS
14. GRADING EQUIPMENT MUST CROSS FLOWING STREAMS BY MEANS OF BRIDGES OR CULVERTS EXCEPT WHEN SUCH METHODS ARE NOT FEASIBLE AND PROVIDED IN ANY CASE, THAT SUCH CROSSINGS ARE KEPT TO A MINIMUM AND SEDIMENTATION CONTROL DEVICES ARE PROVIDED

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%.

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																								

EROSION CONTROL LEGEND

- SF — PROPOSED SILT FENCE
- TB — PROPOSED TURBIDITY BARRIER
- SURFACE WATER FLOW DIRECTION
- PROPOSED TREE PROTECTION
- PROPOSED INLET PROTECTON
- PROPOSED PRESERVE AREA BARRICADE

SEE LANDSCAPE PLAN FOR TREE REMOVAL/RELOCATION AND TREE PROTECTION

SITE PREPARATION SHOULD BE IN ACCORDANCE WITH GEOTECHNICAL INVESTIGATION

CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING ALL DEWATERING PERMITS NECESSARY FOR CONSTRUCTION

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.

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

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WWW.KIMLEY-HORN.COM CA 00000696

BLAINE BERGSTRESSER — LICENSE NO. 84998 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — DATE: 4/2/2021

KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

DEMOLITION AND EROSION CONTROL PLAN - PHASE 2

OLEANDER OAKS

PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE FL

SHEET NUMBER
C-005

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-007 DEMOLITION AND EROSION CONTROL PLAN - PHASE 2 April 23, 2021 10:37:28am K:\VRB_LDEV\147811000 - Oleander oaks\CAD\Plansheets\C-007 DEMOLITION AND EROSION CONTROL PLAN - PHASE 2.dwg
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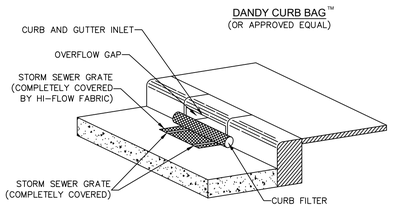
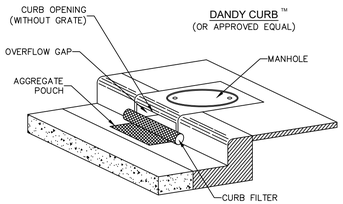
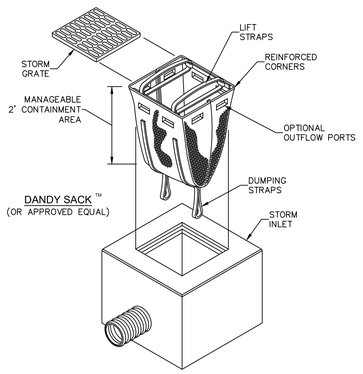




CURB INLET SEDIMENT CONTROL
N.T.S



INLET INSERT
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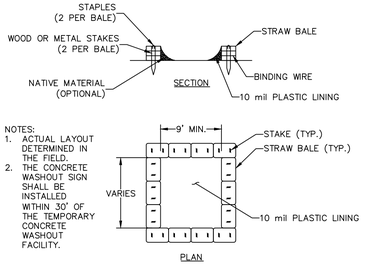
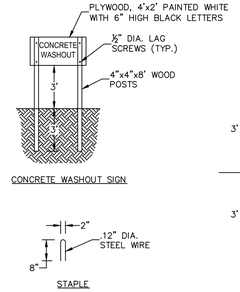
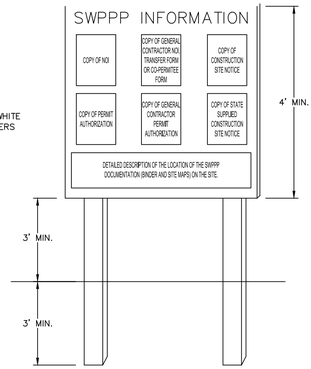


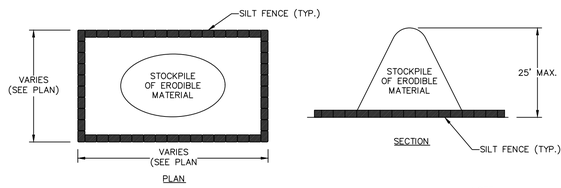
CONCRETE & STUCCO WASTE MANAGEMENT
N.T.S





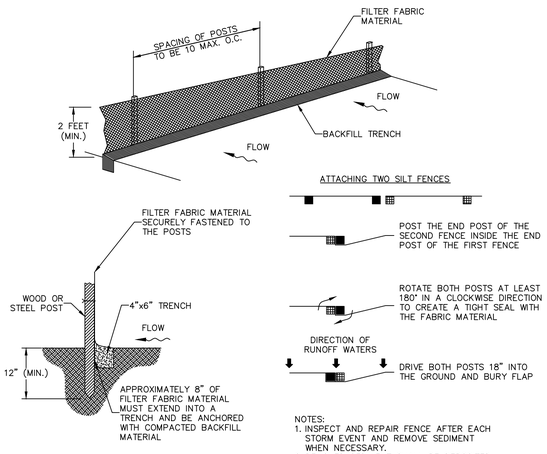
NOTES:
1. "SWPPP INFORMATION" MUST BE DISPLAYED PROMINENTLY ACROSS THE TOP OF THE SIGN, AS SHOWN IN THE DETAIL.
2. SIGN TO BE CONSTRUCTED OF A RIGID MATERIAL, SUCH AS PLYWOOD OR OUTDOOR SIGN BOARD. SIGN MUST BE CONSTRUCTED IN A MANNER TO PROTECT DOCUMENTS FROM DAMAGE DUE TO WEATHER (WIND, SUN, MOISTURE, ETC.).
3. THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE ENTRANCE/EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE/VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
4. ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
5. CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE LOCAL AGENCY.
6. SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
7. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THIS SWPPP INFORMATION SIGN.

SWPPP INFORMATION SIGN
N.T.S



SEDIMENT CONTROL FOR STOCKPILING OF ERODIBLE MATERIAL
N.T.S

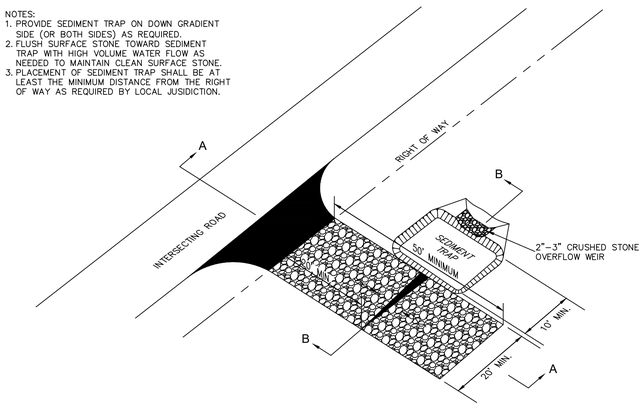
NOTE:
WHEN STOCKPILING ERODIBLE MATERIAL FOR EXTENDED PERIODS, THE AREA SHALL BE SEEDED AND MULCHED.

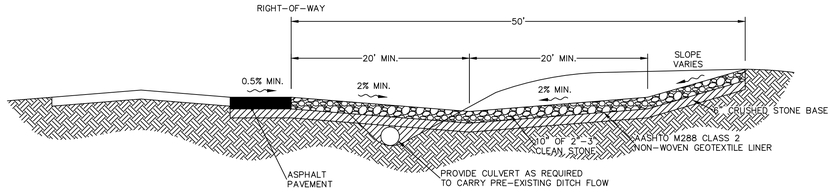


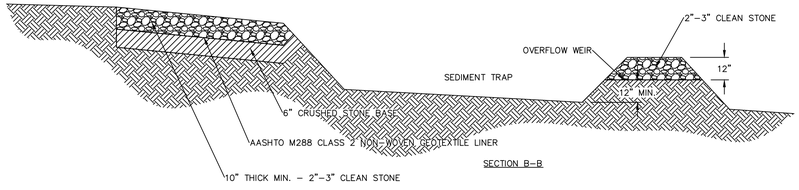
SILT FENCE INSTALLATION
N.T.S

NOTES:
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.

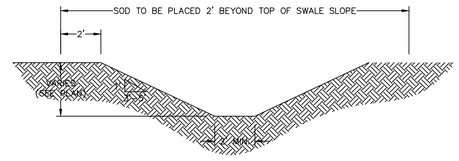
NOTES:
1. PROVIDE SEDIMENT TRAP ON DOWN GRADIENT SIDE (OR BOTH SIDES) AS REQUIRED.
2. FLUSH SURFACE STONE TOWARD SEDIMENT TRAP WITH HIGH VOLUME WATER FLOW AS NEEDED TO MAINTAIN CLEAN SURFACE STONE.
3. PLACEMENT OF SEDIMENT TRAP SHALL BE AT LEAST THE MINIMUM DISTANCE FROM THE RIGHT OF WAY AS REQUIRED BY LOCAL JUSIDICTION.



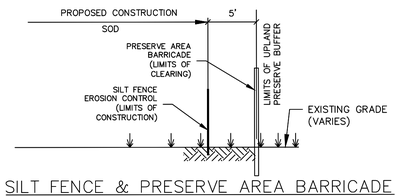




CONSTRUCTION EXIT
N.T.S



TYPICAL SWALE SECTION
N.T.S



SILT FENCE & PRESERVE AREA BARRICADE TYPICAL SECTION
NTS

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

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

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

No.	REVISIONS	DATE	BY

Kimley»Horn

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445 24TH STREET, SUITE 200, VERO BEACH, FL 32960
PHONE: 772-794-4100
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ROBERT BLAINE BERGSTRESSER
LICENSE NO. 84688
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE: 4/12/2021

KHA PROJECT 147811000	DATE 04/12/2021	SCALE AS SHOWN	DESIGNED BY BRB	DRAWN BY T&E	CHECKED BY BRB

EROSION CONTROL DETAILS

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE FL

SHEET NUMBER
C-006

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-005 EROSION CONTROL DETAILS April 23, 2021 09:45:56am K:\VRB_LDE\147811000 - oleander oaks\CAD\plansheets\C-005 EROSION CONTROL DETAILS.dwg
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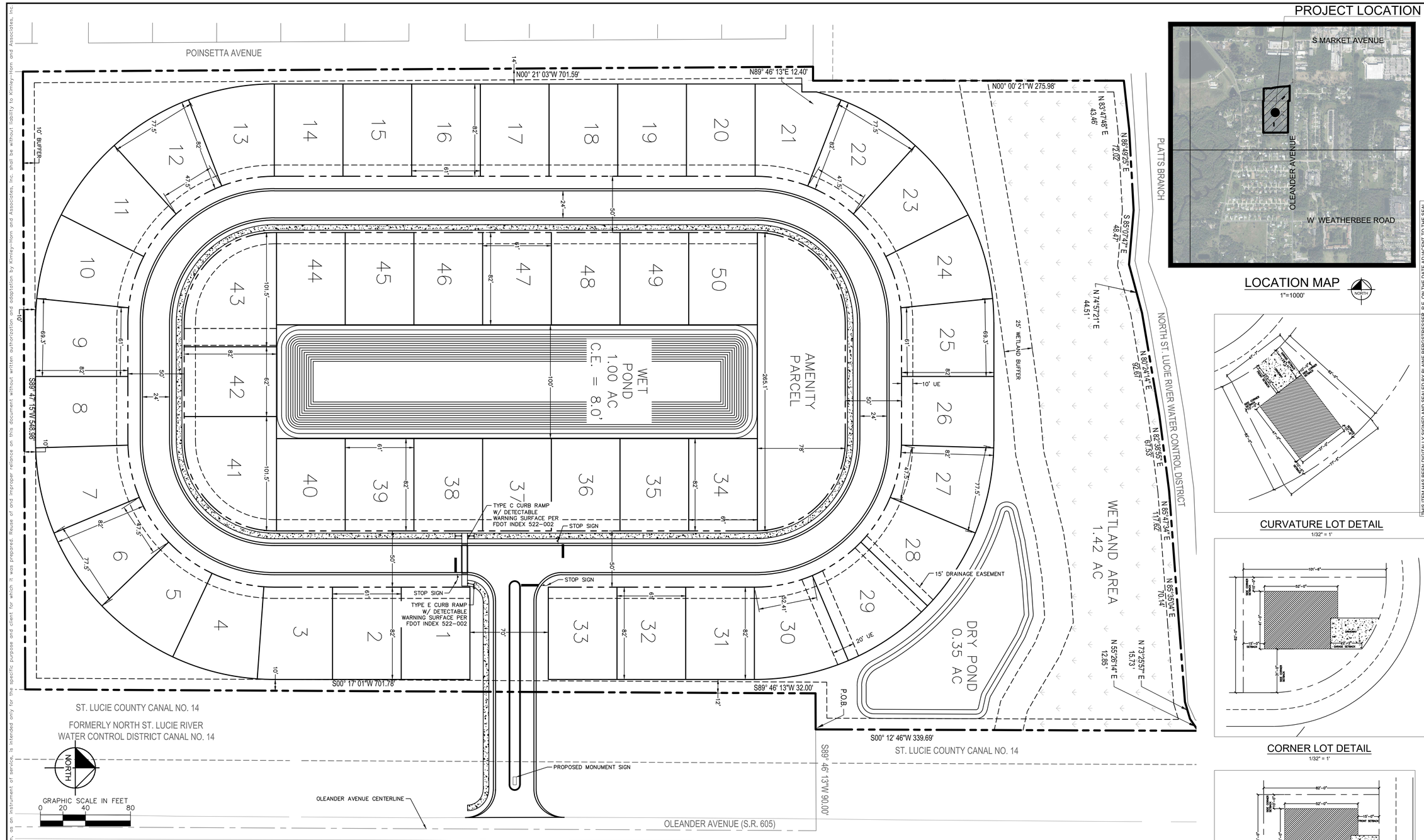


PROJECT LOCATION

LOCATION MAP

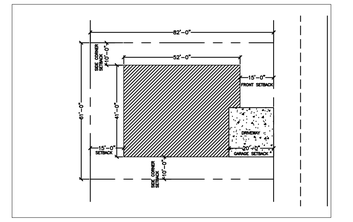
1"=1000'

CURVATURE LOT DETAIL

1/32" = 1'

CORNER LOT DETAIL

1/32" = 1'



REGULAR LOT DETAIL

1/32" = 1'

OWNER/DEVELOPER

ALVA STONE GROUP
224 PALERMO AVENUE
CORAL GABLES, FL 33134

CIVIL ENGINEER

KIMLEY-HORN AND ASSOCIATES. INC.
445 24TH STREET, SUITE 200
VERO BEACH, FL 32960

FLOOD ZONE

PROPERTY LIES WITHIN FLOOD ZONE "X" & "AE", ACCORDING TO THE F.I.R.M. MAP NO. 12111C0189J.

LEGAL DESCRIPTION

PER OFFICIAL RECORDS BOOK 4050, PAGE 2327

PARCEL ONE:
ALL OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING NORTH OF LAND OWNED BY MRS. HARRY E KESLER ON THE 7TH DAY OF MARCH 1956, LESS LAND FOR ROADS AND DRAINAGE CANALS. THE SAID LAND IS ALSO DESCRIBED AS THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS THE SOUTH 630 FEET THEREOF.

PARCEL TWO: THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LESS AND EXCEPTING THEREFROM ALL RIGHTS OF WAY AND EASEMENTS FOR PUBLIC ROAD AND DRAINAGE CANALS.

DEVELOPMENT DATA	
PROJECT NAME	OLEANDER OAKS
TAX PARCEL ID NO.	2433-144-0002-000-3
EXISTING FUTURE LAND USE	MEDIUM DENSITY RESIDENTIAL (RM)
PROPOSED FUTURE LAND USE	MEDIUM DENSITY RESIDENTIAL (RM)
EXISTING ZONING	MEDIUM DENSITY RESIDENTIAL (R-4)
PROPOSED ZONING	PLANNED DEVELOPMENT ZONE (PD)
PROJECT USE	SINGLE-FAMILY RESIDENTIAL
MAXIMUM ALLOWABLE DENSITY	6.5 - 12 DU/AC
PROPOSED DENSITY	3.87 DU/AC

TOTAL AREA OF TRACT	562,732 SF	12.92 AC	100%
AREA OF PROPOSED BUILDINGS	100,000 SF	2.30 AC	17.80%
AREA OF PROPOSED PAVEMENT	75,000 SF	1.72 AC	13.33%
TOTAL PROPOSED IMPERVIOUS AREA	175,000 SF	4.02 AC	31.13%
AREA OF WETLAND	62,025 SF	1.42 AC	10.99%
AREA OF WETLAND BUFFER	14,855 SF	0.34 AC	2.63%
AREA OF PROPOSED POND	43,560 SF	1.00 AC	7.77%
AREA OF PROPOSED OPEN SPACE	270,628 SF	6.17 AC	47.76%
TOTAL PROPOSED OPEN SPACE AREA	387,732 SF	8.89 AC	68.86%
REQUIRED OPEN SPACE AREA	112,547 SF	2.58 AC	20.00%

PROPOSED MINIMUM SETBACKS	
FRONT	15'
FRONT GARAGE	20'
SIDE (INTERIOR)	10'
SIDE (CORNER)	15'
REAR	10'

R-4 ZONING REQUIREMENTS	
MIN. LOT AREA	5,000 SF
MIN. LOT WIDTH	60'
MIN. LOT DEPTH	70'
MAX. LOT COVERAGE	40% OF LOT AREA
MIN. STREET FRONTAGE	15'

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

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No.	REVISIONS	DATE	BY

Kimley»Horn
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445 24TH STREET, SUITE 200, VERO BEACH, FL 32960
PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

BLAINE RUSSELL BERGSTRESSER LICENSE No. 84598 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE: 4/2/2021

KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

SITE PLAN

OLEANDER OAKS

PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE FL

SHEET NUMBER
C-100

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-100 SITE PLAN April 23, 2021 10:39:04am K:\VRB_LDEV\147811000 - oleander oaks\CAD\plansheets\C-100 SITE PLAN.dwg
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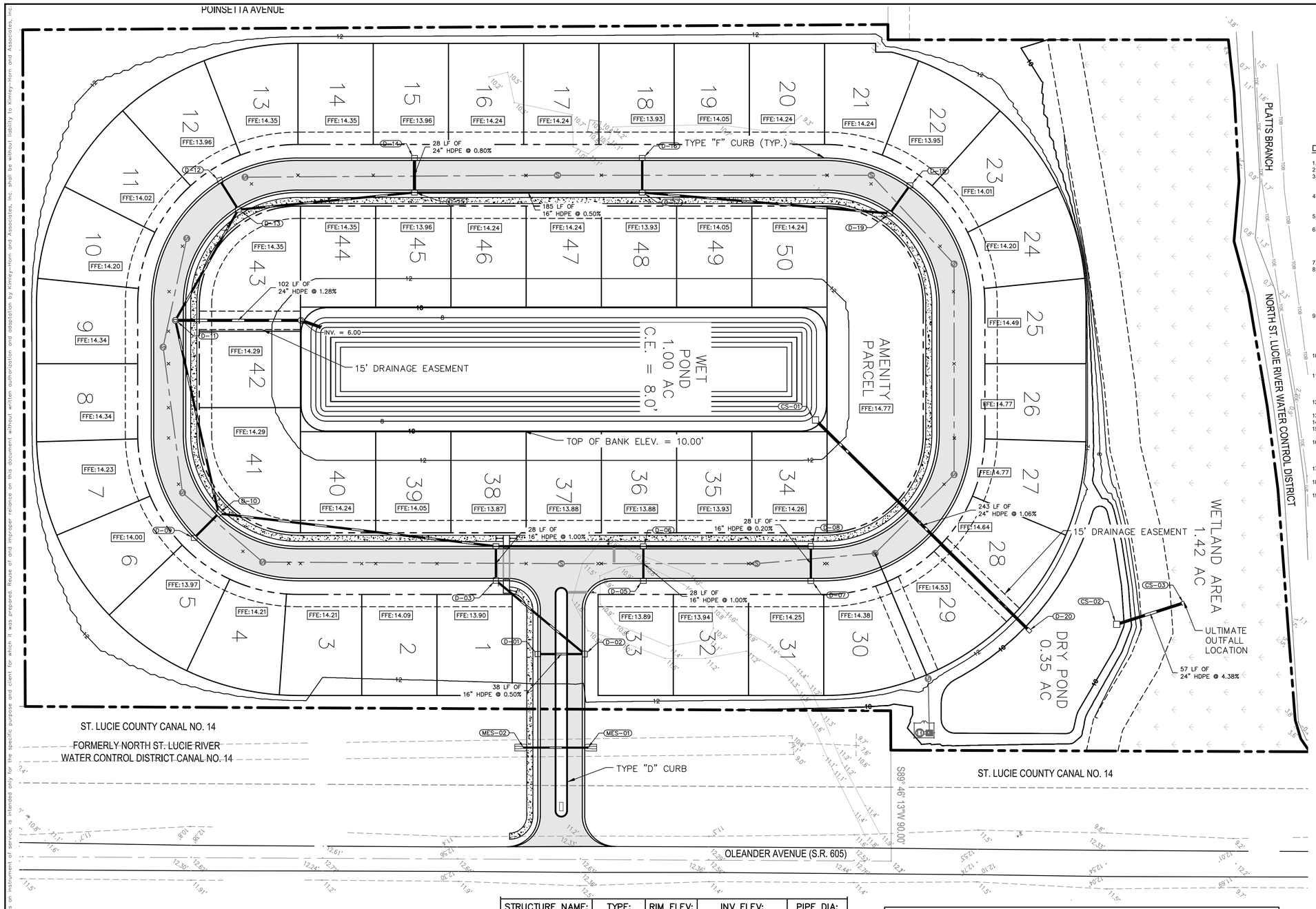

DRAINAGE NOTES

1. ELEVATIONS SHOWN HERON ARE REFERENCED TO NAVD 1988.
2. SURVEY INFORMATION SHOWN HEREON WAS PROVIDED BY HSQ GROUP, INC.
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.

LEGEND

- TYPE "F" CURB AND GUTTER
- TYPE "D CURB
- 6' OPAQUE SCREENING WALL
- HEAVY DUTY ASPHALT PAVEMENT
- STANDARD DUTY ASPHALT PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- STANDARD DUTY CONCRETE PAVEMENT

DRAINAGE LEGEND

- PROPOSED STORM INLET
- PROPOSED MITERED END SECTION
- PROPOSED DRAINAGE PIPE
- PROPOSED DIRECTION OF SURFACE WATER RUNOFF
- PROPOSED SURFACE ELEVATION (XX.X)
- EXISTING CONTOUR

STRUCTURE TABLE

STRUCTURE NAME:	TYPE:	RIM ELEV:	INV ELEV:	PIPE DIA:
71	HEADWALL	2.60	INV IN: 5.000 (S)	DIA IN: 24"
CS-01	FDOT TYPE "C" CONTROL STRUCTURE	10.08	INV OUT: 7.500 (NE)	DIA OUT: 24"
CS-02	FDOT TYPE "C" CONTROL STRUCTURE	10.08	INV OUT: 8.000 (N)	DIA OUT: 24"
CS-03	FDOT TYPE "C" CONTROL STRUCTURE	9.24	INV IN: 5.500 (S)	DIA IN: 24"
D-01	CURB INLET	13.15	INV OUT: 6.778 (N)	DIA OUT: 16"
D-02	CURB INLET	13.15	INV IN: 6.588 (S) INV OUT: 6.488 (SW)	DIA IN: 16" DIA OUT: 16"
D-03	CURB INLET	12.31	INV IN: 6.020 (NE) INV OUT: 9.513 (W)	DIA IN: 16" DIA OUT: 16"
D-04	CURB INLET	12.32	INV IN: 9.235 (E) INV IN: 9.235 (N) INV OUT: 9.235 (S)	DIA IN: 16" DIA IN: 16" DIA OUT: 16"

STRUCTURE TABLE

STRUCTURE NAME:	TYPE:	RIM ELEV:	INV ELEV:	PIPE DIA:
D-05	CURB INLET	12.32	INV IN: 9.833 (W)	DIA IN: 16"
D-06	CURB INLET	12.32	INV IN: 9.833 (N) INV OUT: 10.113 (E) INV OUT: 9.833 (S)	DIA IN: 16" DIA OUT: 16" DIA OUT: 16"
D-07	CURB INLET	12.32	INV IN: 10.152 (W)	DIA IN: 16"
D-08	CURB INLET	12.32	INV OUT: 10.208 (E) INV OUT: 10.512 (S)	DIA OUT: 16" DIA OUT: 16"
D-09	CURB INLET	12.33	INV OUT: 8.383 (NW)	DIA OUT: 16"
D-10	CURB INLET	12.25	INV IN: 8.103 (SE) INV IN: 8.103 (N) INV OUT: 8.103 (W)	DIA IN: 16" DIA IN: 16" DIA OUT: 16"
D-11	MANHOLE	12.61	INV IN: 7.300 (NW) INV IN: 7.300 (E) INV OUT: 7.300 (N)	DIA IN: 16" DIA IN: 16" DIA OUT: 24"
D-12	CURB INLET	12.33	INV OUT: 8.040 (NE)	DIA OUT: 16"

STRUCTURE TABLE

STRUCTURE NAME:	TYPE:	RIM ELEV:	INV ELEV:	PIPE DIA:
D-13	CURB INLET	12.27	INV IN: 7.900 (SW) INV IN: 7.893 (N) INV OUT: 7.893 (SE)	DIA IN: 16" DIA IN: 16" DIA OUT: 16"
D-14	CURB INLET	12.32	INV OUT: 9.174 (E)	DIA OUT: 24"
D-15	CURB INLET	12.32	INV IN: 8.950 (W) INV IN: 8.687 (N) INV OUT: 8.687 (S)	DIA IN: 24" DIA IN: 16" DIA OUT: 16"
D-16	CURB INLET	12.32	INV OUT: 9.890 (E)	DIA OUT: 16"
D-17	CURB INLET	12.32	INV IN: 9.750 (W) INV IN: 9.610 (N) INV OUT: 9.610 (S)	DIA IN: 16" DIA IN: 16" DIA OUT: 16"
D-18	CURB INLET	12.33	INV OUT: 10.730 (SE)	DIA OUT: 16"
			INV IN: 9.890 (NW)	DIA IN: 16"

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

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PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

ROBERT BLAINE BERGSTRESSER LICENSE NO. 84998 STATE OF FLORIDA PROFESSIONAL ENGINEER DATE: 4/2/2021

KHA PROJECT	147811000
DATE	04/12/2021
SCALE	AS SHOWN
DESIGNED BY	BRB
DRAWN BY	TJE
CHECKED BY	BRB

PAVING GRADING AND DRAINAGE PLAN

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP
CITY OF FORT PIERCE FL

SHEET NUMBER
C-200

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-200 PAVING GRADING AND DRAINAGE PLAN April 23, 2021 09:46:23am K:\VRB_LDEV\147811000 - oleander oaks\CAD\plansheets\C-200 PAVING GRADING AND DRAINAGE PLAN.dwg
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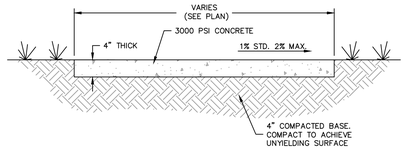
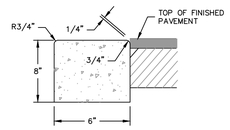


NOTE
SEE SITE PLAN FOR SPECIFIC SIDEWALK LOCATIONS.

SIDEWALK CONSTRUCTION SHALL BE PER FDOT DESIGN STANDARDS INDEX 522-001. DETECTABLE WARNINGS AND CURB RAMPS SHALL BE PER INDEX 522-002.

TYPICAL 4" SIDEWALK SECTION

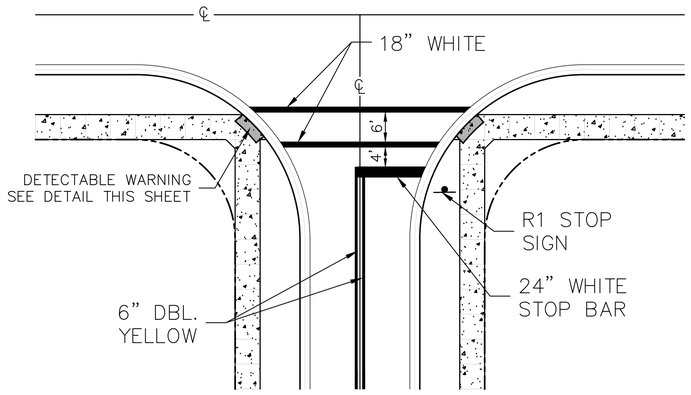
N.T.S.



ALL CONCRETE SHALL BE 3,000 PSI

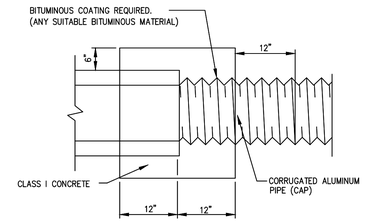
6" EDGE CURB

PGKH24A.DWG N.T.S.



TYPICAL CROSSWALK AND STOP BAR DETAIL

N.T.S.



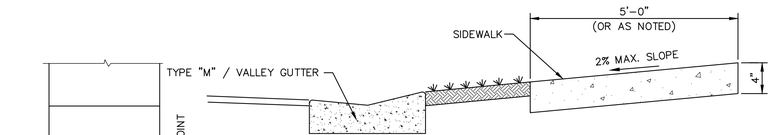
CONCRETE COLLAR DETAIL

N.T.S.

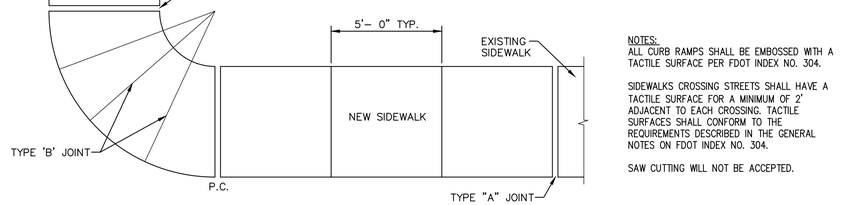
TABLE OF SIDEWALK THICKNESS - 'T'	
LOCATION	'T'
RESIDENTIAL AREAS	4"
AT DRIVEWAYS AND OTHER AREAS	6"

NOTE: CONCRETE TO BE 3,000 P.S.I. AT 28 DAYS

TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
'A'	P.C. AND P.T. OF CURVES.
'B'	5'- 0" CENTER TO CENTER ON SIDEWALKS. (NOT LESS THAN 4' AND NOT GREATER THAN 10')
'C'	WHERE SIDEWALK ABUTS CONCRETE CURBS, DRIVEWAYS AND SIMILAR STRUCTURES. JUNCTION OF EXISTING AND NEW SIDEWALKS AT INTERVALS NOT GREATER THAN 100'.



SECTION VIEW

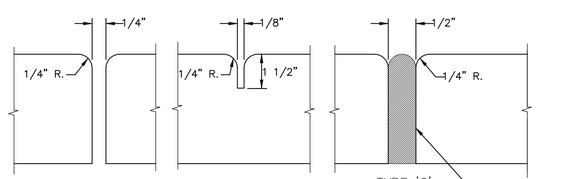


NOTES:
ALL CURB RAMPS SHALL BE EMBOSSED WITH A TACTILE SURFACE PER FDOT INDEX NO. 304.

SIDEWALKS CROSSING STREETS SHALL HAVE A TACTILE SURFACE FOR A MINIMUM OF 2' ADJACENT TO EACH CROSSING. TACTILE SURFACES SHALL CONFORM TO THE REQUIREMENTS DESCRIBED IN THE GENERAL NOTES ON FDOT INDEX NO. 304.

SAW CUTTING WILL NOT BE ACCEPTED.

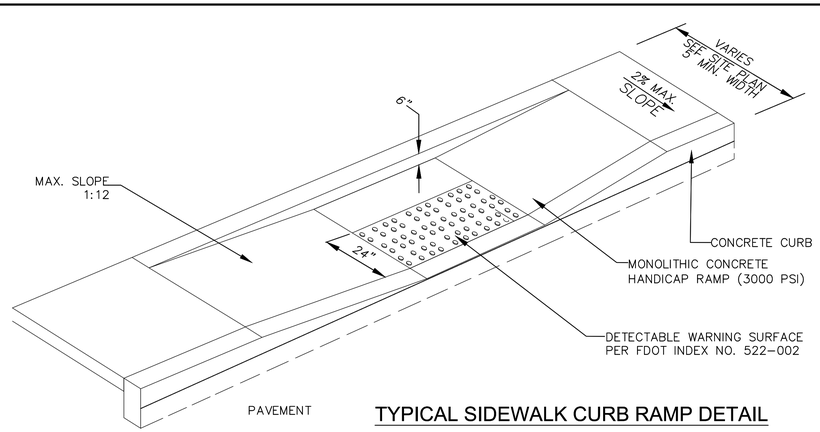
PLAN



SIDEWALK JOINTS

SIDEWALK CONSTRUCTION

N.T.S.



TYPICAL SIDEWALK CURB RAMP DETAIL

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PROFESSIONAL ENGINEER

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PAVING GRADING AND DRAINAGE DETAILS

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE FL

SHEET NUMBER
C-201

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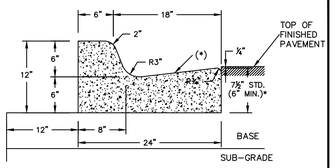
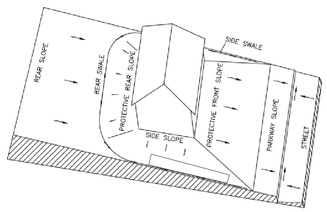


* WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6" UNLESS OTHERWISE SHOWN ON THE PLANS. ASPHALT SURFACE ON HIGH SIDE TO BE FLUSH WITH LIP OF CURB OR CURB & GUTTER.

TYPE "F" CURB AND GUTTER

N.T.S



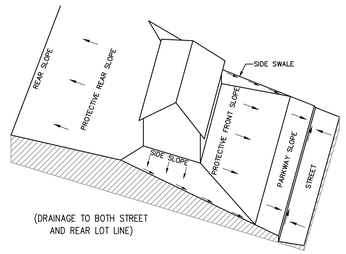
(DRAINAGE TO STREET)

NOTES

1. ALL SLOPES GREATER THAN 6:1 SHALL BE SODDED.
2. ROOF RUNOFF FROM SIDES AND REAR OF HOUSES SHALL BE DIRECTED TOWARD SIDE AND REAR YARD SWALES ACCORDINGLY.

TYPE 'A' LOT GRADING DETAIL

N.T.S.



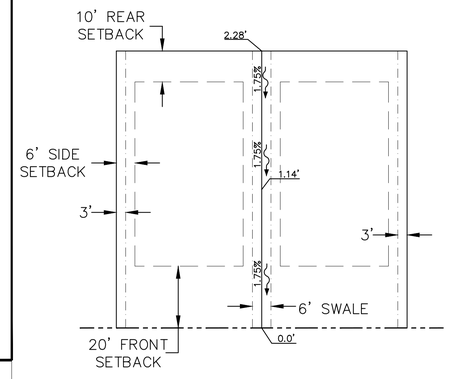
(DRAINAGE TO BOTH STREET AND REAR LOT LINE)

NOTES

1. ALL SLOPES GREATER THAN 6:1 SHALL BE SODDED.
2. ROOF RUNOFF FROM SIDES AND REAR OF HOUSES SHALL BE DIRECTED TOWARD SIDE AND REAR YARD SWALES ACCORDINGLY.

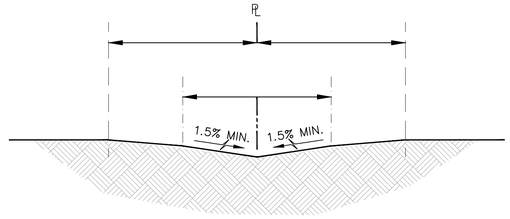
TYPE 'B' LOT GRADING DETAIL

N.T.S.



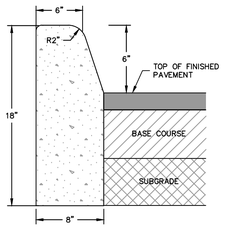
TYPICAL LOT SWALE DETAIL

N.T.S.



TYPICAL LOT SWALE SECTION

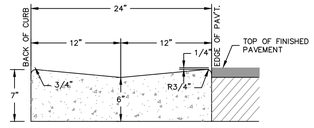
N.T.S.



ALL CONCRETE SHALL BE 3,000 PSI

TYPE "D" CURB

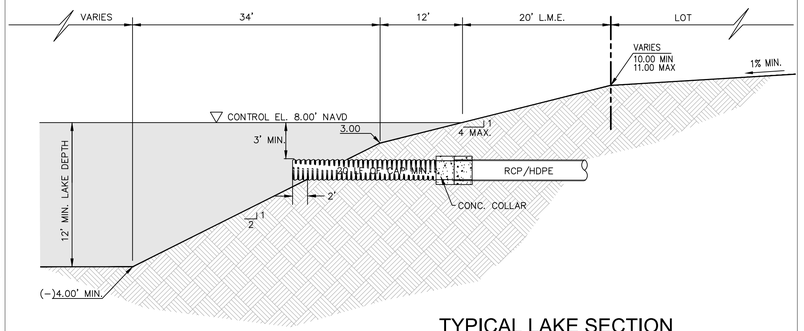
PGKH22A.DWG N.T.S.



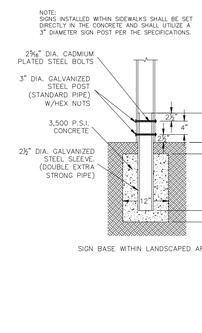
ALL CONCRETE SHALL BE 3,000 PSI

VALLEY GUTTER SECTION

PGKH21A.DWG N.T.S.

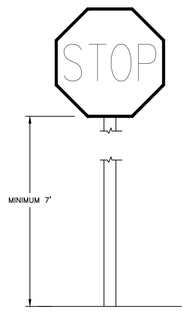


TYPICAL LAKE SECTION



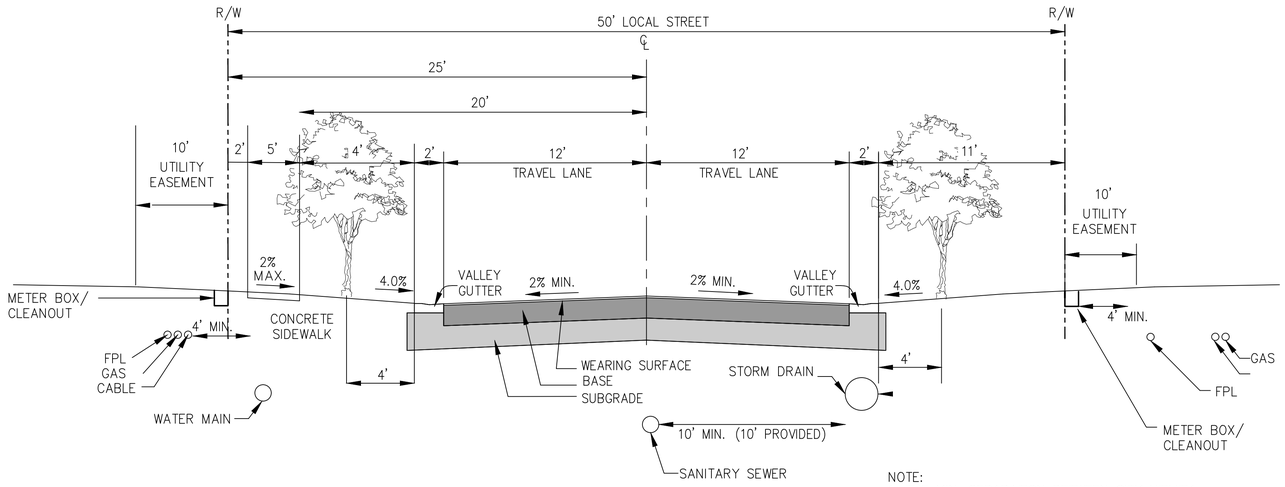
SIGN BASE

N.T.S



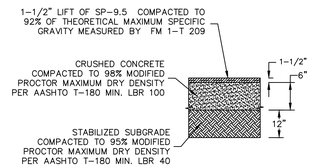
REQUIRED SIGN HEIGHT

N.T.S



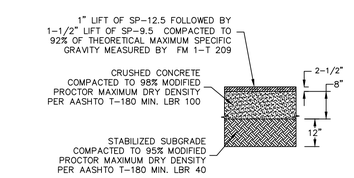
NOTE:
1. THE MIN. SEPARATION BETWEEN CITY UTILITY LINES AND OTHER UNDERGROUND UTILITIES, AS MEASURED FROM THE OUTSIDE OF EACH PIPE, SHALL BE FIVE (5) FEET.

2. PER CITY CODE, SIDEWALK IS ONLY REQUIRED ON ONE SIDE OF THE ROAD.



STANDARD DUTY ASPHALT

N.T.S



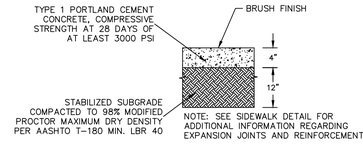
HEAVY DUTY ASPHALT

N.T.S

NOTE:
CONTRACTOR TO REFER TO THE GEOTECHNICAL REPORT FOR SITE WORK SPECIFICATIONS.

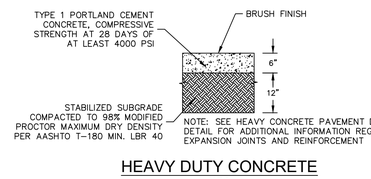
CRUSHED CONCRETE SHALL BE FROM AN FDOT APPROVED PLANT.

CRUSHED CONCRETE GRADATION SHALL BE AVAILABLE ON SITE AND SUBMITTED FOR THE AS-BUILT.



STANDARD DUTY CONCRETE

N.T.S



HEAVY DUTY CONCRETE

N.T.S

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Kimley»Horn

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PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

ROBERT BLAINE BERGSTRESSER LICENSE NO. 84998 STATE OF FLORIDA PROFESSIONAL ENGINEER DATE: 4/2/2021

KHA PROJECT	147811000
DATE	04/12/2021
SCALE	AS SHOWN
DESIGNED BY	BRB
DRAWN BY	TJE
CHECKED BY	BRB

PAVING GRADING AND DRAINAGE DETAILS

OLEANDER OAKS

PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE FL

SHEET NUMBER
C-202

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-202 PAVING GRADING AND DRAINAGE DETAILS April 23, 2021 09:46:25am K:\VRB_LDEV\147811000 - oleander oaks\CAD\plansheets\C-200 PAVING GRADING AND DRAINAGE PLAN.dwg
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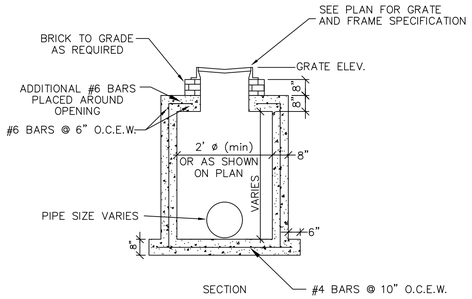


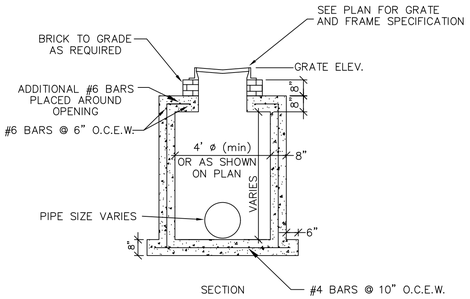
NOTE:

1. TYPE II CEMENT 4000 P.S.I.

2. WALL REINFORCEMENT A.S.T.M. DESIGNATION A185-64 OR EQUAL TO A.S.T.M. C-478.

TYPE C STORM INLET DETAIL

N.T.S



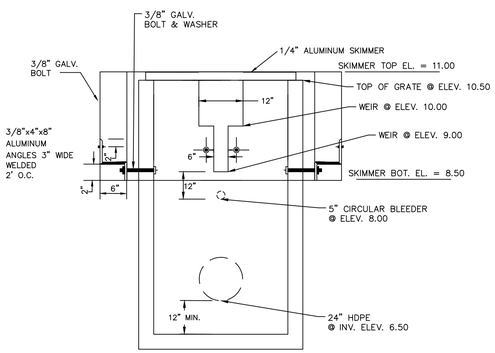
NOTE:

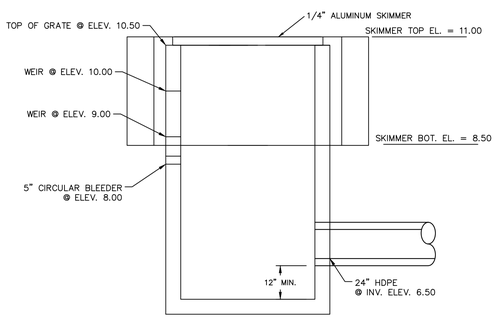
1. TYPE II CEMENT 4000 P.S.I.

2. WALL REINFORCEMENT A.S.T.M. DESIGNATION A185-64 OR EQUAL TO A.S.T.M. C-478.

TYPE D STORM INLET DETAIL

N.T.S

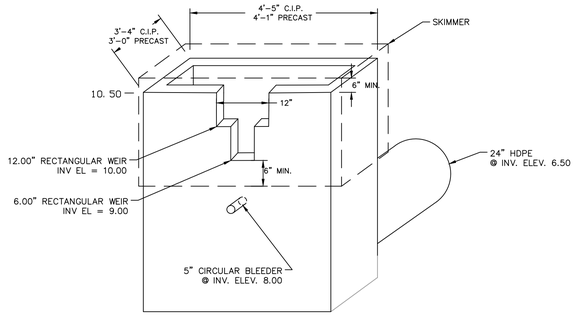




CONTROL STRUCTURE NOTES:
1. CONTRACTOR TO REFER TO FDOT FY 2021-22 STANDARD PLANS INDEX 425-052 FOR REBAR SPACING AND SIZING.

CONTROL STRUCTURE (CS-01)
FDOT TYPE 'C' STRUCTURE

NTS



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ROBERT BLAINE BERGSTRESSER — LICENSE NO. 84998 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — DATE: 4/2/2021

No.	REVISIONS	DATE	BY

Kimley»Horn
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445 24TH STREET, SUITE 200, VERO BEACH, FL 32960
PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

PAVING GRADING AND DRAINAGE DETAILS

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP
CITY OF FORT PIERCE FL

SHEET NUMBER
C-203

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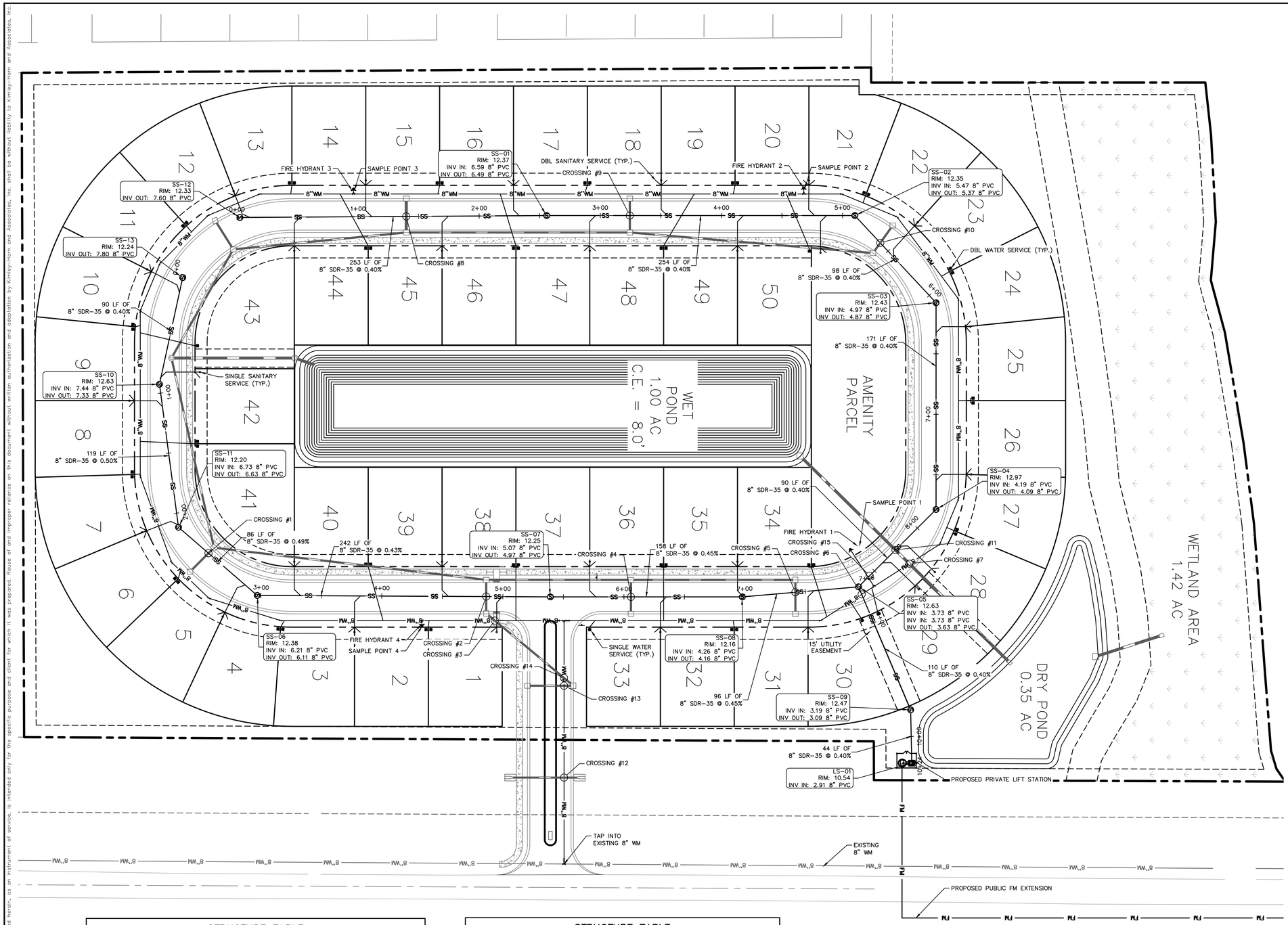

UTILITY LEGEND

- PROPOSED WATER LINE
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED SINGLE WATER SERVICE (1" LINE W/ 5/8" METER UNLESS OTHERWISE NOTED)
- PROPOSED DOUBLE WATER SERVICE (1.5" LINE W/ (2) 5/8" METERS UNLESS OTHERWISE NOTED)
- PROPOSED SINGLE SEWER SERVICE W/ CO
- PROPOSED DOUBLE SEWER SERVICE W/ CO
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SEWER
- PROPOSED WATER CAP
- PROPOSED TEE

UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD, THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
3. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
4. SANITARY SEWER PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
   8" PVC SDR26 PER ASTM D 3034 DEPTHS LESS THAN 15'
   8" PVC C900 FOR DEPTHS GREATER THAN 15'
5. WATER LINES SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON PLANS:
   6" AND LARGER, PVC C-900 PER ASTM D 2241 CLASS 200 UNDER ROADS, OTHERWISE CLASS 150
6. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
7. ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS AND RESTRAINED AS REQUIRED BY THE CITY OF PORT ST. LUCIE.
8. ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
9. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 36" COVER ON ALL WATERLINES AND FORCEMAINS.
10. CROSSINGS AND CONFLICTS MUST BE PER CITY OF PSL SPECIFICATIONS.
11. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
12. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 COMPRESSION STRENGTH AT 3000 P.S.I.
13. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
14. ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320 FAC.
15. VALVES ARE NOT TO BE PLACED IN CURBS, SIDEWALKS, OR DRIVEWAYS.
16. ALL MANHOLES SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO BEGINNING PAVING.
17. DRIVEWAY APRON IS SHOWN FOR REFERENCE ONLY. DRIVEWAYS ARE TO BE CONSTRUCTED AND PERMITTED AS PART OF THE BUILDING PERMIT PROCESS.
18. EACH PULL BOX MUST HAVE A MIN. 50' OF SLACK OF FIBER OPTIC CABLE PER CITY SPEC.
19. EACH SPLICE BOX MUST HAVE A MIN. 100' OF SLACK OF FIBER OPTIC CABLE PER CITY SPEC.
20. TRACER WIRE MUST BE INSTALLED PER CITY SPEC./QPL.
21. THE PROPERTY OWNER, CONTRACTOR,AND AUTHORIZED REPRESENTATIVES SHALL PROVIDE PICK UP, REMOVAL, AND DISPOSAL OF LITTER WITHIN THE PROPERTY LIMITS AND SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE AREA FORM THE EDGE OF PAVEMENT TO THE PROPERTY LINE.

STRUCTURE TABLE

STRUCTURE NAME:	TYPE:	RIM ELEV:	INV ELEV:	PIPE DIA:
LS-01	LIFT STATION	10.54	INV IN: 2.911 (W)	DIA IN: 8"
SS-01	MH	12.37	INV IN: 6.586 (S) INV OUT: 6.486 (N)	DIA IN: 8" DIA OUT: 8"
SS-02	MH	12.35	INV IN: 5.468 (S) INV OUT: 5.368 (NE)	DIA IN: 8" DIA OUT: 8"
SS-03	MH	12.43	INV IN: 4.974 (SW) INV OUT: 4.874 (E)	DIA IN: 8" DIA OUT: 8"
SS-04	MH	12.97	INV IN: 4.191 (W) INV OUT: 4.091 (SE)	DIA IN: 8" DIA OUT: 8"
SS-05	MH	12.63	INV IN: 3.729 (NW) INV IN: 3.726 (S) INV OUT: 3.629 (NE)	DIA IN: 8" DIA IN: 8" DIA OUT: 8"

STRUCTURE TABLE

STRUCTURE NAME:	TYPE:	RIM ELEV:	INV ELEV:	PIPE DIA:
SS-06	MH	12.38	INV IN: 6.205 (SW) INV OUT: 6.105 (N)	DIA IN: 8" DIA OUT: 8"
SS-07	MH	12.25	INV IN: 5.073 (S) INV OUT: 4.973 (N)	DIA IN: 8" DIA OUT: 8"
SS-08	MH	12.16	INV IN: 4.260 (S) INV OUT: 4.160 (N)	DIA IN: 8" DIA OUT: 8"
SS-09	MH	12.47	INV IN: 3.187 (SW) INV OUT: 3.087 (E)	DIA IN: 8" DIA OUT: 8"
SS-10	MH	12.63	INV IN: 7.439 (W) INV OUT: 7.330 (E)	DIA IN: 8" DIA OUT: 8"
SS-11	MH	12.20	INV IN: 6.730 (W) INV OUT: 6.630 (NE)	DIA IN: 8" DIA OUT: 8"

STRUCTURE TABLE

STRUCTURE NAME:	TYPE:	RIM ELEV:	INV ELEV:	PIPE DIA:
SS-12	MH	12.33	INV OUT: 7.600 (N)	DIA OUT: 8"
SS-13	MH	12.24	INV OUT: 7.800 (E)	DIA OUT: 8"

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ROBERT BLAINE BERGSTRESSER LICENSE NUMBER 86998 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE: 4/2/2021

KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

UTILITY PLAN

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP
CITY OF FORT PIERCE FL

SHEET NUMBER
C-300

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-300 UTILITY PLAN April 23, 2021 09:46:35am K:\VRB_LDEV\147811000 - oleander oaks\CAD\plansheets\C-300 UTILITY PLAN.dwg
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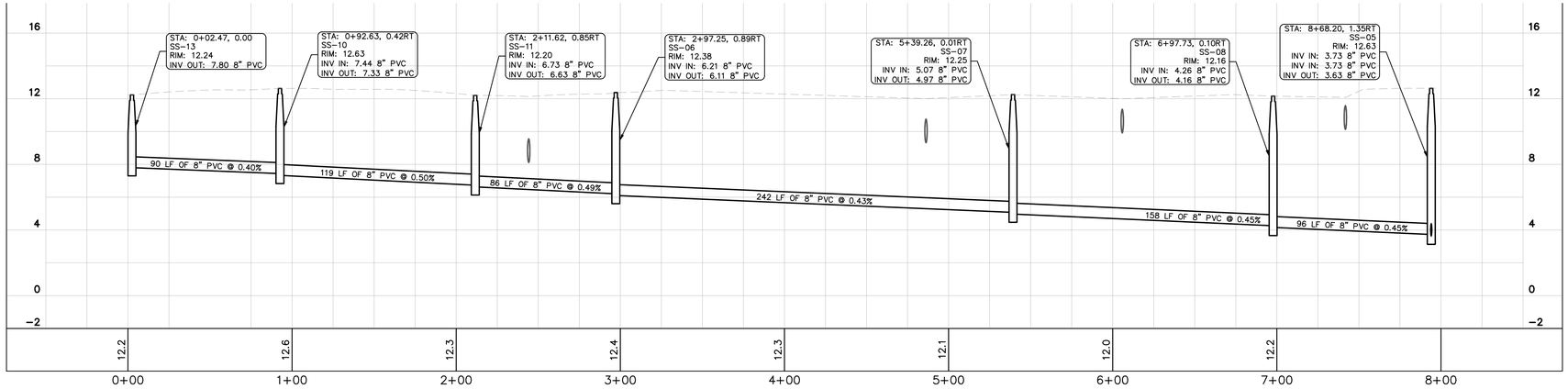
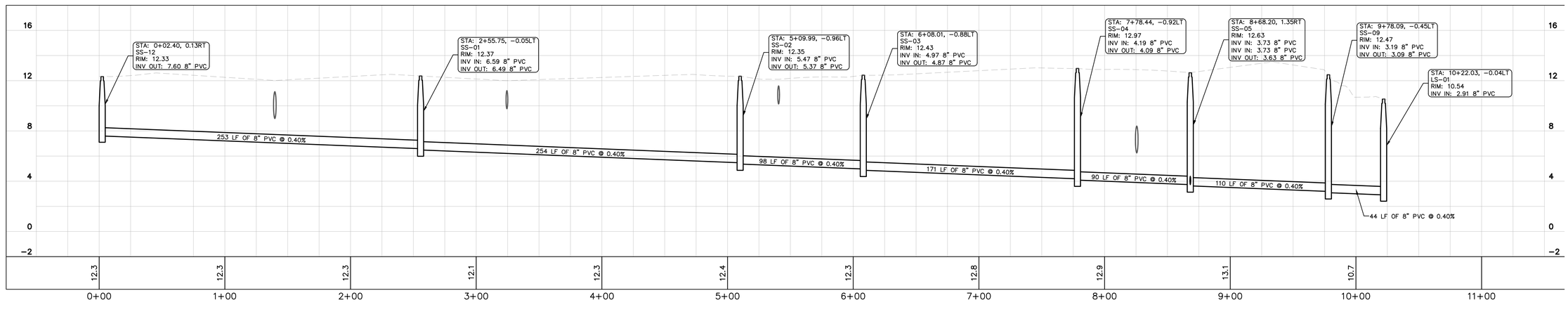


SEWER PROFILE STA. 0+00 TO 8+00

SCALE: 1"=40' HORIZONTAL
1"=10' VERTICAL



SEWER PROFILE STA. 300+00 TO 11+00

SCALE: 1"=40' HORIZONTAL
1"=10' VERTICAL

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GRAPHIC SCALE IN FEET
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DATE: 4/2/2021

KHA PROJECT	147811000
DATE	04/12/2021
SCALE	AS SHOWN
DESIGNED BY	BRB
DRAWN BY	TJE
CHECKED BY	BRB

SANITARY PROFILES

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE FL

SHEET NUMBER
C-301

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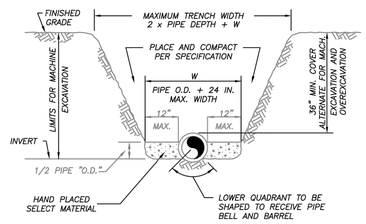


NOTES:

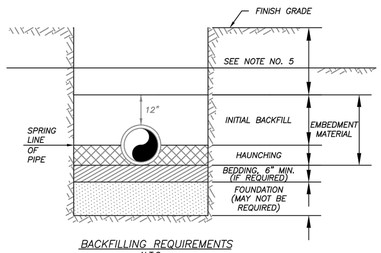
1) THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.

2) INITIAL BACKFILL SHALL BE HAND PLACED TO 12" ABOVE THE PIPE. BACKFILL SHALL BE MECHANICALLY TAMPED TO A MINIMUM OF 100% OF MAX. DENSITY AS DETERMINED BY AASHTO METHOD T-99.

TYPICAL TRENCH DETAIL

N.T.S.

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 25TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600	TYPICAL TRENCH DETAIL	M-1
03-09 CONCRETE SLAB — DATE: / REVISION: / BY: / APPD: SLL / JLC		WATER/WASTEWATER ENGINEERING
DESIGNED: JLC — COMPUTER FILE #: MISC. DETAILS 200602.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL — SCALE:		
APPROVED: JLC — DATE: 2015 — SHEET: 1 OF 1		



BACKFILLING REQUIREMENTS

N.T.S.

NOTES:

1) IN CERTAIN SOIL CONDITIONS A FOUNDATION MAY BE REQUIRED.

2) BEDDING IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE.

3) HAUNCHING MATERIAL SHALL BE HAND PLACED TO THE SPRINGLINE OF THE PIPE. MATERIAL SHALL BE CONSOLIDATED UNDER THE PIPE AND HAND TAMPED TO PROVIDE ADEQUATE SIDE SUPPORT.

4) INITIAL BACKFILL MATERIAL SHALL BE HAND PLACED TO 12" ABOVE THE TOP OF PIPE. THE SOIL SHALL BE COMPACTED TO 100% MAX. DENSITY.(AASHTO T-99)

5) BACKFILL SHALL BE COMPACTED TO 100% OF MAX. DENSITY AS PER AASHTO T-99, TO A POINT 30" BELOW PROPOSED PROFILE GRADE OR EXISTING GRADE. THE FINAL 30" OF BACKFILL SHALL BE COMPACTED TO 98% OF MAX. DENSITY AS PER AASHTO T-180.

6) DENSITY TEST SHALL BE PERFORMED AT AREAS DETERMINED BY THE UTILITIES ENGINEER OR PERMIT AGENCY HAVING JURISDICTION, AT THE CONTRACTORS EXPENSE.

7) CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL TRENCH SAFETY REGULATIONS.

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 25TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600	BACKFILLING REQUIREMENTS	M-2
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DESIGNED: JLC — COMPUTER FILE #: MISC. DETAILS 200602.DWG		FT. PIERCE UTILITIES AUTHORITY
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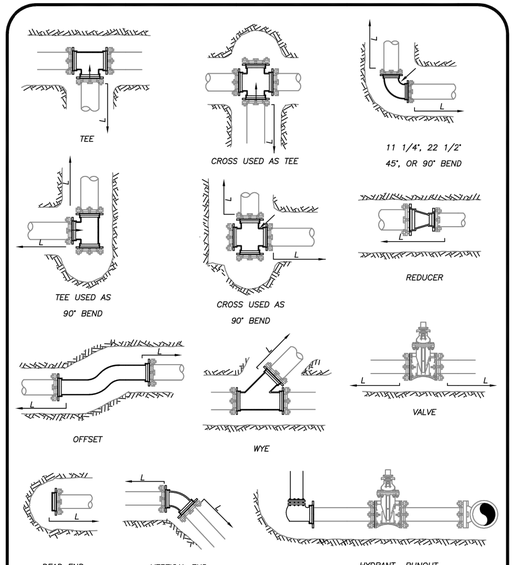
APPROVED: JLC — DATE: 2015 — SHEET: 1 OF 1		



MECHANICAL JOINT ANCHORING REQUIREMENTS

N.T.S.

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 25TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600	MECHANICAL JOINT ANCHORING REQUIREMENTS	M-3
03-09 CONCRETE SLAB — DATE: / REVISION: / BY: / APPD: SLL / JLC		WATER/WASTEWATER ENGINEERING
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DRAWN BY: SLL — SCALE:		
APPROVED: JLC — DATE: 2015 — SHEET: 1 OF 1		

MECHANICAL JOINT RESTRAINT NOTES

NOTES:

1) THE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE REQUIRED LENGTH TO BE RESTRAINED BASED UPON THE PROJECT AREA SOIL TYPE, PROPOSED TRENCH CONDITIONS AND DEPTH, PRESSURE OF 150 PSI, AND A SAFETY FACTOR OF TWO (2). A DRAWING OF EVERY TYPICAL FITTING ASSEMBLY WITHIN THE PROJECT SHALL BE SUBMITTED WHICH REFLECTS THE RESTRAINT DETAIL PROPOSED FOR USE, INCLUDING LENGTH OF PIPE RESTRAINT.

2) REQUIRED RESTRAINED LENGTH CALCULATIONS SHALL ALSO CONSIDER THE CONDITIONS OF OTHER BENDS OR FITTINGS THAT WILL BE LOCATED WITHIN THE CALCULATED RESTRAINED LENGTH (L) OF THE BEND OR FITTING IN QUESTION.

3) EVERY JOINT OR FITTING MUST BE RESTRAINED ON BOTH SIDES OF THE BEND AND FOR TEES ALONG THE BEND ALSO.

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 25TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600	MECHANICAL JOINT RESTRAINT NOTES	M-4
03-09 CONCRETE SLAB — DATE: / REVISION: / BY: / APPD: SLL / JLC		WATER/WASTEWATER ENGINEERING
DESIGNED: JLC — COMPUTER FILE #: MISC. DETAILS 200602.DWG		FT. PIERCE UTILITIES AUTHORITY
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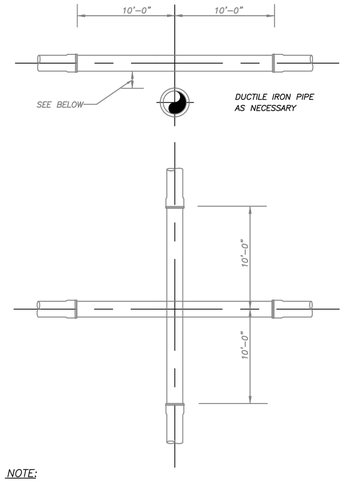
APPROVED: JLC — DATE: 2015 — SHEET: 1 OF 1		



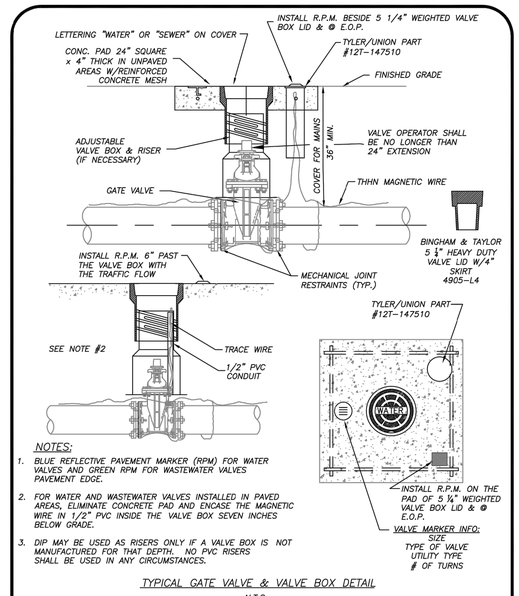
NOTE:

PLEASE REFER TO FORT PIERCE UTILITIES STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS.

UTILITY CROSSING DETAIL

N.T.S.

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 25TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600	UTILITY CROSSING DETAIL	M-5
03-09 CONCRETE SLAB — DATE: / REVISION: / BY: / APPD: SLL / JLC		WATER/WASTEWATER ENGINEERING
DESIGNED: JLC — COMPUTER FILE #: MISC. DETAILS 200602.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL — SCALE:		
APPROVED: JLC — DATE: 2015 — SHEET: 1 OF 1		



NOTES:

1. BLUE REFLECTIVE PAVEMENT MARKER (RPM) FOR WATER VALVES AND GREEN RPM FOR WASTEWATER VALVES PAVEMENT EDGE.
2. FOR WATER AND WASTEWATER VALVES INSTALLED IN PAVED AREAS, ELIMINATE CONCRETE PAD AND ENCASE THE MAGNETIC WIRE IN 1/2" PVC INSIDE THE VALVE BOX SEVEN INCHES BELOW GRADE.
3. DIP MAY BE USED AS RISERS ONLY IF A VALVE BOX IS NOT MANUFACTURED FOR THAT DEPTH. NO PVC RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

TYPICAL GATE VALVE & VALVE BOX DETAIL

N.T.S.

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 25TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600	TYPICAL GATE VALVE & VALVE BOX DETAIL	M-6
03-09 CONCRETE SLAB — DATE: / REVISION: / BY: / APPD: SLL / JLC		WATER/WASTEWATER ENGINEERING
DESIGNED: JLC — COMPUTER FILE #: MISC. DETAILS 200602.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL — SCALE:		
APPROVED: JLC — DATE: 2015 — SHEET: 1 OF 1		

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THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

CALL 48 HOURS BEFORE YOU DIG

IT'S THE LAW! DIAL 811

Know what's below. Call before you dig.

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

No.	REVISIONS	DATE	BY

Kimley»Horn

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445 24TH STREET, SUITE 200, VERO BEACH, FL 32960
PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

ROBERT BERGSTRESSER — LICENSE NO. 84998 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — BLAINE — DATE: 4/2/2021

KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

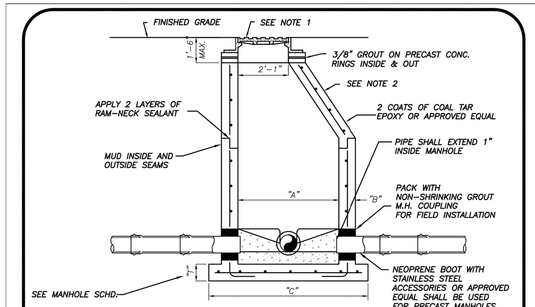
FPUA DETAILS

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE FL

SHEET NUMBER
C-400

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-400 FPUA DETAILS April 23, 2021 09:46:52am K:\VRB_LDEV\147811000 - oleander oaks\CAD\plansheets\C-400 CITY OF FORT PIERCE DETAILS.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc



PIPE DIA.	"A"	"B"	"C"	BOT. SLAB "T"
8"-24"	4'-0"	"8"	76"	8"
30"-36"	5'-0"	"8"	88"	10"
42"-48"	6'-0"	"8"	100"	12"

TYPICAL MANHOLE DIMENSIONS

NOTES:

1) MANHOLE FRAME & COVER WITH THE WORDS " SANITARY SEWER" CAST IN THE COVER. U.S. FOUNDRY 170 OR APPROVED EQUAL.

2) ALL CONCRETE MANHOLES TO BE 4000 P.S.I. TO MEET OR EXCEED ASTM C478 ALL CEMENT TO BE TYPE II ACID RESISTANT. REINFORCING AREA OF 0.02 SQ. IN/FT FOR WALL SECTION MIN. TO MEET OR EXCEED ASTM A 185.

3) A MAXIMUM OF 2 LAYERS OF PRECAST CONCRETE RINGS, IF REQUIRED.

4) RAIN GUARDS SHALL BE INSTALLED IN MANHOLES THAT HAVE GRAVITY MAINS 12" OR LESS.

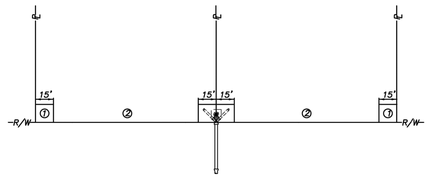
STANDARD MANHOLE
DEPTH 5'-0" AND GREATER
(N.T.S.)

FPUA COMMUNITY PROUD	PRECAST MANHOLE DEPTH 5'- 0" & GREATER	S-7
02-06 DATE:	REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JJM	COMPUTER FILE # SEWER DETAIL 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: JJM	SCALE: N.T.S.	
APPROVED: JLC	DATE: 2010	SHEET 1 OF 1

FT. PIERCE UTILITIES AUTHORITY / WATER/WASTEWATER ENGINEERING / 1701 SOUTH 5TH STREET / FT. PIERCE, FLORIDA 34947 / 772-466-1600

GENERAL POLICY

WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY. DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.



NOTES:

1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. SEWER LATERAL, AREA ① , SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE LATERAL. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO LATERALS CAN BE CONNECTED IN A "Y" CONFIGURATION AS SHOWN.

2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. SEWER LATERAL, WITHIN AREA ① , THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA ② .

3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF SIX FEET AND PREFERABLY 10 FEET.

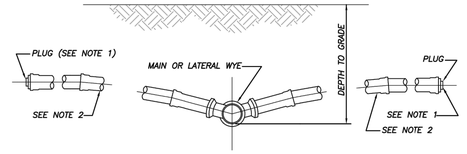
4. THE WASTEWATER LATERAL SHALL BE LOCATED WITHIN RIGHT-OF-WAY AND TERMINATE AT THE PROPERTY LINE.

5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WASTEWATER LATERAL WITHIN THE EASEMENT OR RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WASTEWATER SERVICE PLACEMENT
(N.T.S.)

FPUA COMMUNITY PROUD	WASTEWATER SERVICE PLACEMENT POLICY	S-1
02-06 02-15 DATE:	REVISION: SLL BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: AJM	COMPUTER FILE # SEWER DETAIL 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL	SCALE: N.T.S.	
APPROVED: JLC	DATE: 2010	SHEET 1 OF 1

FT. PIERCE UTILITIES AUTHORITY / WATER/WASTEWATER ENGINEERING / 1701 SOUTH 5TH STREET / FT. PIERCE, FLORIDA 34947 / 772-466-1600



NOTES:

1) BALL TYPE WASTEWATER LOCATOR BY 3M CORP. OR APPROVED EQUAL.

2) MINIMUM SLOPE OF 1/8" PER FOOT, USE GREATER SLOPE WHERE POSSIBLE.

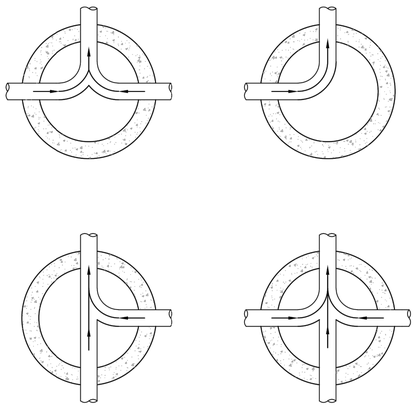
3) SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT.

4) INSTALL CLEANOUT AT THE PROPERTY LINE. REFER TO DETAIL S-1 FOR SPECIFIC PROPERTY LAYOUT.

SERVICE CONNECTION
(N.T.S.)

FPUA COMMUNITY PROUD	SERVICE CONNECTION WASTEWATER	S-2
02-06 DATE:	REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	COMPUTER FILE # SEWER DETAIL 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL	SCALE: N.T.S.	
APPROVED: JLC	DATE: 2015	SHEET 1 OF 1

FT. PIERCE UTILITIES AUTHORITY / WATER/WASTEWATER ENGINEERING / 1701 SOUTH 5TH STREET / FT. PIERCE, FLORIDA 34947 / 772-466-1600



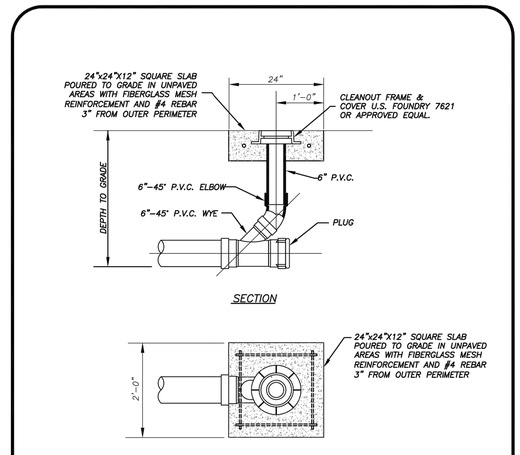
NOTES:

1) INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.

2) SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOWS.

FPUA COMMUNITY PROUD	FLOW PATTERNS FOR INVERT CHANNELS	S-12
DATE:	REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JJM	COMPUTER FILE # SEWER DETAIL 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: JJM	SCALE: N.T.S.	
APPROVED: JLC	DATE: 2010	SHEET 1 OF 1

FT. PIERCE UTILITIES AUTHORITY / WATER/WASTEWATER ENGINEERING / 1701 SOUTH 5TH STREET / FT. PIERCE, FLORIDA 34947 / 772-466-1600



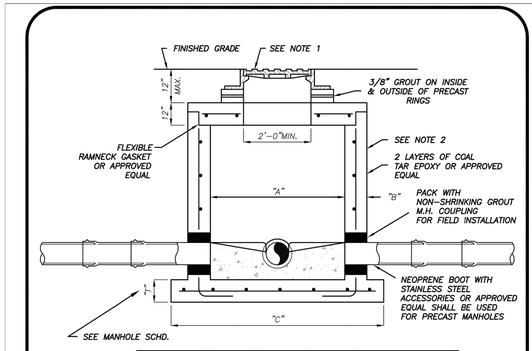
NOTES:

1) SEE DETAIL S-3 FOR DOUBLE SERVICE CONNECTION.

RESIDENTIAL CLEANOUT DETAIL
(N.T.S.)

FPUA COMMUNITY PROUD	TERMINAL CLEANOUT DETAIL RESIDENTIAL	S-4A
10-06 DATE:	REVISION: RBE BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	COMPUTER FILE # SEWER DETAIL 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL	SCALE: N.T.S.	
APPROVED: JLC	DATE: 2010	SHEET 1 OF 3

FT. PIERCE UTILITIES AUTHORITY / WATER/WASTEWATER ENGINEERING / 1701 SOUTH 5TH STREET / FT. PIERCE, FLORIDA 34947 / 772-466-1600



PIPE DIA.	"A"	"B"	"C"	BOT. SLAB "T"
8"-24"	4'-0"	"8"	76"	8"
30"-36"	5'-0"	"8"	88"	10"
42"-48"	6'-0"	"8"	100"	12"

TYPICAL MANHOLE DIMENSIONS

NOTES:

1) MANHOLE FRAME & COVER WITH THE WORDS " SANITARY SEWER" CAST IN THE COVER. U.S. FOUNDRY 170 OR APPROVED EQUAL.

2) ALL CONCRETE MANHOLES TO BE 4000 P.S.I. TO MEET OR EXCEED ASTM C478 ALL CEMENT TO BE TYPE II ACID RESISTANT. REINFORCING AREA OF 0.02 SQ. IN/FT FOR WALL SECTION MIN. TO MEET OR EXCEED ASTM A 185.

3) A MAXIMUM OF 2 LAYERS OF PRECAST CONCRETE RINGS, IF REQUIRED.

4) RAIN GUARDS SHALL BE INSTALLED IN MANHOLES THAT HAVE GRAVITY MAINS 12" OR LESS.

SHALLOW MANHOLE
DEPTH OF LESS THAN 5'-0"
(N.T.S.)

FPUA COMMUNITY PROUD	PRECAST MANHOLE DEPTH OF LESS THAN 5'- 0"	S-6
02-06 DATE:	REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	COMPUTER FILE # SEWER DETAIL 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL	SCALE: N.T.S.	
APPROVED: JLC	DATE: 2010	SHEET 1 OF 1

FT. PIERCE UTILITIES AUTHORITY / WATER/WASTEWATER ENGINEERING / 1701 SOUTH 5TH STREET / FT. PIERCE, FLORIDA 34947 / 772-466-1600

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

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

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No.	REVISIONS	DATE	BY

Kimley»Horn

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445 24TH STREET, SUITE 200, VERO BEACH, FL 32960
PHONE: 772-794-4100
WWW.KIMLEY-HORN.COM CA 00000696

ROBERT BLAINE BERGSTRESSER — LICENSE NO. 84998 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — DATE: 4/2/2021

KHA PROJECT	147811000
DATE	04/12/2021
SCALE	AS SHOWN
DESIGNED BY	BRB
DRAWN BY	TJE
CHECKED BY	BRB

FPUA DETAILS

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE FL

SHEET NUMBER
C-401

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-401 FPUA DETAILS April 23, 2021 09:46:57am K:\VRB_LDEV\147811000 - oleander oaks\CAD\plansheets\C-400 CITY OF FORT PIERCE DETAILS.dwg
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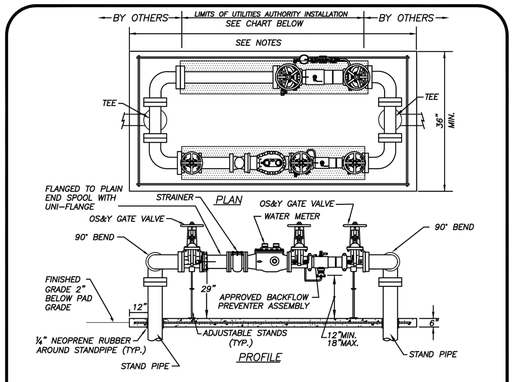


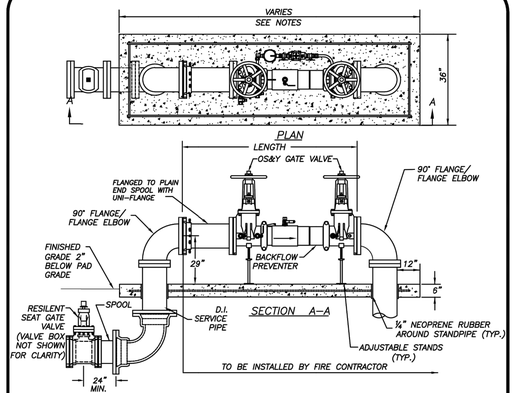
NOTES:
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. CONTRACTOR TO INSTALL APPROPRIATE SIZED SPOOL PIECES TO FIT BETWEEN 90° BENDS UNTIL METERS ARE APPROVED FOR INSTALLATION. ALL SPOOL PIECES SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE IN ACCORDANCE WITH THE CHART BELOW.
3. PRIOR TO POURING CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND ARE INSTALLED AT THE SAME ELEVATION IN THE PRESENCE OF THE FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
3	COMPOUND	83 INCHES
4	COMPOUND	95 INCHES
6	COMPOUND	106 INCHES

WATER METER/BACKFLOW PREVENTER ASSEMBLY
COMMERCIAL WATER METER SERVICES (METER SIZE > 3")

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600

WATER METER/BACKFLOW PREVENTER DOMESTIC SERVICE (METER SIZE ≥ 3")				W-9
03-09	CONCRETE SLAB	SLL	JLC	
DATE:	REVISION:	BY:	APP'D:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	COMPUTER FILE # WATER DETAILS 200602.DWG			FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL	SCALE: N.T.S.			
APPROVED: JLC	DATE: 2010	SHEET 1 OF 1		

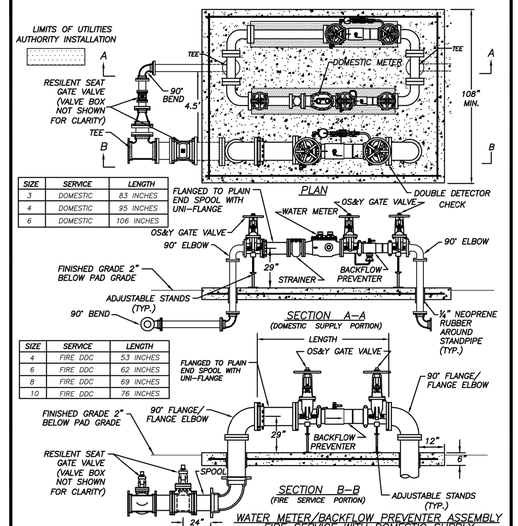


NOTES:
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE.
2. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.
3. PRIOR TO POURING THE CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND INSTALLED AT THE SAME ELEVATIONSIN THE PRESENCE OF AN FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
4	DOUBLE DETECTOR	53 INCHES
6	DOUBLE DETECTOR	62 INCHES
8	DOUBLE DETECTOR	69 INCHES
10	DOUBLE DETECTOR	76 INCHES

BACKFLOW PREVENTER ASSEMBLY-4"-10" FIRE SERVICE
(N.T.S.)

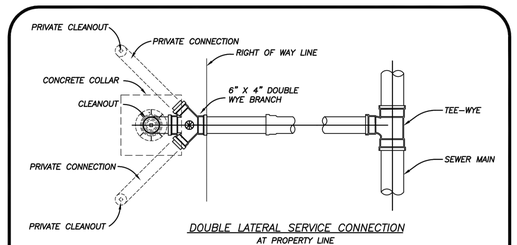
BACKFLOW PREVENTER ASSEMBLY 4"-10" FIRE SERVICE				W-10
03-09	CONCRETE PAD	SLL	JLC	
DATE:	REVISION:	BY:	APP'D:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	COMPUTER FILE # WATER DETAILS 200602.DWG			FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL	SCALE: N.T.S.			
APPROVED: JLC	DATE: 2010	SHEET 1 OF 1		



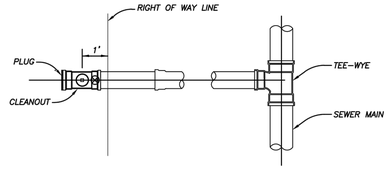
WATER METER/BACKFLOW PREVENTER ASSEMBLY
FIRE SERVICE WITH DOMESTIC SUPPLY
(N.T.S.)

NOTES:
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. NO SOLDER JOINTS.
3. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.
4. DOMESTIC SERVICE 2" OR LESS, USE 2" POLY STUBBED 12" ABOVE GRADE.
5. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER

WATER METER/BACKFLOW PREVENTER FIRE SERVICE WITH DOMESTIC SUPPLY				W-11
03-09	CONCRETE PAD	SLL	JLC	
DATE:	REVISION:	BY:	APP'D:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	COMPUTER FILE # WATER DETAILS 200602.DWG			FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL	SCALE: N.T.S.			
APPROVED: JLC	DATE: 2010	SHEET 1 OF 1		



DOUBLE LATERAL SERVICE CONNECTION
AT PROPERTY LINE

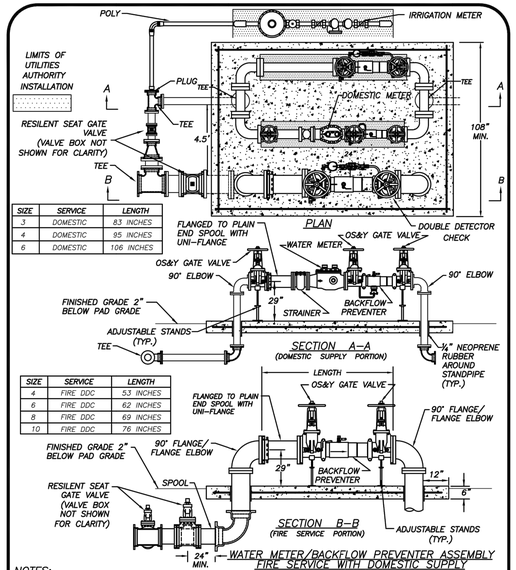


SINGLE SERVICE LATERAL CONNECTION

⊛ = BALL TYPE WASTEWATER LOCATOR INSTALLED ABOVE THIS POINT
BALL BY 3M CORP. OR APPROVED EQUAL
SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT

SERVICE CONNECTION
(N.T.S.)

SERVICE CONNECTION WASTEWATER				S-3
02-08				
DATE:	REVISION:	BY:	APP'D:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	COMPUTER FILE # SEWER DETAIL 200602.DWG			FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL	SCALE: N.T.S.			
APPROVED: JLC	DATE: 2010	SHEET 1 OF 1		



WATER METER/BACKFLOW PREVENTER ASSEMBLY
FIRE SERVICE WITH DOMESTIC SUPPLY
(N.T.S.)

NOTES:
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. NO SOLDER JOINTS.
3. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.
4. DOMESTIC SERVICE 2" OR LESS, USE 2" POLY STUBBED 12" ABOVE GRADE.
5. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

WATER METER/BACKFLOW PREVENTER FIRE SERVICE WITH DOMESTIC SUPPLY PLUS IRRIGATION				W-11A
12-09	DOC. VALVE	SLL	JLC	
DATE:	REVISION:	BY:	APP'D:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	COMPUTER FILE # WATER DETAILS 200602.DWG			FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL	SCALE: N.T.S.			
APPROVED: JLC	DATE: 2010	SHEET 1 OF 1		

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WWW.KIMLEY-HORN.COM CA 00000696

No.	REVISIONS	DATE	BY

BLAINE ROBERT BERGSTRESSER, LICENSE NO. 84998, STATE OF FLORIDA, PROFESSIONAL ENGINEER, DATE: 4/2/2021

KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

FPUA DETAILS

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP
CITY OF FORT PIERCE FL

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

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SHEET NUMBER
C-402

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:C-402 FPUA DETAILS April 23, 2021 09:47:02am K:\VRB_LDEV\147811000 - oleander oaks\CAD\plansheets\C-400 CITY OF FORT PIERCE DETAILS.dwg
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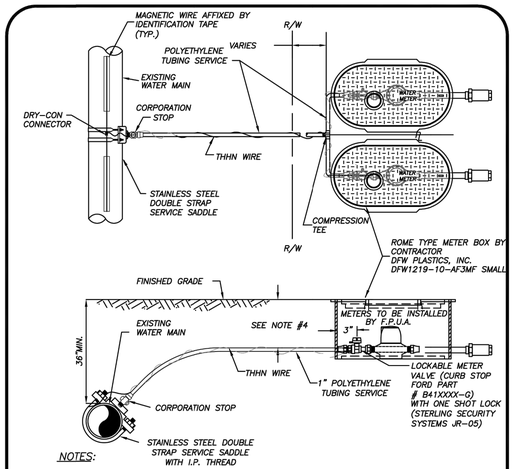
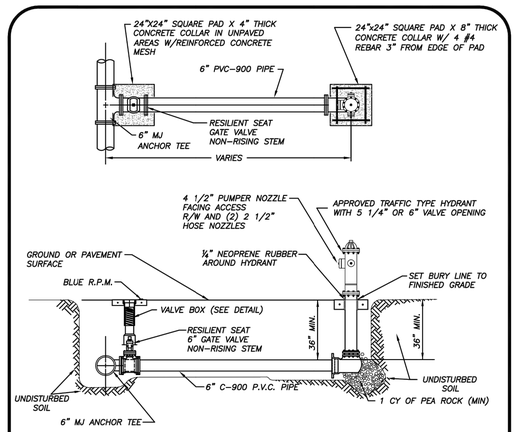


NOTES:

1. BLUE 10 GAUGE THHN WIRE SHALL BE ATTACHED TO THE SERVICE LINE.
2. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
3. 1" & 3/4" METER SIZES SHALL REQUIRE A LOCKABLE METER VALVE. (CURB STOP)
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SWALES MIN. COVER SHALL BE 36".

TYPICAL DOUBLE WATER SERVICE CONNECTION
(N.T.S.)

FPUA COMMUNITY PROUD	TYPICAL DOUBLE WATER SERVICE CONNECTION		W-3
FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 6TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600	03-09 DESIGN SLL JLC DATE: REVISION: BY: APP'D:		WATER/WASTEWATER ENGINEERING
	DESIGNED: JLC	COMPUTER FILE # WATER DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
	DRAWN BY: SLL	SCALE: N.T.S.	
	APPROVED: JLC	DATE: 2020	SHEET 1 OF 1



NOTES:

1. HYDRANT SHALL BE INSTALLED PLUMB & TRUE.
2. HYDRANT SHALL BE PAINTED CARNIVAL RED FROM FACTORY.
3. HEEL TO REST IN UNDISTURBED SOIL.
4. THE ONLY HYDRANTS ACCEPTABLE ARE: MUELLER SUPER CENTURION 250 OR AMERICAN DARLING B-84-B-5.
5. HYDRANT ASSEMBLY MUST BE RESTRAINED TO TEE.
6. ALL FITTINGS SHALL BE MECHANICAL JOINT.
7. ENTIRE ASSEMBLY TO BE MECHANICALLY RESTRAINED.
8. BLUE LOCATOR SHALL BE PLACED IN CENTER OF TRAVEL LANE CLOSEST TO HYDRANT.
9. ALL HYDRANT VALVE BOX COVERS SHALL BE PAINTED CARNIVAL RED.
10. LOCATE WIRE SHALL TERMINATE AT HYDRANT ISOLATION VALVE
11. HYDRANTS SHALL BE NO MORE THAN FIFTEEN FEET (15 FT.) FROM THE CURB OF ROADWAYS OR FROM THE EDGE OF PAVEMENT. CLEARANCES OF SEVEN AND ONE HALF FEET (7FT-6IN.) IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANTS. WITH FOUR FOOT (4 FT.) CLEARANCE TO THE REAR OF HYDRANTS SHALL BE MAINTAINED.

TYPICAL FIRE HYDRANT ASSEMBLY
(N.T.S.)

FPUA COMMUNITY PROUD	TYPICAL FIRE HYDRANT ASSEMBLY		W-5
FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 6TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600	03-09 DESIGN SLL JLC DATE: REVISION: BY: APP'D:		WATER/WASTEWATER ENGINEERING
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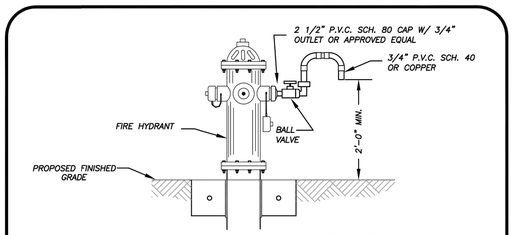
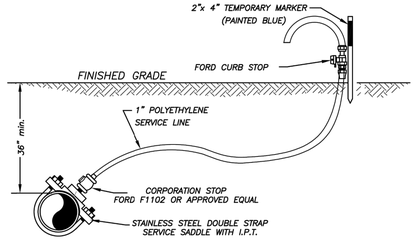


BACTERIOLOGICAL SAMPLING POINT @ FIRE HYDRANT
(N.T.S.)



BACTERIOLOGICAL SAMPLING POINT @ WATER MAIN
(N.T.S.)

NOTE:

AFTER TESTING REMOVE 1" P.E. LINE AND CAP WITH BRASS PLUG AT CORPORATION STOP.

FPUA COMMUNITY PROUD	BACTERIOLOGICAL SAMPLING PONIT DETAIL		W-6
FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 6TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600	03-09 02-15 SLL JLC DATE: REVISION: BY: APP'D:		WATER/WASTEWATER ENGINEERING
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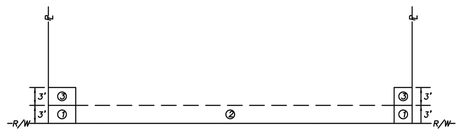
	APPROVED: JLC	DATE: 2010	SHEET 1 OF 1

GENERAL POLICY

WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY. DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.



NOTES:

1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. WATER METER, AREA ① SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE WATER METER. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO WATER SERVICES AND METERS CAN BE CONNECTED.
2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. WATER SERVICE, WITHIN AREA ① , THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA ② , OR ALONG THE PROPERTY LINES MARKED AREA ⑤.
3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF 6 FEET AND PREFERABLY 10 FEET.
4. ALL METERS SHALL BE INSTALLED IN AN UNRESTRICTED AREA FOLLOWING EASE OF ACCESS AND PROVIDING ADEQUATE PROTECTION.
5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WATER LATERAL WITHIN THE EASEMENT OR RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WATER METER PLACEMENT
(N.T.S.)

FPUA COMMUNITY PROUD	WATER METER PLACEMENT POLICY		W-1
FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 6TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600	03-09 02-15 SLL DATE: REVISION: BY: APP'D:		WATER/WASTEWATER ENGINEERING
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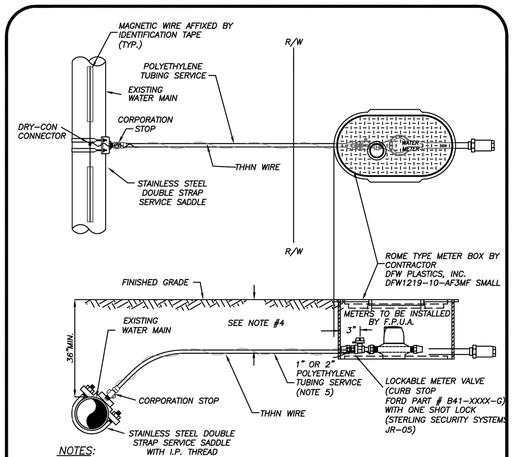

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3. 1" & 3/4" METER SIZES SHALL REQUIRE A LOCKABLE METER VALVE. (CURB STOP)
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SWALES MIN. COVER SHALL BE 36".
5. FOR 2" COMMERCIAL SERVICE INSTALLATIONS, FPUA WILL INSTALL ABOVE GROUND METER PER DETAIL W-8.

TYPICAL SINGLE WATER SERVICE CONNECTION
(N.T.S.)

FPUA COMMUNITY PROUD	TYPICAL SINGLE WATER SERVICE CONNECTION		W-2
FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 6TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600	03-09 DESIGN SLL JLC DATE: REVISION: BY: APP'D:		WATER/WASTEWATER ENGINEERING
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ROBERT BLAINE BERGSTRESSER
LICENSE: No. 84598
DATE: 4/2/2021
STATE OF FLORIDA
PROFESSIONAL ENGINEER

KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

FPUA DETAILS

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP
CITY OF FORT PIERCE FL

SHEET NUMBER
C-403

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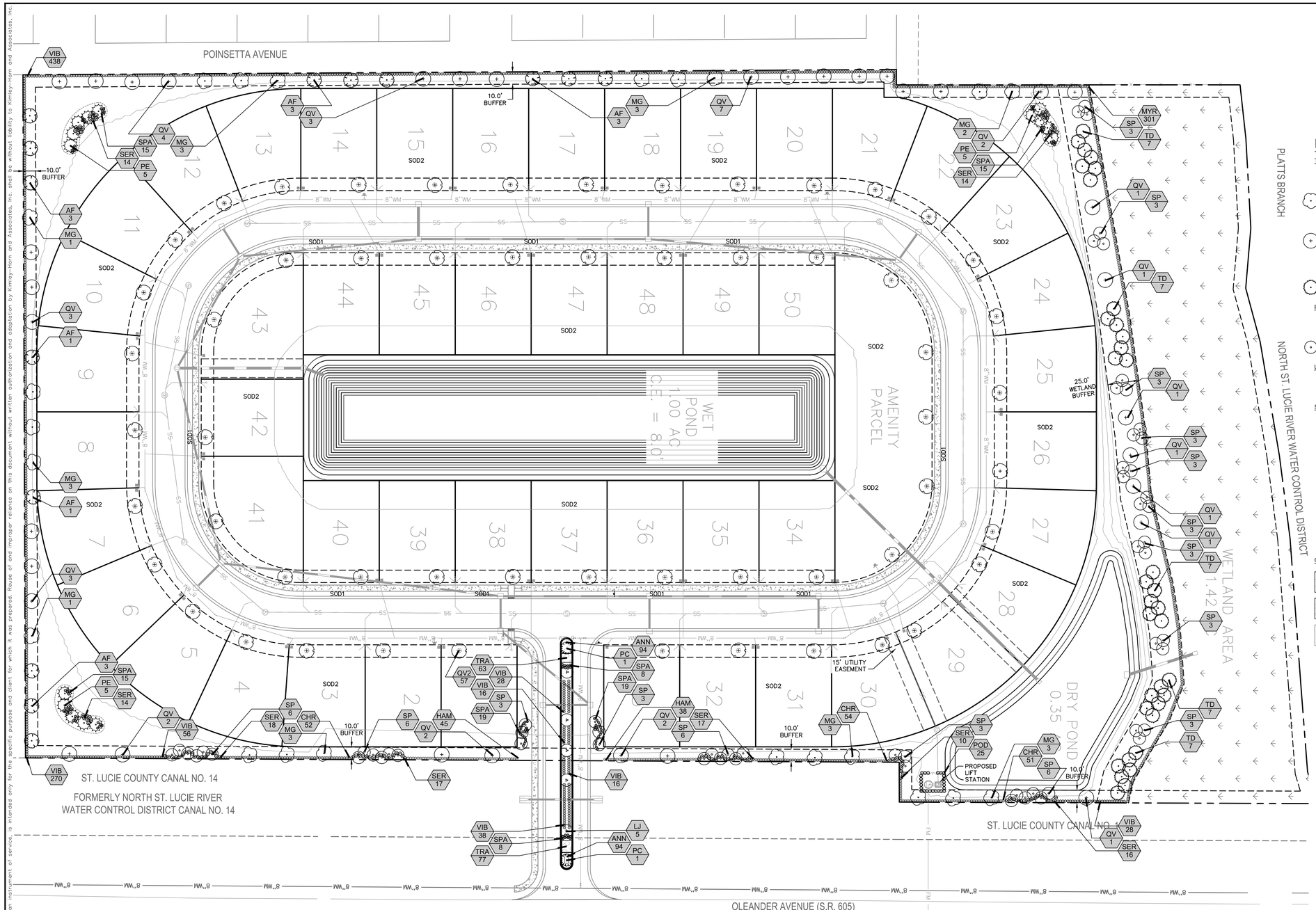

GRAPHIC SCALE IN FEET
0 20 40 80

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME
	AF	14	Acer rubrum `Florida Flame` / Florida Flame Red Maple
	MG	22	Magnolia grandiflora / Southern Magnolia
	PE	15	Pinus elliotti / Slash Pine
	QV	35	Quercus virginiana / Southern Live Oak
	QV2	57	Quercus virginiana `Cathderal` / Cathedral Live Oak
	TD	35	Taxodium distichum / Bald Cypress

PALM TREES	CODE	QTY	BOTANICAL / COMMON NAME
	PC	2	Phoenix canariensis / Canary Island Date Palm
	SP	60	Sabal palmetto / Palmetto

UNDERSTORY TREES	CODE	QTY	BOTANICAL / COMMON NAME
	LJ	5	Ligustrum japonicum / Japanese Privet

SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME
	CHR	157	Chrysobalanus icaco `Red Tip` / Red Tip Cocoplum
	HAM	83	Hamelia patens / Fire Bush
	MYR	301	Myrica cerifera / Wax Myrtle
	POD	25	Podocarpus macrophyllus / Podocarpus
	SER	120	Serenoa repens / Saw Palmetto
	SPA	99	Spartina bakeri / Sand Cord Grass
	VIB	890	Viburnum odoratissimum / Walter`s Viburnum

GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME
	ANN	188	Annuals / Annuals
	TRA	140	Trachelospermum asiaticum / Dwarf Confederate Jasmine
	MULCH	TBD	'FLORIMULCH' Shredded Grade B
	SOD1		Stenotaphrum secundatum 'FLORITAM'/ St. Augustine Grass
	SOD2		Paspalum notatum / Bahia Grass

PLANTING NOTES

1. ALL PLANT MATERIAL SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES AND SHALL MEET ALL STANDARDS AS STATED IN THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
2. ALL LANDSCAPING SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES, AND SHALL BE FLORIDA NO. 1 OR BETTER AS GIVEN IN "GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I AND II," STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE OWNER'S REPRESENTATIVE OF ANY CONDITION FOUND ON SITE WHICH PROHIBITS INSTALLATION AS SHOWN ON THESE PLANS.
4. NO SUBSTITUTIONS IN PLANT MATERIALS SHALL BE MADE WITHOUT WRITTEN AUTHORIZATION FROM OWNER OR LANDSCAPE DESIGNER. IN THE EVENT OF DISCREPANCIES BETWEEN THE DRAWING AND THE PLANT LIST, THE DRAWING SHALL PREVAIL.
6. ALL PLANT MATERIAL IN SHOCK HAS TO BE REPLACED PRIOR TO A CO.
7. LOCATE ALL UTILITIES PRIOR TO ANY DIGGING OPERATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES INCURRED BY HIS WORK.
8. ALL LANDSCAPED AREAS SHALL BE FULLY IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM.
9. STAKING AND GUYING ALTERNATIVES: METHODS INDICATED IN DRAWING DETAILS ARE PREFERRED. CONTRACTOR MAY SUGGEST ALTERNATE METHODS, ASSUMING FULL RESPONSIBILITY FOR THEIR IMPLEMENTATION. CONTRACTOR SHALL REPLACE, PLANT, OR UPRIGHT ANY TREES BLOWN OVER OR DAMAGED DUE TO INADEQUATE STAKING AT NO ADDITIONAL COST TO THE OWNER.
10. PLANTS MASSED IN BEDS SHALL BE ARRANGED USING TRIANGULAR SPACING.
11. PROVIDE A METAL EDGE BETWEEN ALL PLANTING BEDS AND LAWN AREAS.
12. EXISTING SOIL SHALL BE REASONABLY FREE OF STONE, LUMPS OF CLAY, ROOTS AND OTHER FOREIGN MATTER. ACIDITY TO BE BETWEEN 5.0 AND 7.0 pH. CONTRACTOR TO VERIFY SOIL ACIDITY AND AMEND AS NECESSARY TO BRING SOIL WITHIN RANGE.
13. TREE PLANTING PITS SHALL BE BACKFILLED WITH TOP SOIL, AND CLEARED OF ALL ROCKS, LUMPS OF CLAY AND OTHER FOREIGN MATERIAL. PLACE 1" OF COMPOST AND 3" OF MULCH ON TOP OF ROOT BALL.
14. PROVIDE GRASS SEEDING OR LAY SOD FOR PROPOSED LAWN AREAS TO ALL EDGES OF PAVEMENT AND/ OR LIMITS OF DISTURBANCE OUTSIDE R.O.W. OR PROPOSED LANDSCAPE EASEMENT.
15. THE CONTRACTOR, SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING FOR 90 DAYS AFTER FINAL ACCEPTANCE. ALL REQUIRED LANDSCAPING SHALL BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES. THE WORK SHALL INCLUDE, BUT NOT TO BE LIMITED TO, MOWING, EDGING, PRUNING, FERTILIZING, WATERING, WEEDING, AND OTHER SUCH ACTIVITIES COMMON TO THE MAINTENANCE OF LANDSCAPING. ALL PLANT MATERIALS SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AS IS APPROPRIATE FOR THE SEASON OF THE YEAR. PLANT MATERIAL THAT DIES SHALL BE REPLACED WITH THE PLANT MATERIAL OF SIMILAR SIZE AND VARIETY.
16. TREES OVERHANGING WALKS AND PARKING AREAS SHALL HAVE A CLEAR TRUNK HEIGHT OF 7 FEET FROM FINISH SURFACE GRADE.
17. TREES PLANTED ON SLOPES SHALL BE PLACED IN PLANTING PITS OF ADEQUATE DEPTH SUCH THAT THE SOIL STAIN AT THE BASE OF THE TRUNK MATCHES THAT OF THE AVERAGE GRADE OR SLOPE.
18. CONTRACTOR SHALL WARRANTY PLANT MATERIAL TO REMAIN ALIVE AND HEALTHY FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE. WARRANTY SHALL NOT INCLUDE DAMAGE FOR LOSS OF PLANT MATERIAL DUE TO NATURAL CAUSES, ACTS OF VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER.
19. EXISTING LANDSCAPE THAT IS DAMAGED, NOT SCHEDULED FOR REMOVAL, SHALL BE REPLACED TO EXISTING CONDITION.
20. ALL EXISTING TREES TO BE PRUNED/ CLEANED-UP BY A CERTIFIED ARBORIST.
21. ALL INVASIVE / EXOTIC SPECIES ONSITE TO BE REMOVED.
22. QUANTITIES ARE APPROXIMATE AND ARE PROVIDED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES AND PROVIDING SUFFICIENT QUANTITIES OF MATERIAL FOR COVERAGE BASED ON THE AREAS TO BE COVERED AND PLANT SPACING CALLED FOR.
23. ALL DISTURBED AREAS ON SITE NOT CALLED TO BE SODDED, SHALL BE REESTABLISHED WITH SEED OR HYDROMULCH.
24. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE PROVIDED TO MAINTAIN ALL LANDSCAPE AREAS. OVER SPRAY ON STREETS AND WALKS IS PROHIBITED.
25. ALL BED AREAS TO BE MULCHED WITH SHREDDED HARDWOOD MULCH AT 3" MIN.. DEPTH. (FLORA MULCH OR APPROVED EQUAL.)
26. NOTIFY LANDSCAPE DESIGNER 772-794-4100 SHOULD AVAILABILITY ISSUE(S) ARISE.
27. MINIMUM 5 FOOT TREE SETBACK FROM ALL UTILITIES & 7.5' CLEARANCE AROUND FIRE HYDRANTS & FDC'S FROM LANDSCAPING.
28. IN THOSE INSTANCES WHERE A TREE(S) IS PLANTED CLOSER THAN FIVE (5) FEET FROM A SIDEWALK, STRUCTURE, OR UNDERGROUND UTILITY A ROOT BARRIER(S) SHALL BE INSTALLED. ROOT BARRIERS FOR TREES SHALL BE INSTALLED ALONG THE EDGE OF STRUCTURE, PAVING, OR CURB. THE ROOT BARRIER SHALL BE A MINIMUM OF TWENTY-FOUR (24) INCHES DEEP, BUT DEPENDING ON THE SIZE, LOCATION, AND SPECIES OF TREE TO BE PLANTED, A LARGER BARRIER MAY BE REQUIRED. THE ROOT BARRIER SHALL BE INSTALLED WITH TWENTY (20) LINEAR FEET, CENTERED FROM THE TRUNK, FOR LARGE TREES AND FIFTEEN (15) LINEAR FEET FOR SMALLER TREES. ALL ROOT BARRIERS SHALL BE LINEAR.

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KEVIN BARRETT — FLORIDA CERTIFICATE NO. 79999 — STATE OF FLORIDA — REGISTERED LANDSCAPE ARCHITECT
DATE: 4/23/2021

KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY KPB
DRAWN BY KPB
CHECKED BY KPB

LANDSCAPE PLAN

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP
CITY OF FORT PIERCE FL

SHEET NUMBER
L-100

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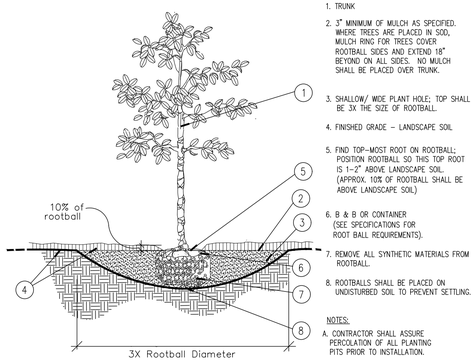


1. TRUNK
2. 3" MINIMUM OF MULCH AS SPECIFIED. WHERE TREES ARE PLACED IN SOD, MULCH RING FOR TREES COVER ROOTBALL SIDES AND EXTEND 18" BEYOND ON ALL SIDES. NO MULCH SHALL BE PLACED OVER TRUNK.
3. SHALLOW/ WIDE PLANT HOLE; TOP SHALL BE 3X THE SIZE OF ROOTBALL.
4. FINISHED GRADE – LANDSCAPE SOIL
5. FIND TOP-MOST ROOT ON ROOTBALL; POSITION ROOTBALL SO THIS TOP ROOT IS 1-2" ABOVE LANDSCAPE SOIL. (APPROX. 10% OF ROOTBALL SHALL BE ABOVE LANDSCAPE SOIL)
6. B & B OR CONTAINER (SEE SPECIFICATIONS FOR ROOT BALL REQUIREMENTS).
7. REMOVE ALL SYNTHETIC MATERIALS FROM ROOTBALL.
8. ROOTBALLS SHALL BE PLACED ON UNDISTURBED SOIL TO PREVENT SETTLING.

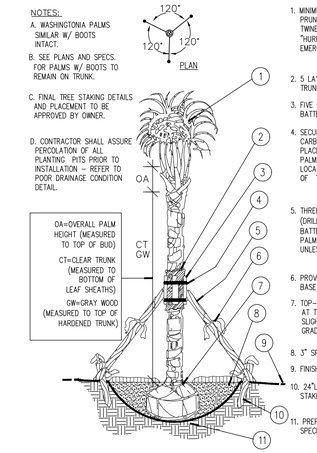
NOTES:
A. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.
B. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
C. SEE PRE-APPROVED STAKING METHODS, THIS SHEET

* ALL TREES SHALL BE PLUMB VERTICALLY WITHIN A TOLERANCE OF THREE DEGREES, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.

A Tree Planting
SECTION NTS

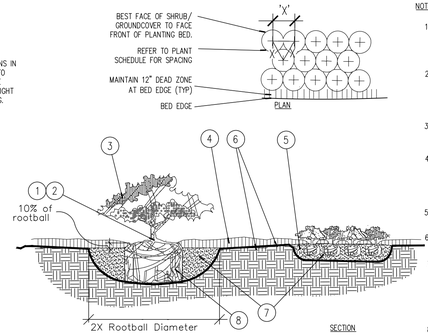
NOTES:
A. WASHINGTONIA PALMS SIMILAR W/ BOOTS INTACT.
B. SEE PLANS AND SPECS. FOR PALMS W/ BOOTS TO REMAIN ON TRUNK.
C. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
D. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION – REFER TO POOR DRAINAGE CONDITION DETAIL.

OA=OVERALL PALM HEIGHT (MEASURED TO TOP OF BUD)
CT=CLEAR TRUNK (MEASURED TO BOTTOM OF LEAF SHEATHS)
GW=GRAY WOOD (MEASURED TO TOP OF HARDENED TRUNK)



1. MINIMUM OF NINE (9) GOOD PALM FRONDS; PRUNE AND TIE FRONDS WITH HEMP TWINE. SABAL PALMS TO BE SELECTIVELY "HURRICANE CUT", LEAVING ONLY NEWLY-EMERGING GROWTH.
2. 5 LAYERS OF BURLAP TO PROTECT TRUNK.
3. FIVE (5) 18"L, 2X4 WOOD BATTENS. UNTREATED, #2
4. SECURE BATTENS WITH TWO (2) 3/4" CARBON STEEL BANDS TO HOLD BATTENS IN PLACE. NO NAILS SHALL BE DRIVEN INTO PALM. HEIGHT OF BATTENS SHALL BE LOCATED PROPORTIONATELY TO THE HEIGHT OF THE PALM FOR ADEQUATE BRACING.
5. THREE (3) 8'L 2X4 SUPPORTS. NAIL (DRILL AND NAIL IF NECESSARY) TO BATTENS AND 2" X 4" STAKES. PALMS SHALL BE PLUMB VERTICALLY UNLESS OTHERWISE NOTED.
6. PROVIDE FLAGGING AT MIDPOINT AND BASE OF SUPPORTS.
7. TOP-MOST ROOT SHALL BE VISIBLE AT THE SURFACE OF THE ROOTBALL, SLIGHTLY ABOVE SURROUNDING GRADE.
8. 3" SPECIFIED MULCH
9. FINISH GRADE
10. 24"L (MIN.) 2X4 P.T. WOOD STAKES, NAIL TO SUPPORT POLES
11. PREPARED PLANTING SOIL AS SPECIFIED

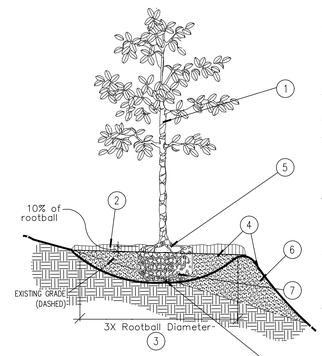
B Palm Planting and Staking
SECTION NTS



NOTES:
1. FIND POINT WHERE TOPMOST ROOT EMERGES FROM TRUNK WITHIN 2" OF SURFACE. CLEAR EXCESS SOIL IF NECESSARY.
2. TOP 10% OF SHRUB AND GROUNDCOVER ROOTBALLS TO BE PLANTED ABOVE THE LANDSCAPE GRADE. DO NOT COVER EXPOSED 10% ON SIDES WITH SOIL.
3. PRUNE ALL LIKE SHRUBS WITHIN A PLANTED MASS TO ACHIEVE A UNIFORM MASS/HEIGHT.
4. 3" MINIMUM MULCH AS SPECIFIED – DO NOT COVER ENTIRE SHRUB ROOTBALL OR CREATE 'WATER RINGS' ONLY COVER SIDES OF ROOTBALL WITH MULCH
5. EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER BED.
6. FINISHED GRADE (SEE GRADING PLAN).
7. PREPARED PLANTING SOIL AS SPECIFIED. NOTE: WHEN GROUND- COVERS AND SHRUBS USED IN MASSES, ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED.
8. SCARIFY ROOTBALL SIDES AND BOTTOM.

* ALL SHRUBS AND GROUNDCOVERS SHALL BE PLUMB VERTICALLY, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.

C Shrub / Groundcover Planting
PLAN/SECTION NTS

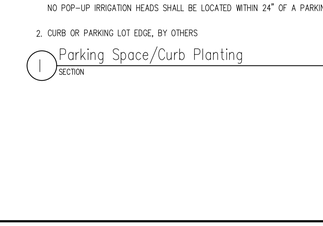


1. TREES, PALMS, AND LARGE SHRUBS (15 GAL OR GREATER) SHALL BE PLANTED IN SIMILAR MANNER
2. 3" MINIMUM OF MULCH AS SPECIFIED. WHERE TREES ARE PLACED IN SOD, MULCH RING FOR TREES COVER ROOTBALL SIDES AND EXTEND 18" BEYOND ON ALL SIDES. NO MULCH SHALL BE PLACED OVER TRUNK.
3. SHALLOW/ WIDE PLANT HOLE; TOP SHALL BE 3X THE SIZE OF ROOTBALL.
4. FINISHED GRADE – LANDSCAPE SOIL
5. FIND TOP-MOST ROOT ON ROOTBALL; POSITION ROOTBALL SO THIS TOP ROOT IS 1-2" ABOVE LANDSCAPE SOIL. (APPROX. 10% OF ROOTBALL SHALL BE ABOVE LANDSCAPE SOIL)
6. BERM SOIL SO THAT TOP OF BERM IS JUST BELOW THE TOP 10% OF THE TOP OF THE ROOTBALL. SLOPE DOWNHILL PORTION OF BERM AS REQUIRED TO MEET EXISTING GRADE.
7. B & B OR CONTAINER REMOVE ALL SYNTHETIC MATERIALS FROM ROOTBALL (SEE SPECIFICATIONS FOR OTHER ROOT BALL REQUIREMENTS)
8. ROOTBALLS SHALL BE PLACED ON UNDISTURBED SOIL TO PREVENT SETTLING.

NOTES:
A. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.
B. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
C. SEE PRE-APPROVED STAKING METHODS, THIS SHEET

* ALL TREES SHALL BE PLUMB VERTICALLY WITHIN A TOLERANCE OF THREE DEGREES, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.

D Planting on a Slope
SECTION NTS

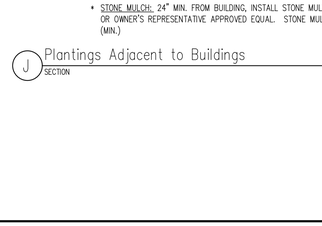


1. FINISH GRADE
2. HORIZONTAL 2X2 SCREWED TO 2X2 STAKE. ALL WOOD SHALL BE #2 UNTREATED.
3. 3-1/2" DRYWALL SCREW, THREAD SIZE 12, SHARP POINT, FULL THREAD, BLACK PHOSPHATE FINISH
4. VERTICAL STAKES SHALL ABUT SIDE OF ROOTBALL
5. STAKES TO EXTEND INTO NATIVE SOIL BY 1-1/2 X THE ROOTBALL DEPTH MIN.

NOTE:
IF SPATIAL REQUIREMENTS PRECLUDE STAKING WITH THIS METHOD, SUBMIT ALTERNATE FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLING PLANT.

* Refer to details B and D for planting

E Staking – up to 65 gal. or B&B to 3-1/2" Cal.
PLAN/SECTION NTS



1. FIVE (5) LAYERS OF BURLAP TO PROTECT TRUNK
2. TWO STEEL BANDS TO SECURE BATTENS
3. FIVE 2 X 4 X 18"L WOOD BATTENS
4. THREE (3) 2" X 8' LODGE POLES. DRILL, USING GALVANIZED SCREWS, TO BATTENS AND 2" X 4" STAKES. NO SCREWS SHALL PENETRATE TREE. FLAG AT MIDPOINT AND AT BASE.
10. 2" x 4" x 3' (MIN), P.T. WOOD STAKES BURIED 3" BELOW FINISHED GRADE.
7. FINISHED GRADE (SEE GRADING PLAN)

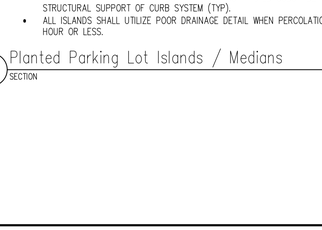
NOTES:
A. ALL TREES SHALL BE PLUMB VERTICALLY WITHIN A TOLERANCE OF THREE DEGREES, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.
B. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
C. ALTERNATE TREE ANCHORING SYSTEMS MAY BE SUBSTITUTED FOR WOOD STAKING SYSTEM UPON APPROVAL BY OWNER OR OWNER'S REPRESENTATIVE.

PRE-APPROVED SYSTEMS:
*BROOKS TREE BRACE SYSTEM
*ARBOR TIE TREE BRACING

D. RUBBER HOSE/WIRE SYSTEMS ARE NOT ALLOWED.

* Refer to details B and D for planting

F Large Tree Staking – 100 Gal + or B&B 4" +
SECTION NTS



1. FINISH GRADE
2. BACKFILL WITH PREPARED PLANTING SOIL MIX AS SPECIFIED.
3. FILTER CLOTH, MIRAFI 500X OR BETTER
4. 12" CLEAN SAND, COMPACTED. ADJUST LAYER THICKNESS SO TOP OF ROOTBALL IS AT LEAST 1" ABOVE FINISHED GRADE.
5. SLOPE BOTTOM TO DRAIN
6. ±18"ø AUGURED HOLE PENETRATE THROUGH OCCLUDING LAYER TO WATER TABLE OR TO A DEPTH OF 7' TO ASSURE PROPER PERCOLATION.
7. BACKFILL WITH 1/2" – 3/4" GRAVEL.
8. WATER TABLE. (DEPTH VARIES)

NOTE:
FOR A PARKING ISLAND PLANTING SITUATION, CONTRACTOR TO BACKFILL ENTIRE LENGTH OF PLANTING AREA TO WITHIN 6" OF BACK OF CURB OR EDGE OF PAVEMENT.

REFER TO NOTE 0.3 OF WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.

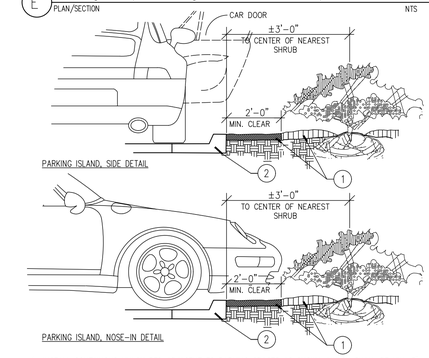
G Poor Drainage Condition
PLAN/SECTION NTS

1. 6'H "PERIMETER PLUS" CONSTRUCTION FENCE BY CONWED PLASTICS OR OWNER'S REPRESENTATIVE APPROVED EQUAL. SUBMIT PRODUCT INFORMATION FOR APPROVAL PRIOR TO INSTALLATION.
2. 8' TALL METAL "T" POSTS OR 2" x 2" X 8' PRESSURE TREATED WOOD POSTS WITH 24" BURIAL BELOW GRADE.

INSTALLATION NOTES:
A. POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME FENCE WILL BE IN PLACE. FLEXIBLE FIBERGLASS ROD POSTS ARE RECOMMENDED FOR PARKS, ATHLETIC EVENTS AND CROWD CONTROL INSTALLATIONS. METAL "T" POSTS OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION AND OTHER APPLICATIONS.
B. POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 1/4 OF THE HEIGHT OF THE POST. FOR EXAMPLE, A 8' POST SHOULD BE SET AT LEAST 2' INTO THE GROUND.
C. SPACE POSTS EVERY 6' (MIN.) TO 8' (MAX.).
D. SECURE FENCING TO POST WITH NYLON CABLE TIES (AVAILABLE FROM CONWED PLASTICS). WOOD STRIPS MAY BE ALSO BE USED TO PROVIDE ADDITIONAL SUPPORT AND PROTECTION BETWEEN TIES AND POSTS.

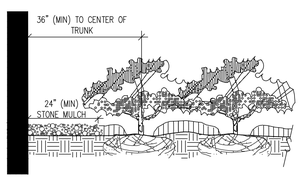
NOTE: IF WIRE TIES ARE USED, AVOID DIRECT CONTACT WITH FENCE. WIRE MAY DAMAGE FENCE OVER TIME.

H Tree/Shrub Protector
Barrier Detail NTS



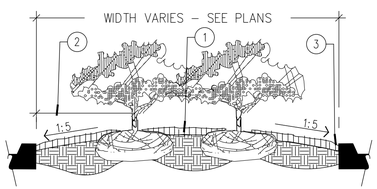
1. INSTALL CONTINUOUS MULCH BED ADJACENT TO PARKING SPACES AS SHOWN. MULCH SHALL BE MIN. 3" DEEP.
   NO POP-UP IRRIGATION HEADS SHALL BE LOCATED WITHIN 24" OF A PARKING SPACE ON ANY SIDE
2. CURB OR PARKING LOT EDGE, BY OTHERS

I Parking Space/Curb Planting
SECTION NTS



NOTES
- CLEAR ZONE: 36" MIN. FROM BUILDING TO CENTER OF NEAREST SHRUB.
- STONE MULCH: 24" MIN. FROM BUILDING, INSTALL STONE MULCH. MULCH TYPE TO BE RED LAVA ROCK OR OWNER'S REPRESENTATIVE APPROVED EQUAL. STONE MULCH TO BE INSTALLED TO A DEPTH OF 3" (MIN.)

J Plantings Adjacent to Buildings
SECTION NTS



PLANTER ISLAND NOTES
1. CROWN ISLANDS @ 5:1 SLOPES (OR AS SPECIFIED ON THE LANDSCAPE PLANS).
2. CLEAR ZONE: 36" MIN. FROM BACK OF CURB TO CENTER OF NEAREST SHRUB. CLEAR ZONE SHALL CONTAIN 3" CONTINUOUS MULCH OR TURF, SEE PLANS. SEE DETAIL 'I' FOR PLANTER MEDIANS ADJACENT TO PARKING SPACES.
3. 1" MIN VERTICAL CLEARANCE, TOP OF CURB TO TOP OF MULCH.

- EXCAVATE CONTINUOUS 36" DEEP (FROM TOP OF CURB) FOR ENTIRE LENGTH AND WIDTH OF ISLAND & BACKFILL WITH APPROVED PLANTING MIX.
- PROTECT AND RETAIN ALL CURBS AND BASE. COMPACTED SUBGRADE TO REMAIN FOR STRUCTURAL SUPPORT OF CURB SYSTEM (TYP).
- ALL ISLANDS SHALL UTILIZE POOR DRAINAGE DETAIL WHEN PERCOLATION RATES ARE 2" PER HOUR OR LESS.

K Planted Parking Lot Islands / Medians
SECTION NTS

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KEVIN BARRETT, FCLD. ON THE DATE ADJACENT TO THE SEAL.
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No.	REVISIONS	DATE	BY

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KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY KPB
DRAWN BY KPB
CHECKED BY KPB

LANDSCAPE DETAILS

OLEANDER OAKS
PREPARED FOR
ALVA STONE GROUP
CITY OF FORT PIERCE FL

SHEET NUMBER
L-101

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:L-101 LANDSCAPE DETAILS April 23, 2021 08:47:27am K:\VRB_LDEV\147811000 - oleander oaks\CAD\plansheets\L-100 LANDSCAPE PLAN.dwg
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GENERAL LANDSCAPE SPECIFICATIONS AND NOTES

A. SCOPE OF WORK

1. THE WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS HEREIN SPECIFIED.

2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL PLANTING AREAS OF THIS CONTRACT UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.

B. PROTECTION OF EXISTING STRUCTURES

ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, AND OTHER ITEMS OF CONSTRUCTION AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THIS CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.

C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS OPERATION OF EQUIPMENT, STOCKPILING OF MATERIALS, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE OR THE SPILLING OF OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURNED WHERE THE HEAT WILL DAMAGE ANY PLANT. TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/ OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS ($100) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PER CENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.

D. MATERIALS

1. GENERAL

SAMPLES OF MATERIALS AS LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON THE SITE OR AS OTHERWISE DETERMINED BY THE OWNER. UPON APPROVAL OF SAMPLES, DELIVERY OF MATERIALS MAY BEGIN.

MATERIALS	SAMPLES
MULCH	ONE (1) CUBIC FOOT
TOPSOIL	ONE (1) CUBIC YARD
PLANTS	ONE (1) OF EACH VARIETY

2. PLANT MATERIALS

A. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS PARTS I AND II, LATEST EDITION PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE OWNER.
B. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OF EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.

C. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.

E. TOPSOIL AND SAND

TOPSOIL FOR USE IN PREPARING SOIL FOR BACKFILLING PLANT PITS SHALL BE THIRTY PERCENT (30%) MUCK AND SEVENTY PERCENT (70%) SAND AND BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER, WITHOUT MIXTURE OF SUBSOIL MATERIALS, AND OBTAINED FROM A WELL-DRAINED, ARABLE SITE. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND SHALL BE FREE FROM HEAVY CLAY, COARSE SAND, STONES, LIME, LUMPS, PLANTS, ROOTS OR OTHER FOREIGN MATERIALS, OR NOXIOUS WEEDS. IT SHALL NOT CONTAIN TOXIC SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. PH RANGE SHALL BE 5.0 TO 7.0 INCLUSIVE. FOUR (4) INCHES OF TOPSOIL TO BE PROVIDED FOR ALL TURF AREAS. TWENTY FOUR (24) INCHES OF TOPSOIL TO BE PROVIDED FOR ALL PLANTING BEDS.

SAND SHALL BE COARSE, CLEAN, WELL DRAINING NATIVE SAND. CONTRACTOR SHALL SUBMIT RESULTS OF SOIL TESTS FOR TOPSOIL AND SAND PROPOSED FOR USE UNDER THIS CONTRACT FOR APPROVAL BY THE OWNER.

TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ONSITE UNLESS DETERMINED TO BE UNSUITABLE AT WHICH POINT THE CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.

F. WATER

WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE GROWTH OF PLANTS AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC. IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SUCH SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.

G. COMMERCIAL FERTILIZER

COMMERCIAL FERTILIZER SHALL BE A COMPLETE FORMULA; IT SHALL BE UNIFORM IN COMPOSITION, DRY AND FREE FLOWING. THIS FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED CONTAINERS, EACH BEARING THE MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS.

FIFTY PERCENT (50%) OF THE NITROGEN SHALL BE DERIVED FROM NATURAL ORGANIC SOURCES. THE FOLLOWING FERTILIZERS SHALL BE USED AND APPLIED AT RATES AS SUGGESTED BY MANUFACTURER'S SPECIFICATIONS:

1. SHRUBS AND TREES - MILORGANITE, OR APPROVED EQUAL
2. ANNUALS AND GROUNDCOVERS - OSMOCOTE/SIERRA BLEND 14-14-14
3. SOD - 8-8-8 FERTILIZER

IN ADDITION TO SURFACE APPLIED FERTILIZERS, ALL CONTAINER GROWN AND FIELD GROWN PLANT MATERIAL SHALL RECEIVE "AGRIFORM" PLANTING TABLETS 24-10-5 FORMULA, 21 GRAM OR EQUAL. THESE TABLETS SHALL BE PLACED AT A DEPTH OF ROOT BALL AT THE RATE AS SPECIFIED BY MANUFACTURER.

H. MULCH

MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A DEPTH OF 3 INCHES. MULCH SHALL BE PLACED DIRECTLY ON SOIL OR LANDSCAPING FABRIC AND BE PROPERLY EDGED TO RETAIN MULCH. ALL MULCH SHALL BE ORGANIC MATERIAL WITH HARDWOOD OR PINE BARK RECOMMENDED. CYPRESS SHALL NOT BE USED AS MULCH. NO PLASTIC OR OTHER NON-BIODEGRADABLE WEED CLOTH OR SURFACE COVERS SHALL BE USED WERE MULCH IS REQUIRED.

I. DIGGING AND HANDLING

1. PROTECT ROOTS OR BALLS OF PLANTS AT ALL TIMES FROM SUN AND DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT BREAKAGE AND DRYING OUT DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO SITE SHALL BE SPRAYED WITH AN ANTI-TRANSPIRANT PRODUCT ("WILTPRUF" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.

2. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS BALLED AND BURLAPPED OR CONTAINER GROWN SHALL NOT BE HANDLED BY STEMS.

3. PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS. THE ROOTS SHALL NOT BE CUT WITHIN THE MINIMUM SPREAD SPECIFIED IN THE PLANT LIST. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT IN MOVING AND PRIOR TO PLANTING.

4. PROTECTION OF PALMS (IF APPLICABLE): ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED PER DETAIL.

5. EXCAVATION OF TREE PITS SHALL BE DONE USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB- BASES.

J. CONTAINER GROWN STOCK

1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.

2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.

3. PLANT ROOTS BOUND IN CONTAINERS SHALL NOT BE ACCEPTABLE.

4. SUBSTITUTION OF NON-CONTAINER GROWN MATERIAL FOR MATERIAL EXPLICITLY SPECIFIED TO BE CONTAINER GROWN WILL NOT BE PERMITTED UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE OWNER AND LANDSCAPE ARCHITECT.

K. COLLECTED STOCK

WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED ON THE PLANT LIST SCHEDULE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.

L. NATIVE STOCK

PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY REESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW.

M. MATERIALS LIST

QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE BIDDERS TAKE OFF AND THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO THE SUBMISSIONS OF BIDS. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE

N. FINE GRADING

1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. BERMING AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR, UNLESS OTHERWISE NOTED.

2. THE LANDSCAPE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH. THIS CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.

3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS.

O. PLANTING PROCEDURES

1. CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN UP WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, HE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT OR OWNER. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.

2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER LINES, CABLE AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES.

3. SUBGRADE EXCAVATION: SITE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 36". SITE CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY SITE CONTRACTOR, AND POSITIVE DRAINAGE CAN NOT BE ACHIEVED, LANDSCAPE CONTRACTOR SHALL UTILIZE PLANTING DETAIL THAT ADDRESSES POOR DRAINAGE.

4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS HEREIN SPECIFIED AND REQUIRED. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.

5. GENERAL: COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. PLANTS SHALL BE PROTECTED UPON ARRIVAL AT THE SITE BY BEING THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS SHALL NOT REMAIN UNPROTECTED FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.

6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE THE PLANTING WITH THE IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION ITEMS AND PLANTS.

7. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD FOR NURSERY STOCK 260.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE PREPARED PLANTING SOIL AS SPECIFIED HEREIN BEFORE (SECTION E). TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE. IF POOR DRAINAGE EXISTS, UTILIZE PLANTING DETAIL THAT ADDRESSES THIS CONDITION. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURE AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FOREMAN. PROPER "JETTING IN" SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "JET STICK" OR EQUAL IS RECOMMENDED.

8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.

9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS. IN ADDITION, EACH PLANTING PIT SHALL RECEIVE 21-GRAM "AGRIFORM" PLANTING TABLETS PER MANUFACTURER'S SPECIFICATIONS OR AS FOLLOWS:

- TWO (2) TABLETS PER 1 GAL. PLANT
- THREE (3) TABLETS PER 3 GAL. PLANT
- FOUR (4) TABLETS PER 10 GAL. PLANT
- LARGER MATERIAL - TWO (2) TABLETS PER 1/2" OF TRUNK CALIPER

10. TREES AND SHRUBS SHALL BE SET STRAIGHT AND AT SUCH A LEVEL THAT AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACKFILLED AND THOROUGHLY TAMPED AROUND THE BALL AND SHALL BE SETTLED BY WATER AFTER TAMPING.

11. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET. ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE, ONLY WITH MULCH. ALL BURLAP, ROPE, WIRES, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.

12. PRUNING: EACH TREE SHALL BE PRUNED TO PRESERVE THE NATURAL CHARACTER OF THE PLANT AS SHOWN ON THE DRAWINGS. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT.

13. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6", REMOVE AND DISPOSE ALL DEBRIS. TILL INTO TOP 4" THE PLANTING SOIL MIX AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.

14. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE LANDSCAPE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE LANDSCAPE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OF THEIR INTENTIONS AND AGREE TO HOLD HARMLESS THE LANDSCAPE ARCHITECT IN THE EVENT ANY TREES FALL DOWN AND DAMAGE PERSON OR PROPERTY.

15. MULCHING: PROVIDE A THREE (3) INCH MINIMUM LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER AND VINE BED AND TREE PIT.

16. HERBICIDE WEED CONTROL: ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER.

P. LAWN SODDING

1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A GRASS LAWN ACCEPTABLE TO THE OWNER.

2. LAWN BED PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE WHOLE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE-HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT OF ROLLING SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH THAT IS UP TO THE REQUIRED GRADE.

3. SOIL PREPARATION: PREPARE LOOSE BED FOUR (4) INCHES DEEP. APPLY FERTILIZER AT RATE OF TWENTY (20) POUNDS PER ONE THOUSAND (1000) SQUARE FEET. APPLICATION SHALL BE UNIFORM, UTILIZING APPROVED MECHANICAL SPREADERS. MIX FERTILIZER THOROUGHLY WITH THE SOIL TO A DEPTH OF THREE (3) INCHES. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.

4. SODDING

A. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.

B. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.

C. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS. ADJACENT TO BUILDINGS, A FOUR INCH MULCH STRIP SHALL BE PROVIDED. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND AS APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN.

5. DURING DELIVERY, PRIOR TO AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF TET ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SWEATING OR EXCESSIVE HEAT AND MOISTURE.

6. LAWN MAINTENANCE:

A. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS UNTIL CERTIFICATION OF ACCEPTABILITY BY THE LANDSCAPE ARCHITECT OR OWNER. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING REGRADING IF NECESSARY).

B. WATER EVERY DAY FOR TEN (10) SUCCESSIVE DAYS, THEN WATER THREE (3) TIMES PER WEEK (AT EVEN INTERVALS) FOR TWO (2) ADDITIONAL WEEKS. ALL WATERING SHALL BE OF SUFFICIENT QUANTITY TO WET OR RESTORE WATER TO DEPTH OF FOUR (4) INCHES.

Q. CLEAN-UP

UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

R. PLANT MATERIAL MAINTENANCE

ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTABILITY BY THE LANDSCAPE ARCHITECT OR OWNER. MAINTENANCE AFTER THE CERTIFICATION OF ACCEPTABILITY SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE TO COVER LANDSCAPE AND IRRIGATION MAINTENANCE FOR A PERIOD OF 90 CALENDAR DAYS COMMENCING AFTER ACCEPTANCE.

S. MAINTENANCE (ALTERNATE BID ITEM)

1. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE FOR MAINTENANCE FOLLOWING THE INITIAL 90-DAY MAINTENANCE PERIOD ON A COST PER MONTH BASIS.

T. GUARANTEE

1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE LANDSCAPE ARCHITECT OR OWNER.

2. THE LIFE AND SATISFACTORY CONDITION OF ALL OTHER PLANT MATERIAL (INCLUDING SOD) INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM OF 90 CALENDAR DAYS, COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE LANDSCAPE ARCHITECT OR OWNER.

3. REPLACEMENT: ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED UNDER "PLANTING", AT NO ADDITIONAL COST TO THE OWNER.

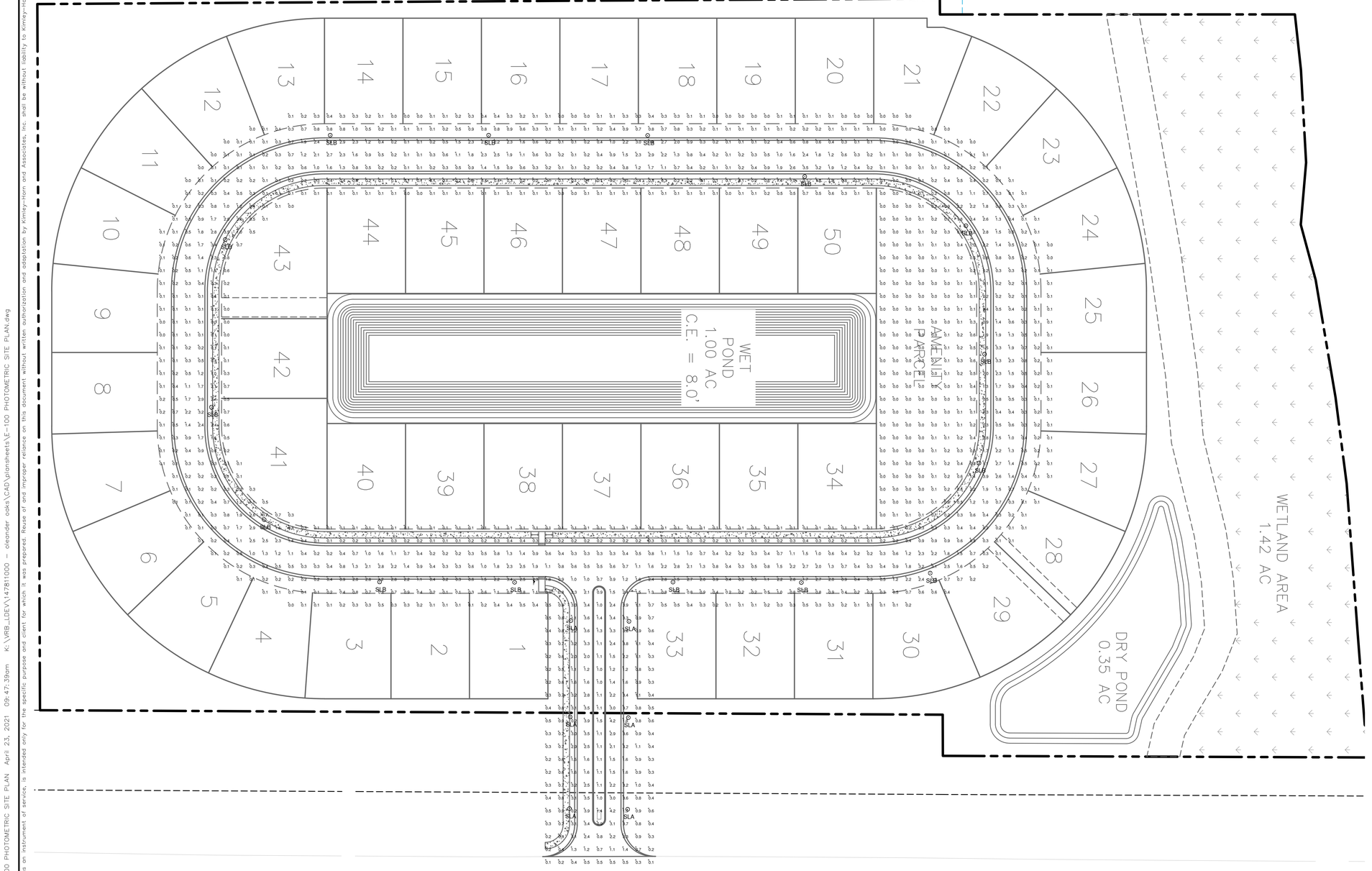
4. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE (AND IRRIGATION) MAINTENANCE, THE CONTRACTOR IS ENCOURAGED TO VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER, AND SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTH PLANT GROWTH. IT IS SUGGESTED SUCH SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.

U. FINAL INSPECTION AND ACCEPTANCE OF WORK

FINAL INSPECTION AT THE END OF THE GUARANTEE PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR GUARANTEE (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	SPECIFICATIONS	REMARKS
	AF	14	Acer rubrum `Florida Flame` / Florida Flame Red Maple	2.5" cal, 12` ht, 4` spr	FG, Straight, Single leader, Full, FL#1
	MG	22	Magnolia grandiflora / Southern Magnolia	2.5" cal, 12` ht, 4` spr	FG, Straight, Single leader, Full, FL#1
	PE	15	Pinus elliotti / Slash Pine	2.5" cal, 12` ht, 4` spr	FG,Straight, Single leader, Full,







LIGHT POLE DETAIL
N.T.S.

Landreth Lighting Luminaire Schedule									
Symbol	[MANUFAC]	Qty	Label	Arrangement	Description	LLF	Lum. Watts	Lum. Lumens	BUG Rating
⊙	Sternberg Lighting	6	SLA	SINGLE	PT-E350LED-16L45T2-MDL14-SV1/550T5-412-188-DB/BK; MOUNTED ON A 12' POLE	1.000	80.6	5212	B2-U0-G2
⊙	Sternberg Lighting	15	SLB	SINGLE	PT-E350LED-16L45T3-MDL14-SV1/550T5-412-188-DB/BK; MOUNTED ON A 12' POLE	1.000	81.1	4885	B1-U0-G2

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.

CALL 48 HOURS BEFORE YOU DIG

IT'S THE LAW! DIAL 811

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

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY BLAINE BERGSTRESSER, P.E. ON THE DATE ADJACENT TO THE SEAL.

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

No.	REVISIONS	DATE	BY

Kimley»Horn

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ROBERT BLAINE BERGSTRESSER LICENSE NUMBER 56458 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE: 4/2/2021

KHA PROJECT 147811000
DATE 04/12/2021
SCALE AS SHOWN
DESIGNED BY BRB
DRAWN BY TJE
CHECKED BY BRB

PHOTOMETRIC SITE PLAN

OLEANDER OAKS

PREPARED FOR
ALVA STONE GROUP

CITY OF FORT PIERCE FL

SHEET NUMBER
E-100

Plotted By:Enright, Tyler Sheet Set:OLEANDER OAKS Layout:E-100 PHOTOMETRIC SITE PLAN April 23, 2021 09:47:39am K:\VRB_LDEV\147811000 - oleander oaks\CAD\plansheets\E-100 PHOTOMETRIC SITE PLAN.dwg
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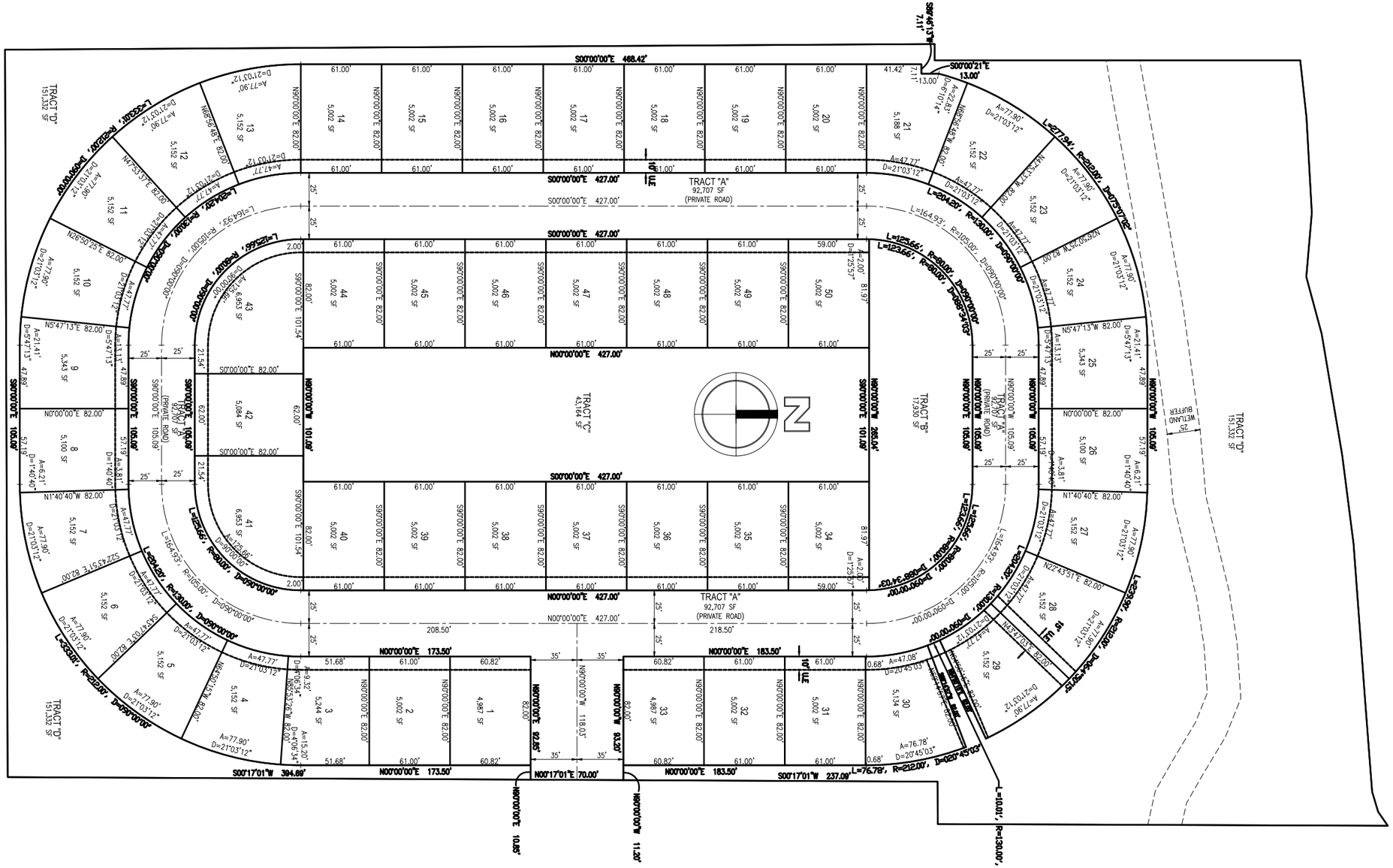
APRIL 2021

OLEANDER OAKS

A PORTION OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST AND THE SOUTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST
IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA

PLAT BOOK _____ PAGE _____
SHEET 3 OF 3



031-MP-18


38-1

Natural Resource Assessment

Oleander Oaks

St. Lucie County, Florida

Prepared for:
Alva Stone Group
591 Evernia Street, #1603
West Palm Beach, FL 33401

147811000
February 2021
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Natural Resource Assessment
Technical Memorandum

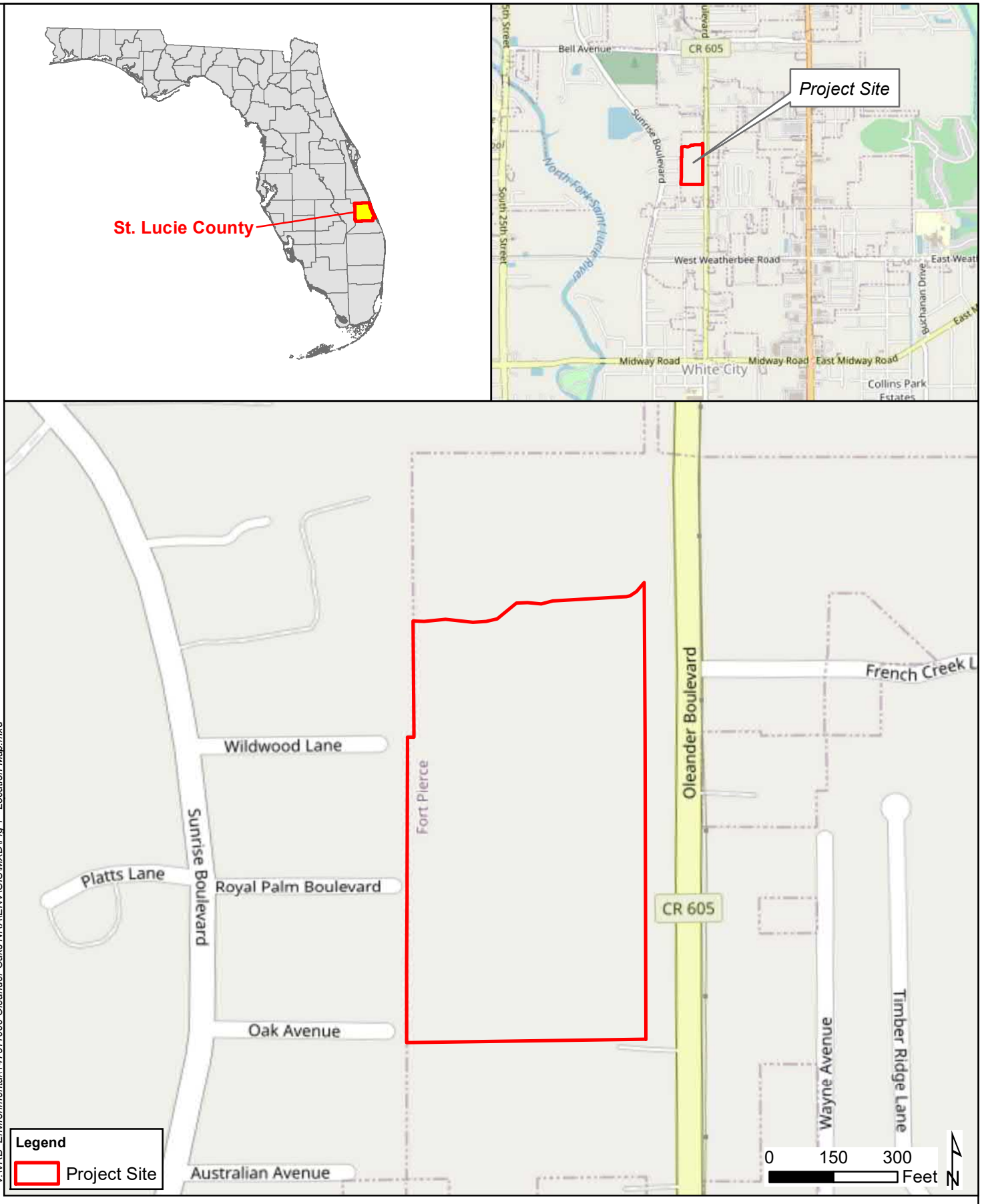
Oleander Oaks
St. Lucie County, Florida

1.0 INTRODUCTION

The following technical memorandum summarizes a review of readily available documentation and the results of field reconnaissance conducted at the project site. The purpose of this Natural Resource Assessment was to characterize the existing conditions of the above-referenced project site relative to threatened and endangered species and their habitat, ecological communities, land cover and vegetation, wetlands, soils, hydrology, archaeological and historical resources, and floodplains.

The scope of this assessment included field reconnaissance to determine habitat present and to determine environmental regulatory constraints for this project site.

The project site is approximately 13 acres and is located in Fort Pierce, near the northwest corner of Tumblin Kling Road and Oleander Avenue in Section 33, Township 35 South, Range 40 East, St. Lucie County, Florida. A location map is attached as ***Figure 1***. A portion of the U.S. Geological Service (USGS) 7.5-Minute Providence, Florida quadrangle map depicting the location of the project site is attached as ***Figure 2***. Based on review of the USGS quadrangle map, elevations on the project site range from approximately 5 to 10 feet.



V:\IVRB Environmental\147811000 Oleander Oaks NRA\ENV\GIS\MXD\Fig 1 - Location Map.mxd

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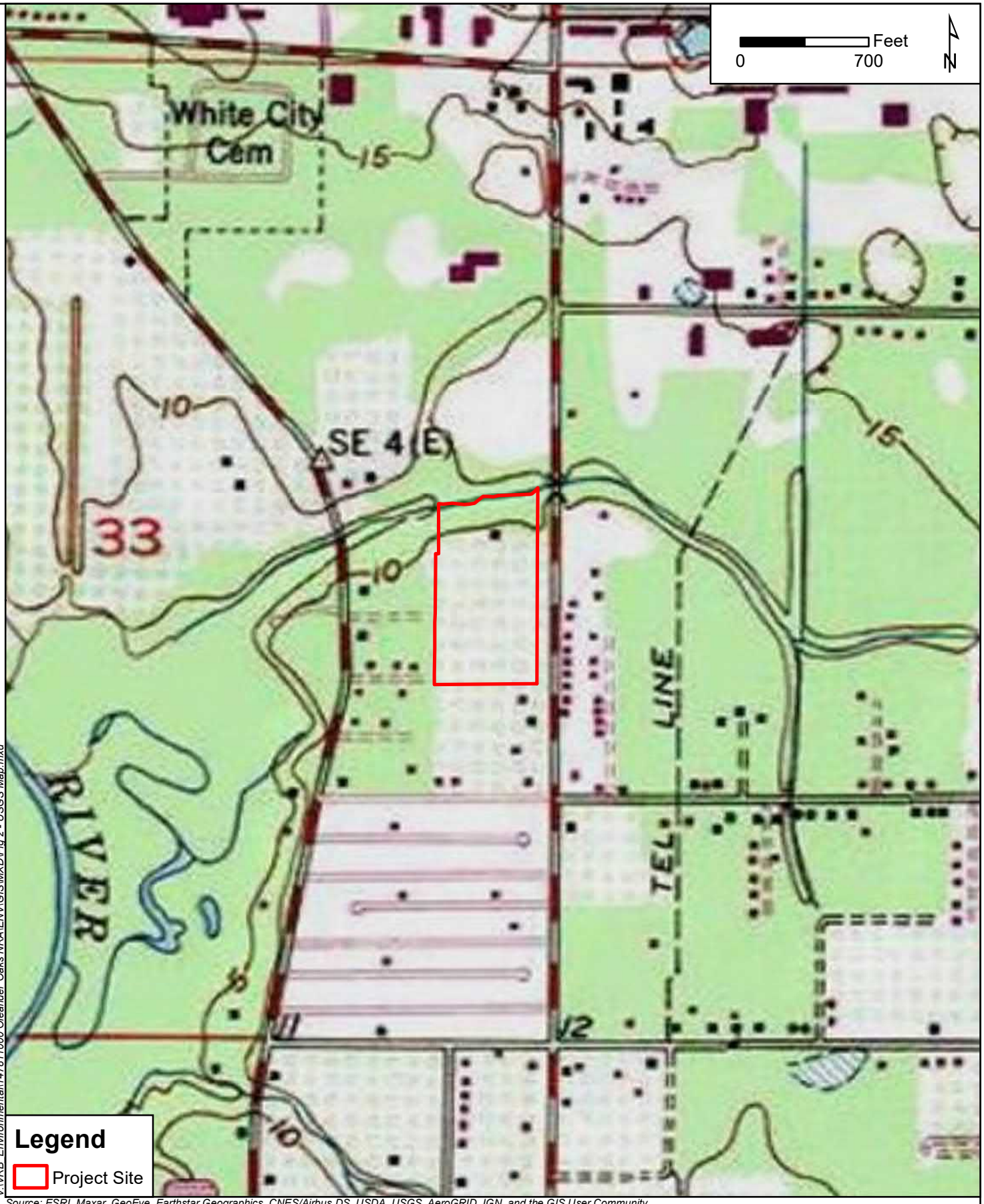
Project Location Map

Oleander Oaks Natural Resource Assessment
St. Lucie County, Florida

1 inch = 300 feet	PROJECT NUMBER:147811000	FEBRUARY 2021	FIGURE 1



Source: ESRI, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

V:\VRB Environmental\147811000 Oleander Oaks NRA\ENV\GIS\MXD\Fig 2 - USGS Map.mxd

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USGS 7.5 Minute Quadrangle Map

Oleander Oaks Natural Resource Assessment
St. Lucie County, Florida

1 inch = 700 feet	PROJECT NUMBER:147811000	FEBRUARY 2021	FIGURE 2

2.0 METHODOLOGY

The methodology for this assessment included a review of the following resources:

- Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (http://www.fnai.org/biointro.cfm)
- Various Geographic Information System (GIS) data layers from the U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), Florida Fish and Wildlife Conservation Commission (FWC) [(https://public.myfwc.com/FWRI/EagleNests/nestlocator.aspx)]
- USFWS IPaC data [(https://ecos.fws.gov/ipac/)]
- U.S. Department of Agriculture (USDA)/Natural Resources Conservation Service (NRCS) Soil Survey of St. Lucie County, Florida (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx)
- State Historic Preservation Officer (SHPO), Florida Master Site File (http://www.flheritage.com/)
- USFWS National Wetlands Inventory (NWI) Maps (Web-based maps available from http://www.fws.gov/wetlands/Data/mapper.html)
- Federal Emergency Management Agency (FEMA) Digital Flood Insurance Rate Maps (FIRM; Web-based maps available from http://msc.fema.gov/)
- United States Geological Survey (USGS) Quadrangle Maps, Land Boundary Information System (LABINS; http://www.labins.org)
- South Florida Water Management District Interactive GIS Map (SFWMD.gov)
- Florida Department of Environmental Protection (FDEP) MapDirect GIS (https://floridadep.gov)
- St. Lucie County Land Development Code

On February 3, 2021 a field review of the project limits was conducted by environmental scientists to document the existing habitat conditions and determine potential wildlife utilization. The field review also included a 15% gopher tortoise survey.

3.0 EXISTING CONDITIONS

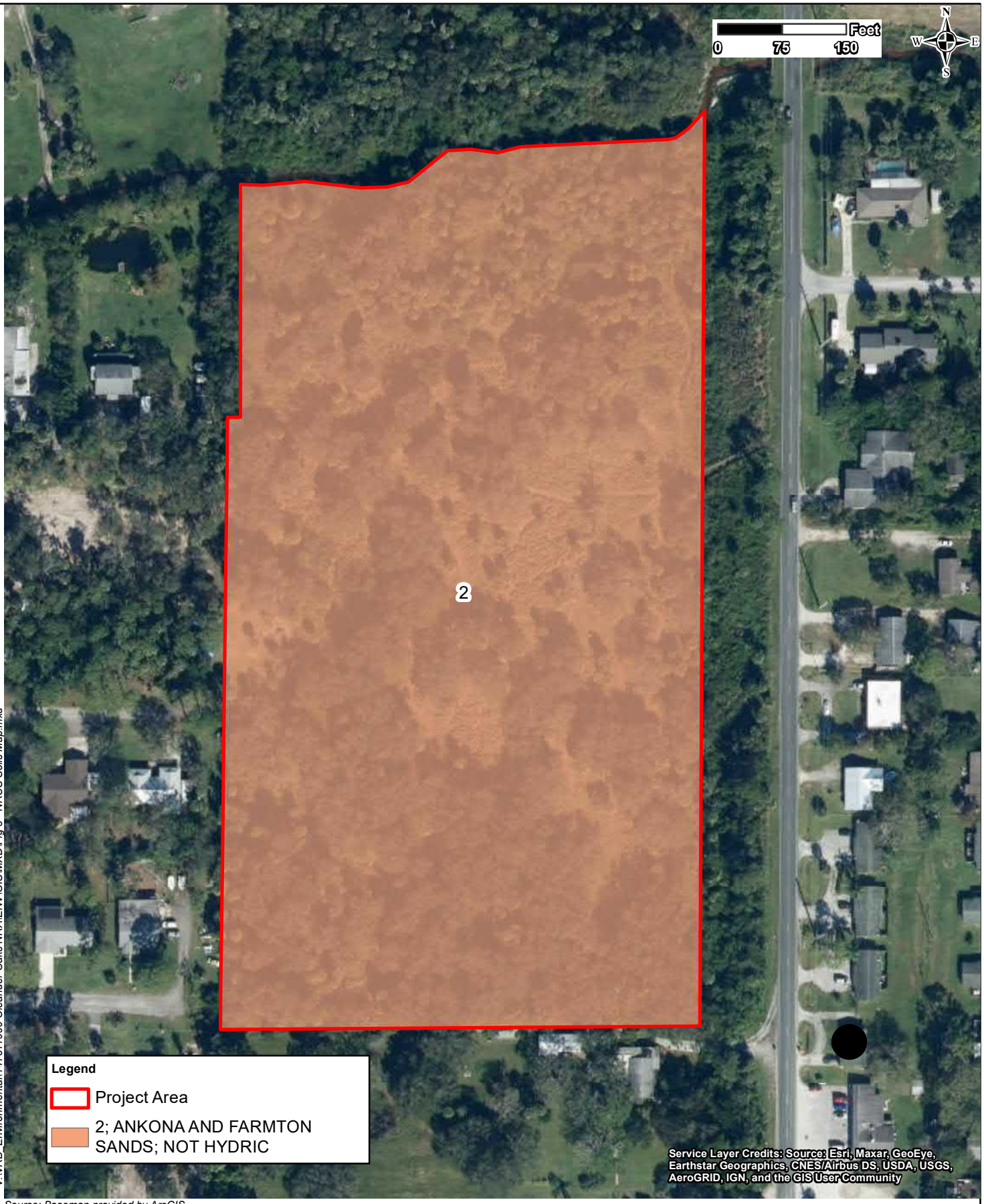
3.1 SOILS

The USDA/NRCS *Soil Survey of St. Lucie County, Florida,* maps the following soil on the property: (2) Ankona and Farmton Sands. A copy of the digital USDA/NRCS soils mapping data is illustrated in ***Figure 3*** and details regarding each soil are provided in ***Table 1***.

Table 1
NRCS Soils Identified Within Study Area

Soil ID Number[1]	Soil Name	Occurrence[2]	Characteristics	Drainage Class	Groundwater Depth	Hydric, Hydric Inclusions, or Non-hydric
2	Ankona and Farmton Sands	Broad flats and depressional areas	Very slow or slow permeability	Very poorly and poorly drained	6-18 inches	Non-hydric

[1] Reference: https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/florida/FL111/0/lucie.pdf
[2] Reference: https://soilseries.sc.egov.usda.gov/OSD_Docs/A/ANKONA.html



V:\IVRB_Environmental\147811000 Oleander Oaks NRA\ENV\GIS\MXD\Fig 3 - NRCS Soils Map.mxd

Source: Basemap provided by ArcGIS

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NRCS Soils Map

Oleander Oaks Natural Resource Assessment
St. Lucie County, Florida

1 inch = 150 feet	PROJECT NUMBER: 147811000	FEBRUARY 2021	FIGURE 3

3.2 LAND COVER AND NATURAL COMMUNITIES

Vegetative communities on the project site were identified through pedestrian transects and aerial photograph interpretation. Vegetative communities were classified using the *Florida Land Use, Cover, and Forms Classification System* (FLUCFCS, Florida Department of Transportation, 1999). A FLUCFCS map of the project site is attached as ***Figure 4***. The description of the upland land cover provided below characterizes dominant vegetation observed along random pedestrian transects and does not represent an all-inclusive vegetative inventory.

FLUCFCS 310 – HERBACEOUS (DRY PRAIRIE)

This cover type encompassed approximately 3.5 acres of the project site and was primarily made up of guinea grass (*Megathyrsus maximus*), broomsedge (*Andropogon virginicus*), Caesar's weed (*Urena lobate*), dogfennel (*Eupatorium capillifolium*), and beautyberry (*Callicarpa Americana*). Cabbage palm (*Sabal palmetto*), Brazilian pepper (*Schinus terebinthifolius*), wild grape (*Vitis spp*.), saw palmetto (*Serenoa repens*), and chapman's oak (*Quercus chapmanii*) were also observed throughout this landcover.

FLUCFCS 420 – UPLAND HARDWOOD FOREST

This cover type encompassed approximately 7.5 acres of the project site. The canopy was primarily made up of live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), and cabbage palm. The understory included Caesar's weed, Brazilian pepper, dogfennel, beautyberry, carrotwood (*Cupaniopsis anacardioides*), and chapman's oak.

3.3 WETLANDS, TIDAL WATERS AND OTHER SURFACE WATERS

The presence of wetlands was evaluated based on the Florida unified wetland delineation methodologies in accordance with Chapter 62-340, Florida Administrative Code (FAC) and Chapter 62-331 FAC under the State 404 Program. These methods consider prevalence of wetland vegetation, hydric soil indicators, and wetland hydrology. Surface waters include both natural and manmade bodies of water, such as streams, lakes, ponds, canals, and ditches. Based on initial database review and subsequent assessment of the vegetative communities, hydrologic conditions, and soils observed during on-site reconnaissance, there appears to be approximately 1.8 acres of wetlands and surface waters on-site.

FLUCFCS 510 – STREAMS AND WATERWAYS

This cover type encompassed approximately 0.1 acres of the project site and encompasses a small stream along the northern portion of the project area, which connects to the St. Lucie River just over half a mile to the west.

FLUCFCS 615 – STREAM AND LAKE SWAMPS (BOTTOMLAND)

This cover type encompassed approximately 1.7 acres of the project site and was primarily made up of cabbage palm, Brazilian pepper, Virginia chain fern (*Woodwardia virginica*), lizard's tail (*Saururus cernuus*), and wild coffee (*Psychotria nervosa*).

3.4 WILDLIFE UTILIZATION

Wildlife observed included the American robin (*Turdus migratorius*), downy woodpecker (*Dryobates pubescens*), red-tailed hawk (*Buteo jamaicensis*), and turkey vulture (*Cathartes aura*). Gopher tortoise (*Gopherus polyphemus*) burrows were also observed on-site.

3.5 ENDANGERED, THREATENED, AND SPECIES OF SPECIAL CONCERN

A list of protected species potentially occurring within the project vicinity was generated using the databases described in Section 2.0 Methodology. Information regarding previously documented occurrences, on-site observations conducted as part of this assessment, and likelihood of occurrence is summarized below.

FNAI – The FNAI report includes data from FNAI Matrix Units 66369 and 66370 **(Appendix A**). Based on the FNAI report, there are no documented listed species within the vicinity of the site. FNAI lists wood storks (*Mycteria Americana*) as likely to occur in both matrix units.

FWC – There are no known wading bird colonies on, or within one mile of, the project site. Two species, the black skimmer (*Rynchops niger*) and least tern (*Sternula antillarum*), were documented approximately 1 mile southeast of the project site. Habitat for these species is not found on-site. No further coordination regarding the black skimmer or least tern is anticipated.

USFWS Consultation Areas – The project site is in the below-listed USFWS Consultation Areas. However, habitat for these species does not occur on-site, and thus no further coordination regarding these species is anticipated.

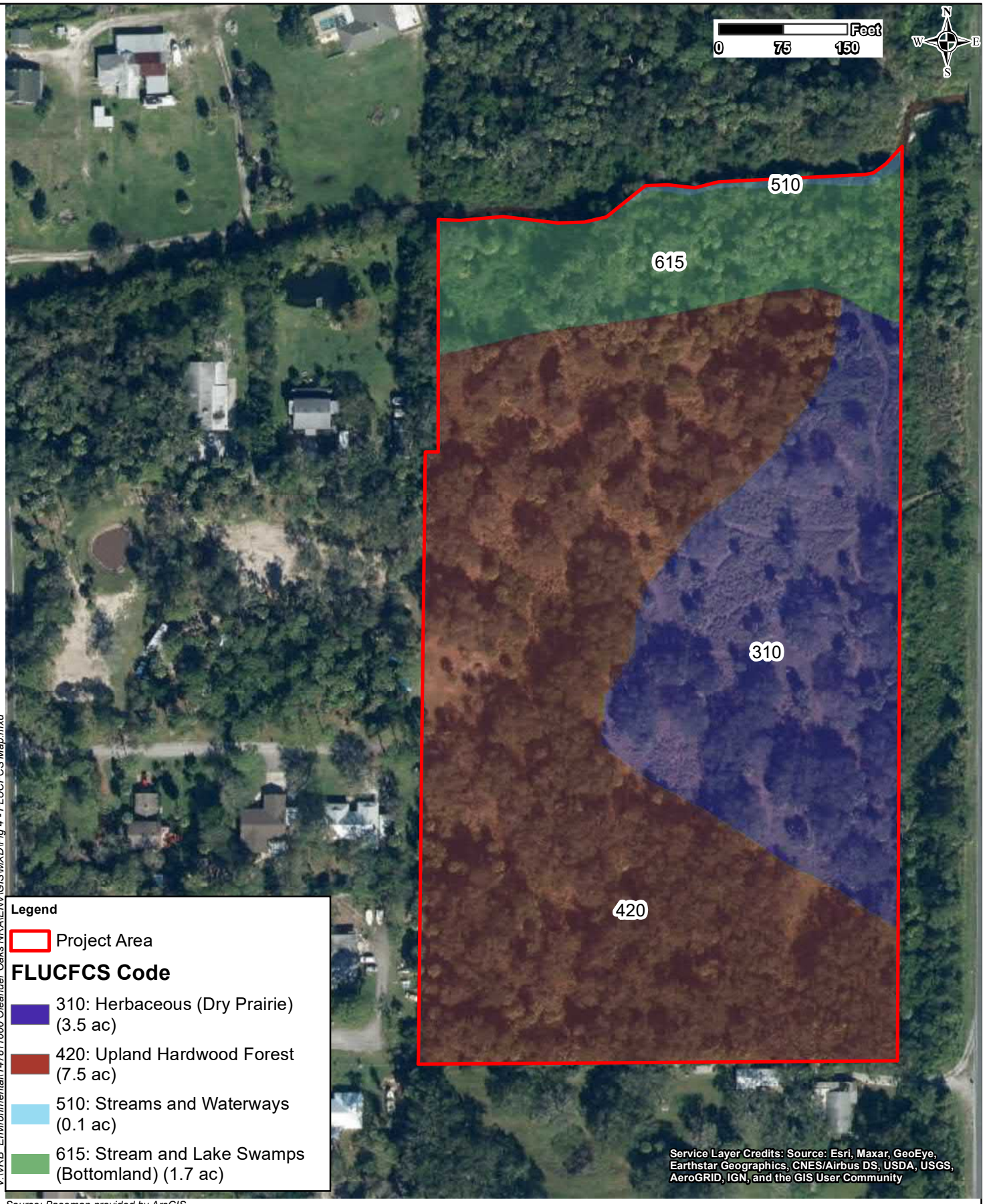
- Florida scrub-jay
- Audubon's crested caracara
- Everglade snail kite
- Grasshopper sparrow

USFWS Wood Stork Colonies – The project site is within the core foraging area (CFA) of two known wood stork colonies, North Fork St. Lucie River and Sewal Point MC2 - Bird Island. The CFA for an active wood stork colony is defined as a circular area within an 18.6-mile radius from the wood stork colony. Potential wood stork foraging habitat exists within the stream on-site. More on this is discussed below.

USFWS IPaC Data – The IPaC Trust Resources includes historical data in their reporting, which results in some species findings that do not reflect current on-site conditions. The following species is listed in the data and has suitable habitat within the project site: wood stork. Species listed in the data that do not have suitable habitat on-site include: Audubon's crested caracara, Everglade snail kite, Florida grasshopper sparrow, whooping crane, Florida scrub-jay, American alligator, Atlantic salt marsh snake, hawksbill sea turtle, leatherback sea turtle, loggerhead sea turtle, Miami blue butterfly, West Indian manatee, Florida panther, and southeastern beach mouse. This dataset confirmed that the project site is not within any USFWS designated Critical Habitat (***Appendix A***).

Based on field reconnaissance and database reviews, a list of state and federally listed species potentially occurring on, or within the immediate vicinity of, the project site has been compiled. ***Table 2*** lists species that may occur and their likelihood of occurrence. Likelihood of occurrence is based on actual observation of the species, signs of the species (burrows, tracks, scat, etc.), observance of suitable habitat, or documented occurrences of the species within various databases.

Table 2						
Potential Listed Species Occurrence						
Common Name		Scientific Name	Federal Status	State Status	Comments	Likelihood of Occurrence
Birds	Wood Stork	*Mycteria americana*	T	FT	Observed On-site: No Observed in Proximity: No Habitat Present: Marginal Habitat Type: Foraging	Low
	Burrowing Owl	*Athene cunicularia*	NL	ST	Observed On-site: No Observed in Proximity: No Habitat Present: None Habitat Type: N/A	None
	American Kestrel	*Falco sparverius paulus*	NL	ST	Observed On-site: No Observed in Proximity: No Habitat Present: None Habitat Type: N/A	None
Reptiles	Eastern Indigo Snake	*Drymarchon corais couperi*	T	FT	Observed On-site: No Observed in Proximity: No Habitat Present: Marginal Habitat Type: Nesting/foraging	Low
	Gopher Tortoise	*Gopherus polyphemus*	C	ST	Observed On-site: No Observed in Proximity: No Habitat Present: Yes Habitat Type: Burrowing/foraging	High
*Species in bold were observed on-site. Federal Status: E = Endangered; T = Threatened; T(S/A) = Threatened due to Similarity of Appearance; C = Candidate Species; NL = Not Listed. State Status: FE-Federally Endangered; FT – Federally Threatened; FT(S/A) – Federally Threatened due to Similarity of Appearance; ST- State Threatened; SSC = Species of Special Concern. Note: Coordination is not required with FWC for Federally listed species.						



V:\VRB Environmental\147811000 Oleander Oaks NRA\ENV\GIS\MXD\Fig 4 - FLUCFCS Map.mxd

Source: Basemap provided by ArcGIS

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FLUCFCS Map

Oleander Oaks Natural Resource Assessment
St. Lucie County, Florida

1 inch = 150 feet	PROJECT NUMBER: 147811000	FEBRUARY 2021	FIGURE 4

Based on the database review and field reconnaissance, the following species could occur on-site or require additional evaluation, survey, or permitting.

Wood Stork

The wood stork inhabits both fresh and saltwater habitats, such as fresh and saltwater marshes, tidal flats, wet prairies, cypress swamps, and drainage features. As part of the Effect Determination Key for the Wood Stork in South Florida, 18.6-mile core foraging area (CFA) buffers were established around known wood stork colonies. These buffers monitor proposed impacts to suitable foraging habitats (SFH) for the wood stork, which include shallow-water areas containing relatively open (<25% aquatic vegetation) water with a permanent or seasonal water depth between 2 and 15 inches. No wood storks were observed during field reconnaissance; however, the stream provides SFH for wood storks. Therefore, if impacts are anticipated for the on-site stream, coordination regarding the wood stork will be required with the SFWMD and a wood stork foraging assessment may be required. Further discussion is provided in Section 4.3 below.

Eastern Indigo Snake

The eastern indigo snake occurs in a range of habitats, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats. The snake requires large tracts of land to survive and often winters in burrows of gopher tortoises, armadillos, cotton rats, and land crabs (in coastal areas) and forages in hydric habitats. No individuals were observed during field reconnaissance; however, marginal habitat for the eastern indigo snake does exist on-site. Thus, per the Eastern Indigo Snake Effect Determination Key (August 13, 2013), if the USFWS *Standard Protection Measures for the Eastern Indigo Snake* (***Appendix B***) are implemented during construction, impacts to the Eastern indigo snake are not anticipated to occur, and no further action is anticipated.

Gopher Tortoise

The gopher tortoise is a burrowing tortoise that inhabits upland habitats such as pine flatwoods, xeric oak hammocks, and open sandy pastures, but can also often occur in disturbed areas. A 15% gopher tortoise burrow survey was conducted, and seven gopher tortoise burrowswere observed (***Figure 5***). A 100% gopher tortoise survey will need to be completed no more than 90 days prior to construction. Impacts to or within 25 feet of gopher

tortoise burrows require a relocation permit from FWC. This permit authorizes gopher tortoises to be relocated by an authorized agent off the development property to a protected certified recipient area.

Listed Plant Species

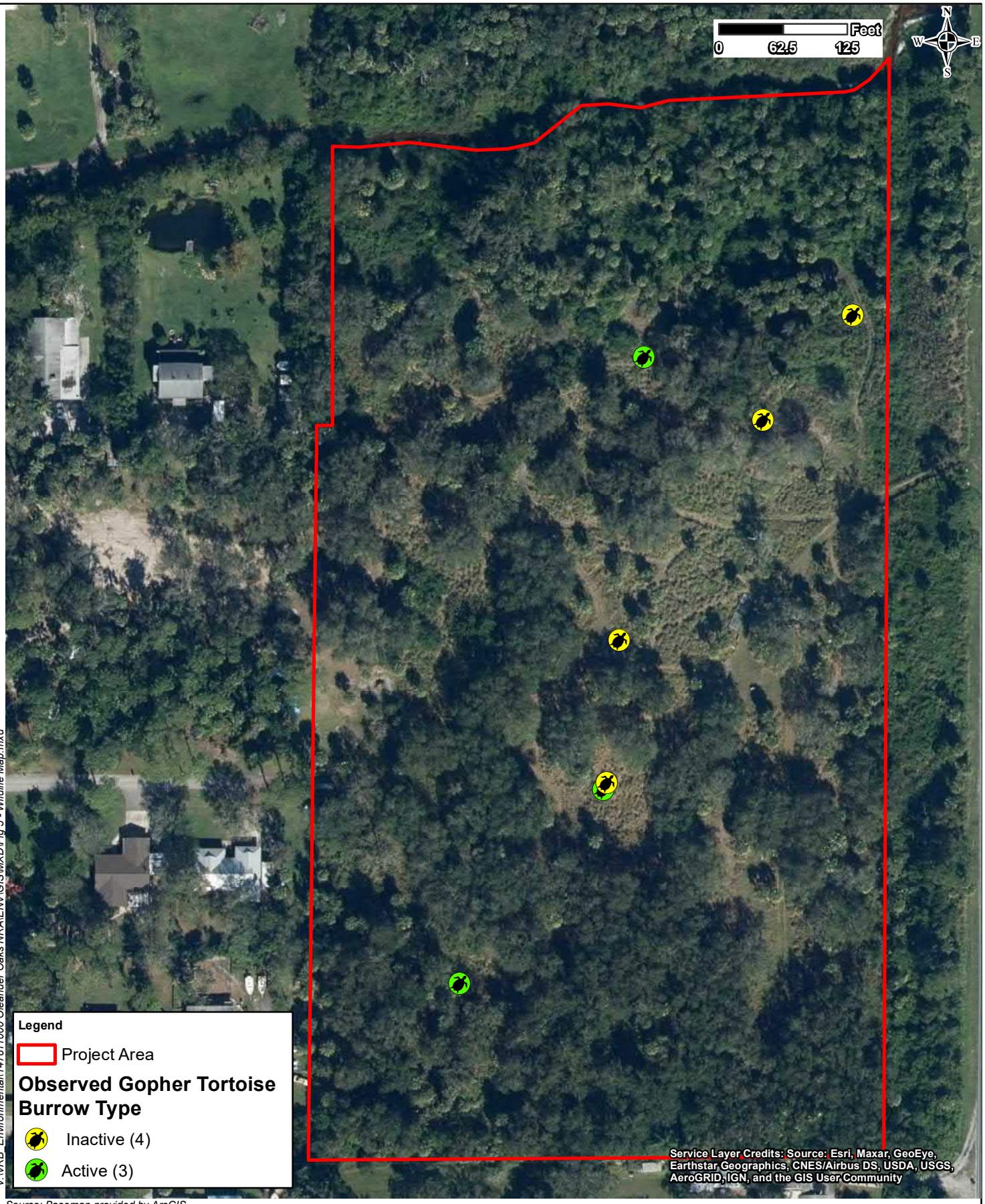
The Florida Department of Agriculture and Consumer Service's *Notes on Florida's Threatened and Endangered Plants*, and Richard Wunderlin's *Guide to Vascular Plants of Florida*, were consulted to assess habitat requirements for listed plant species. Although six state-listed plants were noted by FNAI as possibly occurring in this area, none were observed during field reconnaissance. No further action is required regarding listed plant species.

3.6 HISTORIC AND ARCHAEOLOGICAL RESOURCES

Kimley-Horn requested an inquiry from the Department of State, State Historic Preservation Officer (SHPO) Division of Historical Resources Florida Master Site File (FMSF) regarding the presence of known historical or archaeological findings on the project site, or in the immediate vicinity (***Appendix C***). The FMSF lists three standing structures and two resource groups within a 0.25-mile radius of the project area, however, none are within the project site, thus no historic or archaeological resources are anticipated to be impacted by development of the project site.

3.7 FLOODPLAIN INFORMATION

The FEMA FIRM panel [12061C0166E] indicates that approximately 10 acres of the project site are located within Flood Zone X – defined as areas determined to be outside of the special flood hazard area. Approximately 0.5 acres of the project area are located within Flood Zone X – within the 500-year floodplain, and 2 acres are within Flood Zone AE – within the 100-year floodplain. A FEMA flood zone map is attached as ***Figure 6***. Additional engineering analysis will be required to address effects to floodplain, including design and construction of flood compensation areas. This topic will be evaluated during civil engineering design and permitting with the SFWMD.



V:\VRB Environmental\147811000 Oleander Oaks NRA\ENV\GIS\MXD\Fig 5 - Wildlife Map.mxd

Source: Basemap provided by ArcGIS

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Wildlife Map

Oleander Oaks Natural Resource Assessment
St. Lucie County, Florida

1 inch = 125 feet	PROJECT NUMBER: 147811000	FEBRUARY 2021	FIGURE 5



V:\VRB_Environmental\147811000 Oleander Oaks NRA\ENV\GIS\MXD\Fig 6 - FEMA Map.mxd

Source: Basemap provided by ArcGIS

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FEMA Floodplain Map

Oleander Oaks Natural Resource Assessment
St. Lucie County, Florida

1 inch = 200 feet	PROJECT NUMBER: 147811000	FEBRUARY 2021	FIGURE 6

4.0 REGULATORY REQUIREMENTS

4.1 LOCAL ENVIRONMENTAL ORDINANCES

Based on a review of the municipal codes and ordinances for St. Lucie County, existing permitting requirements and regulations of state and federal regulatory agencies must be followed and applied. Additionally, per the Land Development Code of St. Lucie County, vegetation removal activities of native species in unincorporated areas requires a Vegetation Removal Permit from the Public Works Director. A tree survey will be required to determine status of trees on-site.

The St. Lucie County Land Development Code also gives St. Lucie County regulatory authority over all wetlands, however this authority is carried out via coordination with state and federal agencies. Thus, a state or federal permit required for construction, dredging, filling, or alteration within jurisdictional wetlands will supersede the county permitting mechanism. Mitigation must demonstrate no net losses due to impacts of these areas. Additionally, a minimum 10-foot buffer zone of native upland transitional vegetation is required around any isolated wetlands preserved on development sites.

4.2 STATE REGULATORY REQUIREMENTS

Environmental Resource Permit

An Environmental Resource Permit (ERP) will be required for the project if impacts to the on-site wetland or stream is proposed. The ERP evaluates the project impacts to wetlands, surface waters, and stormwater management design including floodplain impacts. An ERP may also be required from the SFWMD if any stormwater improvements are proposed as part of this project. Drainage design and stormwater management is not discussed further in this report as the scope was limited to natural resources. SFWMD will also coordinate with the Florida Department of State Division of Historical Resources regarding potential impacts to historical or archaeological resources, and a site-specific cultural resource assessment survey may be required.

It should be noted that the FDEP has assumed administration of the Clean Water Act (CWA) Section 404 program. FDEP will process Section 404 permits within State-assumed Waters

of the US (WOTUS) rather than the US Army Corps of Engineers (USACE). Based on a preliminary review, there may be WOTUS present on-site, and therefore, authorization under Section 404 may be required.

Listed Species Permitting

The following state-listed species may potentially occur on-site:

- Gopher tortoise

Gopher Tortoise

Gopher tortoise habitat is present on-site, and burrows were observed during field reconnaissance (see ***Figure 5 – Wildlife Map***). Based on the presence of habitat and burrows, a 100% gopher tortoise burrow survey is required to be conducted within 90 days prior to construction commencement, and a gopher tortoise relocation permit will be required from FWC if any relocation is required.

4.3 FEDERAL REGULATORY REQUIREMENTS

Section 404 Dredge and Fill Permitting

Please refer to State Regulatory Requirements above. Based on a preliminary review, WOTUS appear to be present on-site, and therefore, authorization under Section 404 may be required. This project is not within 300 ft. of a USACE retained water, so permitting under Section 404 can be authorized under the DEP State 404 Program.

Federal Listed Species

The following federally listed species were observed or potentially occur on-site:

- Wood Stork
- Eastern indigo snake

Wood Stork

The proposed project occurs within the CFA of two wood stork colonies. Foraging habitat is present in the stream on the northern boundary of the property. In accordance with USFWS's 2010 South Florida Programmatic Concurrence and Key, a wood stork foraging

analysis may be required if impacts to SFH are proposed. Mitigation requirements will be based on this analysis.

Eastern Indigo Snake

Per the Eastern Indigo Snake Effect Determination Key (August 13, 2013), if the USFWS Standard Protection Measures for the Eastern Indigo Snake (***Appendix B***) are implemented during construction, impacts to the Eastern indigo snake are not anticipated to occur, and no further action is anticipated to be required.

5.0 SUMMARY AND RECOMMENDATIONS

- An ERP from SFWMD will be required to authorize stormwater improvements and any wetland or stream impacts as part of site development. Based on the FMSF, there were no historic or archaeological resources within the study area.
- Authorization under Section 404 may be required through a State 404 Program permit if impacts to WOTUS are expected.
- A tree survey and Vegetation Removal Permit from St. Lucie County may be required for tree removal prior to development.
- The following state and federally listed species were observed or potentially occur on-site: wood stork, gopher tortoise, and Eastern indigo snake. Additional surveys and permits may be required for the gopher tortoise and wood stork and implementation of the Standard Protection Measures is recommended for the eastern indigo snake.
- The project site is partially within a FEMA designated floodplain. Additional engineering analysis will be required to address effects to the floodplain, including design and construction of flood compensation areas. This topic will be evaluated during civil engineering design and permitting with the SFWMD.

APPENDIX A

FNAI BIODIVERSITY MATRIX

IPaC Species List

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
850-681-9364 fax
www.fnai.org

Florida Natural Areas Inventory

Biodiversity Matrix Query Results

UNOFFICIAL REPORT

Created 2/8/2021

(Contact the FNAI Data Services Coordinator at 850.224.8207 or kbrinegar@fnai.fsu.edu for information on an official Standard Data Report)

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 2 Matrix Units: 66369 , 66370



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

1. documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; *or*
2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 66369

0 **Documented** Elements Found

0 **Documented-Historic** Elements Found

3 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Blackwater stream	G4	S3	N	N
Mesic flatwoods	G4	S4	N	N
Mycteria americana Wood Stork	G4	S2	LT	FT

Matrix Unit ID: 66370

0 **Documented** Elements Found

0 **Documented-Historic** Elements Found

1 **Likely** Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana Wood Stork	G4	S2	LT	FT

Matrix Unit IDs: 66369 , 66370

17 **Potential** Elements Common to Any of the 2 Matrix Units

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	SSC
Coelorachis tuberculosa Piedmont Jointgrass	G3	S3	N	T
Conradina grandiflora Large-flowered Rosemary	G3	S3	N	T
Corynorhinus rafinesquii Rafinesque's Big-eared Bat	G3G4	S2	N	N
Drymarchon couperi Eastern Indigo Snake	G3	S3	LT	FT
Glandularia maritima Coastal Vervain	G3	S3	N	E
Gopherus polyphemus Gopher Tortoise	G3	S3	C	ST
Lechea cernua Nodding Pinweed	G3	S3	N	T
Linum carteri var. smallii Small's Flax	G2T2	S2	N	E
Nemastylis floridana Celestial Lily	G2	S2	N	E
Pituophis melanoleucus mugitus Florida Pine Snake	G4T3	S3	N	SSC
Polygala smallii Tiny Polygala	G1	S1	LE	E
Pteroglossaspis ecristata Giant Orchid	G2G3	S2	N	T
Rostrhamus sociabilis Snail Kite	G4G5	S2	LE	N
Sceloporus woodi Florida Scrub Lizard	G2G3	S2S3	N	N
Sciurus niger shermani Sherman's Fox Squirrel	G5T3	S3	N	SSC
Trichechus manatus West Indian Manatee	G2	S2	LE	FE

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a Standard Data Request option for those needing certifiable data.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960-3559
Phone: (772) 562-3909 Fax: (772) 562-4288
http://fws.gov/verobeach

In Reply Refer To: February 02, 2021
Consultation Code: 04EF2000-2021-SLI-0334
Event Code: 04EF2000-2021-E-00867
Project Name: Oleander

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960-3559
(772) 562-3909

Project Summary

Consultation Code: 04EF2000-2021-SLI-0334
Event Code: 04EF2000-2021-E-00867
Project Name: Oleander
Project Type: DEVELOPMENT
Project Description: Development
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@27.38836585,-80.33513419481258,14z



Counties: St. Lucie County, Florida

Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Florida Panther *Puma (=Felis) concolor coryi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1763	Endangered
Puma (=mountain Lion) *Puma (=Felis) concolor (all subsp. except coryi)* Population: FL No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6049	Similarity of Appearance (Threatened)
Southeastern Beach Mouse *Peromyscus polionotus niveiventris* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3951	Threatened

Birds

NAME	STATUS
Audubon's Crested Caracara *Polyborus plancus audubonii* Population: FL pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8250	Threatened
Everglade Snail Kite *Rostrhamus sociabilis plumbeus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7713	Endangered
Florida Grasshopper Sparrow *Ammodramus savannarum floridanus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/32	Endangered
Florida Scrub-jay *Aphelocoma coerulescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6174	Threatened
Whooping Crane *Grus americana* Population: U.S.A. (CO, ID, FL, NM, UT, and the western half of Wyoming) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential
Wood Stork *Mycteria americana* Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

NAME	STATUS
American Alligator *Alligator mississippiensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/776	Similarity of Appearance (Threatened)
Hawksbill Sea Turtle *Eretmochelys imbricata* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered
Leatherback Sea Turtle *Dermochelys coriacea* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle *Caretta caretta* Population: Northwest Atlantic Ocean DPS There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

Insects

NAME	STATUS
Miami Blue Butterfly *Cyclargus (=Hemiargus) thomasi bethunebakeri*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/3797

Flowering Plants

NAME	STATUS
Fragrant Prickly-apple *Cereus eriophorus var. fragrans*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/982

Lakela's Mint *Dicerandra immaculata*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6390

Tiny Polygala *Polygala smallii*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/996

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX B

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or "approval" from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or "approval" from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11" x 17" or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A <u>LIVE</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A <u>DEAD</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.

2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.

3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).

2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.

3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.



ATTENTION:

THREATENED EASTERN INDIGO SNAKES MAY BE PRESENT ON THIS SITE!!!

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

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USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

Killing, harming, or harassing indigo snakes is strictly prohibited and punishable under State and Federal Law.

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

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PROTECTION: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses, if convicted.

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Panama City ES Office – (850) 769-0552
South Florida ES Office – (772) 562-3909

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August 12, 2013

ATTENTION:

THREATENED EASTERN INDIGO SNAKES MAY BE PRESENT ON THIS SITE!!!



Photo: Dirk Stevenson

Please read the following information provided by the U.S. Fish and Wildlife Service to become familiar with standard protection measures for the eastern indigo snake.

APPENDIX C

SHPO FLORIDA MASTER SITE FILE REPORT

This record search is for informational purposes only and does NOT constitute a project review. This search only identifies resources recorded at the Florida Master Site File and does NOT provide project approval from the Division of Historical Resources. Contact the Compliance and Review Section of the Division of Historical Resources at CompliancePermits@dos.MyFlorida.com for project review information.

February 8, 2021

Chloe Gossett
Kimley-Horn | 1920 Wekiva Way, Suite 200
West Palm Beach, FL 33411
Direct: 561 840 0217 | Mobile: 816 916 2233

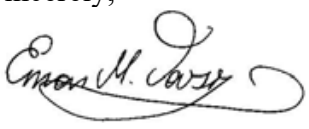
In response to your request on February 8, 2021, the Florida Master Site File lists three standing structures and two resource groups recorded at designated property of South Lucy County, Florida.

When interpreting the results of our search, please consider the following information:

- **This search area may contain *unrecorded* archaeological sites, historical structures or other resources even if previously surveyed for cultural resources.**
- **Because vandalism and looting are common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.**
- **While many of our records document historically significant resources, the documentation of a resource at the Florida Master Site File does not necessarily mean the resource is historically significant.**
- **Federal, state and local laws require formal environmental review for most projects. This search DOES NOT constitute such a review. If your project falls under these laws, you should contact the Compliance and Review Section of the Division of Historical Resources at** CompliancePermits@dos.MyFlorida.com

Please do not hesitate to contact us if you have any questions regarding the results of this search.

Sincerely,

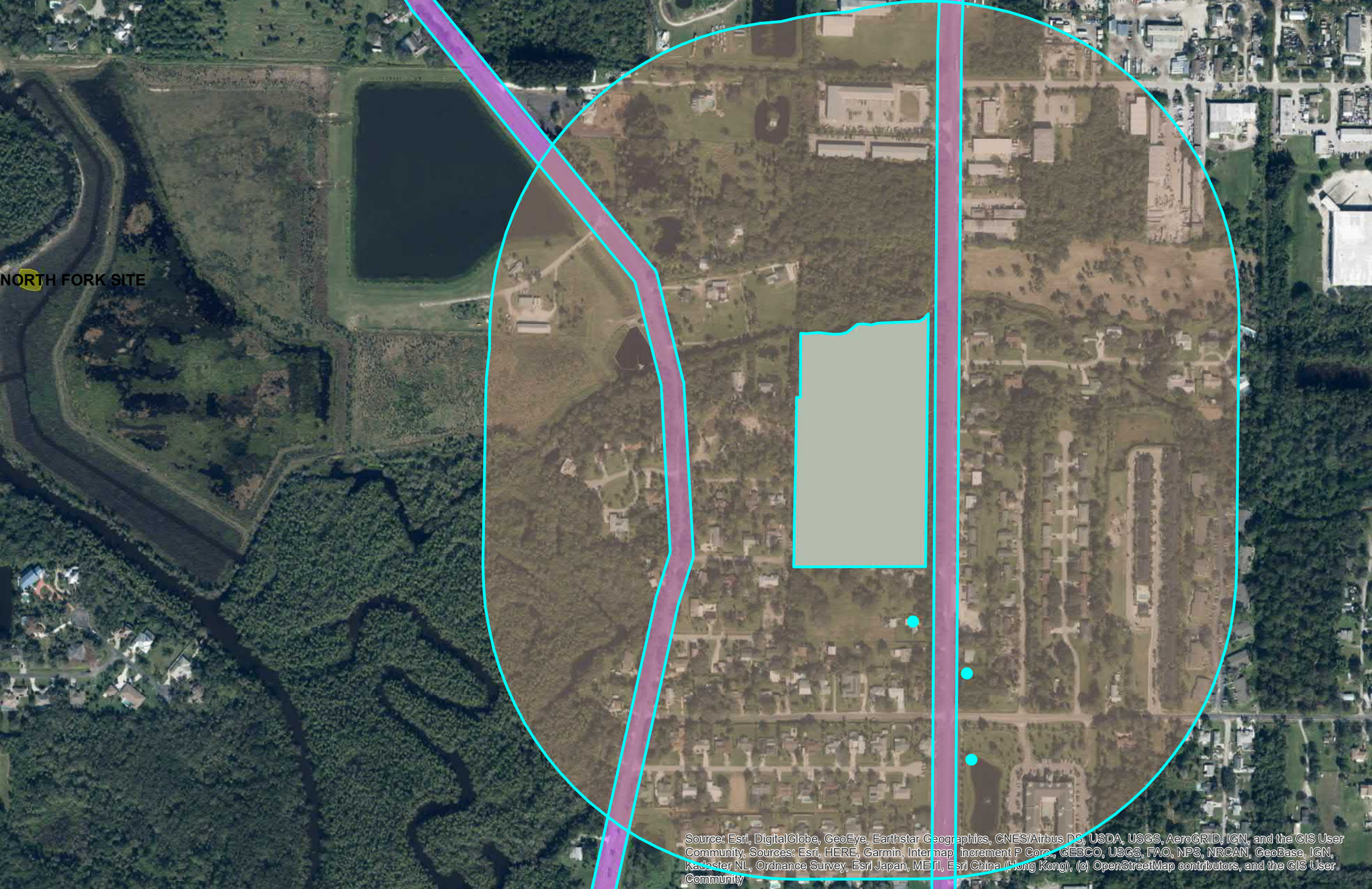


Eman M. Vovsi, Ph.D.
Florida Master Site File
Eman.Vovsi@DOS.MyFlorida.com

AR=0
SS=3
CM=0
RG=2
BR=0
Total=5

Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
SL00179	SS	4111 OLEANDER AVENUE	4111 Oleander AVE, Fort Pierce G.V.	1915 Frame Vernacular		
SL00180	SS	4122 OLEANDER AVENUE		-RESOURCE DESTROYED- c1915 Frame Vernacular		
SL00181	SS	4200 OLEANDER AVENUE		-RESOURCE DESTROYED- c1915 Frame Vernacular		
SL01660	RG	Oleander Avenue	Fort Pierce	Linear Resource - 1 Contrib Resources	Not Eligible	
SL01662	RG	Sunrise Boulevard	Fort Pierce	Linear Resource - 1 Contrib Resources	Not Eligible	


NORTH FORK SITE
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

OLEANDER OAKS (Fort Pierce, FL)

Traffic Impact Study

April 2021

Kimley»Horn

TRAFFIC IMPACT STUDY

Oleander Oaks

City of Fort Pierce, FL

Prepared for:

Alva Stone Group

Prepared by:

Kimley-Horn and Associates, Inc.

Blaine Bergstresser, P.E.

PE #84598

April 2021

©Kimley-Horn and Associates, Inc. 2021

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Appendix K: NCHRP Report 457 Outputs

1.0 INTRODUCTION

Kimley-Horn has been retained by Alva Stone Group to analyze and document the traffic impacts associated with the development of Oleander Oaks in the City of Fort Pierce, Florida. The following is a Traffic Impact Study (TIS) that generally conforms to the policies and guidelines of the St. Lucie Transportation Planning Organization (TPO), St. Lucie County Land Development Code (LDC) Section 11.02.09, and the City of Fort Pierce LDC.

Oleander Oaks is a proposed single-family residential development generally located on the east side of Oleander Avenue, north of Kling Road in City of Fort Pierce, Florida. The project property is currently vacant. The development is proposed to consist of ±63 single-family dwelling units and anticipated to be built by Year 2026.

Access to the site will be provided via one full-access driveway onto Oleander Avenue. This access point is shown on the conceptual site plan provided in **Appendix A**.

2.0 STUDY AREA DETERMINATION

2.1 TRIP GENERATION

Trip generation for the proposed project was calculated per procedures published in the 10th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. The Land Use Code (LUC) used for the proposed site is:

- LUC 210, Single-Family Detached Housing

Table 1 provides the Daily, AM peak hour, and PM peak hour trip generation summary for the project. Excerpts from the ITE Trip Generation Manual is included in **Appendix B**.

Table 1: Trip Generation Summary

	Land Use	ITE LUC	Size	Units	Trip Rate[1]	Daily Trip Generation				
						Total	In[1]		Out[1]	
DAILY	Single-Family Detached Housing	210	**63**	DU	10.79	680	*50%*	340	*50%*	340
	Total Generated Trips					**680**	**340**		**340**	

	Land Use	ITE LUC	Size	Units	Trip Rate[1]	AM Peak Hour Trip Generation				
						Total	In[1]		Out[1]	
AM PEAK HOUR	Single-Family Detached Housing	210	**63**	DU	0.79	50	*25%*	13	*75%*	37
	Total Generated Trips					**50**	**13**		**37**	

	Land Use	ITE LUC	Size	Units	Trip Rate[1]	PM Peak Hour Trip Generation				
						Total	In[1]		Out[1]	
PM PEAK HOUR	Single-Family Detached Housing	210	**63**	DU	1.03	65	*63%*	41	*37%*	24
	Total Generated Trips					**65**	**41**		**24**	

[1] Vehicle trip rates and directional splits per data and procedures outlined in ITE Trip Generation, 10th Edition

2.2 TRIP DISTRIBUTION AND TRIP ASSIGNMENT

Projected traffic demand of project trips on study roadways was derived with use of the adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the Greater Treasure Coast Regional Planning Model (GTCRPM) set and situated within the existing roadway network to appropriately represent project access. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project buildout year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic. The resulting model plots showing percent of daily project distribution are provided in **Appendix C**.

Daily model project distribution was referenced to manually assign project distribution at the study area intersections and driveways in general accordance with model output. **Figure 1** shows the intersection movement project distribution surrounding Oleander Oaks used in this TIS.

Project trip distribution percentages were used to assign anticipated project trips to the study area roadways and intersections. **Figure 2** shows the anticipated AM and PM peak hour project volumes at the study area intersections.

Figure 1: Project Trip Distribution

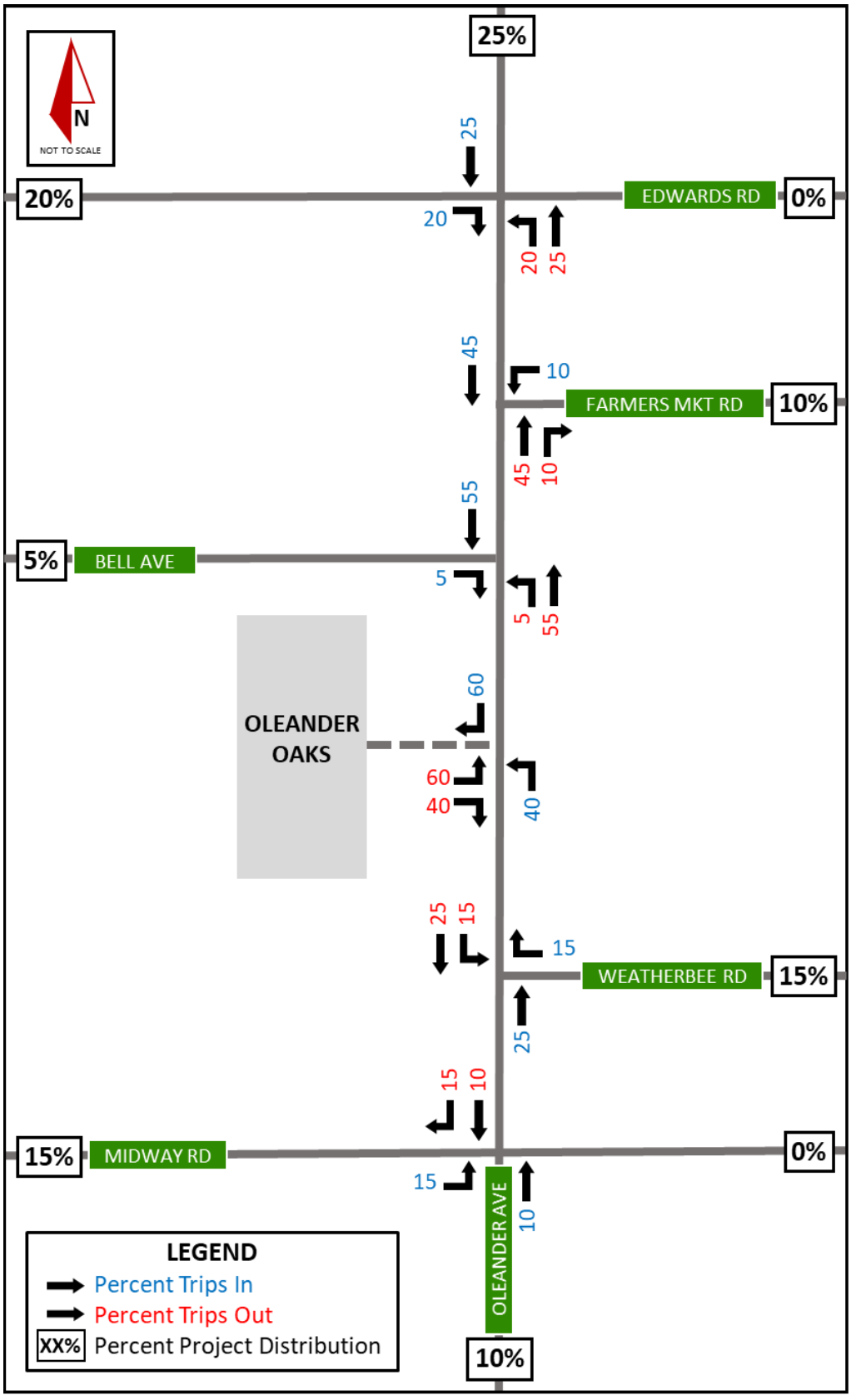
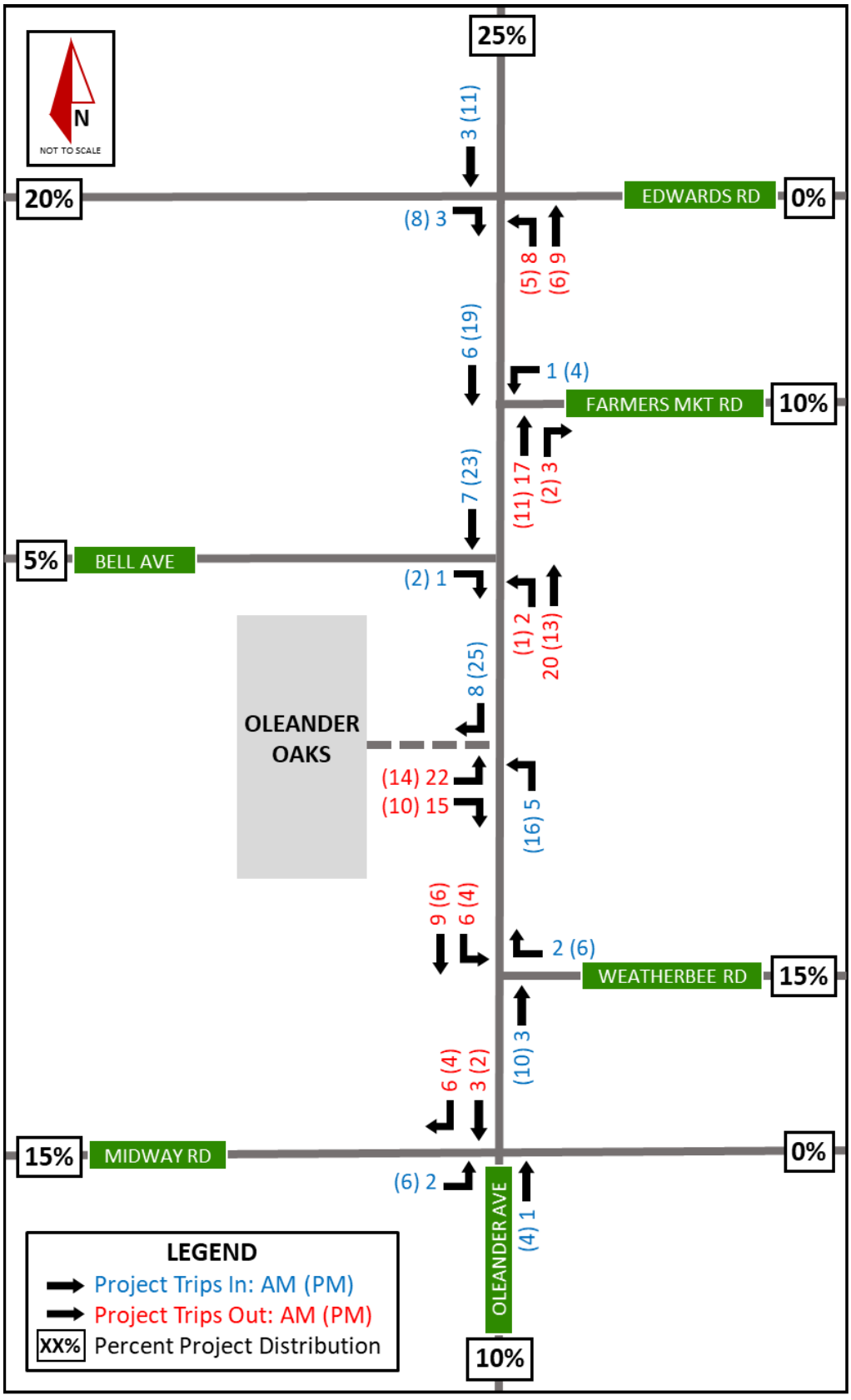


Figure 2: Project Trip Assignment



2.3 STUDY AREA

To determine roadway segments to be included in this TIA, a 1.0% significance test was performed for all major roadway segments within a 2-mile radius of the project site. The results of the 1.0% significance test are shown in **Table 2**. The percent significance for project trips was determined by comparing the maximum directional peak hour project trips to the directional peak hour service capacity as provided in the latest St. Lucie TPO Traffic Counts and Level of Service Report. Excerpts from the St. Lucie TPO traffic count report are included in **Appendix D**.

The resulting study area roadway segments are listed below and displayed on **Figure 3**:

- Oleander Avenue, from Midway Road to Weatherbee Road
- Oleander Avenue, from Weatherbee Road to Bell Avenue
- Oleander Avenue, from Bell Avenue to Farmers Market Road
- Oleander Avenue, from Farmers Market Road to Edwards Road
- Oleander Avenue, from Edwards Road to Wisteria Avenue

The project driveway and intersections along study area roadway segments will be included in this TIA. The resulting study area intersections are listed below and displayed on **Figure 3**.

- Oleander Avenue & Midway Road
- Oleander Avenue & Weatherbee Road
- Oleander Avenue & Project Driveway
- Oleander Avenue & Bell Avenue
- Oleander Avenue & Farmers Market Road
- Oleander Avenue & Edwards Road

Table 2: Roadway Segment Significance Test

Roadway		Directional Peak Hour Service Capacity	% Project Distribution	% Project Significance
From	To			
Bell Avenue				
25th Street	Sunrise Boulevard	790	1%	0.1%
Sunrise Boulevard	Oleander Avenue	600	2%	0.1%
Edwards Road				
Selvitz Road	25th Street	880	6%	0.3%
25th Street	Sunrise Boulevard	1,630	19%	0.5%
Sunrise Boulevard	Oleander Avenue	1,630	19%	0.5%
Oleander Avenue	US 1	1,630	0%	0.0%
Farmers Market Road				
Oleander Avenue	US 1	750	6%	0.3%
Midway Road				
Selvitz Road	Christensen Road	920	7%	0.3%
Christensen Road	25th Street	790	7%	0.4%
25th Street	Sunrise Boulevard	790	14%	0.7%
Sunrise Boulevard	Oleander Avenue	790	15%	0.8%
Oleander Avenue	US 1	790	0%	0.0%
US 1	Wallace Street	790	3%	0.2%
Wallace Street	Weatherbee Road	920	3%	0.1%
Weatherbee Road	Indian River Drive	630	1%	0.1%
Oleander Avenue				
Kitterman Road	Midway Road	750	9%	0.5%
Midway Road	Weatherbee Road	750	26%	**1.4%**
Weatherbee Road	Bell Avenue	540	59%	**4.5%**
Bell Avenue	Farmers Market Road	540	55%	**4.2%**
Farmers Market Road	Edwards Road	750	49%	**2.7%**
Edwards Road	Wisteria Avenue	750	25%	**1.4%**
Sunrise Boulevard				
Midway Road	Bell Avenue	540	0%	0.0%
Bell Avenue	Edwards Road	750	1%	0.1%
Edwards Road	Cortez Boulevard	600	0%	0.0%
US 1				
Easy Street	Midway Road	3,170	8%	0.1%
Midway Road	Weatherbee Road	2,100	11%	0.2%
Weatherbee Road	Farmers Market Road	2,000	2%	0.0%
Farmers Market Road	Edwards Road	2,000	4%	0.1%
Edwards Road	Savannah Road	2,000	3%	0.1%
Weatherbee Road				
Oleander Avenue	US 1	750	15%	0.8%
US 1	Midway Road	750	3%	0.2%
25th Street				
Midway Road	Bell Avenue	2,100	1%	0.0%
Bell Avenue	Edwards Road	2,100	0%	0.0%
Edwards Road	Cortez Boulevard	2,000	13%	0.3%

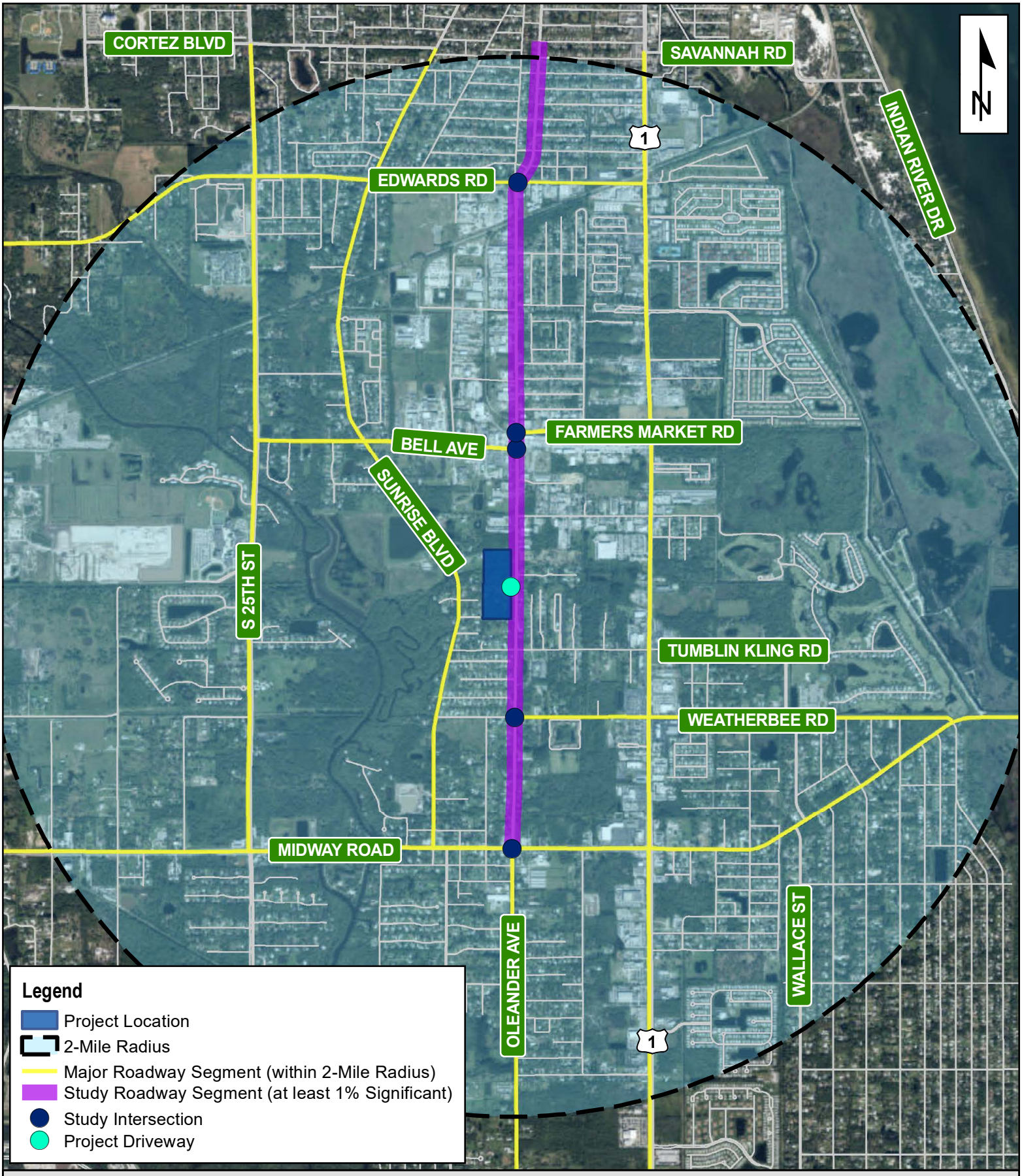


Figure 3 - Project Location and Study Area Roadway Segments/Intersections

Oleander Oaks - Traffic Impact Study

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Project Number: 147811000
Date: April 2021

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3.0 EXISTING CONDITIONS ANALYSIS – YEAR 2021

3.1 EXISTING TRAFFIC

Turning movement counts (TMCs) were collected at the study intersections on Tuesday, April 6, 2021 and are provided in **Appendix E**. Data was collected during the AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak periods.

The existing turning movement volumes were adjusted to peak season using a 1.01 adjustment factor published by the Florida Department of Transportation (FDOT). The data referenced from FDOT's Florida Traffic Online 2019 Peak Season Factor Category Report is included in **Appendix F**. Adjusted turning movement volume worksheets for all intersections are included in **Appendix G**. The AM and PM peak hour intersection turning movement volumes at the study area intersections are illustrated on **Figures 4 and 5**, respectively.

3.2 EXISTING ROADWAY SEGMENT CONDITIONS

A roadway segment analysis was performed within the study area to determine existing AM and PM peak hour conditions. The analysis was conducted by comparing Year 2021 peak hour peak direction (PHPD) traffic volumes to the PHPD service capacities per the latest St. Lucie TPO Traffic Counts and Level of Service Report (excerpts included in **Appendix D**).

The existing roadway segment data is included in **Tables 3 and 4** for AM and PM peak hour roadway segment conditions, respectively. As shown in the tables, the analysis identifies an existing capacity deficiency for both scenarios at the following roadway segment:

- Oleander Avenue, from Bell Avenue to Farmers Market Road

Table 3: Existing (2021) AM Peak Hour Roadway Segment Analysis

Roadway Segment	Roadway Attributes [1]				PHPD Service Capacity [2]	2020 AM PHPD [2]	Annual Growth Rate	2021 Existing AM PHPD [3]	V/C Ratio	LOS
	Functional Classification	Area Type	Adopted LOS	Number of Lanes						
Oleander Avenue										
Midway Road to Weatherbee Road	Urban Minor Arterial	Urban	D	2U	750	388	1.55%	394	0.53	D
Weatherbee Road to Bell Avenue	Urban Minor Arterial	Urban	D	2U	540	388	1.55%	394	0.73	D
Bell Avenue to Farmers Market Road	Urban Minor Arterial	Urban	D	2U	540	671	1.55%	681	**1.26**	**F**
Farmers Market Road to Edwards Road	Urban Minor Arterial	Urban	D	2U	750	671	1.55%	681	0.91	D
Edwards Road to Wisteria Avenue	Urban Minor Arterial	Urban	D	2U	750	611	1.55%	620	0.83	D

1. Roadway attributes were obtained from the 2010 FDOT St. Lucie County Federal Functional Classification Map, St. Lucie County Transportation Element, and supplemented with the 2020 FDOT Quality/LOS Tables.
2. Obtained from the latest St. Lucie TPO Traffic Counts and Level of Service Report
3. 2020 PHPD values were grown annually by 1.55% to reach 2021 PM PHPD values.

Table 4: Existing (2021) PM Peak Hour Roadway Segment Analysis

Roadway Segment	Roadway Attributes [1]				PHPD Service Capacity [2]	2020 PM PHPD [2]	Annual Growth Rate	2021 Existing PM PHPD [3]	V/C Ratio	LOS
	Functional Classification	Area Type	Adopted LOS	Number of Lanes						
Oleander Avenue										
Midway Road to Weatherbee Road	Urban Minor Arterial	Urban	D	2U	750	421	1.55%	428	0.57	D
Weatherbee Road to Bell Avenue	Urban Minor Arterial	Urban	D	2U	540	421	1.55%	428	0.79	D
Bell Avenue to Farmers Market Road	Urban Minor Arterial	Urban	D	2U	540	647	1.55%	657	**1.22**	**F**
Farmers Market Road to Edwards Road	Urban Minor Arterial	Urban	D	2U	750	647	1.55%	657	0.88	D
Edwards Road to Wisteria Avenue	Urban Minor Arterial	Urban	D	2U	750	554	1.55%	563	0.75	D

1. Roadway attributes were obtained from the 2010 FDOT St. Lucie County Federal Functional Classification Map, St. Lucie County Transportation Element, and supplemented with the 2020 FDOT Quality/LOS Tables.
2. Obtained from the latest St. Lucie TPO Traffic Counts and Level of Service Report
3. 2020 PHPD values were grown annually by 1.55% to reach 2021 PM PHPD values.

3.3 EXISTING INTERSECTION CONDITIONS

Intersection operational analyses were performed for 2021 existing conditions in the AM and PM peak hour using procedures outlined in the *Highway Capacity Manual (2010)* with Synchro (v10) software. Signal timing and phasing plans were provided by St. Lucie County staff and are included in **Appendix H**. A summary of intersection level of service (LOS), delay, and maximum volume/capacity (v/c) ratios for AM and PM peak hour existing conditions are provided in **Tables 5 and 6**, respectively. Synchro outputs are provided in **Appendix I**.

As shown in the tables, the study area intersections operate at an acceptable LOS with turning movements demonstrating maximum v/c ratios of less than one (1.0) in both scenarios.

Table 5: Existing (2021) AM Peak Hour Intersection Conditions

Intersection	AM Peak Hour Existing Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
Oleander Avenue & Midway Road	C	25.8	0.72
Oleander Avenue & Weatherbee Road	C	6.5	0.41
Oleander Avenue & Bell Avenue	C	4.3	0.40
Oleander Avenue & Farmers Market Road	C	1.9	0.20
Oleander Avenue & Edwards Road	C	22.4	0.76

Notes:
1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

Table 6: Existing (2021) PM Peak Hour Intersection Conditions

Intersection	**PM Peak Hour Existing Conditions**		
	LOS	**Delay (Sec)**	**Max V/C Ratio**
Oleander Avenue & Midway Road	C	27.0	0.71
Oleander Avenue & Weatherbee Road	C	5.7	0.36
Oleander Avenue & Bell Avenue	C	4.4	0.45
Oleander Avenue & Farmers Market Road	C	2.5	0.32
Oleander Avenue & Edwards Road	C	24.5	0.80

Notes:
1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

4.0 BACKGROUND CONDITIONS ANALYSIS – YEAR 2026

4.1 BACKGROUND TRAFFIC

Background traffic conditions, without the impact of project trips on the roadway network, were evaluated for Year 2026. Background volumes on study area intersections and roadway segments were derived by applying an annual growth rate to existing traffic counts. Turning movement volume worksheets for all intersections are provided in **Appendix E**. The AM and PM peak hour intersection turning movement volumes at the study area intersections are illustrated on **Figures 4 and 5**, respectively.

4.2 BACKGROUND GROWTH RATE

The University of Florida's Bureau of Economic and Business Research (BEBR) analyzes population growth trends in counties throughout the state, along with other statistical metrics. To determine a reasonable background growth rate for the study area, the medium BEBR growth rate for St. Lucie County was calculated.

As shown in **Table 7**, the medium BEBR growth rate for Year 2025 is approximately 1.55%. Therefore, a 1.55% annual background growth rate was used in this analysis to provide conservative results.

Table 7: BEBR Growth Rate Calculation

County	BEBR Pop Estimate April 1, 2019	BEBR Population Projections (April 1)		2025
		Range	2025	
St. Lucie	309,359	Low	319,300	0.46%
		Medium	342,900	**1.55%**
		High	364,600	2.55%

4.3 COMMITTED IMPROVEMENTS

Based on the St. Lucie TPO 2045 Long Range Transportation Plan (LRTP), the TPO's Transportation Improvement Program (TIP), and FDOT's 5-year work program, the following roadway improvement was located within the study area of the development:

- Midway Road, from 25th Street to US 1 – Add Lanes & Reconstruct
  (the improvement design is included in **Appendix J**)

This improvement was included in all intersection operational analyses (existing, background, and buildout scenarios).

4.4 BACKGROUND ROADWAY SEGMENT ANALYSIS

A roadway segment analysis was performed within the study area to determine background AM and PM peak hour conditions. The analysis was conducted by comparing Year 2026 peak hour peak direction (PHPD) traffic volumes to the PHPD service capacities per the latest St. Lucie TPO Traffic Counts and Level of Service Report (excerpts included in **Appendix D**). Year 2026 PHPD volumes were derived by applying a 1.55% annual growth rate to Year 2021 PHPD volumes.

The background roadway segment data is included in **Tables 8 and 9** for AM and PM peak hour roadway segment conditions, respectively. As shown in the tables, the analysis identifies a background capacity deficiency (that is also identified in the existing Year 2021 scenario) for both scenarios at the following roadway segment:

- Oleander Avenue, from Bell Avenue to Farmers Market Road (existing Year 2021 deficiency)

Table 8: Background (2026) AM Peak Hour Roadway Segment Analysis

Roadway Segment	Adopted LOS	PHPD Service Capacity [1]	2021 Existing AM PHPD	Annual Growth Rate	2026 Bkgrd AM PHPD [2]	V/C Ratio	LOS
Oleander Avenue							
Midway Road to Weatherbee Road	D	750	394	1.55%	425	0.57	D
Weatherbee Road to Bell Avenue	D	540	394	1.55%	425	0.79	D
Bell Avenue to Farmers Market Road	D	540	681	1.55%	734	**1.36**	**F**
Farmers Market Road to Edwards Road	D	750	681	1.55%	734	0.98	D
Edwards Road to Wisteria Avenue	D	750	620	1.55%	668	0.89	D

1. Obtained from the latest St. Lucie TPO Traffic Counts and Level of Service Report
2. 2021 PHPD values were grown annually by 1.55% to reach 2026 PM PHPD values.

Table 9: Background (2026) PM Peak Hour Roadway Segment Analysis

Roadway Segment	Adopted LOS	PHPD Service Capacity [1]	2021 Existing PM PHPD	Annual Growth Rate	2026 Bkgrd PM PHPD [2]	V/C Ratio	LOS
Oleander Avenue							
Midway Road to Weatherbee Road	D	750	428	1.55%	461	0.61	D
Weatherbee Road to Bell Avenue	D	540	428	1.55%	461	0.85	D
Bell Avenue to Farmers Market Road	D	540	657	1.55%	708	**1.31**	**F**
Farmers Market Road to Edwards Road	D	750	657	1.55%	708	0.94	D
Edwards Road to Wisteria Avenue	D	750	563	1.55%	607	0.81	D

1. Obtained from the latest St. Lucie TPO Traffic Counts and Level of Service Report
2. 2021 PHPD values were grown annually by 1.55% to reach 2026 PM PHPD values.

4.5 BACKGROUND INTERSECTION ANALYSIS

Intersection operational analyses were performed for 2026 background conditions in the AM and PM peak hour using procedures outlined in the *Highway Capacity Manual (2010)* with Synchro (v10) software. Signal timing and phasing plans were provided by St. Lucie County staff and are included in **Appendix H**. A summary of intersection level of service (LOS), delay, and maximum volume/capacity (v/c) ratios for AM and PM peak hour existing conditions are provided in **Tables 10 and 11**, respectively. Synchro outputs are provided in **Appendix I**.

As shown in the tables, the study area intersections operate at an acceptable LOS with turning movements demonstrating maximum v/c ratios of less than one (1.0) in both scenarios.

Table 10: Background (2026) AM Peak Hour Intersection Conditions

Intersection	AM Peak Hour Background Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
Oleander Avenue & Midway Road	C	26.9	0.74
Oleander Avenue & Weatherbee Road	C	7.3	0.48
Oleander Avenue & Bell Avenue	C	4.7	0.45
Oleander Avenue & Farmers Market Road	C	2.0	0.23
Oleander Avenue & Edwards Road	C	23.1	0.78

Notes:
1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

Table 11: Background (2026) PM Peak Hour Intersection Conditions

Intersection	PM Peak Hour Background Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
Oleander Avenue & Midway Road	C	28.1	0.73
Oleander Avenue & Weatherbee Road	C	6.5	0.43
Oleander Avenue & Bell Avenue	D	5.4	0.55
Oleander Avenue & Farmers Market Road	C	2.9	0.38
Oleander Avenue & Edwards Road	C	25.8	0.81

Notes:
1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

5.0 BUILDOUT CONDITIONS ANALYSIS – YEAR 2026

5.1 BUILDOUT TRAFFIC

Buildout traffic conditions were evaluated for Year 2026. Buildout volumes were developed by adding anticipated project trips to background volumes. Turning movement volume worksheets for all intersections can be found in **Appendix G**.

5.2 BUILDOUT ROADWAY SEGMENT ANALYSIS

A roadway segment analysis was performed within the study area to determine buildout AM and PM peak hour conditions. The analysis was conducted by comparing Year 2026 peak hour peak direction (PHPD) traffic volumes to the PHPD service capacities per the latest St. Lucie TPO Traffic Counts and Level of Service Report (excerpts included in **Appendix D**). Year 2026 PHPD volumes were derived by adding anticipated project trips to background volumes.

For the AM and PM peak hour buildout analyses, the LOS standard and corresponding peak hour service capacity for the segment of Oleander Avenue, from Farmers Market Road to Edwards Road was increased from LOS D to E as the St. Lucie County Comprehensive Plan Transportation Element (October 26, 2010) states the following:

> *"The County wishes to maintain a LOS D or better for all roadways but recognizes that allowing a LOS E allows development to proceed while a minimum of LOS D might cause severe constraints on private development. However, a LOS D will be utilized for these roadways when establishing transportation impact fees."*

The buildout roadway segment data is included in **Tables 12 and 13** for AM and PM peak hour roadway segment conditions, respectively. As shown in the tables, the analysis identifies a buildout capacity deficiency (that is also identified in the existing Year 2021 scenario) for both scenarios at the following roadway segment:

- Oleander Avenue, from Bell Avenue to Farmers Market Road (existing Year 2021 deficiency)

The roadway segment capacity deficiency for both the buildout scenario AM and PM peak hours are not due to the addition of project trips.

Table 12: Buildout (2026) AM Peak Hour Roadway Segment Analysis

Roadway Segment	Adopted LOS	PHPD Service Capacity [1, 2]	2026 Bkgrd AM PHPD	Project Dist.	Project Trips AM PHPD	2026 Buildout AM PHPD	V/C Ratio	LOS
Oleander Avenue								
Midway Road to Weatherbee Road	D	750	425	26%	10	435	0.58	D
Weatherbee Road to Bell Avenue	D	540	425	59%	22	447	0.83	D
Bell Avenue to Farmers Market Road	D	540	734	55%	20	754	**1.40**	**F**
Farmers Market Road to Edwards Road	E[2]	800	734	49%	18	752	0.94	D
Edwards Road to Wisteria Avenue	D	750	668	25%	9	677	0.90	D

1. Obtained from the latest St. Lucie TPO Traffic Counts and Level of Service Report
2. LOS standard and correspoding service capacity were increased per the St. Lucie County Comprehensive Plan (October 26, 2010)

Table 13: Buildout (2026) PM Peak Hour Roadway Segment Analysis

Roadway Segment	Adopted LOS	PHPD Service Capacity [1, 2]	2026 Bkgrd PM PHPD	Project Dist.	Project Trips PM PHPD	2026 Buildout PM PHPD	V/C Ratio	LOS
Oleander Avenue								
Midway Road to Weatherbee Road	D	750	461	26%	11	472	0.63	D
Weatherbee Road to Bell Avenue	D	540	461	59%	24	485	0.90	D
Bell Avenue to Farmers Market Road	D	540	708	55%	23	731	**1.35**	**F**
Farmers Market Road to Edwards Road	E[2]	800	708	49%	20	728	0.91	D
Edwards Road to Wisteria Avenue	D	750	607	25%	10	617	0.82	D

1. Obtained from the latest St. Lucie TPO Traffic Counts and Level of Service Report
2. LOS standard and correspoding service capacity were increased per the St. Lucie County Comprehensive Plan (October 26, 2010)

5.3 BUILDOUT INTERSECTION ANALYSIS

Intersection operational analyses were performed for 2026 buildout conditions in the AM and PM peak hour using procedures outlined in the *Highway Capacity Manual (2010)* with Synchro (v10) software. Signal timing and phasing plans were provided by St. Lucie County staff and are included in **Appendix H**. A summary of intersection level of service (LOS), delay, and maximum volume/capacity (v/c) ratios for AM and PM peak hour existing conditions are provided in **Tables 14 and 15**, respectively. Synchro outputs are provided in **Appendix I**.

As shown in the tables, the study area intersections operate at an acceptable LOS with turning movements demonstrating maximum v/c ratios of less than one (1.0) in both scenarios.

The AM and PM peak hour intersection turning movement volumes at buildout for the study area intersections are illustrated on **Figures 4 and 5**, respectively.

Table 14: Buildout (2026) AM Peak Hour Intersection Conditions

Intersection	AM Peak Hour Buildout Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
Oleander Avenue & Midway Road	C	27.0	0.74
Oleander Avenue & Weatherbee Road	C	7.6	0.50
Oleander Avenue & Bell Avenue	C	4.8	0.47
Oleander Avenue & Farmers Market Road	C	2.1	0.25
Oleander Avenue & Edwards Road	C	23.2	0.78
Oleander Avenue & Project Driveway	B	0.7	0.09

Notes:
1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

Table 15: Buildout (2026) PM Peak Hour Intersection Conditions

Intersection	PM Peak Hour Buildout Conditions		
	LOS	Delay (Sec)	Max V/C Ratio
Oleander Avenue & Midway Road	C	28.4	0.74
Oleander Avenue & Weatherbee Road	D	6.8	0.46
Oleander Avenue & Bell Avenue	D	5.8	0.59
Oleander Avenue & Farmers Market Road	C	3.1	0.41
Oleander Avenue & Edwards Road	C	26.1	0.82
Oleander Avenue & Project Driveway	B	0.6	0.07

Notes:
1. Intersection LOS and delay at unsignalized intersections are reported for the most critical stop-controlled approach only.

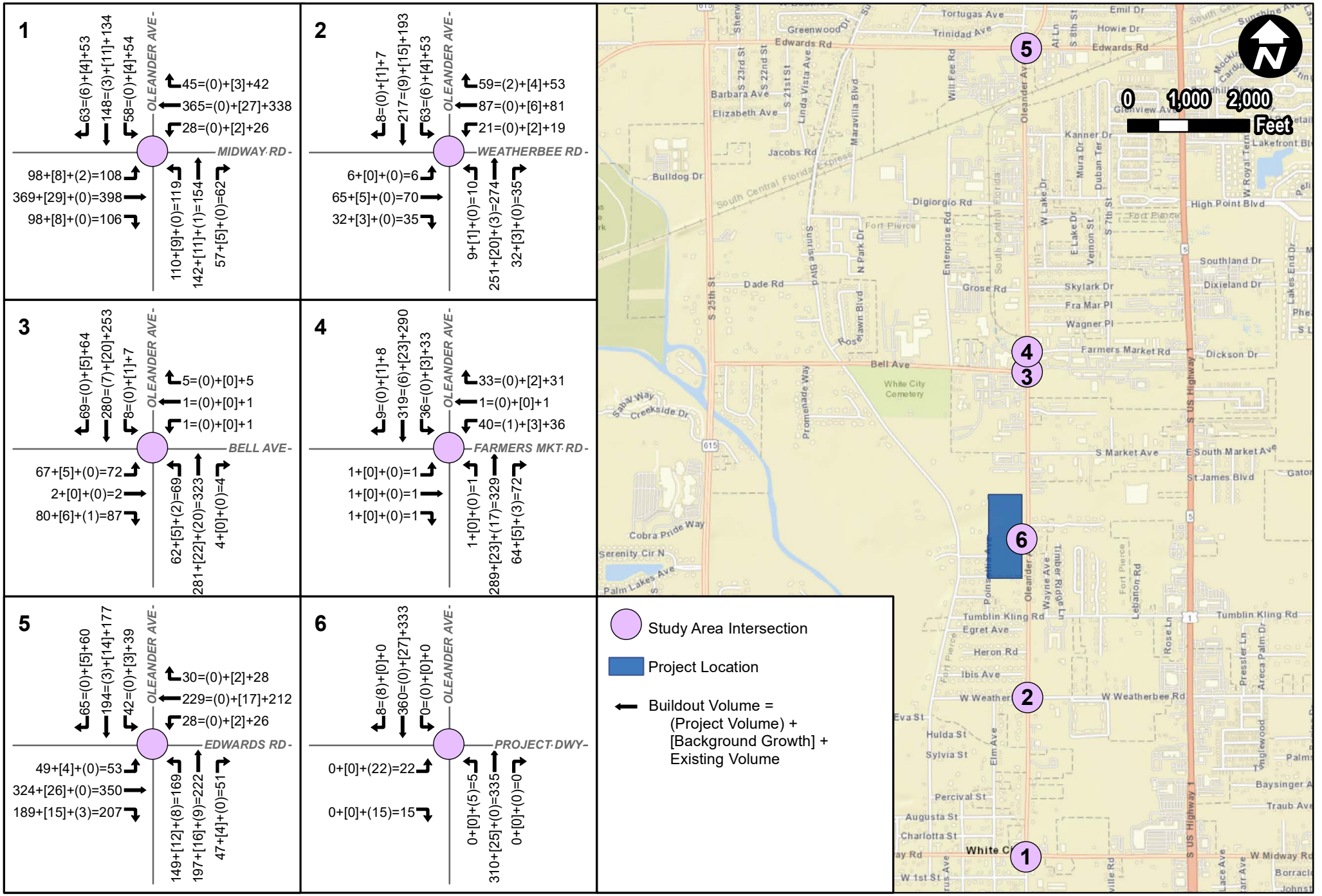

Figure 4: Buildout (2026) Traffic Volumes: AM Peak Hour

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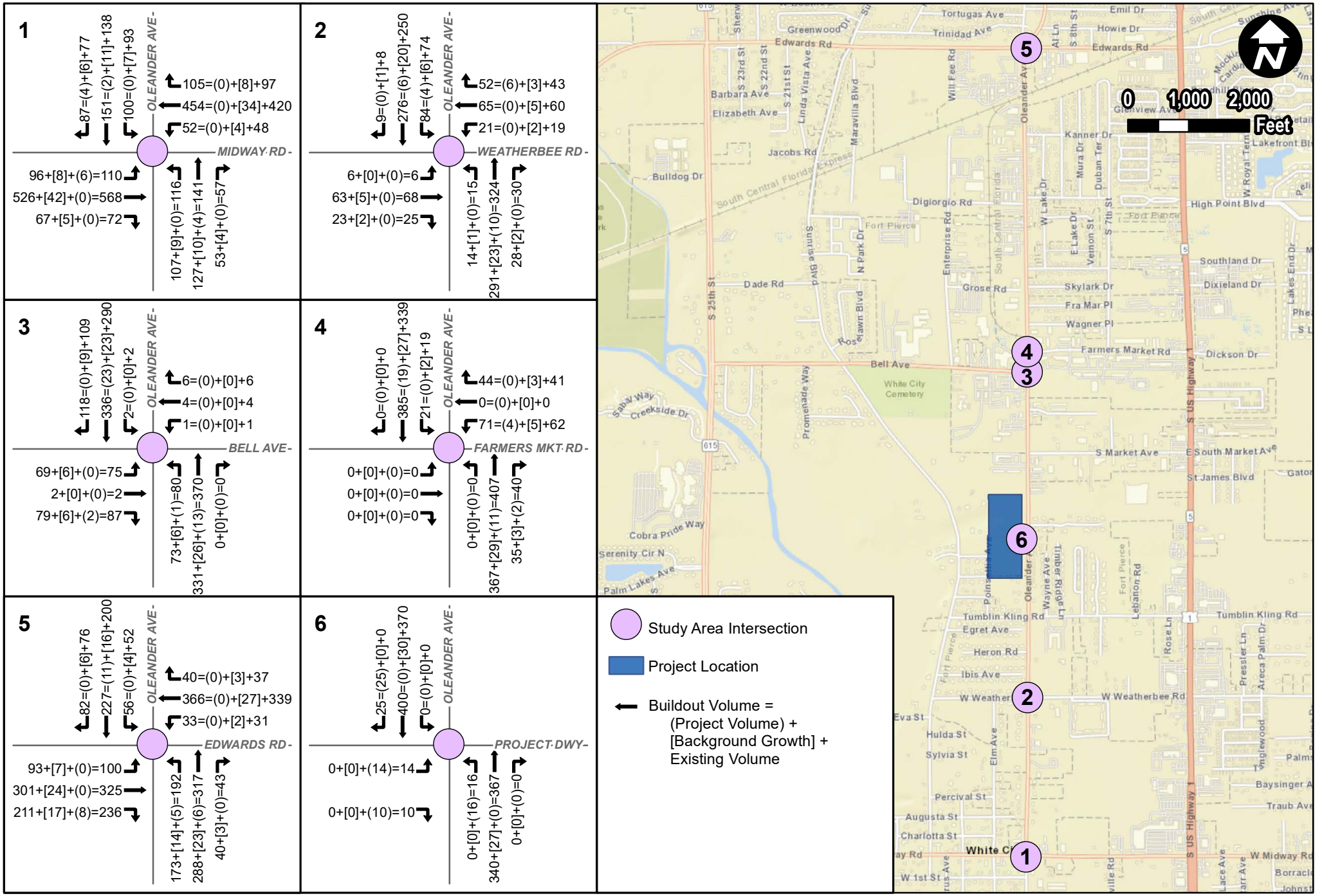

Figure 5: Buildout (2026) Traffic Volumes: PM Peak Hour

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6.0 SITE ACCESS ANALYSIS

Access to the site will be provided via one full-access driveway onto Oleander Avenue. The need for exclusive ingress turn lanes was evaluated at the proposed project driveway using National Cooperative of Highway Research Programs (NCHRP) Report 457 criteria.

The projected buildout year 2026 traffic volumes on Oleander Avenue, as well as the projected northbound ingress turning movement volumes at the proposed project driveway, were compared to the thresholds of the NCHRP Report 457 for determination of whether a major road left-turn lane is required at a stop-controlled minor street intersection. Report NCHRP 457 compares the major street speed, approach volume, opposing volume, and left-turning volume to determine whether a dedicated left-turn lane is warranted on the major street approach. Based on the low ingress left-turn volumes projected at the project driveway, and the low existing traffic volumes on Oleander Avenue during the AM and PM peak hours, an exclusive northbound left-turn lane at the project driveway is not warranted based on the criteria within the NCHRP 457 analysis.

The observed traffic volumes on Oleander Avenue, as well as the projected southbound ingress turning volumes at the proposed project driveway, were compared to the thresholds of the NCHRP Report 457 for determination of whether a major road right-turn lane is required at a stop-controlled minor street intersection. Report NCHRP 457 compares the major street speed, approach volume, and right-turning volume to determine whether a dedicated right-turn lane is warranted on the major street approach. Based on the low ingress right-turn volumes projected at the project driveway, and the low existing traffic volumes on Oleander Avenue during the AM and PM peak hours, an exclusive southbound right-turn lane at the project driveway is not warranted based on the criteria within the NCHRP 457 analysis.

The NCRHP Report 457 outputs for the northbound left-turn lane and southbound right-turn lane for the projected buildout AM and PM peak hour scenarios are provided in **Appendix K**.

7.0 CONCLUSION

This traffic impact study was performed to assess the transportation impacts of associated with the development of Oleander Oaks in the City of Fort Pierce, Florida. Oleander Oaks is a proposed single-family residential development generally located on the east side of Oleander Avenue, north of Kling Road in City of Fort Pierce, Florida. The development is proposed to consist of ±63 single-family dwelling units and anticipated to be built by Year 2026. Access to the site will be provided via one full-access driveway onto Oleander Avenue.

The project is expected to generate 50 (13 in, 37 out) new external vehicular trips in the AM peak hour and 65 (41 in, 24 out) new external vehicular trips in the PM peak hour based on ITE trip generation data and procedures. Project trips were distributed onto the surrounding roadway network using the latest adopted regional travel demand model and manual assignment at the study area intersections.

AM and PM peak hour roadway segment capacity analyses were performed for study area roadway segments for existing (2021), background (2026), and buildout (2026) conditions. The analyses identified one (1) deficient roadway segment in the existing condition AM and PM peak hours. All capacity deficiencies are present in the existing conditions and are not due to the addition of project trips. The deficient roadway segment was identified as:

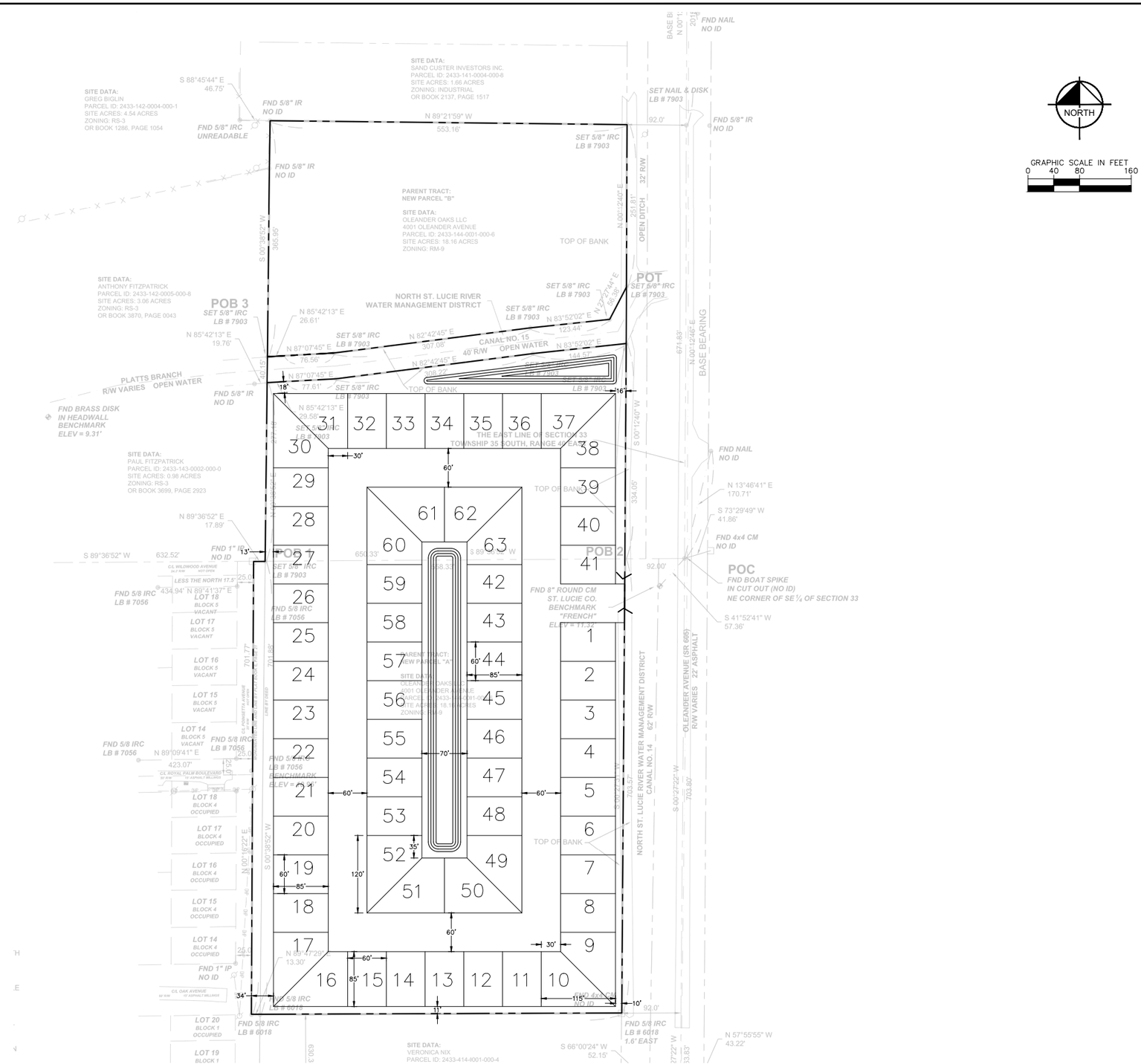
- Oleander Avenue, from Bell Avenue to Farmers Market Road (existing Year 2021 deficiency)

AM and PM peak hour operational analyses for existing (2021), background (2026), and buildout (2026) conditions were performed at study area intersections. All study area intersections are projected operate at an acceptable LOS with overall v/c ratios of less than one (1.0) in the AM and PM peak hours for all analysis scenarios.

Based on the criteria within the NCHRP 457 analysis, neither an exclusive northbound left-turn lane or southbound right-turn lane are warranted at the project access driveway on Oleander Avenue.

The results within this report satisfy the requirements set forth by St. Lucie County for evaluating proposed development impacts.

APPENDIX A
Conceptual Site Plan



Plotted By:Dougherty, Alex Sheet Set:Kho Layout:Layout1 February 15, 2021 04:30:28pm K:\VRB_LDEV\142811000 – Oleander Oaks\CAD\Concepts\Concept 1 – 60Wx85D.dwg
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OLEANDER OAKS

CONCEPT SITE PLAN

SHEET NUMBER
CSP-1

APPENDIX B
Excerpts from ITE Trip Generation Manual

Single-Family Detached Housing
(210)

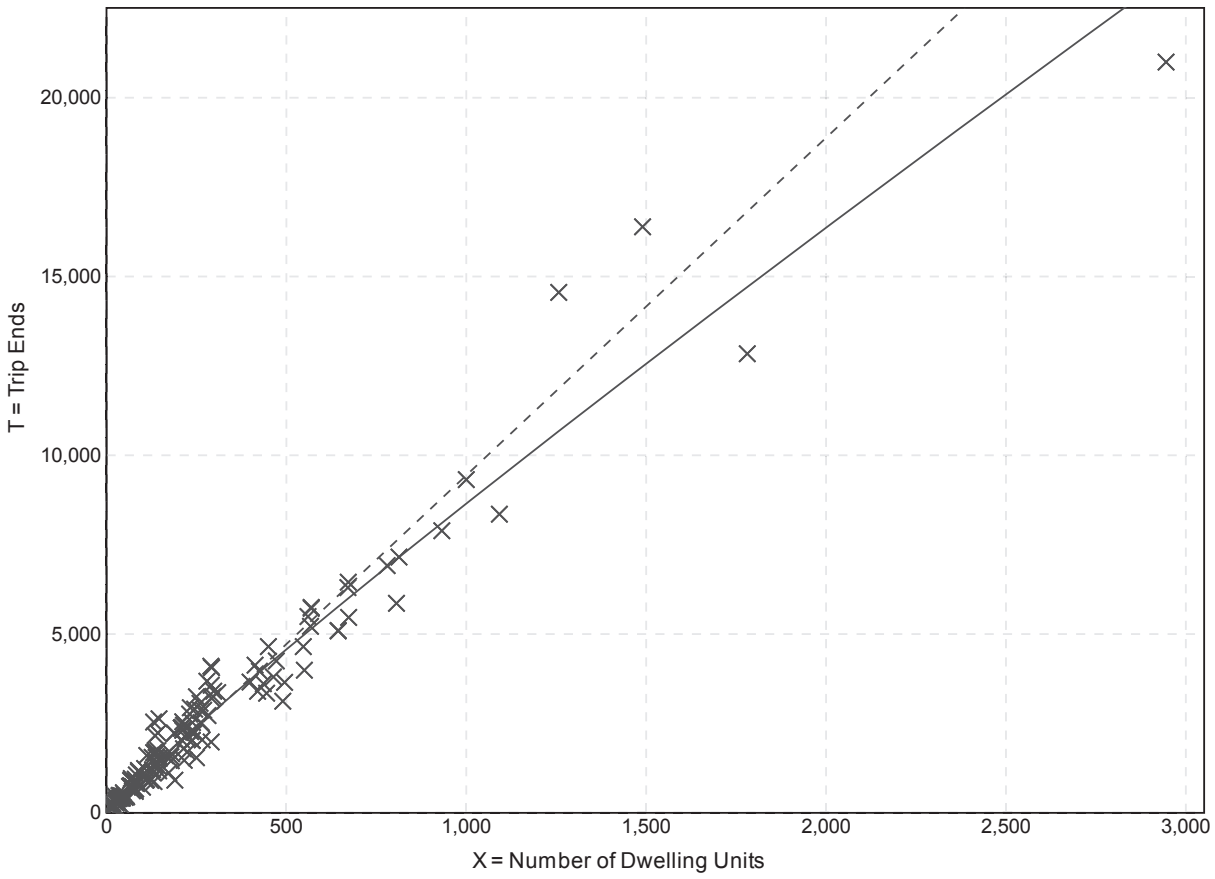
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 159
Avg. Num. of Dwelling Units: 264
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.44	4.81 - 19.39	2.10

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.92 Ln(X) + 2.71

R^2= 0.95

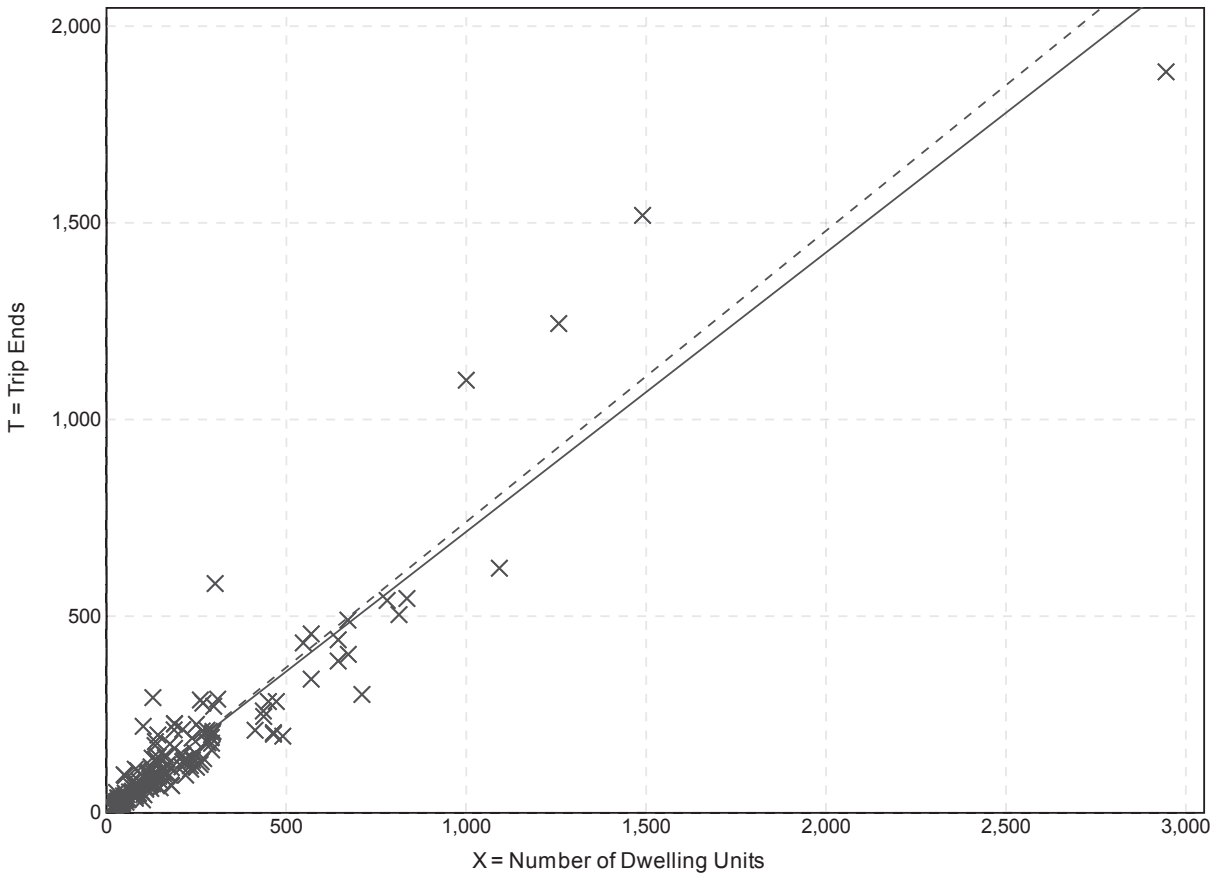
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	173
Avg. Num. of Dwelling Units:	219
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.74	0.33 - 2.27	0.27

Data Plot and Equation



Fitted Curve Equation: T = 0.71(X) + 4.80

R^2= 0.89

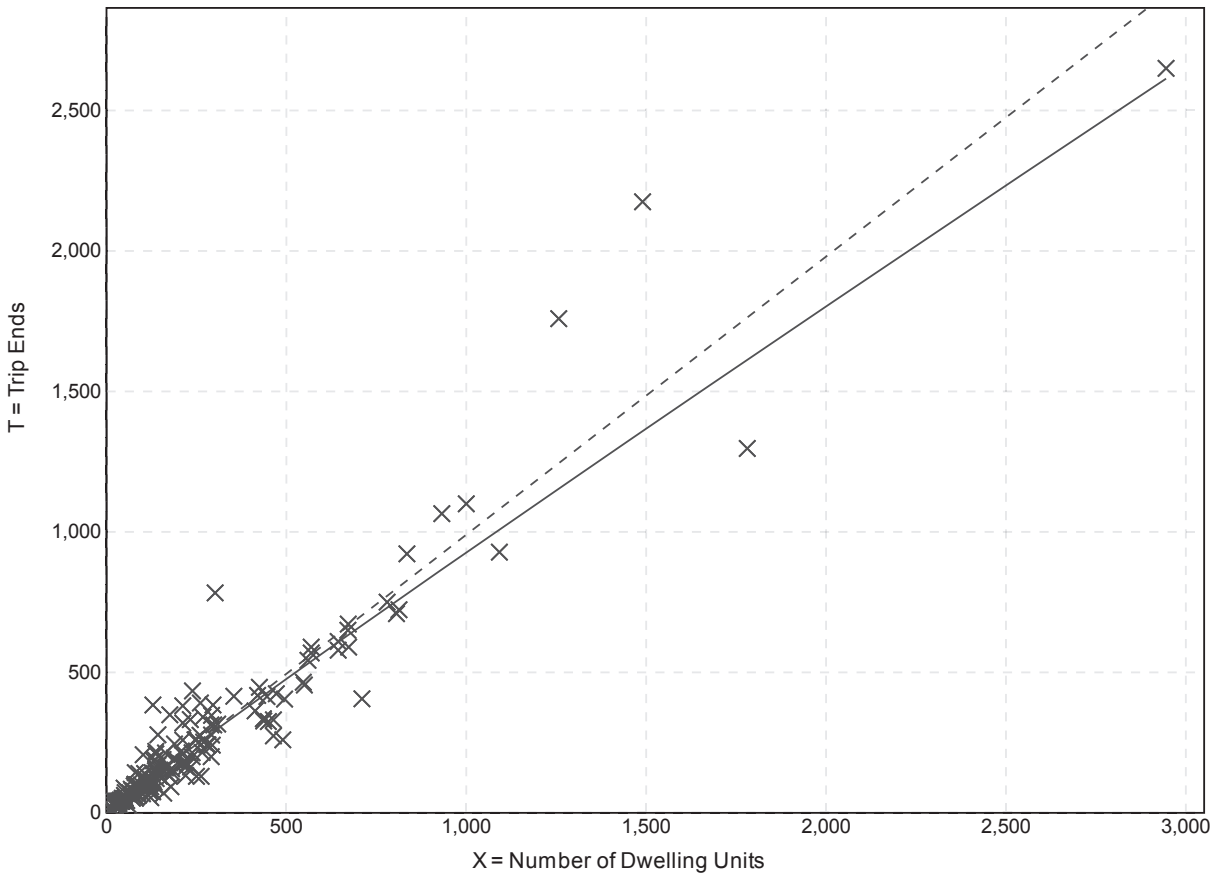
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	190
Avg. Num. of Dwelling Units:	242
Directional Distribution:	63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.99	0.44 - 2.98	0.31

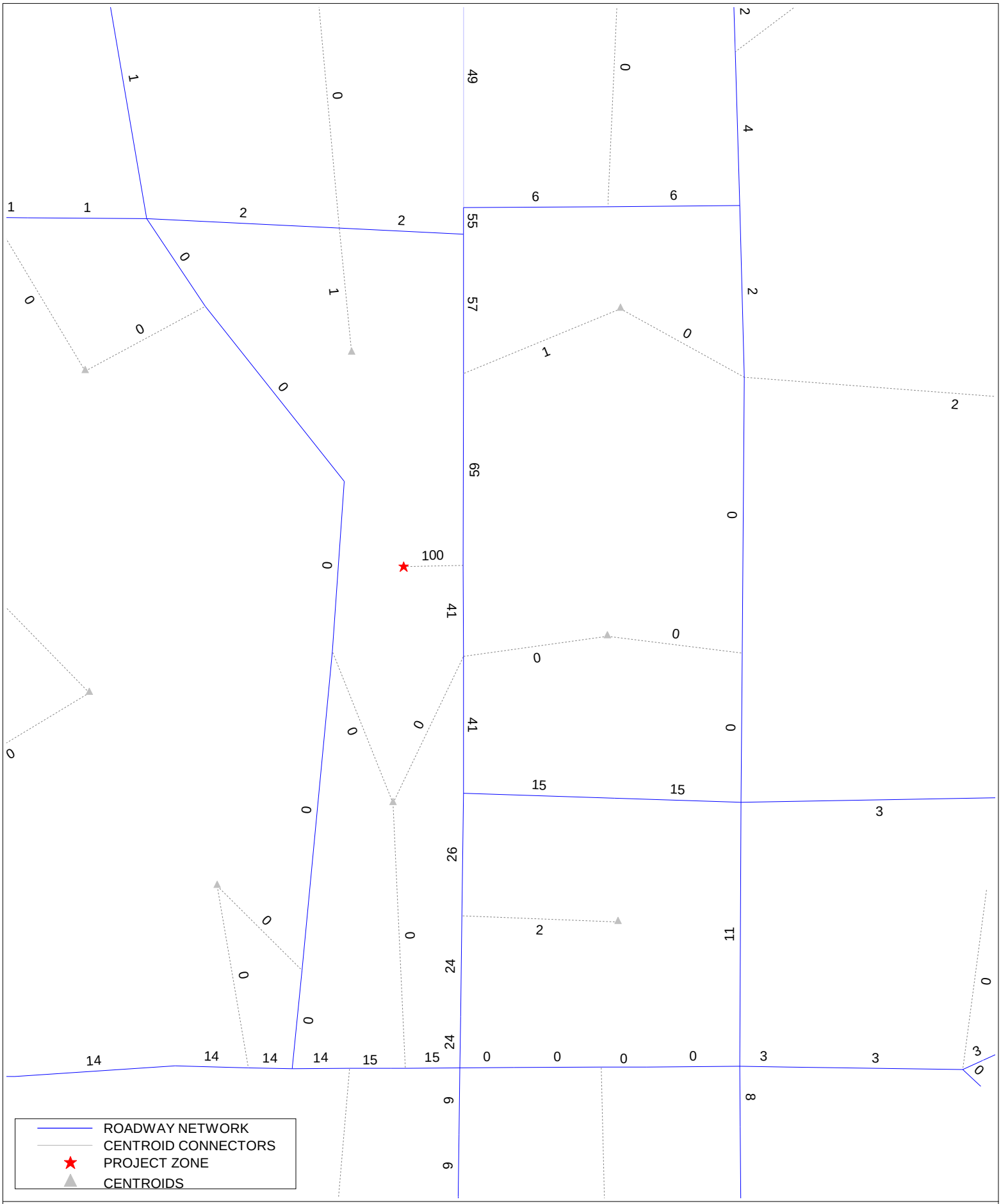
Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.96 Ln(X) + 0.20

R^2= 0.92

APPENDIX C
Greater Treasure Coast Regional Planning Model (GTCRPM) Model Plots



MODEL RUN - OLEANDER OAKS
TRAFFIC DISTRIBUTION (PERCENTAGES)
2/16/2021
C:\FSUTMS\D4\GTCRPM\NGTC33\Base\minor mods\OUTPUT\FINAL_LOADED_A05.NET

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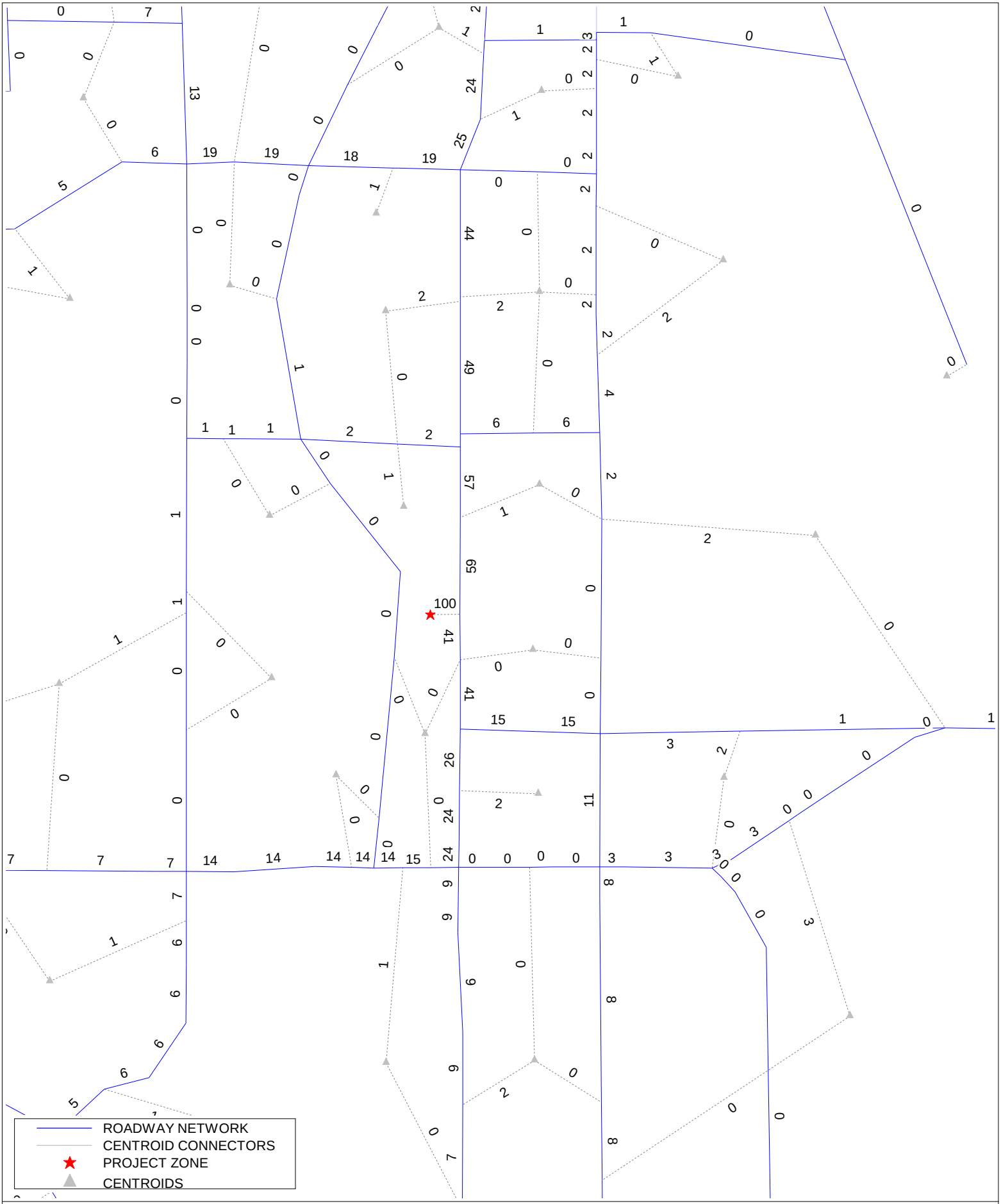

MODEL RUN - OLEANDER OAKS
TRAFFIC DISTRIBUTION (PERCENTAGES)
2/22/2021
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APPENDIX D

St. Lucie TPO
Traffic Counts and Level of Service Report
Fall/Winter 2019/2020 (Excerpts)

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
17TH ST	ORANGE AVE to AVENUE D	608	4,033	2016	750	236	C	0.638	225	C	0.608
17TH ST	AVENUE D to AVENUE Q	608	4,033	2016	750	236	C	0.638	225	C	0.608
25TH ST	MIDWAY RD to BELL AVE	940016	19,000	2019	2,100	1,362	C	0.678	1,270	C	0.632
25TH ST	BELL AVE to EDWARDS RD	159	19,040	2019	2,100	1,056	C	0.525	1,053	C	0.524
25TH ST	EDWARDS RD to CORTEZ BLVD	940021	21,500	2019	2,000	1,370	C	0.717	1,366	C	0.715
25TH ST	CORTEZ BLVD to VIRGINIA AVE	529	21,000	2020	2,000	1,182	C	0.619	1,261	C	0.660
25TH ST	VIRIGINIA AVE to NEBRASKA AVE	940015	23,000	2019	2,000	1,319	C	0.691	1,182	C	0.619
25TH ST	NEBRASKA AVE to OKEECHOBEE RD	940015	23,000	2019	2,000	1,319	C	0.691	1,182	C	0.619
25TH ST	OKEECHOBEE RD to GEORGIA AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	GEORGIA AVE to DELAWARE AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	DELAWARE AVE to ORANGE AVE	940014	22,000	2019	1,630	1,145	D	0.702	1,139	D	0.699
25TH ST	ORANGE AVE to AVENUE D	610	19,000	2020	1,630	877	D	0.538	904	D	0.555
25TH ST	AVENUE D to AVENUE Q	940050	19,700	2019	1,630	1,037	D	0.636	1,008	D	0.618
25TH ST	AVENUE Q to JUANITA AVE	945152	18,000	2019	2,000	1,017	C	0.532	932	C	0.488
25TH ST	JUANITA AVE to ST LUCIE BLVD	940791	14,647	2013	2,100	794	C	0.395	745	C	0.371
25TH ST	ST LUCIE BLVD to US 1	945165	9,800	2019	2,100	563	C	0.280	628	C	0.312
33RD ST	OKEECHOBEE RD to DELAWARE AVE	611	7,000	2020	750	419	D	0.559	368	C	0.995
33RD ST	DELAWARE AVE to ORANGE AVE	948507	6,200	2019	790	286	C	0.773	286	C	0.773
35TH ST	KIRBY LOOP RD to CORTEZ BLVD	612	6,300	2020	540	497	D	0.920	406	D	0.752
35TH ST	CORTEZ BLVD to VIRGINIA AVE	612	6,300	2020	790	497	D	0.629	406	D	0.514
35TH ST	VIRGINIA AVE to OKEECHOBEE RD	613	4,600	2016	750	279	C	0.754	280	C	0.757
53RD ST	ANGLE RD to JUANITA AVE	614	2,767	2016	540	148	C	0.548	163	C	0.604
AE BACKUS AVE	7TH ST to US 1	632	1,033	2017	750	70	C	0.189	81	C	0.219
AIROSO BLVD	PORT ST LUCIE BLVD to THORNHILL DR	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423
AIROSO BLVD	THORNHILL DR to CROSSTOWN PKWY	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
* Volumes shown were adjusted using FDOT Seasonal Factors
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St. Lucie Transportation Planning Organization

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Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
AVENUE Q	17TH ST to 13TH ST	701	3,937	2016	540	281	D	0.520	314	D	0.581
AVENUE O	13TH ST to US 1	685	1,867	2017	540	105	C	0.389	108	C	0.400
AVENUE C	10TH ST to 7TH ST	631	350	2017	540	20	C	0.074	21	C	0.078
BAYSHORE BLVD	MOUNTWELL ST to PORT ST LUCIE BLVD	621	6,000	2019	830	373	C	0.478	324	C	0.415
BAYSHORE BLVD	PORT ST LUCIE BLVD to THORNHILL DR	309	28,260	2018	2,100	1,335	C	0.664	1,297	C	0.645
BAYSHORE BLVD	THORNHILL DR to CROSSTOWN PKWY	948508	20,100	2019	2,100	928	C	0.486	928	C	0.486
BAYSHORE BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	307	27,000	2019	2,100	1,394	C	0.694	1,356	C	0.675
BAYSHORE BLVD	PRIMA VISTA BLVD to FLORESTA DR	305	17,500	2019	920	829	C	0.953	858	C	0.986
BAYSHORE BLVD	FLORESTA DR to SELVITZ RD	622	13,000	2019	790	707	C	0.943	623	C	0.831
BAYSHORE BLVD	SELVITZ RD to 25TH ST	622	13,000	2019	750	707	D	0.943	623	D	0.831
BEACH AVE	OLEANDER AVE to RIO MAR DR	623	3,500	2017	540	247	C	0.915	211	C	0.781
BECKER RD	VILLAGE PKWY to I-95	624	2,500	2017	3,170	196	C	0.063	178	C	0.058
BECKER RD	I-95 to SAVONA BLVD	625	21,000	2019	2,000	1,809	C	0.947	1,616	C	0.846
BECKER RD	SAVONA BLVD to PORT ST LUCIE BLVD	626	18,000	2019	2,100	1,142	C	0.568	1,083	C	0.539
BECKER RD	ALBACORE ST to DARWIN BLVD	302	13,500	2019	1,500	863	C	0.603	842	C	0.589
BECKER RD	PORT ST LUCIE BLVD to ALBACORE ST	302	13,500	2019	2,100	863	C	0.429	842	C	0.419
BECKER RD	ATHENA DR to FLORIDA'S TURNPIKE	627	15,000	2019	1,500	1,320	C	0.923	1,244	C	0.870
BECKER RD	DARWIN BLVD to ATHENA DR	627	15,000	2019	2,000	1,320	C	0.691	1,244	C	0.651
BECKER RD	FLORIDA'S TURNPIKE to SOUTHBEND BLVD	628	20,000	2019	2,100	1,333	C	0.663	1,657	C	0.824
BECKER RD	SOUTHBEND BLVD to GILSON RD	629	15,000	2019	920	956	F	1.039	1,182	F	1.285
BELL AVE	25TH ST to SUNRISE BLVD	104	4,758	2019	790	313	C	0.803	326	C	0.836
BELL AVE	SUNRISE BLVD to OLEANDER AVE	102	3,854	2019	600	217	C	0.723	223	C	0.743
CASHMERE BLVD	PEACOCK BLVD to TORINO PKWY	676	10,159	2018	630	714	F	1.133	589	C	0.982
CALIFORNIA BLVD	CAMEO BLVD to DEL RIO BLVD	633	7,813	2018	750	503	D	0.671	429	D	0.572
CALIFORNIA BLVD	DEL RIO BLVD to SAVONA BLVD	634	14,000	2019	920	774	C	0.890	771	C	0.886

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						Volume	LOS	V/C	Volume	LOS	V/C
EAST TORINO PKWY	TORINO PKWY to MIDWAY RD	237	14,500	2020	880	1,030	F	1.170	978	F	1.111
EASY ST	US 1 to BUCHANAN DR	106	8,029	2018	750	601	D	0.801	483	D	0.644
EASY ST	BUCHANAN DR to YUCCA DR	106	8,029	2018	540	601	F	1.036	483	D	0.894
EDWARDS RD	JENKINS RD to MCNEIL RD	174	11,500	2020	630	573	C	0.955	594	C	0.990
EDWARDS RD	MCNEIL RD to SELVITZ RD	174	11,500	2020	700	573	C	0.868	594	C	0.900
EDWARDS RD	SELVITZ RD to 25TH ST	110	15,000	2020	880	755	C	0.910	771	C	0.929
EDWARDS RD	25TH ST to SUNRISE BLVD	108	16,697	2019	1,630	877	D	0.538	867	D	0.532
EDWARDS RD	SUNRISE BLVD to OLEANDER AVE	502	15,207	2019	1,630	754	D	0.463	735	D	0.451
EDWARDS RD	OLEANDER AVE to US 1	173	9,581	2019	1,630	527	C	0.722	460	C	0.630
FARMER'S MARKET RD	OLEANDER AVE to US 1	112	1,876	2019	750	130	C	0.351	127	C	0.343
FLORESTA DR	OAKLYN ST to PORT ST LUCIE BLVD	317	13,000	2019	920	900	D	0.978	687	C	0.790
FLORESTA DR	THORNHILL DR to CROSSTOWN PKWY	315	12,500	2019	880	810	C	0.976	738	C	0.889
FLORESTA DR	PORT ST LUCIE BLVD to THORNHILL DR	315	12,500	2019	880	810	C	0.976	738	C	0.889
FLORESTA DR	CROSSTOWN PKWY to PRIMA VISTA BLVD	109	11,000	2019	920	671	C	0.771	576	C	0.662
FLORESTA DR	PRIMA VISTA BLVD to AIROSO BLVD	107	9,600	2019	920	559	C	0.643	601	C	0.691
FLORESTA DR	SELVITZ RD to BAYSHORE BLVD	313	4,467	2018	630	349	C	0.582	365	C	0.608
FLORESTA DR	AIROSO BLVD to SELVITZ RD	313	4,467	2018	880	349	C	0.420	365	C	0.440
FT PIERCE BLVD	INDRIO RD to EMERSON AVE	226	3,555	2019	540	267	C	0.989	273	D	0.506
GARDENIA AVE	OLEANDER AVE to US 1	666	2,817	2017	750	188	C	0.508	200	C	0.541
GATLIN BLVD	W OF I-95 to E OF I-95	945075	50,500	2019	3,170	3,800	F	1.199	3,098	D	0.977
GATLIN BLVD	E OF I-95 to SAVAGE BLVD	945075	50,500	2019	3,170	3,800	F	1.199	3,098	D	0.977
GATLIN BLVD	SAVAGE BLVD to ROSSER BLVD	945075	50,500	2019	3,170	3,800	F	1.199	3,098	D	0.977
GATLIN BLVD	ROSSER BLVD to SAVONA BLVD	945075	50,500	2019	3,170	3,800	F	1.199	3,098	D	0.977
GATLIN BLVD	SAVONA BLVD to PORT ST LUCIE BLVD	945075	50,500	2019	3,170	3,800	F	1.199	3,098	D	0.977
GEORGIA AVE	25TH ST to OKEECHOBEE RD	667	4,700	2020	600	290	C	0.967	262	C	0.873

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						Volume	LOS	V/C	Volume	LOS	V/C
MCNEIL RD	OKEECHOBEE RD to KIRBY LOOP RD	682	4,600	2020	790	281	C	0.721	280	C	0.718
MCNEIL RD	KIRBY LOOP RD to EDWARDS RD	682	4,600	2020	540	281	D	0.520	280	D	0.519
MCCARTY RD	WILLIAMS RD to MIDWAY RD	680	375	2017	540	33	C	0.122	35	C	0.130
MCCARTY RD	MIDWAY RD to OKEECHOBEE RD	681	400	2020	540	34	C	0.126	35	C	0.130
MELALEUCA BLVD	LENNARD RD to GREEN RIVER PKWY	683	9,804	2018	920	648	C	0.745	584	C	0.671
MIDWAY RD	EAST TORINO PKWY to MILNER DR	134	22,500	2020	880	1,216	F	1.382	1,304	F	1.482
MIDWAY RD	MILNER DR to W OF SELVITZ RD	134	22,500	2020	790	1,216	F	1.539	1,304	F	1.651
MIDWAY RD	OKEECHOBEE RD to SHINN RD	940732	8,400	2019	760	485	C	0.724	617	C	0.921
MIDWAY RD	SHINN RD to MCCARTY RD	940732	8,400	2019	630	485	C	0.808	617	D	0.979
MIDWAY RD	MCCARTY RD to I-95	940732	8,400	2019	700	485	C	0.735	617	C	0.935
MIDWAY RD	I-95 to GLADES CUT-OFF RD	945140	21,000	2019	2,100	1,168	C	0.581	1,295	C	0.644
MIDWAY RD	GLADES CUT-OFF RD to EAST TORINO PKWY	228	21,500	2020	2,100	1,226	C	0.610	1,281	C	0.637
MIDWAY RD	W OF SELVITZ RD to SELVITZ RD	134	22,500	2020	920	1,216	F	1.322	1,304	F	1.417
MIDWAY RD	SELVITZ RD to CHRISTENSEN RD	132	18,500	2020	920	973	F	1.058	940	F	1.022
MIDWAY RD	CHRISTENSEN RD to 25TH ST	132	18,500	2020	790	973	F	1.158	940	F	1.119
MIDWAY RD	25TH ST to SUNRISE BLVD	130	18,791	2016	790	1,025	F	1.220	942	F	1.121
MIDWAY RD	SUNRISE BLVD to OLEANDER AVE	130	18,791	2016	790	1,025	F	1.220	942	F	1.121
MIDWAY RD	OLEANDER AVE to US 1	242	15,309	2016	790	808	E	0.962	800	E	0.952
MIDWAY RD	US 1 to WALLACE ST	940023	3,800	2019	790	294	C	0.754	325	C	0.833
MIDWAY RD	WALLACE ST to WEATHERBEE RD	940023	3,800	2019	920	294	C	0.338	325	C	0.374
MIDWAY RD	WEATHERBEE RD to INDIAN RIVER DR	940023	3,800	2019	630	294	C	0.490	325	C	0.542
MORNINGSIDE BLVD	WESTMORELAND BLVD to PORT ST LUCIE BLVD	333	2,654	2017	920	159	C	0.183	152	C	0.175
MORNINGSIDE BLVD	PORT ST LUCIE BLVD to LYNGATE DR	331	2,900	2020	880	230	C	0.277	244	C	0.294
NEBRASKA AVE	25TH ST to 13TH ST	684	3,767	2017	1,710	234	C	0.304	197	C	0.256
OAKRIDGE DR	MOUNTWELL ST to OAKLYN ST	621	6,000	2019	700	373	C	0.565	324	C	0.491

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						Volume	LOS	V/C	Volume	LOS	V/C
OLD DIXIE HWY	ST LUCIE BLVD to INDRIO RD	227	2,041	2016	790	150	C	0.385	116	C	0.297
OLD DIXIE HWY	INDRIO RD to INDIAN RIVER C.L.	948523	1,350	2019	870	63	C	0.076	63	C	0.076
OLEANDER AVE	BEACH AVE to KITTERMAN RD	692	2,900	2017	540	175	C	0.648	193	C	0.715
OLEANDER AVE	KITTERMAN RD to MIDWAY RD	141	6,498	2017	750	406	D	0.541	426	D	0.568
OLEANDER AVE	MIDWAY RD to WEATHERBEE RD	139	7,100	2020	750	388	D	0.517	421	D	0.561
OLEANDER AVE	WEATHERBEE RD to BELL AVE	139	7,100	2020	540	388	D	0.719	421	D	0.780
OLEANDER AVE	BELL AVE to FARMER'S MARKET RD	240	12,500	2020	540	671	F	1.157	647	F	1.116
OLEANDER AVE	FARMER'S MARKET RD to EDWARDS RD	240	12,500	2020	750	671	D	0.895	647	D	0.863
OLEANDER AVE	EDWARDS RD to WISTERIA AVE	505	10,000	2020	750	611	D	0.815	554	D	0.739
OLEANDER AVE	WISTERIA AVE to GARDENIA AVE	505	10,000	2020	540	611	F	1.053	554	E	0.955
OLEANDER AVE	GARDENIA AVE to VIRGINIA AVE	505	10,000	2020	790	611	D	0.773	554	D	0.701
OLEANDER AVE	VIRGINIA AVE to SUNRISE BLVD	503	4,561	2019	600	259	C	0.863	270	C	0.900
ORANGE AVE	OKEECHOBEE C.L. to SNEED RD	144	4,780	2019	390	300	C	0.769	293	C	0.751
ORANGE AVE	SNEED RD to HEADER CANAL RD	144	4,780	2019	390	300	C	0.769	293	C	0.751
ORANGE AVE	SHINN RD to CAMPBELL RD	940144	2,689	2019	380	147	B	0.35	147	B	0.35
ORANGE AVE	CAMPBELL RD to KINGS HWY	940144	2,689	2019	1,070	147	B	0.35	147	B	0.35
ORANGE AVE	KINGS HWY to I-95	940041	19,800	2019	2,000	853	C	0.424	859	C	0.427
ORANGE AVE	I-95 to JENKINS RD	940035	15,300	2019	2,000	1,051	C	0.523	988	C	0.492
ORANGE AVE	JENKINS RD to HARTMAN RD	940028	15,000	2019	2,000	807	C	0.401	751	C	0.374
ORANGE AVE	HARTMAN RD to ANGLE RD	940028	15,000	2019	2,000	807	C	0.401	751	C	0.374
ORANGE AVE	ANGLE RD to 25TH ST	940151	10,749	2013	1,710	847	D	0.495	985	D	0.576
ORANGE AVE	25TH ST to 17TH ST	945040	12,300	2019	1,630	643	C	0.881	705	C	0.966
ORANGE AVE	17TH ST to 13TH ST	945040	12,300	2019	1,710	643	C	0.835	705	C	0.916
ORANGE AVE	13TH ST to 10TH ST	945040	12,300	2019	370	643	D	0.857	705	D	0.940
ORANGE AVE	10TH ST to 7TH ST	940155	9,600	2019	300	485	D	0.808	558	D	0.930

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St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
ST LUCIE WEST BLVD	CASHMERE BLVD to BAYSHORE BLVD	316	46,000	2019	3,170	2,446	C	0.792	2,308	C	0.747
SUNRISE BLVD	MIDWAY RD to BELL AVE	155	3,590	2016	540	249	C	0.922	233	C	0.863
SUNRISE BLVD	BELL AVE to EDWARDS RD	153	3,814	2016	750	253	C	0.684	286	C	0.773
SUNRISE BLVD	EDWARDS RD to CORTEZ BLVD	511	7,300	2020	600	647	F	1.011	515	D	0.858
SUNRISE BLVD	CORTEZ BLVD to VIRGINIA AVE	511	7,300	2020	750	647	D	0.863	515	D	0.687
SUNRISE BLVD	VIRGINIA AVE to OLEANDER AVE	509	5,300	2020	750	417	D	0.556	411	D	0.548
SUNRISE BLVD	OLEANDER AVE to 7TH ST	708	3,900	2017	1,540	243	C	0.352	282	C	0.409
SUNRISE BLVD	7TH ST to US 1	708	3,900	2017	1,710	243	C	0.316	282	C	0.366
TIFFANY AVE	US 1 to HILLMOOR DR	322	15,000	2019	2,100	855	C	0.425	862	C	0.429
TIFFANY AVE	HILLMOOR DR to VILLAGE GREEN DR	322	15,000	2019	2,100	855	C	0.425	862	C	0.429
TIFFANY AVE	VILLAGE GREEN DR to LENNARD RD	320	4,666	2017	2,100	242	C	0.120	261	C	0.130
TORINO PKWY	CASHMERE BLVD to CALIFORNIA BLVD	709	7,800	2018	630	404	C	0.673	443	C	0.738
TORINO PKWY	CALIFORNIA BLVD to EAST TORINO PKWY	238	4,314	2018	630	255	C	0.425	223	C	0.372
TRADITION PKWY	COMMUNITY BLVD to VILLAGE PKWY	711	8,367	2018	1,710	996	D	0.582	1,144	D	0.669
TRADITION PKWY	VILLAGE PKWY to W OF I-95	712	36,500	2019	3,170	2,021	C	0.654	1,924	C	0.623
TULIP BLVD	DARWIN BLVD to PORT ST LUCIE BLVD	713	8,200	2019	790	524	D	0.663	456	D	0.577
TULIP BLVD	PORT ST LUCIE BLVD to PAAR DR	714	9,133	2018	790	639	D	0.809	493	D	0.624
TULIP BLVD	PAAR DR to DARWIN BLVD	714	9,133	2018	790	639	D	0.809	493	D	0.624
TURNPIKE FEEDER RD	TURNPIKE FEEDER RD SB RAMP to US 1	940078	4,989	2015	660	653	C	0.989	653	C	0.989
TURNPIKE FEEDER RD	INDIAN PINES BLVD to TURNPIKE FEEDER RD SB R...	940269	11,200	2019	870	739	C	0.849	677	C	0.778
TURNPIKE FEEDER RD	INDRIO RD to INDIAN PINES BLVD	940745	13,200	2019	870	714	C	0.821	751	C	0.863
US 1	MARTIN C.L. to LENNARD RD	945071	59,500	2019	4,240	2,709	C	0.650	3,186	C	0.764
US 1	LENNARD RD to PORT ST LUCIE BLVD	945071	59,500	2019	4,040	2,709	C	0.682	3,186	C	0.803
US 1	PORT ST LUCIE BLVD to JENNINGS RD	945070	31,000	2019	3,020	1,488	C	0.506	1,580	C	0.537
US 1	JENNINGS RD to TIFFANY AVE	945070	31,000	2019	3,020	1,488	C	0.506	1,580	C	0.537

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Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
US 1	TIFFANY AVE to WALTON RD	945070	31,000	2019	3,020	1,488	C	0.506	1,580	C	0.537
US 1	WALTON RD to VILLAGE GREEN DR	945150	46,500	2019	3,020	2,519	C	0.857	2,258	C	0.768
US 1	VILLAGE GREEN DR to SPANISH LAKES BLVD	940265	52,500	2019	3,170	2,789	C	0.903	2,611	C	0.845
US 1	SPANISH LAKES BLVD to PRIMA VISTA BLVD	940265	52,500	2019	3,170	2,789	C	0.903	2,611	C	0.845
US 1	PRIMA VISTA BLVD to RIO MAR DR	940264	36,000	2019	3,170	1,665	C	0.539	1,639	C	0.530
US 1	RIO MAR DR to KITTERMAN RD	940266	35,000	2019	3,170	1,711	C	0.554	1,549	C	0.501
US 1	KITTERMAN RD to S OF SAEGER AVE	940266	35,000	2019	3,020	1,711	C	0.582	1,549	C	0.527
US 1	S OF SAEGER AVE to EASY ST	940266	35,000	2019	3,170	1,711	C	0.554	1,549	C	0.501
US 1	EASY ST to MIDWAY RD	945156	31,000	2019	3,170	1,445	C	0.468	1,405	C	0.455
US 1	MIDWAY RD to WEATHERBEE RD	940012	33,000	2019	2,100	1,551	C	0.772	1,569	C	0.781
US 1	WEATHERBEE RD to FARMER'S MARKET RD	940012	33,000	2019	2,000	1,551	C	0.812	1,569	C	0.821
US 1	FARMER'S MARKET RD to EDWARDS RD	940012	33,000	2019	2,000	1,551	C	0.812	1,569	C	0.821
US 1	EDWARDS RD to SAVANNAH RD	945002	30,000	2019	2,000	1,375	C	0.720	1,348	C	0.706
US 1	GARDENIA AVE to VIRGINIA AVE	945002	30,000	2019	2,000	1,375	C	0.720	1,348	C	0.706
US 1	SAVANNAH RD to GARDENIA AVE	945002	30,000	2019	2,000	1,375	C	0.720	1,348	C	0.706
US 1	VIRGINIA AVE to OHIO AVE	945003	28,500	2019	2,000	1,372	C	0.718	1,383	C	0.724
US 1	OHIO AVE to GEORGIA AVE	945003	28,500	2019	1,630	1,372	D	0.842	1,383	D	0.848
US 1	GEORGIA AVE to DELAWARE AVE	945008	36,500	2019	1,630	1,882	F	1.107	1,799	F	1.058
US 1	DELAWARE AVE to CITRUS AVE	945014	33,500	2019	1,630	1,697	E	0.998	1,654	E	0.973
US 1	CITRUS AVE to ORANGE AVE	940118	25,000	2019	1,630	1,244	D	0.763	1,122	D	0.688
US 1	ORANGE AVE to AVENUE A	945014	33,500	2019	1,630	1,697	E	0.998	1,654	E	0.973
US 1	AVENUE A to AE BACKUS AVE	945014	33,500	2019	1,630	1,697	E	0.998	1,654	E	0.973
US 1	AE BACKUS AVE to AVENUE D	945014	33,500	2019	1,630	1,697	E	0.998	1,654	E	0.973
US 1	AVENUE D to SR A1A SOUTH	945014	33,500	2019	1,630	1,697	E	0.998	1,654	E	0.973
US 1	SR A1A SOUTH to AVENUE H	715	33,500	2020	2,100	1,766	C	0.879	1,742	C	0.867

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Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
VILLAGE PKWY	WESTCLIFFE LN to CROSSROADS PKWY	720	12,000	2019	1,540	640	C	0.928	634	C	0.919
WALTON RD	US 1 to VILLAGE GREEN DR	330	15,156	2019	1,710	915	D	0.535	841	D	0.492
WALTON RD	VILLAGE GREEN DR to LENNARD RD	328	13,000	2019	1,710	690	C	0.896	684	C	0.888
WALTON RD	LENNARD RD to GREEN RIVER PKWY	326	9,382	2018	880	569	C	0.686	627	C	0.755
WALTON RD	GREEN RIVER PKWY to INDIAN RIVER DR	324	5,402	2018	630	416	C	0.693	430	C	0.717
WESTCLIFFE LN	TREMONTE AVE to VILLAGE PKWY	722	6,267	2018	1,470	439	C	0.665	338	C	0.512
WEATHERBEE RD	OLEANDER AVE to US 1	721	3,574	2019	750	265	C	0.716	242	C	0.654
WEATHERBEE RD	US 1 to MIDWAY RD	158	6,300	2020	750	431	D	0.575	461	D	0.615
WESTMORELAND BLVD	MORNINGSIDE BLVD to PORT ST LUCIE BLVD	339	13,000	2019	920	685	C	0.787	729	C	0.838
WESTMORELAND BLVD	MARTIN C.L. to MORNINGSIDE BLVD	245	9,700	2019	920	540	C	0.621	598	C	0.687

Countywide Performance

Weighted V/C = **0.72**

% VMT below Standard = **6.66%**

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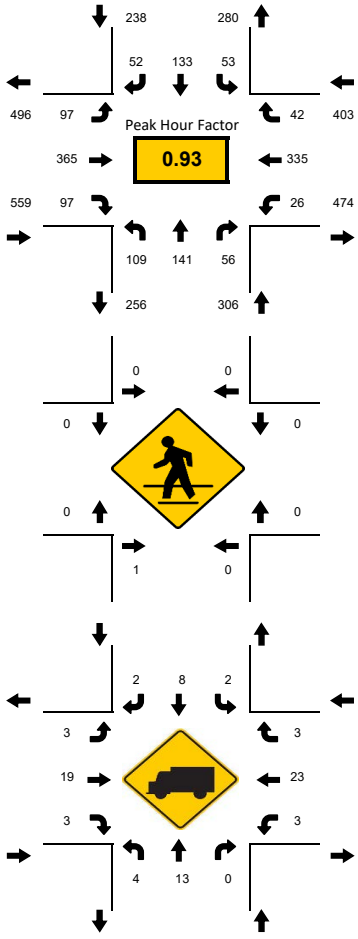
APPENDIX E
Turning Movement Counts

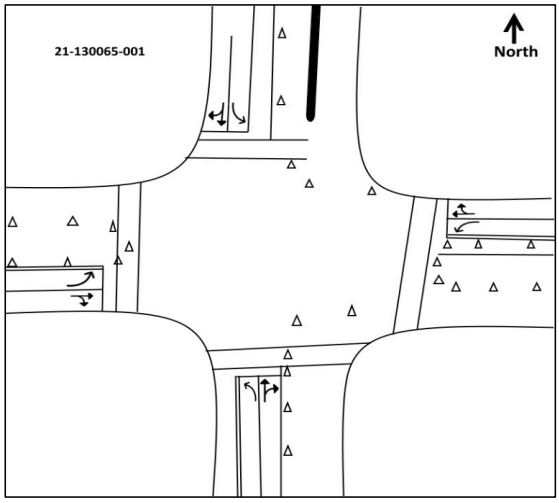
LOCATION: Oleander Ave & Midway Rd
CITY/STATE: Fort Pierce, FL

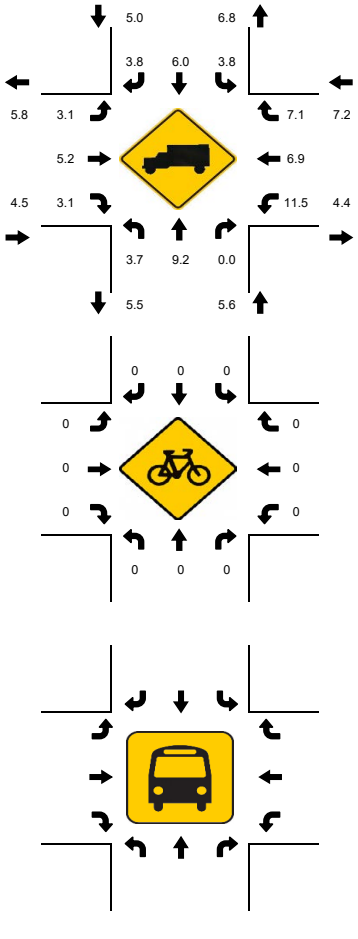
PROJECT ID: 21-130065-001
DATE: Tue, Apr 06, 2021



Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM

National Data & Surveying Services

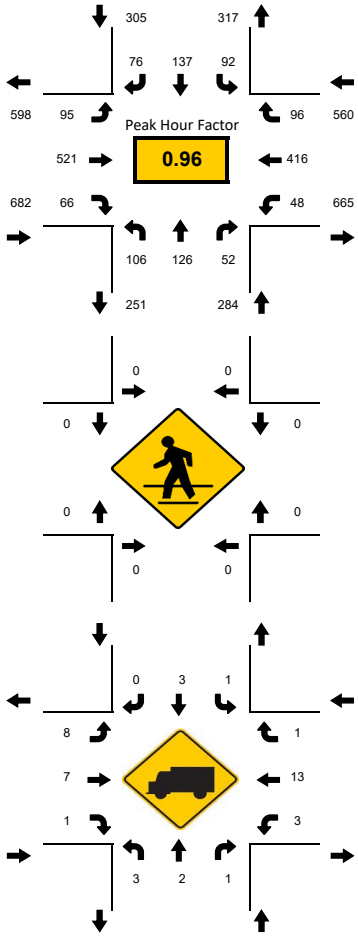




15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Midway Rd Eastbound					Midway Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	12	17	8	0		7	17	20	0		13	66	11	1		1	69	4	0		246	1247
07:15 AM	17	20	3	0		6	22	18	0		17	78	15	0		3	63	15	0		277	1354
07:30 AM	25	21	11	0		21	30	11	0		25	85	10	0		6	101	7	0		353	1432
07:45 AM	24	28	8	0		10	36	15	0		22	102	17	0		4	92	13	0		371	1471
08:00 AM	24	27	11	0		17	24	12	0		21	96	23	1		4	87	6	0		353	1506
08:15 AM	31	22	17	0		13	28	16	0		21	82	23	0		6	86	10	0		355	1153
08:30 AM	29	43	15	0		10	38	10	0		34	83	22	0		7	90	11	0		392	798
08:45 AM	25	49	13	0		13	43	14	0		20	104	29	0		9	72	15	0		406	406
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	124	196	68	0		68	172	64	0		136	416	116	4		36	360	60	0		**1820**	
Heavy Trucks	8	32	0	0		4	12	4	0		4	28	8	0		8	44	8	0		**160**	
Pedestrians		4					0					0					0				**4**	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		**0**	
Buses																						
Stopped Buses																						

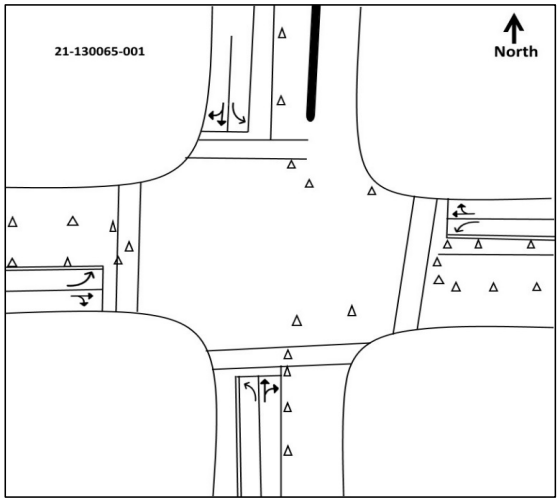
LOCATION: Oleander Ave & Midway Rd
CITY/STATE: Fort Pierce, FL

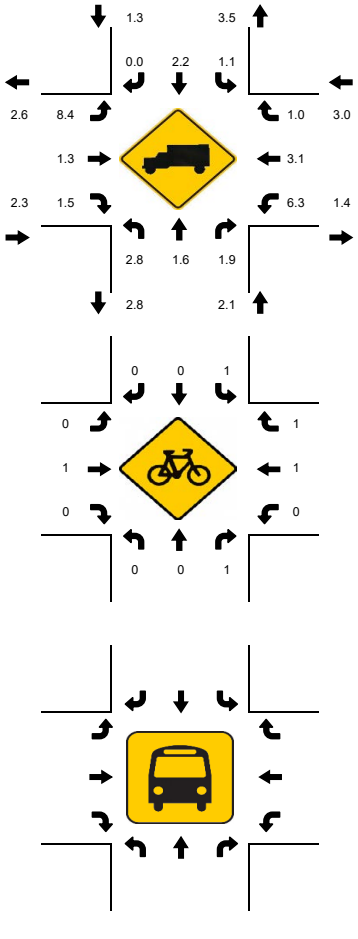
PROJECT ID: 21-130065-001
DATE: Tue, Apr 06, 2021



Peak-Hour: 04:30 PM - 05:30 PM
Peak 15-Minute: 05:15 PM - 05:30 PM

National Data & Surveying Services



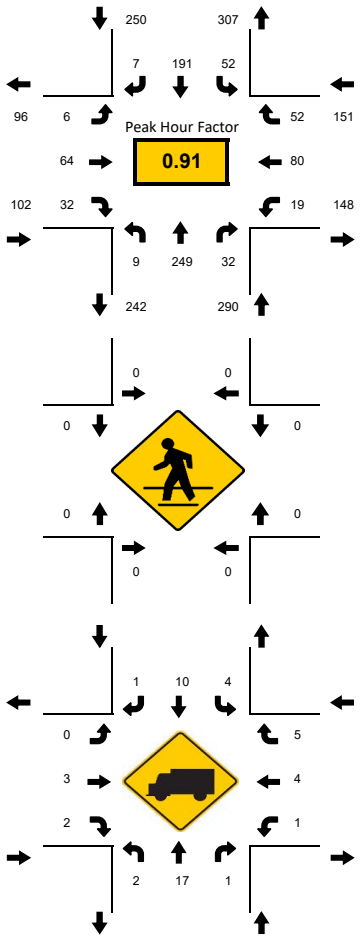


15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Midway Rd Eastbound					Midway Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	20	26	5	0		12	41	19	0		23	110	13	1		11	109	16	3		409	1783
04:15 PM	35	64	15	0		19	43	16	0		15	108	18	3		8	93	17	2		456	1812
04:30 PM	36	39	12	0		22	28	19	0		19	134	19	1		10	92	29	0		460	1831
04:45 PM	25	28	15	0		20	30	15	0		23	138	14	3		12	114	21	0		458	1820
05:00 PM	27	24	14	0		22	35	23	0		22	111	14	0		16	105	25	0		438	1721
05:15 PM	18	35	11	0		28	44	19	0		25	138	19	2		10	105	21	0		475	1283
05:30 PM	17	30	8	0		13	43	17	0		28	129	15	1		16	112	20	0		449	808
05:45 PM	13	23	14	0		22	25	16	0		22	83	13	0		9	99	19	1		359	359
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	144	156	60	0		112	176	92	0		100	552	76	12		64	456	116	0		**2116**	
Heavy Trucks	8	8	4	0		4	8	0	0		16	16	4	0		4	20	4	0		**96**	
Pedestrians		0					0					0					0				**0**	
Bicycles	0	0	4	0		4	0	0	0		0	4	0	0		0	4	4	0		**20**	
Buses																						
Stopped Buses																						

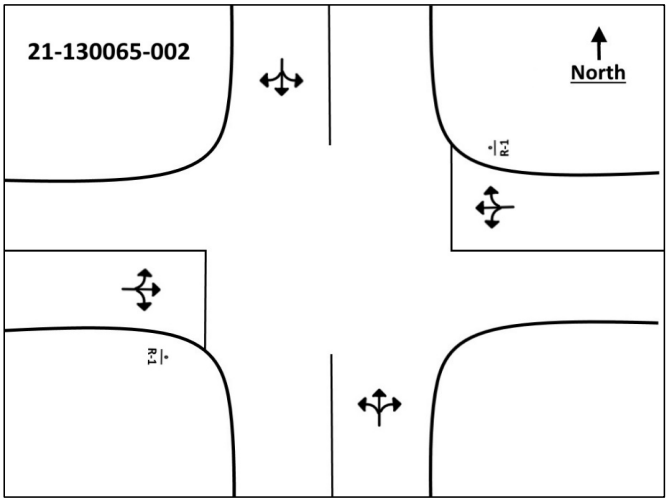
LOCATION: Oleander Ave & Weatherbee Rd
CITY/STATE: Fort Pierce, FL

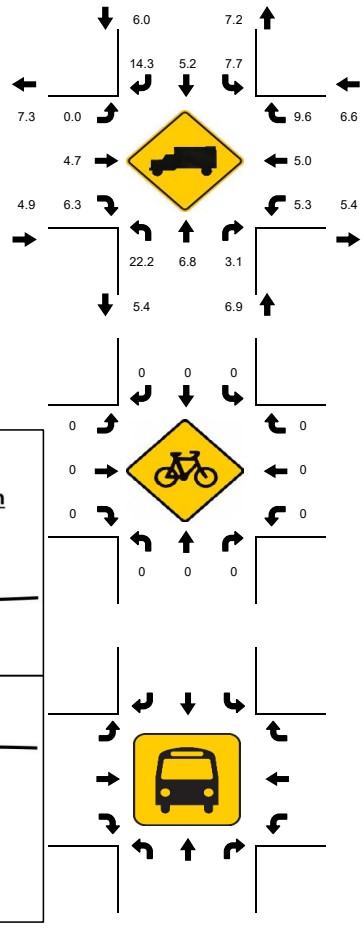
PROJECT ID: 21-130065-002
DATE: Tue, Apr 06, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM



National Data & Surveying Services



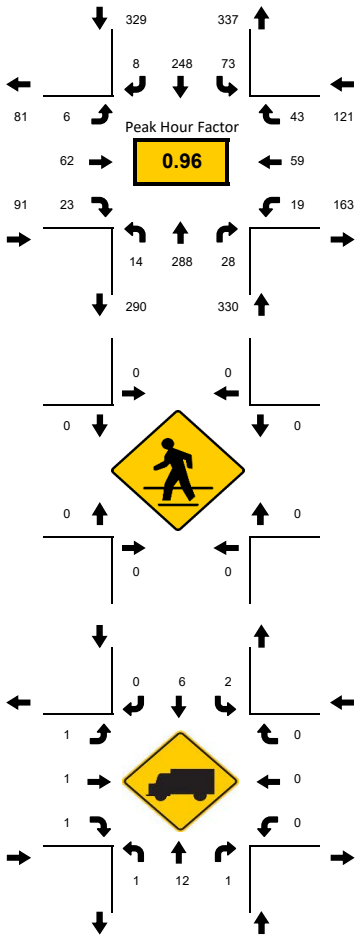


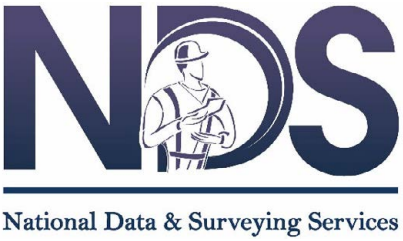
15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Weatherbee Rd Eastbound					Weatherbee Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	4	27	4	0		10	33	4	0		3	15	2	0		3	18	13	0		136	652
07:15 AM	7	42	7	0		16	47	1	0		1	15	3	0		4	19	12	0		174	696
07:30 AM	0	46	6	0		11	45	0	0		0	5	8	0		2	17	9	0		149	717
07:45 AM	2	54	5	0		14	55	1	0		1	18	9	0		5	13	16	0		193	768
08:00 AM	1	55	10	0		13	40	1	0		2	23	8	0		1	19	7	0		180	793
08:15 AM	1	43	5	0		21	55	2	0		1	11	5	0		7	27	17	0		195	613
08:30 AM	3	63	10	0		10	48	3	0		2	18	7	0		1	16	19	0		200	418
08:45 AM	4	88	7	0		8	48	1	0		1	12	12	0		10	18	9	0		218	218
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	16	352	40	0		84	220	12	0		8	92	48	0		40	108	76	0		**1096**	
Heavy Trucks	8	40	4	0		8	20	4	0		0	12	4	0		4	8	16	0		**128**	
Pedestrians		0					0					0					0				**0**	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		**0**	
Buses																						
Stopped Buses																						

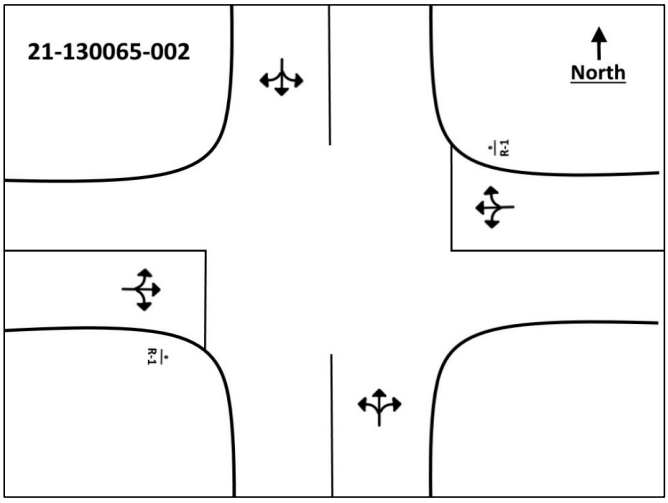
LOCATION: Oleander Ave & Weatherbee Rd
CITY/STATE: Fort Pierce, FL

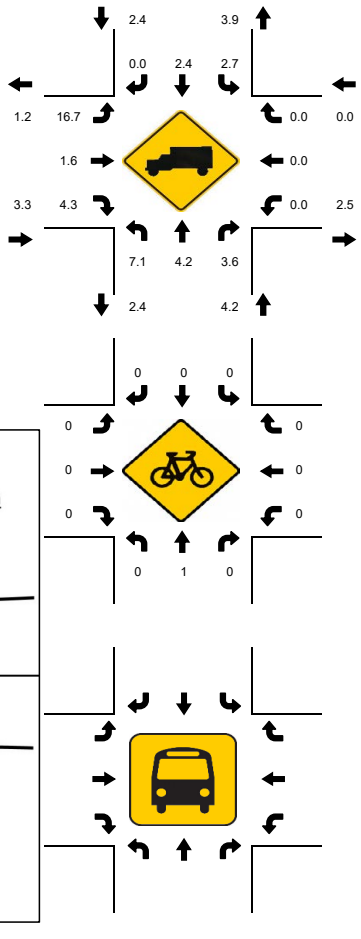
PROJECT ID: 21-130065-002
DATE: Tue, Apr 06, 2021

Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 04:15 PM - 04:30 PM







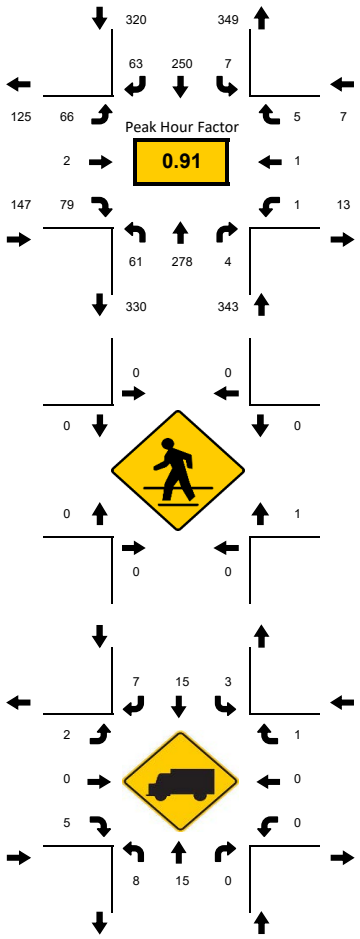


15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Weatherbee Rd Eastbound					Weatherbee Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	5	60	9	0		14	74	0	0		2	14	4	0		5	24	14	0		225	870
04:15 PM	7	79	8	0		22	60	0	0		1	13	6	0		3	12	17	0		228	871
04:30 PM	2	79	7	0		12	68	1	0		2	19	5	0		5	14	4	0		218	869
04:45 PM	4	60	6	0		17	56	3	0		3	13	6	0		4	16	11	0		199	848
05:00 PM	1	70	7	0		22	64	4	0		0	17	6	0		7	17	11	0		226	843
05:15 PM	4	67	9	0		13	81	1	0		1	14	4	0		4	14	14	0		226	617
05:30 PM	5	61	11	0		17	58	1	0		1	13	6	0		5	13	6	0		197	391
05:45 PM	1	48	13	0		16	55	2	0		1	12	4	0		9	22	11	0		194	194
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**						
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	**Total**	
All Vehicles	28	316	32	0		88	272	16	0		12	76	24	0		28	68	68	0		**1028**	
Heavy Trucks	4	24	4	0		4	8	0	0		4	4	4	0		0	0	0	0		**56**	
Pedestrians		0					0					0					0				**0**	
Bicycles	0	4	0	0		0	0	0	0		0	0	0	0		0	0	0	0		**4**	
Buses																						
Stopped Buses																						

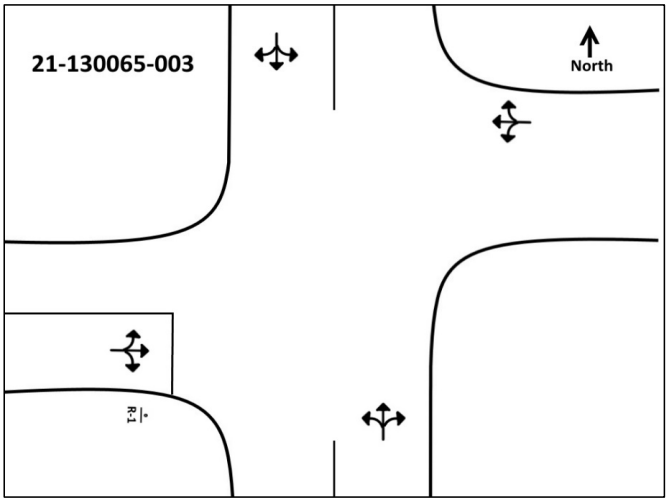
LOCATION: Oleander Ave & Bell Ave
CITY/STATE: Fort Pierce, FL

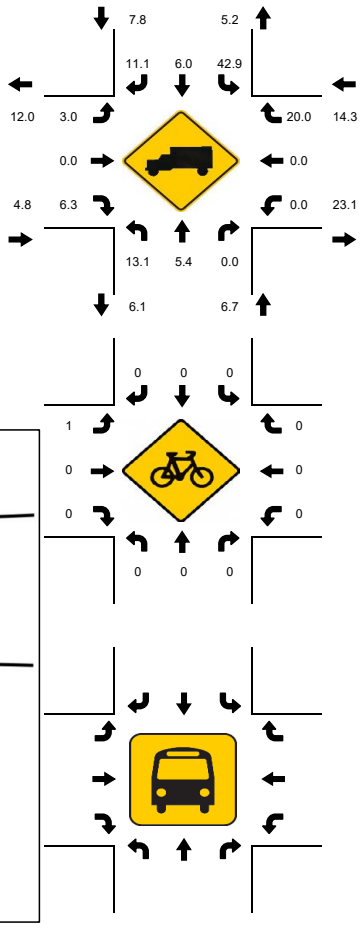
PROJECT ID: 21-130065-003
DATE: Tue, Apr 06, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM



National Data & Surveying Services



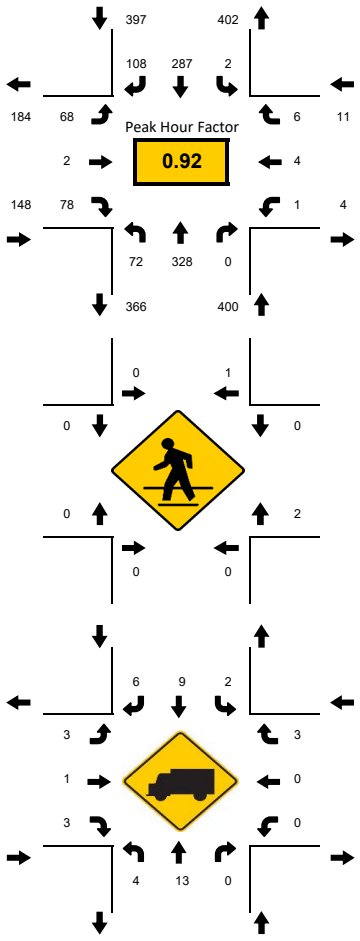


15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Bell Ave Eastbound					Bell Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	18	39	2	1		2	37	20	0		14	3	12	0		1	2	7	0		158	722
07:15 AM	18	46	2	0		3	48	20	1		23	0	18	0		0	1	3	0		183	768
07:30 AM	10	46	1	0		4	63	17	0		19	0	23	0		0	0	0	0		183	772
07:45 AM	21	62	2	0		1	56	13	0		17	0	26	0		0	0	0	0		198	791
08:00 AM	12	64	3	0		2	59	15	0		21	1	24	0		1	1	1	0		204	817
08:15 AM	19	54	0	0		1	61	10	0		19	0	23	0		0	0	0	0		187	613
08:30 AM	13	69	0	0		2	63	20	0		16	0	19	0		0	0	0	0		202	426
08:45 AM	17	91	1	0		2	67	18	0		10	1	13	0		0	0	4	0		224	224
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**						
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Total**	
All Vehicles	76	364	12	0		8	268	80	0		84	4	96	0		4	4	16	0		**1016**	
Heavy Trucks	24	32	0	0		8	28	16	0		4	0	8	0		0	0	4	0		**124**	
Pedestrians		0					0					0					4				**4**	
Bicycles	0	0	0	0		0	0	0	0		4	0	0	0		0	0	0	0		**4**	
Buses																						
Stopped Buses																						

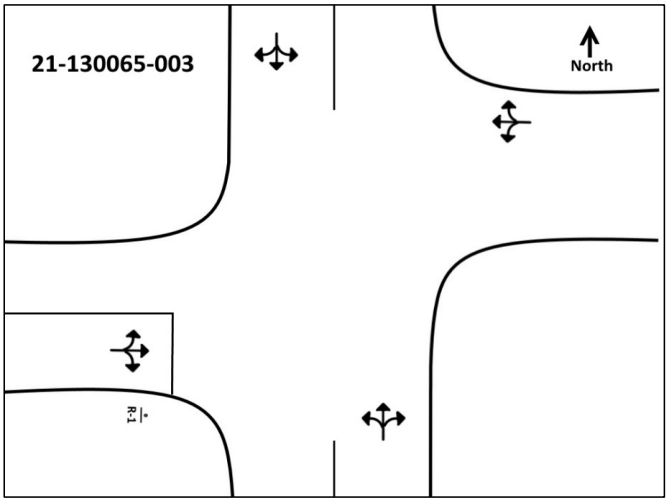
LOCATION: Oleander Ave & Bell Ave
CITY/STATE: Fort Pierce, FL

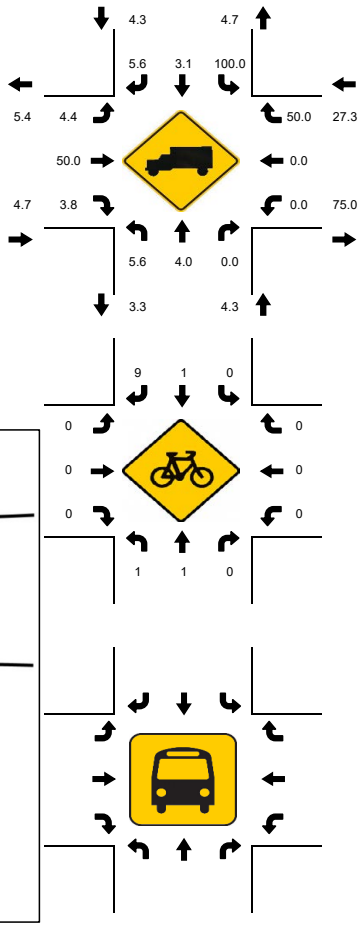
PROJECT ID: 21-130065-003
DATE: Tue, Apr 06, 2021

Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 04:15 PM - 04:30 PM



National Data & Surveying Services



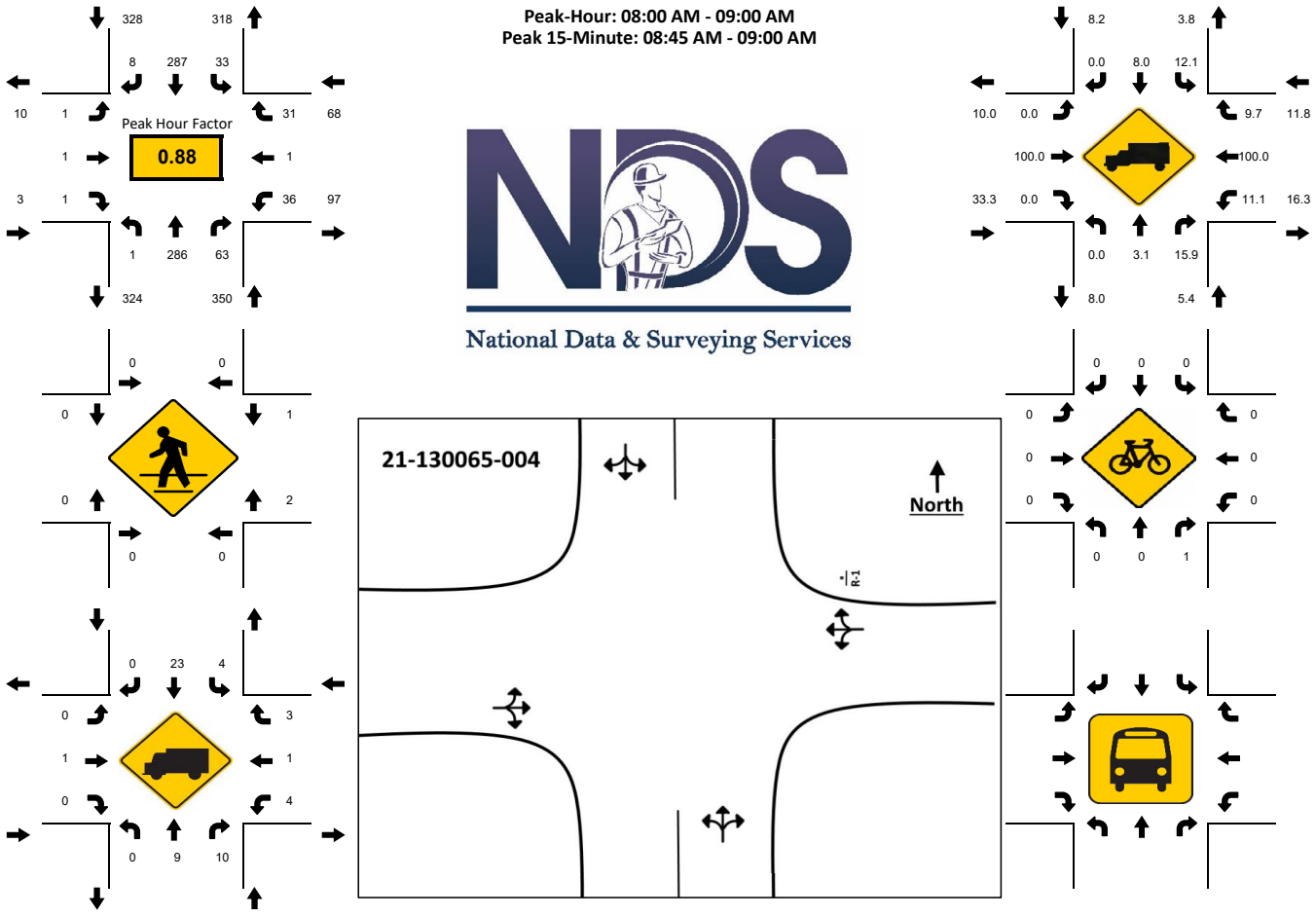


15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Bell Ave Eastbound					Bell Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	14	69	0	0		0	80	32	0		11	1	13	0		1	3	3	0		227	940
04:15 PM	23	99	0	0		1	75	24	0		17	0	17	0		0	1	2	0		259	956
04:30 PM	15	79	0	0		1	80	21	0		16	0	18	0		0	0	1	0		231	938
04:45 PM	15	76	0	0		0	57	31	0		15	2	23	0		0	2	2	0		223	900
05:00 PM	19	74	0	0		0	75	32	0		20	0	20	0		1	1	1	0		243	846
05:15 PM	21	77	0	0		1	85	24	0		14	0	16	0		1	2	0	0		241	603
05:30 PM	11	74	1	0		0	60	15	0		17	0	13	0		0	0	2	0		193	362
05:45 PM	12	48	0	0		2	65	8	0		21	1	10	0		1	0	1	0		169	169
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**						
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Total**	
All Vehicles	92	396	0	0		4	320	128	0		80	8	92	0		4	8	8	0		**1140**	
Heavy Trucks	8	28	0	0		4	16	12	0		8	4	8	0		0	0	4	0		**92**	
Pedestrians		0					4					0					4				**8**	
Bicycles	4	4	0	0		0	4	16	0		0	0	0	0		0	0	0	0		**28**	
Buses																						
Stopped Buses																						

LOCATION: Oleander Ave & Farmers Market Rd
CITY/STATE: Fort Pierce, FL

PROJECT ID: 21-130065-004
DATE: Tue, Apr 06, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM

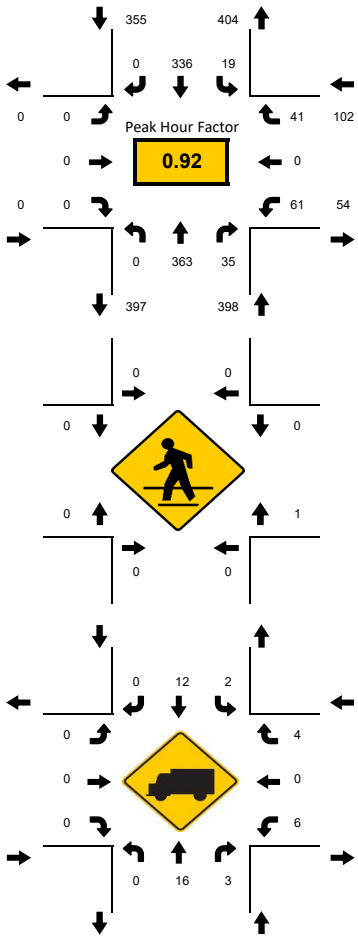


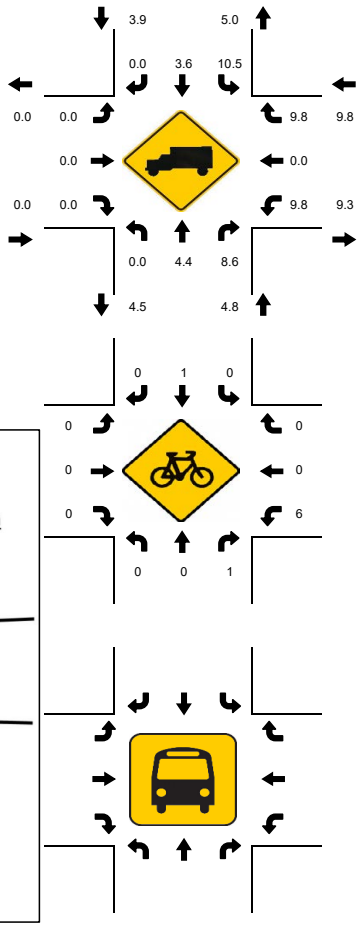
15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Farmers Market Rd Eastbound					Farmers Market Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	49	9	0		3	54	2	0		1	0	0	0		4	0	7	0		129	609
07:15 AM	0	59	17	0		5	67	1	0		0	0	1	0		7	0	7	0		164	665
07:30 AM	0	43	19	0		11	71	0	0		0	0	0	0		9	0	5	0		158	665
07:45 AM	0	68	12	0		7	61	1	0		1	0	0	0		6	0	2	0		158	694
08:00 AM	0	71	14	0		10	76	0	0		0	0	0	0		9	0	5	0		185	749
08:15 AM	0	62	13	0		8	63	0	0		0	0	0	0		7	0	10	1		164	564
08:30 AM	1	64	20	0		9	71	1	0		0	1	0	0		9	1	10	0		187	400
08:45 AM	0	89	16	0		6	77	7	0		1	0	1	0		10	0	6	0		213	213
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	4	356	80	0		40	308	28	0		4	4	4	0		40	4	40	4		**916**	
Heavy Trucks	0	12	32	0		8	28	0	0		0	4	0	0		4	4	4	4		**96**	
Pedestrians		0					0					0					8				**8**	
Bicycles	0	0	4	0		0	0	0	0		0	0	0	0		0	0	0	0		**4**	
Buses																						
Stopped Buses																						

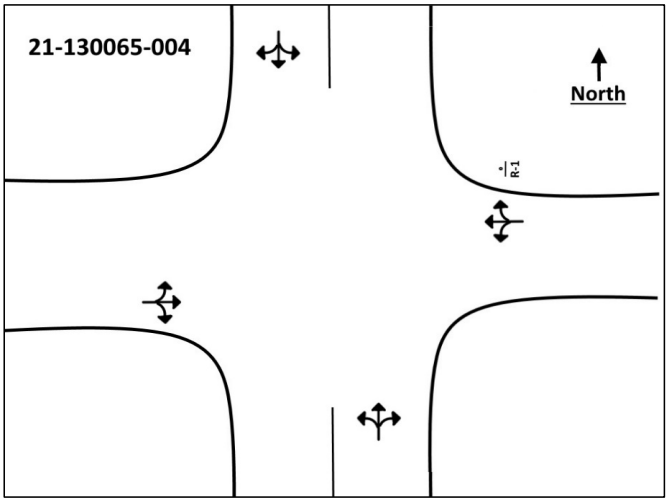
LOCATION: Oleander Ave & Farmers Market Rd
CITY/STATE: Fort Pierce, FL

PROJECT ID: 21-130065-004
DATE: Tue, Apr 06, 2021

Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 04:15 PM - 04:30 PM





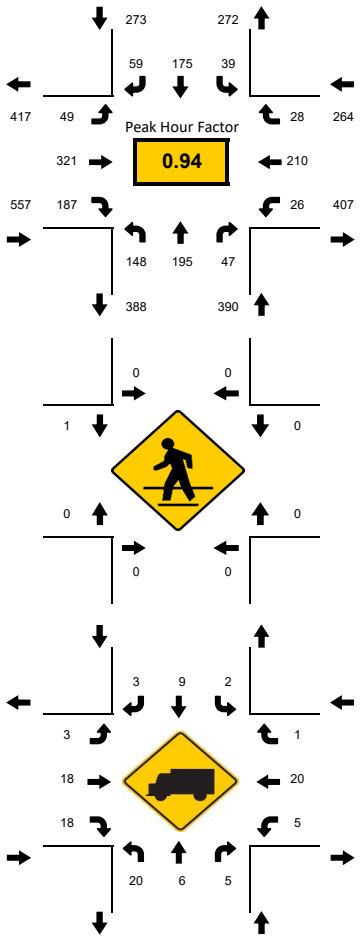


15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Farmers Market Rd Eastbound					Farmers Market Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	1	75	5	0		6	100	0	0		1	0	0	0		15	0	8	0		211	850
04:15 PM	0	107	8	0		6	87	0	0		0	0	0	0		14	0	10	0		232	855
04:30 PM	0	87	13	0		6	82	0	0		0	0	0	0		15	0	10	0		213	849
04:45 PM	0	84	6	0		5	74	0	0		0	0	0	0		15	0	10	0		194	824
05:00 PM	0	85	8	0		2	93	0	0		0	0	0	0		17	0	11	0		216	788
05:15 PM	0	93	6	0		8	94	0	0		0	0	0	0		13	0	12	0		226	572
05:30 PM	0	88	5	0		6	66	0	0		0	0	0	0		9	0	14	0		188	346
05:45 PM	0	63	7	0		6	70	0	0		0	0	0	0		7	0	5	0		158	158
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	0	428	52	0		24	372	0	0		0	0	0	0		68	0	44	0		**988**	
Heavy Trucks	0	28	8	0		4	28	0	0		0	0	0	0		12	0	8	0		**88**	
Pedestrians		0					0					0					4				**4**	
Bicycles	0	0	4	0		0	4	0	0		0	0	0	0		12	0	0	0		**20**	
Buses																						
Stopped Buses																						

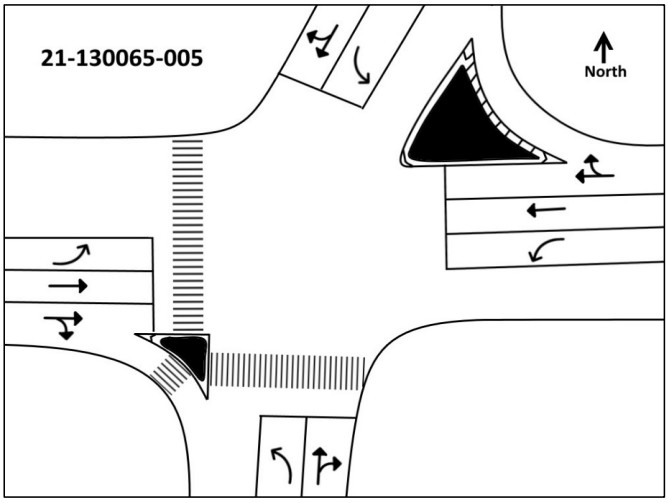
LOCATION: Oleander Ave & Edwards Rd
CITY/STATE: Fort Pierce, FL

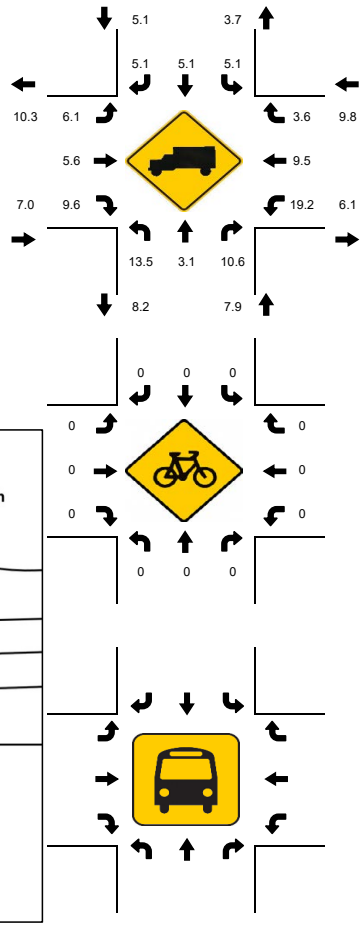
PROJECT ID: 21-130065-005
DATE: Tue, Apr 06, 2021

Peak-Hour: 08:00 AM - 09:00 AM
Peak 15-Minute: 08:45 AM - 09:00 AM



National Data & Surveying Services



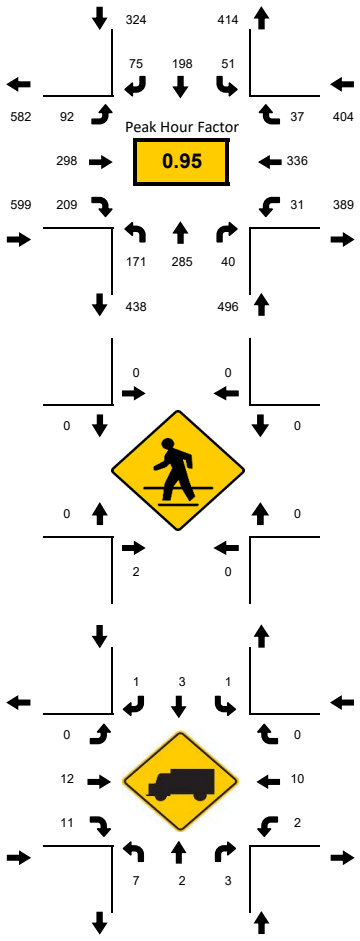


15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Edwards Rd Eastbound					Edwards Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	34	30	4	0		5	28	16	0		11	72	30	0		5	41	3	0		279	1349
07:15 AM	41	36	14	0		10	29	21	0		12	75	43	0		8	45	4	0		338	1430
07:30 AM	35	29	7	0		8	29	22	0		17	74	49	0		11	64	2	0		347	1431
07:45 AM	34	55	12	0		8	45	13	0		11	81	57	0		5	60	4	0		385	1475
08:00 AM	32	44	14	0		13	40	18	0		11	79	46	0		7	51	5	0		360	1484
08:15 AM	35	38	7	0		14	38	8	0		9	80	47	0		3	53	7	0		339	1124
08:30 AM	38	52	11	0		4	50	17	0		18	85	44	0		7	57	8	0		391	785
08:45 AM	43	61	15	0		8	47	16	0		11	77	50	0		9	49	8	0		394	394
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	172	244	60	0		56	200	72	0		72	340	200	0		36	228	32	0		**1712**	
Heavy Trucks	24	8	8	0		4	12	4	0		4	28	20	0		16	24	4	0		**156**	
Pedestrians		0					0					4					0				**4**	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		**0**	
Buses																						
Stopped Buses																						

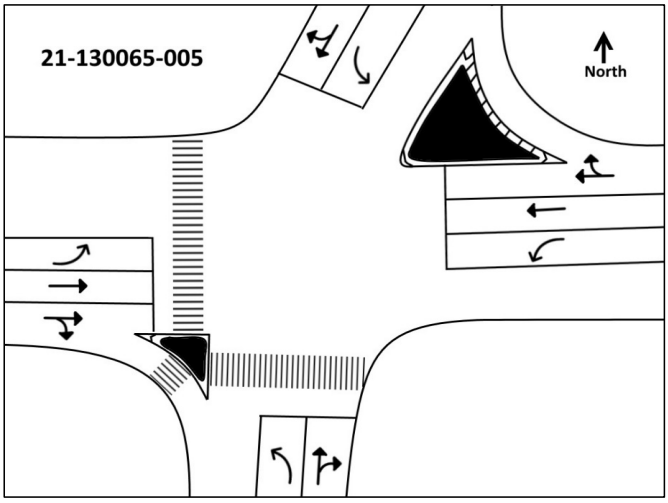
LOCATION: Oleander Ave & Edwards Rd
CITY/STATE: Fort Pierce, FL

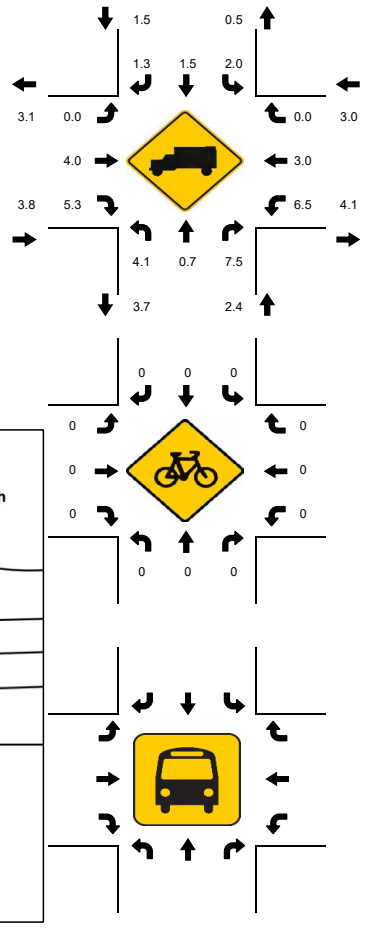
PROJECT ID: 21-130065-005
DATE: Tue, Apr 06, 2021

Peak-Hour: 04:45 PM - 05:45 PM
Peak 15-Minute: 05:30 PM - 05:45 PM



National Data & Surveying Services





15-Min Count Period Beginning At	Oleander Ave Northbound					Oleander Ave Southbound					Edwards Rd Eastbound					Edwards Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	45	66	9	0		10	67	15	0		23	56	39	0		12	69	8	0		419	1714
04:15 PM	46	73	11	0		10	42	19	0		43	64	50	0		12	71	8	0		449	1751
04:30 PM	43	74	4	0		8	45	19	0		20	79	57	0		11	61	6	0		427	1770
04:45 PM	42	70	8	0		15	33	13	0		16	77	49	0		8	78	10	0		419	1823
05:00 PM	30	72	18	0		10	58	16	0		28	78	46	0		9	81	10	0		456	1763
05:15 PM	44	69	9	0		11	46	18	0		26	89	55	0		8	87	6	0		468	1307
05:30 PM	55	74	5	0		15	61	28	0		22	54	59	0		6	90	11	0		480	839
05:45 PM	42	42	11	0		4	52	22	0		26	43	53	0		7	51	6	0		359	359
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***	**Left**	**Thru**	**Rgt**	**U**	**R***		
All Vehicles	220	296	72	0		60	244	112	0		112	356	236	0		36	360	44	0		**2148**	
Heavy Trucks	12	4	8	0		4	8	4	0		0	16	16	0		4	12	0	0		**88**	
Pedestrians		8					0					0					0				**8**	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		**0**	
Buses																						
Stopped Buses																						

APPENDIX F

FDOT's Florida Traffic Online
2019 Peak Season Factor Category Report

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 9400 EAST-A1A TO US1

MOCF: 0.88

WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	1.02	1.16
2	01/06/2019 - 01/12/2019	0.98	1.11
3	01/13/2019 - 01/19/2019	0.93	1.06
* 4	01/20/2019 - 01/26/2019	0.91	1.03
* 5	01/27/2019 - 02/02/2019	0.89	1.01
* 6	02/03/2019 - 02/09/2019	0.87	0.99
* 7	02/10/2019 - 02/16/2019	0.85	0.97
* 8	02/17/2019 - 02/23/2019	0.85	0.97
* 9	02/24/2019 - 03/02/2019	0.85	0.97
*10	03/03/2019 - 03/09/2019	0.85	0.97
*11	03/10/2019 - 03/16/2019	0.85	0.97
*12	03/17/2019 - 03/23/2019	0.87	0.99
*13	03/24/2019 - 03/30/2019	0.88	1.00
*14	03/31/2019 - 04/06/2019	0.89	1.01
*15	04/07/2019 - 04/13/2019	0.90	1.02
*16	04/14/2019 - 04/20/2019	0.92	1.05
17	04/21/2019 - 04/27/2019	0.94	1.07
18	04/28/2019 - 05/04/2019	0.96	1.09
19	05/05/2019 - 05/11/2019	0.99	1.13
20	05/12/2019 - 05/18/2019	1.01	1.15
21	05/19/2019 - 05/25/2019	1.03	1.17
22	05/26/2019 - 06/01/2019	1.04	1.18
23	06/02/2019 - 06/08/2019	1.06	1.20
24	06/09/2019 - 06/15/2019	1.08	1.23
25	06/16/2019 - 06/22/2019	1.08	1.23
26	06/23/2019 - 06/29/2019	1.08	1.23
27	06/30/2019 - 07/06/2019	1.08	1.23
28	07/07/2019 - 07/13/2019	1.08	1.23
29	07/14/2019 - 07/20/2019	1.08	1.23
30	07/21/2019 - 07/27/2019	1.09	1.24
31	07/28/2019 - 08/03/2019	1.11	1.26
32	08/04/2019 - 08/10/2019	1.12	1.27
33	08/11/2019 - 08/17/2019	1.14	1.30
34	08/18/2019 - 08/24/2019	1.15	1.31
35	08/25/2019 - 08/31/2019	1.17	1.33
36	09/01/2019 - 09/07/2019	1.19	1.35
37	09/08/2019 - 09/14/2019	1.20	1.36
38	09/15/2019 - 09/21/2019	1.22	1.39
39	09/22/2019 - 09/28/2019	1.18	1.34
40	09/29/2019 - 10/05/2019	1.15	1.31
41	10/06/2019 - 10/12/2019	1.11	1.26
42	10/13/2019 - 10/19/2019	1.08	1.23
43	10/20/2019 - 10/26/2019	1.07	1.22
44	10/27/2019 - 11/02/2019	1.05	1.19
45	11/03/2019 - 11/09/2019	1.04	1.18
46	11/10/2019 - 11/16/2019	1.03	1.17
47	11/17/2019 - 11/23/2019	1.03	1.17
48	11/24/2019 - 11/30/2019	1.03	1.17
49	12/01/2019 - 12/07/2019	1.02	1.16
50	12/08/2019 - 12/14/2019	1.02	1.16
51	12/15/2019 - 12/21/2019	1.02	1.16
52	12/22/2019 - 12/28/2019	0.98	1.11
53	12/29/2019 - 12/31/2019	0.93	1.06

* PEAK SEASON

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 9401 CEN.-W OF US1 TO I95

MOCF: 0.94

WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	1.01	1.07
2	01/06/2019 - 01/12/2019	0.99	1.05
3	01/13/2019 - 01/19/2019	0.96	1.02
* 4	01/20/2019 - 01/26/2019	0.95	1.01
* 5	01/27/2019 - 02/02/2019	0.94	1.00
* 6	02/03/2019 - 02/09/2019	0.93	0.99
* 7	02/10/2019 - 02/16/2019	0.92	0.98
* 8	02/17/2019 - 02/23/2019	0.92	0.98
* 9	02/24/2019 - 03/02/2019	0.93	0.99
*10	03/03/2019 - 03/09/2019	0.93	0.99
*11	03/10/2019 - 03/16/2019	0.93	0.99
*12	03/17/2019 - 03/23/2019	0.94	1.00
*13	03/24/2019 - 03/30/2019	0.94	1.00
*14	03/31/2019 - 04/06/2019	0.95	1.01
*15	04/07/2019 - 04/13/2019	0.95	1.01
*16	04/14/2019 - 04/20/2019	0.96	1.02
17	04/21/2019 - 04/27/2019	0.97	1.03
18	04/28/2019 - 05/04/2019	0.98	1.04
19	05/05/2019 - 05/11/2019	0.99	1.05
20	05/12/2019 - 05/18/2019	1.00	1.06
21	05/19/2019 - 05/25/2019	1.01	1.07
22	05/26/2019 - 06/01/2019	1.02	1.09
23	06/02/2019 - 06/08/2019	1.02	1.09
24	06/09/2019 - 06/15/2019	1.03	1.10
25	06/16/2019 - 06/22/2019	1.04	1.11
26	06/23/2019 - 06/29/2019	1.05	1.12
27	06/30/2019 - 07/06/2019	1.05	1.12
28	07/07/2019 - 07/13/2019	1.06	1.13
29	07/14/2019 - 07/20/2019	1.07	1.14
30	07/21/2019 - 07/27/2019	1.06	1.13
31	07/28/2019 - 08/03/2019	1.06	1.13
32	08/04/2019 - 08/10/2019	1.05	1.12
33	08/11/2019 - 08/17/2019	1.04	1.11
34	08/18/2019 - 08/24/2019	1.05	1.12
35	08/25/2019 - 08/31/2019	1.07	1.14
36	09/01/2019 - 09/07/2019	1.08	1.15
37	09/08/2019 - 09/14/2019	1.10	1.17
38	09/15/2019 - 09/21/2019	1.11	1.18
39	09/22/2019 - 09/28/2019	1.09	1.16
40	09/29/2019 - 10/05/2019	1.07	1.14
41	10/06/2019 - 10/12/2019	1.04	1.11
42	10/13/2019 - 10/19/2019	1.02	1.09
43	10/20/2019 - 10/26/2019	1.02	1.09
44	10/27/2019 - 11/02/2019	1.02	1.09
45	11/03/2019 - 11/09/2019	1.01	1.07
46	11/10/2019 - 11/16/2019	1.01	1.07
47	11/17/2019 - 11/23/2019	1.01	1.07
48	11/24/2019 - 11/30/2019	1.01	1.07
49	12/01/2019 - 12/07/2019	1.01	1.07
50	12/08/2019 - 12/14/2019	1.01	1.07
51	12/15/2019 - 12/21/2019	1.01	1.07
52	12/22/2019 - 12/28/2019	0.99	1.05
53	12/29/2019 - 12/31/2019	0.96	1.02

* PEAK SEASON

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 9402 WEST-W OF I95

MOCF: 0.92

WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	1.05	1.14
2	01/06/2019 - 01/12/2019	1.03	1.12
3	01/13/2019 - 01/19/2019	1.00	1.09
* 4	01/20/2019 - 01/26/2019	0.97	1.05
* 5	01/27/2019 - 02/02/2019	0.93	1.01
* 6	02/03/2019 - 02/09/2019	0.90	0.98
* 7	02/10/2019 - 02/16/2019	0.86	0.93
* 8	02/17/2019 - 02/23/2019	0.87	0.95
* 9	02/24/2019 - 03/02/2019	0.88	0.96
*10	03/03/2019 - 03/09/2019	0.89	0.97
*11	03/10/2019 - 03/16/2019	0.90	0.98
*12	03/17/2019 - 03/23/2019	0.91	0.99
*13	03/24/2019 - 03/30/2019	0.93	1.01
*14	03/31/2019 - 04/06/2019	0.94	1.02
*15	04/07/2019 - 04/13/2019	0.95	1.03
*16	04/14/2019 - 04/20/2019	0.97	1.05
17	04/21/2019 - 04/27/2019	0.99	1.08
18	04/28/2019 - 05/04/2019	1.00	1.09
19	05/05/2019 - 05/11/2019	1.02	1.11
20	05/12/2019 - 05/18/2019	1.04	1.13
21	05/19/2019 - 05/25/2019	1.06	1.15
22	05/26/2019 - 06/01/2019	1.07	1.16
23	06/02/2019 - 06/08/2019	1.09	1.18
24	06/09/2019 - 06/15/2019	1.10	1.20
25	06/16/2019 - 06/22/2019	1.11	1.21
26	06/23/2019 - 06/29/2019	1.12	1.22
27	06/30/2019 - 07/06/2019	1.12	1.22
28	07/07/2019 - 07/13/2019	1.13	1.23
29	07/14/2019 - 07/20/2019	1.14	1.24
30	07/21/2019 - 07/27/2019	1.13	1.23
31	07/28/2019 - 08/03/2019	1.13	1.23
32	08/04/2019 - 08/10/2019	1.12	1.22
33	08/11/2019 - 08/17/2019	1.12	1.22
34	08/18/2019 - 08/24/2019	1.11	1.21
35	08/25/2019 - 08/31/2019	1.10	1.20
36	09/01/2019 - 09/07/2019	1.09	1.18
37	09/08/2019 - 09/14/2019	1.08	1.17
38	09/15/2019 - 09/21/2019	1.08	1.17
39	09/22/2019 - 09/28/2019	1.05	1.14
40	09/29/2019 - 10/05/2019	1.03	1.12
41	10/06/2019 - 10/12/2019	1.00	1.09
42	10/13/2019 - 10/19/2019	0.98	1.07
43	10/20/2019 - 10/26/2019	0.97	1.05
44	10/27/2019 - 11/02/2019	0.96	1.04
45	11/03/2019 - 11/09/2019	0.94	1.02
46	11/10/2019 - 11/16/2019	0.93	1.01
47	11/17/2019 - 11/23/2019	0.95	1.03
48	11/24/2019 - 11/30/2019	0.98	1.07
49	12/01/2019 - 12/07/2019	1.00	1.09
50	12/08/2019 - 12/14/2019	1.02	1.11
51	12/15/2019 - 12/21/2019	1.05	1.14
52	12/22/2019 - 12/28/2019	1.03	1.12
53	12/29/2019 - 12/31/2019	1.00	1.09

* PEAK SEASON

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 9495 ST LUCIE I95

MOCF: 0.97

WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	0.92	0.95
2	01/06/2019 - 01/12/2019	0.98	1.01
3	01/13/2019 - 01/19/2019	1.03	1.06
4	01/20/2019 - 01/26/2019	1.02	1.05
5	01/27/2019 - 02/02/2019	1.01	1.04
6	02/03/2019 - 02/09/2019	1.00	1.03
7	02/10/2019 - 02/16/2019	0.99	1.02
8	02/17/2019 - 02/23/2019	0.98	1.01
9	02/24/2019 - 03/02/2019	0.97	1.00
10	03/03/2019 - 03/09/2019	0.96	0.99
11	03/10/2019 - 03/16/2019	0.95	0.98
12	03/17/2019 - 03/23/2019	0.96	0.99
13	03/24/2019 - 03/30/2019	0.96	0.99
14	03/31/2019 - 04/06/2019	0.97	1.00
15	04/07/2019 - 04/13/2019	0.97	1.00
16	04/14/2019 - 04/20/2019	0.98	1.01
17	04/21/2019 - 04/27/2019	0.99	1.02
18	04/28/2019 - 05/04/2019	1.00	1.03
19	05/05/2019 - 05/11/2019	1.00	1.03
20	05/12/2019 - 05/18/2019	1.01	1.04
21	05/19/2019 - 05/25/2019	1.01	1.04
22	05/26/2019 - 06/01/2019	1.02	1.05
23	06/02/2019 - 06/08/2019	1.02	1.05
24	06/09/2019 - 06/15/2019	1.02	1.05
25	06/16/2019 - 06/22/2019	1.02	1.05
26	06/23/2019 - 06/29/2019	1.02	1.05
27	06/30/2019 - 07/06/2019	1.02	1.05
28	07/07/2019 - 07/13/2019	1.02	1.05
29	07/14/2019 - 07/20/2019	1.02	1.05
30	07/21/2019 - 07/27/2019	1.03	1.06
31	07/28/2019 - 08/03/2019	1.03	1.06
32	08/04/2019 - 08/10/2019	1.04	1.07
33	08/11/2019 - 08/17/2019	1.04	1.07
34	08/18/2019 - 08/24/2019	1.06	1.09
35	08/25/2019 - 08/31/2019	1.08	1.11
36	09/01/2019 - 09/07/2019	1.10	1.13
37	09/08/2019 - 09/14/2019	1.12	1.15
38	09/15/2019 - 09/21/2019	1.14	1.18
39	09/22/2019 - 09/28/2019	1.11	1.14
40	09/29/2019 - 10/05/2019	1.08	1.11
*41	10/06/2019 - 10/12/2019	1.04	1.07
*42	10/13/2019 - 10/19/2019	1.01	1.04
*43	10/20/2019 - 10/26/2019	1.00	1.03
*44	10/27/2019 - 11/02/2019	0.98	1.01
*45	11/03/2019 - 11/09/2019	0.97	1.00
*46	11/10/2019 - 11/16/2019	0.95	0.98
*47	11/17/2019 - 11/23/2019	0.94	0.97
*48	11/24/2019 - 11/30/2019	0.94	0.97
*49	12/01/2019 - 12/07/2019	0.93	0.96
*50	12/08/2019 - 12/14/2019	0.93	0.96
*51	12/15/2019 - 12/21/2019	0.92	0.95
*52	12/22/2019 - 12/28/2019	0.98	1.01
*53	12/29/2019 - 12/31/2019	1.03	1.06

* PEAK SEASON

APPENDIX G
Turning Movement Volume Worksheets

INTERSECTION VOLUME DEVELOPMENT

Oleander Avenue & Midway Road

WEEKDAY AM PEAK HOUR (8:00 AM to 9:00 AM)	Oleander Avenue			Oleander Avenue			Midway Road			Midway Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	109	141	56	53	133	52	97	365	97	26	335	42
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	110	142	57	54	134	53	98	369	98	26	338	42
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	9	11	5	4	11	4	8	29	8	2	27	3
Project Traffic % Assignment		10%			10%	15%	15%					
Project Traffic Direction		IN			OUT	OUT	IN					
Project Traffic		1			3	6	2					
2026 Background Traffic	119	153	62	58	145	57	106	398	106	28	365	45
2026 Total Traffic	119	154	62	58	148	63	108	398	106	28	365	45

WEEKDAY PM PEAK HOUR (4:30 PM to 5:30 PM)	Oleander Avenue			Oleander Avenue			Midway Road			Midway Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	106	126	52	92	137	76	95	521	66	48	416	96
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	107	127	53	93	138	77	96	526	67	48	420	97
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	9	10	4	7	11	6	8	42	5	4	34	8
Project Traffic % Assignment		10%			10%	15%	15%					
Project Traffic Direction		IN			OUT	OUT	IN					
Project Traffic		4			2	4	6					
2026 Background Traffic	116	137	57	100	149	83	104	568	72	52	454	105
2026 Total Traffic	116	141	57	100	151	87	110	568	72	52	454	105

INTERSECTION VOLUME DEVELOPMENT

Oleander Avenue & Weatherbee Road

WEEKDAY AM PEAK HOUR (8:00 AM to 9:00 AM)	Oleander Avenue			Oleander Avenue			Weatherbee Road			Weatherbee Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	9	249	32	52	191	7	6	64	32	19	80	52
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	9	251	32	53	193	7	6	65	32	19	81	53
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	1	20	3	4	15	1	0	5	3	2	6	4
Project Traffic % Assignment		25%		15%	25%							15%
Project Traffic Direction		IN		OUT	OUT							IN
Project Traffic		3		6	9							2
2026 Background Traffic	10	271	35	57	208	8	6	70	35	21	87	57
2026 Total Traffic	10	274	35	63	217	8	6	70	35	21	87	59

WEEKDAY PM PEAK HOUR (4:15 PM to 5:15 PM)	Oleander Avenue			Oleander Avenue			Weatherbee Road			Weatherbee Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	14	288	28	73	248	8	6	62	23	19	59	43
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	14	291	28	74	250	8	6	63	23	19	60	43
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	1	23	2	6	20	1	0	5	2	2	5	3
Project Traffic % Assignment		25%		15%	25%							15%
Project Traffic Direction		IN		OUT	OUT							IN
Project Traffic		10		4	6							6
2026 Background Traffic	15	314	30	80	270	9	6	68	25	21	65	46
2026 Total Traffic	15	324	30	84	276	9	6	68	25	21	65	52

INTERSECTION VOLUME DEVELOPMENT

Oleander Avenue & Bell Avenue

WEEKDAY AM PEAK HOUR (8:00 AM to 9:00 AM)	Oleander Avenue			Oleander Avenue			Bell Avenue			Driveway		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	61	278	4	7	250	63	66	2	79	1	1	5
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	62	281	4	7	253	64	67	2	80	1	1	5
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	5	22	0	1	20	5	5	0	6	0	0	0
Project Traffic % Assignment	5%	55%			55%				5%			
Project Traffic Direction	OUT	OUT			IN				IN			
Project Traffic	2	20			7				1			
2026 Background Traffic	67	303	4	8	273	69	72	2	86	1	1	5
2026 Total Traffic	69	323	4	8	280	69	72	2	87	1	1	5

WEEKDAY PM PEAK HOUR (4:15 PM to 5:15 PM)	Oleander Avenue			Oleander Avenue			Bell Avenue			Driveway		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	72	328	0	2	287	108	68	2	78	1	4	6
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	73	331	0	2	290	109	69	2	79	1	4	6
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	6	26	0	0	23	9	6	0	6	0	0	0
Project Traffic % Assignment	5%	55%			55%				5%			
Project Traffic Direction	OUT	OUT			IN				IN			
Project Traffic	1	13			23				2			
2026 Background Traffic	79	357	0	2	313	118	75	2	85	1	4	6
2026 Total Traffic	80	370	0	2	336	118	75	2	87	1	4	6

INTERSECTION VOLUME DEVELOPMENT

Oleander Avenue & Farmers Market Road

WEEKDAY AM PEAK HOUR (8:00 AM to 9:00 AM)	Oleander Avenue			Oleander Avenue			Driveway			Farmers Market Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	1	286	63	33	287	8	1	1	1	36	1	31
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	1	289	64	33	290	8	1	1	1	36	1	31
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	0	23	5	3	23	1	0	0	0	3	0	2
Project Traffic % Assignment		45%	10%		45%					10%		
Project Traffic Direction		OUT	OUT		IN					IN		
Project Traffic		17	3		6					1		
2026 Background Traffic	1	312	69	36	313	9	1	1	1	39	1	33
2026 Total Traffic	1	329	72	36	319	9	1	1	1	40	1	33

WEEKDAY PM PEAK HOUR (4:15 PM to 5:15 PM)	Oleander Avenue			Oleander Avenue			Driveway			Farmers Market Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	0	363	35	19	336	0	0	0	0	61	0	41
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	0	367	35	19	339	0	0	0	0	62	0	41
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	0	29	3	2	27	0	0	0	0	5	0	3
Project Traffic % Assignment		45%	10%		45%					10%		
Project Traffic Direction		OUT	OUT		IN					IN		
Project Traffic		11	2		19					4		
2026 Background Traffic	0	396	38	21	366	0	0	0	0	67	0	44
2026 Total Traffic	0	407	40	21	385	0	0	0	0	71	0	44

INTERSECTION VOLUME DEVELOPMENT

Oleander Avenue & Edwards Road

WEEKDAY AM PEAK HOUR (8:00 AM to 9:00 AM)	Oleander Avenue			Oleander Avenue			Edwards Road			Edwards Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	148	195	47	39	175	59	49	321	187	26	210	28
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	149	197	47	39	177	60	49	324	189	26	212	28
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	12	16	4	3	14	5	4	26	15	2	17	2
Project Traffic % Assignment	20%	25%			25%				20%			
Project Traffic Direction	OUT	OUT			IN				IN			
Project Traffic	8	9			3				3			
2026 Background Traffic	161	213	51	42	191	65	53	350	204	28	229	30
2026 Total Traffic	169	222	51	42	194	65	53	350	207	28	229	30

WEEKDAY PM PEAK HOUR (4:45 PM to 5:45 PM)	Oleander Avenue			Oleander Avenue			Edwards Road			Edwards Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Counted on 4/6/2021	171	285	40	51	198	75	92	298	209	31	336	37
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	173	288	40	52	200	76	93	301	211	31	339	37
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	14	23	3	4	16	6	7	24	17	2	27	3
Project Traffic % Assignment	20%	25%			25%				20%			
Project Traffic Direction	OUT	OUT			IN				IN			
Project Traffic	5	6			11				8			
2026 Background Traffic	187	311	43	56	216	82	100	325	228	33	366	40
2026 Total Traffic	192	317	43	56	227	82	100	325	236	33	366	40

INTERSECTION VOLUME DEVELOPMENT

Oleander Avenue & Project Driveway

WEEKDAY AM PEAK HOUR (8:00 AM to 9:00 AM)	Oleander Avenue			Oleander Avenue			Project Driveway			-		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	N/A	N/A	N/A
Counted on 4/6/2021	0	307	0	0	330	0	0	0	0	0	0	0
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	0	310	0	0	333	0	0	0	0	0	0	0
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	0	25	0	0	27	0	0	0	0	0	0	0
Project Traffic % Assignment	40%					60%	60%		40%			
Project Traffic Direction	IN					IN	OUT		OUT			
Project Traffic	5					8	22		15			
2026 Background Traffic	0	335	0	0	360	0	0	0	0	0	0	0
2026 Total Traffic	5	335	0	0	360	8	22	0	15	0	0	0

WEEKDAY PM PEAK HOUR (4:15 PM to 5:15 PM)	Oleander Avenue			Oleander Avenue			Project Driveway			-		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	N/A	N/A	N/A
Counted on 4/6/2021	0	337	0	0	366	0	0	0	0	0	0	0
Peak Season Factor	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
2021 Existing Traffic	0	340	0	0	370	0	0	0	0	0	0	0
Annual Growth Rate	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
2026 Background Growth	0	27	0	0	30	0	0	0	0	0	0	0
Project Traffic % Assignment	40%					60%	60%		40%			
Project Traffic Direction	IN					IN	OUT		OUT			
Project Traffic	16					25	14		10			
2026 Background Traffic	0	367	0	0	400	0	0	0	0	0	0	0
2026 Total Traffic	16	367	0	0	400	25	14	0	10	0	0	0

APPENDIX H
Signal Timing/Phasing Plans

St. Lucie County

ECONOLITE

MOVING TRAFFIC FORWARD

00011 - EDWARDS RD @ OLEANDER AVE - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Q in use

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	8	10	6	10	8	10	6	10	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	15	0	19	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	3.0	3.0	4.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	10	30	10	30	10	30	10	30	35	35	35	35	35	35	35	35
Max2	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Timing 10/18/16

Ø in Use 1-8

Ø to LS 1-8 to 1-8, 9-12 to 2-8P

Ø	1	2	3	4	5	6	7	8
Min	8	10	8	8	8	10	8	8
Walk		7		7		7		7
Pedcl		25		30		25		30
Ext	3	4.5	3	3.5	3	4.5	3	3.5
Max	10	45	15	25	15	45	15	25
Yell	4	4	4	4	4	4	4	4
Red	3	3	3	3	3	3	3	3

Start / Flash

Pwr Start 2,6 Green

Ext start 2,6 Green

Entry 4,8

Exit 2,6

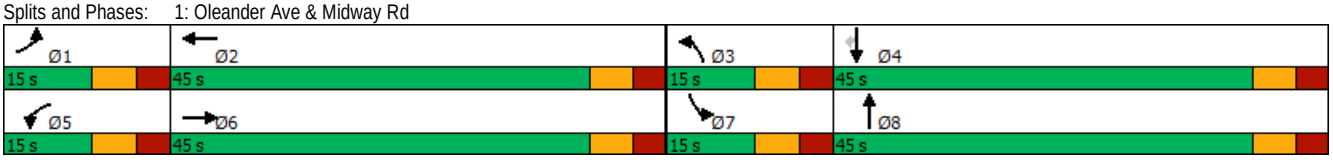
APPENDIX I
Synchro Outputs

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	369	98	26	338	42	110	142	57	54	134	53
Future Volume (vph)	98	369	98	26	338	42	110	142	57	54	134	53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	5%	5%	7%	7%	7%	6%	6%	6%	5%	5%	5%
Adj. Flow (vph)	105	397	105	28	363	45	118	153	61	58	144	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	502	0	28	408	0	118	214	0	58	144	57
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases												4
Detector Phase	1	6		5	2		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	8.0	10.0		8.0	10.0		8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	15.0	17.5		15.0	17.5		15.0	15.0		15.0	15.0	15.0
Total Split (s)	15.0	45.0		15.0	45.0		15.0	45.0		15.0	45.0	45.0
Total Split (%)	12.5%	37.5%		12.5%	37.5%		12.5%	37.5%		12.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.58	0.41		0.16	0.53		0.34	0.44		0.16	0.43	0.14
Control Delay	50.6	21.0		38.2	27.9		38.0	27.8		36.4	32.5	0.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	50.6	21.0		38.2	27.9		38.0	27.8		36.4	32.5	0.7
Queue Length 50th (ft)	48	76		12	87		26	84		12	59	0
Queue Length 95th (ft)	#142	172		42	143		61	171		35	124	0
Internal Link Dist (ft)		1626			1766			1811			2560	
Turn Bay Length (ft)	400			300			275			200		200
Base Capacity (vph)	182	1696		179	1679		351	874		354	913	857
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.58	0.30		0.16	0.24		0.34	0.24		0.16	0.16	0.07

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 76.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Oleander Ave & Midway Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	369	98	26	338	42	110	142	57	54	134	53
Future Volume (veh/h)	98	369	98	26	338	42	110	142	57	54	134	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1796	1796	1796	1811	1811	1811	1826	1826	1826
Adj Flow Rate, veh/h	105	397	105	28	363	45	118	153	61	58	144	57
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	7	7	7	6	6	6	5	5	5
Cap, veh/h	183	714	187	84	630	78	366	212	84	271	261	221
Arrive On Green	0.11	0.26	0.26	0.05	0.21	0.21	0.11	0.17	0.17	0.08	0.14	0.14
Sat Flow, veh/h	1739	2720	712	1711	3058	376	3346	1232	491	3374	1826	1547
Grp Volume(v), veh/h	105	252	250	28	201	207	118	0	214	58	144	57
Grp Sat Flow(s),veh/h/ln	1739	1735	1698	1711	1706	1728	1673	0	1723	1687	1826	1547
Q Serve(g_s), s	3.7	8.0	8.2	1.0	6.8	6.9	2.1	0.0	7.5	1.0	4.7	2.1
Cycle Q Clear(g_c), s	3.7	8.0	8.2	1.0	6.8	6.9	2.1	0.0	7.5	1.0	4.7	2.1
Prop In Lane	1.00		0.42	1.00		0.22	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	183	455	446	84	352	356	366	0	296	271	261	221
V/C Ratio(X)	0.57	0.55	0.56	0.33	0.57	0.58	0.32	0.00	0.72	0.21	0.55	0.26
Avail Cap(c_a), veh/h	217	1027	1005	213	1010	1023	417	0	1020	420	1081	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	20.4	20.5	29.5	22.9	23.0	26.4	0.0	25.1	27.6	25.6	24.5
Incr Delay (d2), s/veh	2.8	1.8	1.9	2.3	2.5	2.6	0.5	0.0	4.0	0.4	2.2	0.7
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	1.6	3.2	3.3	0.5	2.8	2.9	0.8	0.0	3.2	0.4	2.1	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	22.2	22.4	31.8	25.5	25.5	26.9	0.0	29.1	28.0	27.8	25.2
LnGrp LOS	C	C	C	C	C	C	C	A	C	C	C	C
Approach Vol, veh/h		607			436			332			259	
Approach Delay, s/veh		23.6			25.9			28.3			27.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	20.2	14.0	16.2	10.1	23.8	12.2	18.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	38.0	8.0	38.0	8.0	38.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	5.7	8.9	4.1	6.7	3.0	10.2	3.0	9.5
Green Ext Time (p_c), s	0.0	4.3	0.1	1.2	0.0	5.4	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	65	32	19	81	53	9	251	32	53	193	7
Future Volume (vph)	6	65	32	19	81	53	9	251	32	53	193	7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	5%	5%	7%	7%	7%	7%	7%	7%	6%	6%	6%
Adj. Flow (vph)	7	71	35	21	89	58	10	276	35	58	212	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	0	168	0	0	321	0	0	278	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	65	32	19	81	53	9	251	32	53	193	7
Future Vol, veh/h	6	65	32	19	81	53	9	251	32	53	193	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	5	5	7	7	7	7	7	7	6	6	6
Mvmt Flow	7	71	35	21	89	58	10	276	35	58	212	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	719	663	216	699	650	294	220	0	0	311	0	0
Stage 1	332	332	-	314	314	-	-	-	-	-	-	-
Stage 2	387	331	-	385	336	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.17	6.57	6.27	4.17	-	-	4.16	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.563	4.063	3.363	2.263	-	-	2.254	-	-
Pot Cap-1 Maneuver	340	378	816	348	382	734	1320	-	-	1227	-	-
Stage 1	675	639	-	686	647	-	-	-	-	-	-	-
Stage 2	631	640	-	628	633	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	241	354	816	268	358	734	1320	-	-	1227	-	-
Mov Cap-2 Maneuver	241	354	-	268	358	-	-	-	-	-	-	-
Stage 1	669	604	-	680	641	-	-	-	-	-	-	-
Stage 2	496	634	-	501	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.9	19.5	0.2	1.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1320	-	-	416	414	1227	-	-
HCM Lane V/C Ratio	0.007	-	-	0.272	0.406	0.047	-	-
HCM Control Delay (s)	7.7	0	-	16.9	19.5	8.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.1	1.9	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	5	80	1	1	5	62	281	4	7	253	64
Future Volume (vph)	67	5	80	1	1	5	62	281	4	7	253	64
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	5%	5%	14%	14%	14%	7%	7%	7%	8%	8%	8%
Adj. Flow (vph)	74	5	88	1	1	5	68	309	4	8	278	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	167	0	0	7	0	0	381	0	0	356	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	67	5	80	1	1	5	62	281	4	7	253	64
Future Vol, veh/h	67	5	80	1	1	5	62	281	4	7	253	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	5	5	14	14	14	7	7	7	8	8	8
Mvmt Flow	74	5	88	1	1	5	68	309	4	8	278	70

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	779	778	313	823	811	311	348	0	0	313	0	0
Stage 1	329	329	-	447	447	-	-	-	-	-	-	-
Stage 2	450	449	-	376	364	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.24	6.64	6.34	4.17	-	-	4.18	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.24	5.64	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.24	5.64	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.626	4.126	3.426	2.263	-	-	2.272	-	-
Pot Cap-1 Maneuver	310	324	720	279	300	702	1184	-	-	1214	-	-
Stage 1	678	641	-	568	554	-	-	-	-	-	-	-
Stage 2	583	567	-	622	603	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	289	299	720	227	277	702	1184	-	-	1214	-	-
Mov Cap-2 Maneuver	289	299	-	227	277	-	-	-	-	-	-	-
Stage 1	631	636	-	528	515	-	-	-	-	-	-	-
Stage 2	537	527	-	537	598	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19	12.9	1.5	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1184	-	-	423	462	1214	-	-
HCM Lane V/C Ratio	0.058	-	-	0.395	0.017	0.006	-	-
HCM Control Delay (s)	8.2	0	-	19	12.9	8	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.9	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	36	1	31	1	289	64	33	290	8
Future Volume (vph)	1	1	1	36	1	31	1	289	64	33	290	8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	33%	33%	33%	12%	12%	12%	5%	5%	5%	8%	8%	8%
Adj. Flow (vph)	1	1	1	41	1	35	1	328	73	38	330	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	77	0	0	402	0	0	377	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	36	1	31	1	289	64	33	290	8
Future Vol, veh/h	1	1	1	36	1	31	1	289	64	33	290	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	33	33	33	12	12	12	5	5	5	8	8	8
Mvmt Flow	1	1	1	41	1	35	1	328	73	38	330	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	796	814	335	779	782	365	339	0	0	401	0	0
Stage 1	411	411	-	367	367	-	-	-	-	-	-	-
Stage 2	385	403	-	412	415	-	-	-	-	-	-	-
Critical Hdwy	7.43	6.83	6.53	7.22	6.62	6.32	4.15	-	-	4.18	-	-
Critical Hdwy Stg 1	6.43	5.83	-	6.22	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.43	5.83	-	6.22	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.797	4.297	3.597	3.608	4.108	3.408	2.245	-	-	2.272	-	-
Pot Cap-1 Maneuver	271	280	641	301	314	658	1204	-	-	1126	-	-
Stage 1	561	545	-	633	605	-	-	-	-	-	-	-
Stage 2	580	550	-	598	576	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	247	268	641	290	300	658	1204	-	-	1126	-	-
Mov Cap-2 Maneuver	247	268	-	290	300	-	-	-	-	-	-	-
Stage 1	560	522	-	632	604	-	-	-	-	-	-	-
Stage 2	547	549	-	571	552	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	16.5	0	0.8
HCM LOS	C	C		

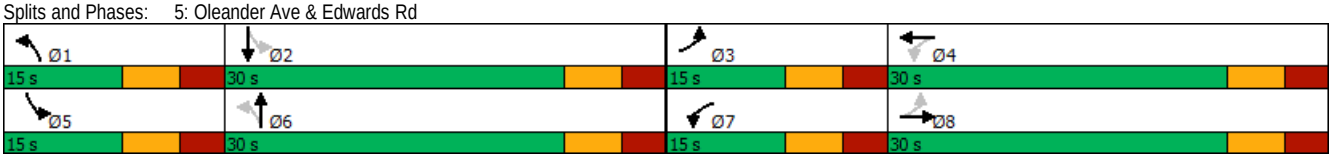
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1204	-	-	321	389	1126	-	-
HCM Lane V/C Ratio	0.001	-	-	0.011	0.199	0.033	-	-
HCM Control Delay (s)	8	0	-	16.3	16.5	8.3	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.7	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	321	187	26	210	28	148	195	47	39	175	59
Future Volume (vph)	49	321	187	26	210	28	148	195	47	39	175	59
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	8%	8%	8%	5%	5%	5%
Adj. Flow (vph)	52	341	199	28	223	30	157	207	50	41	186	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	540	0	28	253	0	157	257	0	41	249	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	3	8		7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		8.0	10.0		8.0	10.0	
Minimum Split (s)	13.0	17.0		13.0	17.0		15.0	17.0		15.0	17.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	16.7%	33.3%		16.7%	33.3%		16.7%	33.3%		16.7%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
v/c Ratio	0.13	0.55		0.09	0.32		0.37	0.50		0.09	0.57	
Control Delay	16.2	19.8		16.0	24.0		17.9	27.1		14.9	30.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.2	19.8		16.0	24.0		17.9	27.1		14.9	30.0	
Queue Length 50th (ft)	14	66		8	48		40	96		10	90	
Queue Length 95th (ft)	39	161		25	90		98	201		33	190	
Internal Link Dist (ft)		2737			3439			4912			1451	
Turn Bay Length (ft)	295			350			150					
Base Capacity (vph)	408	1353		339	1280		419	700		447	697	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.40		0.08	0.20		0.37	0.37		0.09	0.36	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 66
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Oleander Ave & Edwards Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	321	187	26	210	28	148	195	47	39	175	59
Future Volume (veh/h)	49	321	187	26	210	28	148	195	47	39	175	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1752	1752	1752	1781	1781	1781	1826	1826	1826
Adj Flow Rate, veh/h	52	341	0	28	223	0	157	207	50	41	186	63
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	7	7	7	10	10	10	8	8	8	5	5	5
Cap, veh/h	337	638		276	554		384	338	82	356	243	82
Arrive On Green	0.06	0.19	0.00	0.04	0.17	0.00	0.12	0.24	0.24	0.07	0.19	0.19
Sat Flow, veh/h	1711	3503	0	1668	3416	0	1697	1386	335	1739	1305	442
Grp Volume(v), veh/h	52	341	0	28	223	0	157	0	257	41	0	249
Grp Sat Flow(s),veh/h/ln	1711	1706	0	1668	1664	0	1697	0	1721	1739	0	1746
Q Serve(g_s), s	1.5	5.4	0.0	0.8	3.6	0.0	4.2	0.0	8.0	1.1	0.0	8.1
Cycle Q Clear(g_c), s	1.5	5.4	0.0	0.8	3.6	0.0	4.2	0.0	8.0	1.1	0.0	8.1
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.19	1.00		0.25
Lane Grp Cap(c), veh/h	337	638		276	554		384	0	420	356	0	326
V/C Ratio(X)	0.15	0.53		0.10	0.40		0.41	0.00	0.61	0.12	0.00	0.76
Avail Cap(c_a), veh/h	466	1306		436	1273		401	0	659	473	0	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	22.1	0.0	19.5	22.4	0.0	16.4	0.0	20.2	17.4	0.0	23.2
Incr Delay (d2), s/veh	0.2	1.0	0.0	0.2	0.7	0.0	0.7	0.0	1.4	0.1	0.0	3.7
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	0.5	2.1	0.0	0.3	1.3	0.0	1.5	0.0	3.0	0.4	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	23.1	0.0	19.7	23.1	0.0	17.1	0.0	21.6	17.5	0.0	26.9
LnGrp LOS	B	C		B	C		B	A	C	B	A	C
Approach Vol, veh/h		393	A		251	A		414			290	
Approach Delay, s/veh		22.5			22.7			19.9			25.6	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	18.2	10.5	17.0	11.0	21.7	9.2	18.2
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	23.0	8.0	23.0	8.0	23.0	8.0	23.0
Max Q Clear Time (g_c+I1), s	6.2	10.1	3.5	5.6	3.1	10.0	2.8	7.4
Green Ext Time (p_c), s	0.1	1.1	0.0	1.6	0.0	1.1	0.0	2.5

Intersection Summary		
HCM 6th Ctrl Delay		22.4
HCM 6th LOS		C

Notes

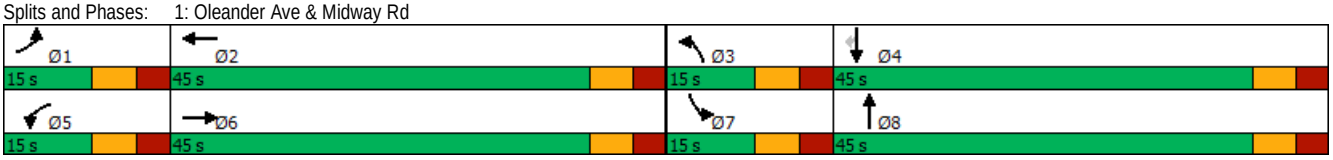
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

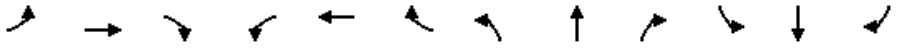
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	526	67	48	420	97	107	127	53	93	138	77
Future Volume (vph)	96	526	67	48	420	97	107	127	53	93	138	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	100	548	70	50	438	101	111	132	55	97	144	80
Shared Lane Traffic (%)												
Lane Group Flow (vph)	100	618	0	50	539	0	111	187	0	97	144	80
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases												4
Detector Phase	1	6		5	2		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	8.0	10.0		8.0	10.0		8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	15.0	17.5		15.0	17.5		15.0	15.0		15.0	15.0	15.0
Total Split (s)	15.0	45.0		15.0	45.0		15.0	45.0		15.0	45.0	45.0
Total Split (%)	12.5%	37.5%		12.5%	37.5%		12.5%	37.5%		12.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.53	0.46		0.27	0.54		0.30	0.56		0.26	0.43	0.19
Control Delay	49.7	22.6		41.6	25.5		39.6	35.2		39.2	35.1	1.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	49.7	22.6		41.6	25.5		39.6	35.2		39.2	35.1	1.0
Queue Length 50th (ft)	49	138		24	115		27	79		23	66	0
Queue Length 95th (ft)	#137	212		66	180		60	158		54	132	0
Internal Link Dist (ft)		1626			1766			1811			2560	
Turn Bay Length (ft)	400			300			275			200		200
Base Capacity (vph)	190	1783		188	1752		369	918		369	952	889
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.53	0.35		0.27	0.31		0.30	0.20		0.26	0.15	0.09

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 77.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Oleander Ave & Midway Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	526	67	48	420	97	107	127	53	93	138	77
Future Volume (veh/h)	96	526	67	48	420	97	107	127	53	93	138	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	548	70	50	438	101	111	132	55	97	144	80
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	2	2	2
Cap, veh/h	176	880	112	126	713	163	353	185	77	338	268	227
Arrive On Green	0.10	0.28	0.28	0.07	0.25	0.25	0.10	0.15	0.15	0.10	0.14	0.14
Sat Flow, veh/h	1781	3171	404	1767	2849	652	3456	1254	522	3456	1870	1585
Grp Volume(v), veh/h	100	306	312	50	270	269	111	0	187	97	144	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1798	1767	1763	1738	1728	0	1776	1728	1870	1585
Q Serve(g_s), s	3.7	10.4	10.5	1.9	9.4	9.5	2.1	0.0	6.9	1.8	4.9	3.1
Cycle Q Clear(g_c), s	3.7	10.4	10.5	1.9	9.4	9.5	2.1	0.0	6.9	1.8	4.9	3.1
Prop In Lane	1.00		0.22	1.00		0.38	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	176	493	499	126	441	435	353	0	262	338	268	227
V/C Ratio(X)	0.57	0.62	0.62	0.40	0.61	0.62	0.31	0.00	0.71	0.29	0.54	0.35
Avail Cap(c_a), veh/h	206	978	989	205	970	956	400	0	977	400	1029	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	21.8	21.8	30.6	22.9	23.0	28.8	0.0	28.0	28.9	27.4	26.7
Incr Delay (d2), s/veh	2.9	2.2	2.2	2.0	2.3	2.5	0.5	0.0	4.3	0.5	2.0	1.1
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	1.7	4.4	4.4	0.8	3.9	4.0	0.8	0.0	3.1	0.7	2.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	24.0	24.0	32.6	25.3	25.4	29.3	0.0	32.3	29.4	29.4	27.8
LnGrp LOS	C	C	C	C	C	C	C	A	C	C	C	C
Approach Vol, veh/h		718			589			298			321	
Approach Delay, s/veh		25.2			26.0			31.2			29.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	24.3	14.0	16.9	11.9	26.2	13.8	17.2
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	38.0	8.0	38.0	8.0	38.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	5.7	11.5	4.1	6.9	3.9	12.5	3.8	8.9
Green Ext Time (p_c), s	0.0	5.8	0.1	1.3	0.0	6.6	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	63	23	19	60	43	14	291	28	74	250	8
Future Volume (vph)	6	63	23	19	60	43	14	291	28	74	250	8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	6	66	24	20	63	45	15	303	29	77	260	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	128	0	0	347	0	0	345	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

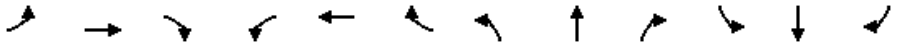
Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	63	23	19	60	43	14	291	28	74	250	8
Future Vol, veh/h	6	63	23	19	60	43	14	291	28	74	250	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	6	66	24	20	63	45	15	303	29	77	260	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	820	780	264	811	770	318	268	0	0	332	0	0
Stage 1	418	418	-	348	348	-	-	-	-	-	-	-
Stage 2	402	362	-	463	422	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	293	326	772	298	331	723	1284	-	-	1227	-	-
Stage 1	610	589	-	668	634	-	-	-	-	-	-	-
Stage 2	623	623	-	579	588	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	216	298	772	224	302	723	1284	-	-	1227	-	-
Mov Cap-2 Maneuver	216	298	-	224	302	-	-	-	-	-	-	-
Stage 1	601	545	-	659	625	-	-	-	-	-	-	-
Stage 2	519	614	-	457	544	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.6	20.6	0.3	1.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1284	-	-	342	356	1227	-	-
HCM Lane V/C Ratio	0.011	-	-	0.28	0.357	0.063	-	-
HCM Control Delay (s)	7.8	0	-	19.6	20.6	8.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.1	1.6	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	2	78	1	4	6	72	328	0	2	287	108
Future Volume (vph)	68	2	78	1	4	6	72	328	0	2	287	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	27%	27%	27%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	74	2	85	1	4	7	78	357	0	2	312	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	12	0	0	435	0	0	431	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	68	2	78	1	4	6	72	328	0	2	287	108
Future Vol, veh/h	68	2	78	1	4	6	72	328	0	2	287	108
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	27	27	27	4	4	4	4	4	4
Mvmt Flow	74	2	85	1	4	7	78	357	0	2	312	117

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	894	888	371	931	946	357	429	0	0	357	0	0
Stage 1	375	375	-	513	513	-	-	-	-	-	-	-
Stage 2	519	513	-	418	433	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.37	6.77	6.47	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.37	5.77	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.37	5.77	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.743	4.243	3.543	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	259	280	668	223	238	634	1120	-	-	1191	-	-
Stage 1	640	612	-	501	497	-	-	-	-	-	-	-
Stage 2	534	531	-	566	541	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	235	255	668	180	217	634	1120	-	-	1191	-	-
Mov Cap-2 Maneuver	235	255	-	180	217	-	-	-	-	-	-	-
Stage 1	584	611	-	457	454	-	-	-	-	-	-	-
Stage 2	478	485	-	491	540	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23	16.4	1.5	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1120	-	-	358	329	1191	-	-
HCM Lane V/C Ratio	0.07	-	-	0.449	0.036	0.002	-	-
HCM Control Delay (s)	8.5	0	-	23	16.4	8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	2.2	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	62	0	41	0	367	35	19	339	0
Future Volume (vph)	0	0	0	62	0	41	0	367	35	19	339	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	10%	10%	10%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	0	0	0	67	0	45	0	399	38	21	368	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	112	0	0	437	0	0	389	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	62	0	41	0	367	35	19	339	0
Future Vol, veh/h	0	0	0	62	0	41	0	367	35	19	339	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	10	10	10	5	5	5	4	4	4
Mvmt Flow	0	0	0	67	0	45	0	399	38	21	368	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	851	847	368	828	828	418	368	0	0	437	0	0
Stage 1	410	410	-	418	418	-	-	-	-	-	-	-
Stage 2	441	437	-	410	410	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.2	6.6	6.3	4.15	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.59	4.09	3.39	2.245	-	-	2.236	-	-
Pot Cap-1 Maneuver	280	299	677	281	298	618	1174	-	-	1112	-	-
Stage 1	619	595	-	597	577	-	-	-	-	-	-	-
Stage 2	595	579	-	603	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	255	292	677	276	291	618	1174	-	-	1112	-	-
Mov Cap-2 Maneuver	255	292	-	276	291	-	-	-	-	-	-	-
Stage 1	619	581	-	597	577	-	-	-	-	-	-	-
Stage 2	552	579	-	589	568	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	19.8	0	0.4
HCM LOS	A	C		

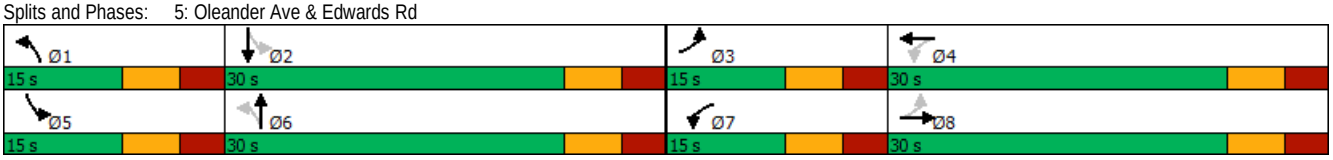
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1174	-	-	-	354	1112	-	-
HCM Lane V/C Ratio	-	-	-	-	0.316	0.019	-	-
HCM Control Delay (s)	0	-	-	0	19.8	8.3	0	-
HCM Lane LOS	A	-	-	A	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	1.3	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	301	211	31	339	37	173	288	40	52	200	76
Future Volume (vph)	93	301	211	31	339	37	173	288	40	52	200	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	98	317	222	33	357	39	182	303	42	55	211	80
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	539	0	33	396	0	182	345	0	55	291	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	3	8		7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		8.0	10.0		8.0	10.0	
Minimum Split (s)	13.0	17.0		13.0	17.0		15.0	17.0		15.0	17.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	16.7%	33.3%		16.7%	33.3%		16.7%	33.3%		16.7%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
v/c Ratio	0.28	0.50		0.11	0.54		0.46	0.55		0.13	0.67	
Control Delay	18.5	17.0		16.7	29.7		19.8	29.0		15.3	33.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.5	17.0		16.7	29.7		19.8	29.0		15.3	33.8	
Queue Length 50th (ft)	31	61		10	91		54	153		15	118	
Queue Length 95th (ft)	65	141		28	140		111	#293		41	221	
Internal Link Dist (ft)		2737			3439			4912			1451	
Turn Bay Length (ft)	295			350			150					
Base Capacity (vph)	356	1268		336	1124		398	640		416	591	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.28	0.43		0.10	0.35		0.46	0.54		0.13	0.49	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 74.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Oleander Ave & Edwards Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	301	211	31	339	37	173	288	40	52	200	76
Future Volume (veh/h)	93	301	211	31	339	37	173	288	40	52	200	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	317	0	33	357	0	182	303	42	55	211	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	2	2	2
Cap, veh/h	318	701		312	581		378	396	55	324	265	100
Arrive On Green	0.08	0.20	0.00	0.04	0.16	0.00	0.12	0.25	0.25	0.08	0.20	0.20
Sat Flow, veh/h	1753	3589	0	1767	3618	0	1781	1607	223	1781	1292	490
Grp Volume(v), veh/h	98	317	0	33	357	0	182	0	345	55	0	291
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1767	1763	0	1781	0	1830	1781	0	1782
Q Serve(g_s), s	2.9	5.1	0.0	1.0	6.1	0.0	5.0	0.0	11.3	1.5	0.0	10.0
Cycle Q Clear(g_c), s	2.9	5.1	0.0	1.0	6.1	0.0	5.0	0.0	11.3	1.5	0.0	10.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.12	1.00		0.27
Lane Grp Cap(c), veh/h	318	701		312	581		378	0	451	324	0	365
V/C Ratio(X)	0.31	0.45		0.11	0.61		0.48	0.00	0.76	0.17	0.00	0.80
Avail Cap(c_a), veh/h	400	1247		458	1257		387	0	653	406	0	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.0	22.7	0.0	20.8	25.0	0.0	17.3	0.0	22.6	17.7	0.0	24.4
Incr Delay (d2), s/veh	0.5	0.7	0.0	0.1	1.5	0.0	1.0	0.0	3.3	0.2	0.0	4.0
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	1.1	2.0	0.0	0.4	2.5	0.0	1.9	0.0	4.8	0.6	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	23.3	0.0	20.9	26.5	0.0	18.3	0.0	25.9	18.0	0.0	28.4
LnGrp LOS	C	C		C	C		B	A	C	B	A	C
Approach Vol, veh/h		415	A		390	A		527			346	
Approach Delay, s/veh		22.7			26.1			23.2			26.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	20.2	12.0	17.6	12.0	22.9	9.7	19.9
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	23.0	8.0	23.0	8.0	23.0	8.0	23.0
Max Q Clear Time (g_c+I1), s	7.0	12.0	4.9	8.1	3.5	13.3	3.0	7.1
Green Ext Time (p_c), s	0.1	1.2	0.1	2.6	0.0	1.4	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

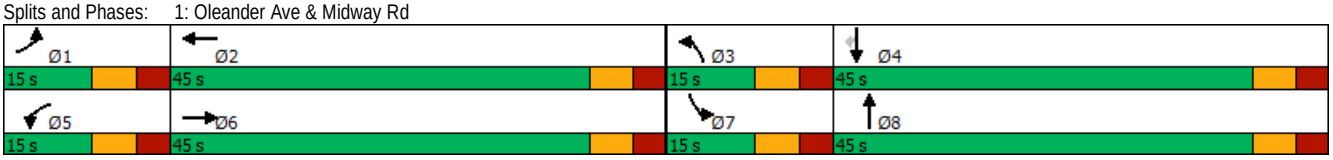
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

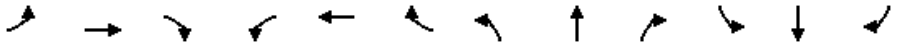
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	398	106	28	365	45	119	153	62	58	145	57
Future Volume (vph)	106	398	106	28	365	45	119	153	62	58	145	57
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	5%	5%	7%	7%	7%	6%	6%	6%	5%	5%	5%
Adj. Flow (vph)	114	428	114	30	392	48	128	165	67	62	156	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	542	0	30	440	0	128	232	0	62	156	61
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases												4
Detector Phase	1	6		5	2		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	8.0	10.0		8.0	10.0		8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	15.0	17.5		15.0	17.5		15.0	15.0		15.0	15.0	15.0
Total Split (s)	15.0	45.0		15.0	45.0		15.0	45.0		15.0	45.0	45.0
Total Split (%)	12.5%	37.5%		12.5%	37.5%		12.5%	37.5%		12.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.65	0.44		0.18	0.54		0.38	0.54		0.18	0.44	0.14
Control Delay	57.7	21.7		40.6	28.6		40.7	32.2		38.7	33.0	0.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	57.7	21.7		40.6	28.6		40.7	32.2		38.7	33.0	0.7
Queue Length 50th (ft)	54	86		14	97		30	95		14	66	0
Queue Length 95th (ft)	#167	192		47	158		70	192		39	138	0
Internal Link Dist (ft)		1626			1766			1811			2560	
Turn Bay Length (ft)	400			300			275			200		200
Base Capacity (vph)	175	1626		171	1613		336	839		339	876	829
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.65	0.33		0.18	0.27		0.38	0.28		0.18	0.18	0.07

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 80.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Oleander Ave & Midway Rd





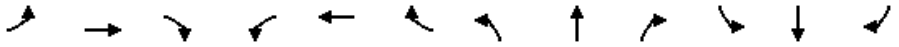
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	398	106	28	365	45	119	153	62	58	145	57
Future Volume (veh/h)	106	398	106	28	365	45	119	153	62	58	145	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1796	1796	1796	1811	1811	1811	1826	1826	1826
Adj Flow Rate, veh/h	114	428	114	30	392	48	128	165	67	62	156	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	7	7	7	6	6	6	5	5	5
Cap, veh/h	182	730	193	87	659	80	362	222	90	275	283	240
Arrive On Green	0.10	0.27	0.27	0.05	0.22	0.22	0.11	0.18	0.18	0.08	0.16	0.16
Sat Flow, veh/h	1739	2715	717	1711	3063	373	3346	1224	497	3374	1826	1547
Grp Volume(v), veh/h	114	272	270	30	217	223	128	0	232	62	156	61
Grp Sat Flow(s),veh/h/ln	1739	1735	1697	1711	1706	1729	1673	0	1722	1687	1826	1547
Q Serve(g_s), s	4.2	9.1	9.3	1.1	7.7	7.8	2.4	0.0	8.6	1.2	5.3	2.3
Cycle Q Clear(g_c), s	4.2	9.1	9.3	1.1	7.7	7.8	2.4	0.0	8.6	1.2	5.3	2.3
Prop In Lane	1.00		0.42	1.00		0.22	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	182	466	456	87	367	372	362	0	313	275	283	240
V/C Ratio(X)	0.62	0.58	0.59	0.34	0.59	0.60	0.35	0.00	0.74	0.23	0.55	0.25
Avail Cap(c_a), veh/h	207	981	960	204	965	978	399	0	974	402	1033	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	21.3	21.3	30.8	23.7	23.8	27.8	0.0	26.0	28.9	26.2	25.0
Incr Delay (d2), s/veh	4.7	2.0	2.1	2.3	2.6	2.6	0.6	0.0	4.2	0.4	2.0	0.7
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	1.9	3.7	3.7	0.5	3.2	3.3	0.9	0.0	3.6	0.5	2.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	23.3	23.4	33.1	26.3	26.4	28.4	0.0	30.2	29.3	28.2	25.6
LnGrp LOS	C	C	C	C	C	C	C	A	C	C	C	C
Approach Vol, veh/h		656			470			360			279	
Approach Delay, s/veh		25.1			26.8			29.5			27.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	21.4	14.3	17.4	10.4	25.1	12.5	19.2
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	38.0	8.0	38.0	8.0	38.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	6.2	9.8	4.4	7.3	3.1	11.3	3.2	10.6
Green Ext Time (p_c), s	0.0	4.7	0.1	1.3	0.0	5.9	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	70	35	21	87	57	10	271	35	57	208	8
Future Volume (vph)	6	70	35	21	87	57	10	271	35	57	208	8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	5%	5%	7%	7%	7%	7%	7%	7%	6%	6%	6%
Adj. Flow (vph)	7	77	38	23	96	63	11	298	38	63	229	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	0	182	0	0	347	0	0	301	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

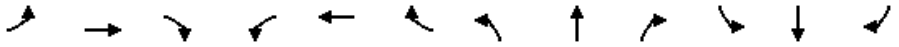
Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	70	35	21	87	57	10	271	35	57	208	8
Future Vol, veh/h	6	70	35	21	87	57	10	271	35	57	208	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	5	5	7	7	7	7	7	7	6	6	6
Mvmt Flow	7	77	38	23	96	63	11	298	38	63	229	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	779	718	234	756	703	317	238	0	0	336	0	0
Stage 1	360	360	-	339	339	-	-	-	-	-	-	-
Stage 2	419	358	-	417	364	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.17	6.57	6.27	4.17	-	-	4.16	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.563	4.063	3.363	2.263	-	-	2.254	-	-
Pot Cap-1 Maneuver	310	351	798	318	356	712	1300	-	-	1201	-	-
Stage 1	652	621	-	665	631	-	-	-	-	-	-	-
Stage 2	606	622	-	603	615	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	209	327	798	235	331	712	1300	-	-	1201	-	-
Mov Cap-2 Maneuver	209	327	-	235	331	-	-	-	-	-	-	-
Stage 1	645	584	-	658	625	-	-	-	-	-	-	-
Stage 2	463	616	-	468	578	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.5	22.7	0.2	1.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1300	-	-	387	382	1201	-	-
HCM Lane V/C Ratio	0.008	-	-	0.315	0.475	0.052	-	-
HCM Control Delay (s)	7.8	0	-	18.5	22.7	8.2	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.3	2.5	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	2	86	1	1	5	67	303	4	8	273	69
Future Volume (vph)	72	2	86	1	1	5	67	303	4	8	273	69
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	5%	5%	14%	14%	14%	7%	7%	7%	8%	8%	8%
Adj. Flow (vph)	79	2	95	1	1	5	74	333	4	9	300	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	176	0	0	7	0	0	411	0	0	385	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	72	2	86	1	1	5	67	303	4	8	273	69
Future Vol, veh/h	72	2	86	1	1	5	67	303	4	8	273	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	5	5	14	14	14	7	7	7	8	8	8
Mvmt Flow	79	2	95	1	1	5	74	333	4	9	300	76

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	842	841	338	888	877	335	376	0	0	337	0	0
Stage 1	356	356	-	483	483	-	-	-	-	-	-	-
Stage 2	486	485	-	405	394	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.24	6.64	6.34	4.17	-	-	4.18	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.24	5.64	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.24	5.64	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.626	4.126	3.426	2.263	-	-	2.272	-	-
Pot Cap-1 Maneuver	281	298	697	252	274	680	1156	-	-	1189	-	-
Stage 1	655	624	-	543	533	-	-	-	-	-	-	-
Stage 2	557	547	-	599	585	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	259	272	697	202	250	680	1156	-	-	1189	-	-
Mov Cap-2 Maneuver	259	272	-	202	250	-	-	-	-	-	-	-
Stage 1	603	618	-	500	491	-	-	-	-	-	-	-
Stage 2	508	504	-	511	579	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.5	13.5	1.5	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1156	-	-	391	429	1189	-	-
HCM Lane V/C Ratio	0.064	-	-	0.45	0.018	0.007	-	-
HCM Control Delay (s)	8.3	0	-	21.5	13.5	8.1	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	2.3	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	39	1	33	1	312	69	36	313	9
Future Volume (vph)	1	1	1	39	1	33	1	312	69	36	313	9
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	33%	33%	33%	12%	12%	12%	5%	5%	5%	8%	8%	8%
Adj. Flow (vph)	1	1	1	44	1	38	1	355	78	41	356	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	83	0	0	434	0	0	407	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	39	1	33	1	312	69	36	313	9
Future Vol, veh/h	1	1	1	39	1	33	1	312	69	36	313	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	33	33	33	12	12	12	5	5	5	8	8	8
Mvmt Flow	1	1	1	44	1	38	1	355	78	41	356	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	859	878	361	840	844	394	366	0	0	433	0	0
Stage 1	443	443	-	396	396	-	-	-	-	-	-	-
Stage 2	416	435	-	444	448	-	-	-	-	-	-	-
Critical Hdwy	7.43	6.83	6.53	7.22	6.62	6.32	4.15	-	-	4.18	-	-
Critical Hdwy Stg 1	6.43	5.83	-	6.22	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.43	5.83	-	6.22	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.797	4.297	3.597	3.608	4.108	3.408	2.245	-	-	2.272	-	-
Pot Cap-1 Maneuver	245	256	619	274	289	634	1176	-	-	1095	-	-
Stage 1	538	526	-	610	587	-	-	-	-	-	-	-
Stage 2	557	531	-	574	556	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	221	244	619	262	275	634	1176	-	-	1095	-	-
Mov Cap-2 Maneuver	221	244	-	262	275	-	-	-	-	-	-	-
Stage 1	537	501	-	609	586	-	-	-	-	-	-	-
Stage 2	523	530	-	545	530	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.4	18.1	0	0.8
HCM LOS	C	C		

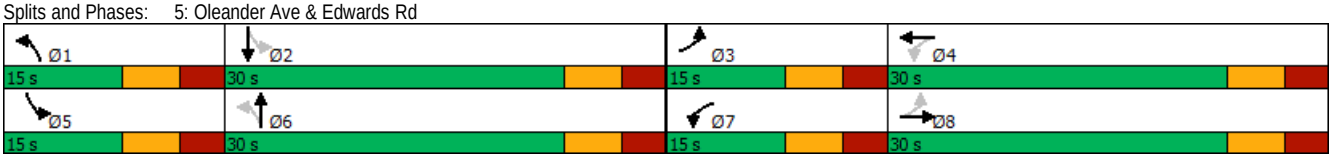
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1176	-	-	293	357	1095	-	-
HCM Lane V/C Ratio	0.001	-	-	0.012	0.232	0.037	-	-
HCM Control Delay (s)	8.1	0	-	17.4	18.1	8.4	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.9	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	350	204	28	229	30	161	213	51	42	191	65
Future Volume (vph)	53	350	204	28	229	30	161	213	51	42	191	65
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	8%	8%	8%	5%	5%	5%
Adj. Flow (vph)	56	372	217	30	244	32	171	227	54	45	203	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	56	589	0	30	276	0	171	281	0	45	272	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	3	8		7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		8.0	10.0		8.0	10.0	
Minimum Split (s)	13.0	17.0		13.0	17.0		15.0	17.0		15.0	17.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	16.7%	33.3%		16.7%	33.3%		16.7%	33.3%		16.7%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
v/c Ratio	0.15	0.62		0.11	0.37		0.42	0.47		0.10	0.65	
Control Delay	16.7	22.1		16.5	25.1		18.9	26.5		15.0	32.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.7	22.1		16.5	25.1		18.9	26.5		15.0	32.9	
Queue Length 50th (ft)	16	78		8	55		45	109		11	102	
Queue Length 95th (ft)	42	181		26	98		106	221		35	209	
Internal Link Dist (ft)		2737			3439			4912			1451	
Turn Bay Length (ft)	295			350			150					
Base Capacity (vph)	378	1202		293	1116		403	637		452	609	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.49		0.10	0.25		0.42	0.44		0.10	0.45	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 70.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Oleander Ave & Edwards Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	350	204	28	229	30	161	213	51	42	191	65
Future Volume (veh/h)	53	350	204	28	229	30	161	213	51	42	191	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1752	1752	1752	1781	1781	1781	1826	1826	1826
Adj Flow Rate, veh/h	56	372	0	30	244	0	171	227	54	45	203	69
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	7	7	7	10	10	10	8	8	8	5	5	5
Cap, veh/h	325	626		261	541		380	351	84	353	260	88
Arrive On Green	0.06	0.18	0.00	0.04	0.16	0.00	0.12	0.25	0.25	0.07	0.20	0.20
Sat Flow, veh/h	1711	3503	0	1668	3416	0	1697	1391	331	1739	1303	443
Grp Volume(v), veh/h	56	372	0	30	244	0	171	0	281	45	0	272
Grp Sat Flow(s),veh/h/ln	1711	1706	0	1668	1664	0	1697	0	1722	1739	0	1746
Q Serve(g_s), s	1.6	6.1	0.0	0.9	4.1	0.0	4.7	0.0	9.0	1.2	0.0	9.1
Cycle Q Clear(g_c), s	1.6	6.1	0.0	0.9	4.1	0.0	4.7	0.0	9.0	1.2	0.0	9.1
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.19	1.00		0.25
Lane Grp Cap(c), veh/h	325	626		261	541		380	0	435	353	0	348
V/C Ratio(X)	0.17	0.59		0.11	0.45		0.45	0.00	0.65	0.13	0.00	0.78
Avail Cap(c_a), veh/h	445	1276		413	1244		392	0	644	458	0	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	23.0	0.0	20.2	23.3	0.0	16.5	0.0	20.5	17.2	0.0	23.4
Incr Delay (d2), s/veh	0.2	1.3	0.0	0.2	0.8	0.0	0.8	0.0	1.6	0.2	0.0	3.9
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	0.6	2.4	0.0	0.3	1.5	0.0	1.7	0.0	3.4	0.4	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	24.3	0.0	20.4	24.1	0.0	17.4	0.0	22.2	17.3	0.0	27.2
LnGrp LOS	B	C		C	C		B	A	C	B	A	C
Approach Vol, veh/h		428	A		274	A		452			317	
Approach Delay, s/veh		23.7			23.7			20.3			25.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	19.3	10.7	17.0	11.3	22.5	9.4	18.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	23.0	8.0	23.0	8.0	23.0	8.0	23.0
Max Q Clear Time (g_c+I1), s	6.7	11.1	3.6	6.1	3.2	11.0	2.9	8.1
Green Ext Time (p_c), s	0.1	1.2	0.0	1.8	0.0	1.2	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

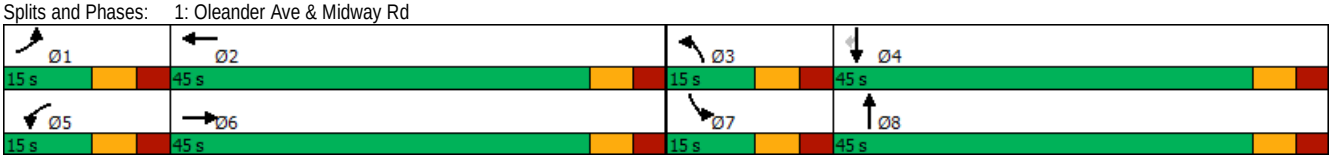
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

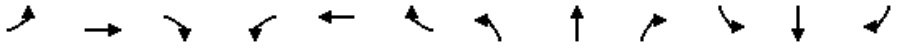
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	568	72	52	454	105	116	137	57	100	149	83
Future Volume (vph)	104	568	72	52	454	105	116	137	57	100	149	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	108	592	75	54	473	109	121	143	59	104	155	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	667	0	54	582	0	121	202	0	104	155	86
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases												4
Detector Phase	1	6		5	2		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	8.0	10.0		8.0	10.0		8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	15.0	17.5		15.0	17.5		15.0	15.0		15.0	15.0	15.0
Total Split (s)	15.0	45.0		15.0	45.0		15.0	45.0		15.0	45.0	45.0
Total Split (%)	12.5%	37.5%		12.5%	37.5%		12.5%	37.5%		12.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.63	0.57		0.32	0.58		0.36	0.50		0.31	0.48	0.21
Control Delay	57.8	26.3		45.0	26.8		42.2	33.9		41.6	37.2	1.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	57.8	26.3		45.0	26.8		42.2	33.9		41.6	37.2	1.1
Queue Length 50th (ft)	55	155		27	129		30	89		26	74	0
Queue Length 95th (ft)	#160	235		73	199		68	177		60	145	0
Internal Link Dist (ft)		1626			1766			1811			2560	
Turn Bay Length (ft)	400			300			275			200		200
Base Capacity (vph)	172	1612		170	1585		333	832		333	859	819
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.63	0.41		0.32	0.37		0.36	0.24		0.31	0.18	0.11

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 83.8
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Oleander Ave & Midway Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	568	72	52	454	105	116	137	57	100	149	83
Future Volume (veh/h)	104	568	72	52	454	105	116	137	57	100	149	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	592	75	54	473	109	121	143	59	104	155	86
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	2	2	2
Cap, veh/h	174	917	116	129	753	172	348	195	80	334	283	240
Arrive On Green	0.10	0.29	0.29	0.07	0.26	0.26	0.10	0.16	0.16	0.10	0.15	0.15
Sat Flow, veh/h	1781	3174	401	1767	2849	652	3456	1258	519	3456	1870	1585
Grp Volume(v), veh/h	108	331	336	54	292	290	121	0	202	104	155	86
Grp Sat Flow(s),veh/h/ln	1781	1777	1798	1767	1763	1738	1728	0	1777	1728	1870	1585
Q Serve(g_s), s	4.2	11.8	11.9	2.1	10.6	10.7	2.4	0.0	7.9	2.0	5.6	3.5
Cycle Q Clear(g_c), s	4.2	11.8	11.9	2.1	10.6	10.7	2.4	0.0	7.9	2.0	5.6	3.5
Prop In Lane	1.00		0.22	1.00		0.38	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	174	513	520	129	466	459	348	0	276	334	283	240
V/C Ratio(X)	0.62	0.64	0.65	0.42	0.63	0.63	0.35	0.00	0.73	0.31	0.55	0.36
Avail Cap(c_a), veh/h	196	931	942	195	924	911	381	0	931	381	980	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	22.5	22.5	32.1	23.5	23.6	30.4	0.0	29.2	30.5	28.5	27.6
Incr Delay (d2), s/veh	4.8	2.3	2.3	2.1	2.4	2.5	0.6	0.0	4.5	0.5	2.0	1.1
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	2.0	5.0	5.1	1.0	4.5	4.5	1.0	0.0	3.5	0.8	2.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.2	24.9	24.9	34.3	25.9	26.0	31.0	0.0	33.7	31.0	30.5	28.7
LnGrp LOS	D	C	C	C	C	C	C	A	C	C	C	C
Approach Vol, veh/h		775			636			323			345	
Approach Delay, s/veh		26.4			26.7			32.7			30.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	26.2	14.3	18.0	12.3	28.0	14.0	18.2
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	38.0	8.0	38.0	8.0	38.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	6.2	12.7	4.4	7.6	4.1	13.9	4.0	9.9
Green Ext Time (p_c), s	0.0	6.2	0.1	1.4	0.0	7.1	0.1	1.4

Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	68	25	21	65	46	15	314	30	80	270	9
Future Volume (vph)	6	68	25	21	65	46	15	314	30	80	270	9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	6	71	26	22	68	48	16	327	31	83	281	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	0	0	138	0	0	374	0	0	373	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	68	25	21	65	46	15	314	30	80	270	9
Future Vol, veh/h	6	68	25	21	65	46	15	314	30	80	270	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	6	71	26	22	68	48	16	327	31	83	281	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	885	842	286	875	831	343	290	0	0	358	0	0
Stage 1	452	452	-	375	375	-	-	-	-	-	-	-
Stage 2	433	390	-	500	456	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	265	300	751	270	305	700	1260	-	-	1201	-	-
Stage 1	585	569	-	646	617	-	-	-	-	-	-	-
Stage 2	599	606	-	553	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	186	271	751	193	275	700	1260	-	-	1201	-	-
Mov Cap-2 Maneuver	186	271	-	193	275	-	-	-	-	-	-	-
Stage 1	576	522	-	636	607	-	-	-	-	-	-	-
Stage 2	488	596	-	423	521	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.1	24.4	0.3	1.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1260	-	-	313	321	1201	-	-
HCM Lane V/C Ratio	0.012	-	-	0.329	0.428	0.069	-	-
HCM Control Delay (s)	7.9	0	-	22.1	24.4	8.2	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.4	2.1	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	2	85	1	4	6	79	357	0	2	313	118
Future Volume (vph)	75	2	85	1	4	6	79	357	0	2	313	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	27%	27%	27%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	82	2	92	1	4	7	86	388	0	2	340	128
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	176	0	0	12	0	0	474	0	0	470	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	75	2	85	1	4	6	79	357	0	2	313	118
Future Vol, veh/h	75	2	85	1	4	6	79	357	0	2	313	118
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	27	27	27	4	4	4	4	4	4
Mvmt Flow	82	2	92	1	4	7	86	388	0	2	340	128

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	974	968	404	1015	1032	388	468	0	0	388	0	0
Stage 1	408	408	-	560	560	-	-	-	-	-	-	-
Stage 2	566	560	-	455	472	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.37	6.77	6.47	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.37	5.77	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.37	5.77	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.743	4.243	3.543	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	228	251	640	195	211	609	1083	-	-	1160	-	-
Stage 1	614	592	-	471	472	-	-	-	-	-	-	-
Stage 2	504	506	-	540	519	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	204	225	640	153	189	609	1083	-	-	1160	-	-
Mov Cap-2 Maneuver	204	225	-	153	189	-	-	-	-	-	-	-
Stage 1	552	591	-	423	424	-	-	-	-	-	-	-
Stage 2	444	455	-	459	518	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.5	17.8	1.6	0
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1083	-	-	318	293	1160	-	-
HCM Lane V/C Ratio	0.079	-	-	0.554	0.041	0.002	-	-
HCM Control Delay (s)	8.6	0	-	29.5	17.8	8.1	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	3.2	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	67	0	44	0	396	38	21	366	0
Future Volume (vph)	0	0	0	67	0	44	0	396	38	21	366	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	10%	10%	10%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	0	0	0	73	0	48	0	430	41	23	398	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	121	0	0	471	0	0	421	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	67	0	44	0	396	38	21	366	0
Future Vol, veh/h	0	0	0	67	0	44	0	396	38	21	366	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	10	10	10	5	5	5	4	4	4
Mvmt Flow	0	0	0	73	0	48	0	430	41	23	398	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	919	915	398	895	895	451	398	0	0	471	0	0
Stage 1	444	444	-	451	451	-	-	-	-	-	-	-
Stage 2	475	471	-	444	444	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.2	6.6	6.3	4.15	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.59	4.09	3.39	2.245	-	-	2.236	-	-
Pot Cap-1 Maneuver	252	273	652	253	272	592	1144	-	-	1080	-	-
Stage 1	593	575	-	573	558	-	-	-	-	-	-	-
Stage 2	570	560	-	578	562	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	266	652	248	265	592	1144	-	-	1080	-	-
Mov Cap-2 Maneuver	227	266	-	248	265	-	-	-	-	-	-	-
Stage 1	593	559	-	573	558	-	-	-	-	-	-	-
Stage 2	524	560	-	562	547	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	22.7	0	0.5
HCM LOS	A	C		

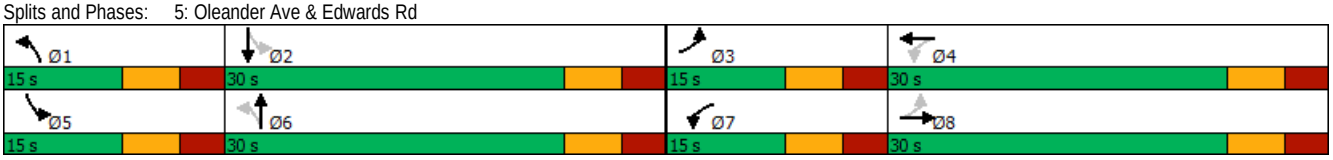
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1144	-	-	-	322	1080	-	-
HCM Lane V/C Ratio	-	-	-	-	0.375	0.021	-	-
HCM Control Delay (s)	0	-	-	0	22.7	8.4	0	-
HCM Lane LOS	A	-	-	A	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	1.7	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	325	228	33	366	40	187	311	43	56	216	82
Future Volume (vph)	100	325	228	33	366	40	187	311	43	56	216	82
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	105	342	240	35	385	42	197	327	45	59	227	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	582	0	35	427	0	197	372	0	59	313	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	3	8		7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		8.0	10.0		8.0	10.0	
Minimum Split (s)	13.0	17.0		13.0	17.0		15.0	17.0		15.0	17.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	16.7%	33.3%		16.7%	33.3%		16.7%	33.3%		16.7%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
v/c Ratio	0.32	0.58		0.12	0.56		0.51	0.59		0.15	0.71	
Control Delay	19.1	20.2		17.0	30.2		21.7	30.6		15.8	36.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.1	20.2		17.0	30.2		21.7	30.6		15.8	36.0	
Queue Length 50th (ft)	35	97		11	103		62	175		17	135	
Queue Length 95th (ft)	69	156		29	151		120	#332		43	240	
Internal Link Dist (ft)		2737			3439			4912			1451	
Turn Bay Length (ft)	295			350			150					
Base Capacity (vph)	343	1206		310	1103		385	633		398	580	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.31	0.48		0.11	0.39		0.51	0.59		0.15	0.54	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 76.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Oleander Ave & Edwards Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	325	228	33	366	40	187	311	43	56	216	82
Future Volume (veh/h)	100	325	228	33	366	40	187	311	43	56	216	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	342	0	35	385	0	197	327	45	59	227	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	2	2	2
Cap, veh/h	312	721		307	607		367	406	56	312	279	106
Arrive On Green	0.08	0.21	0.00	0.04	0.17	0.00	0.12	0.25	0.25	0.08	0.22	0.22
Sat Flow, veh/h	1753	3589	0	1767	3618	0	1781	1609	221	1781	1293	490
Grp Volume(v), veh/h	105	342	0	35	385	0	197	0	372	59	0	313
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1767	1763	0	1781	0	1831	1781	0	1782
Q Serve(g_s), s	3.2	5.8	0.0	1.1	6.8	0.0	5.6	0.0	12.7	1.6	0.0	11.2
Cycle Q Clear(g_c), s	3.2	5.8	0.0	1.1	6.8	0.0	5.6	0.0	12.7	1.6	0.0	11.2
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.12	1.00		0.27
Lane Grp Cap(c), veh/h	312	721		307	607		367	0	462	312	0	384
V/C Ratio(X)	0.34	0.47		0.11	0.63		0.54	0.00	0.80	0.19	0.00	0.81
Avail Cap(c_a), veh/h	387	1203		443	1213		372	0	630	383	0	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	23.3	0.0	21.1	25.7	0.0	17.9	0.0	23.4	18.0	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.7	0.0	0.2	1.6	0.0	1.5	0.0	5.4	0.3	0.0	4.5
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	1.3	2.3	0.0	0.4	2.8	0.0	2.2	0.0	5.7	0.6	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	24.0	0.0	21.3	27.3	0.0	19.4	0.0	28.9	18.3	0.0	29.5
LnGrp LOS	C	C		C	C		B	A	C	B	A	C
Approach Vol, veh/h		447	A		420	A		569			372	
Approach Delay, s/veh		23.3			26.8			25.6			27.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	21.4	12.1	18.5	12.3	23.9	9.9	20.8
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	23.0	8.0	23.0	8.0	23.0	8.0	23.0
Max Q Clear Time (g_c+I1), s	7.6	13.2	5.2	8.8	3.6	14.7	3.1	7.8
Green Ext Time (p_c), s	0.0	1.2	0.1	2.7	0.0	1.4	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

Notes

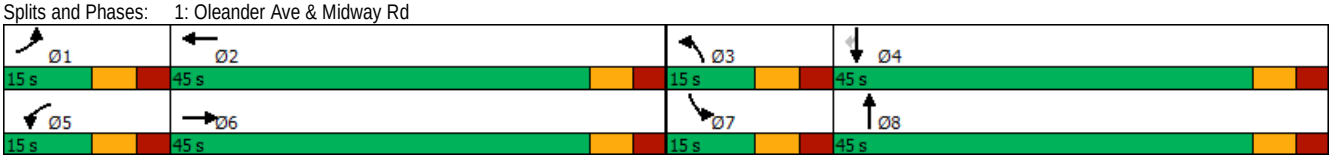
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	398	106	28	365	45	119	154	62	58	148	63
Future Volume (vph)	108	398	106	28	365	45	119	154	62	58	148	63
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	5%	5%	7%	7%	7%	6%	6%	6%	5%	5%	5%
Adj. Flow (vph)	116	428	114	30	392	48	128	166	67	62	159	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	542	0	30	440	0	128	233	0	62	159	68
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases												4
Detector Phase	1	6		5	2		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	8.0	10.0		8.0	10.0		8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	15.0	17.5		15.0	17.5		15.0	15.0		15.0	15.0	15.0
Total Split (s)	15.0	45.0		15.0	45.0		15.0	45.0		15.0	45.0	45.0
Total Split (%)	12.5%	37.5%		12.5%	37.5%		12.5%	37.5%		12.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.66	0.44		0.18	0.54		0.38	0.54		0.18	0.44	0.16
Control Delay	58.5	21.8		40.7	28.7		40.8	32.2		38.8	33.1	0.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	58.5	21.8		40.7	28.7		40.8	32.2		38.8	33.1	0.8
Queue Length 50th (ft)	55	87		14	97		30	95		14	67	0
Queue Length 95th (ft)	#171	192		47	158		70	193		39	141	0
Internal Link Dist (ft)		1626			1766			1811			2560	
Turn Bay Length (ft)	400			300			275			200		200
Base Capacity (vph)	175	1624		171	1611		336	838		339	875	828
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.66	0.33		0.18	0.27		0.38	0.28		0.18	0.18	0.08

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 80.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Oleander Ave & Midway Rd





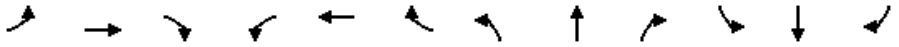
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	398	106	28	365	45	119	154	62	58	148	63
Future Volume (veh/h)	108	398	106	28	365	45	119	154	62	58	148	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1796	1796	1796	1811	1811	1811	1826	1826	1826
Adj Flow Rate, veh/h	116	428	114	30	392	48	128	166	67	62	159	68
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	7	7	7	6	6	6	5	5	5
Cap, veh/h	183	731	193	87	658	80	361	223	90	275	284	241
Arrive On Green	0.11	0.27	0.27	0.05	0.21	0.21	0.11	0.18	0.18	0.08	0.16	0.16
Sat Flow, veh/h	1739	2715	717	1711	3063	373	3346	1227	495	3374	1826	1547
Grp Volume(v), veh/h	116	272	270	30	217	223	128	0	233	62	159	68
Grp Sat Flow(s),veh/h/ln	1739	1735	1697	1711	1706	1729	1673	0	1722	1687	1826	1547
Q Serve(g_s), s	4.3	9.1	9.3	1.1	7.7	7.8	2.4	0.0	8.6	1.2	5.4	2.6
Cycle Q Clear(g_c), s	4.3	9.1	9.3	1.1	7.7	7.8	2.4	0.0	8.6	1.2	5.4	2.6
Prop In Lane	1.00		0.42	1.00		0.22	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	183	467	457	87	367	372	361	0	314	275	284	241
V/C Ratio(X)	0.63	0.58	0.59	0.34	0.59	0.60	0.35	0.00	0.74	0.23	0.56	0.28
Avail Cap(c_a), veh/h	207	980	958	203	964	977	398	0	972	401	1031	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	21.3	21.4	30.8	23.8	23.8	27.8	0.0	26.0	28.9	26.3	25.1
Incr Delay (d2), s/veh	5.1	2.0	2.1	2.3	2.6	2.6	0.6	0.0	4.2	0.4	2.1	0.8
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	2.0	3.7	3.7	0.5	3.2	3.3	0.9	0.0	3.6	0.5	2.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	23.3	23.5	33.2	26.4	26.4	28.4	0.0	30.2	29.3	28.3	25.9
LnGrp LOS	C	C	C	C	C	C	C	A	C	C	C	C
Approach Vol, veh/h		658			470			361			289	
Approach Delay, s/veh		25.2			26.8			29.6			28.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	21.5	14.3	17.5	10.4	25.1	12.5	19.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	38.0	8.0	38.0	8.0	38.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	6.3	9.8	4.4	7.4	3.1	11.3	3.2	10.6
Green Ext Time (p_c), s	0.0	4.7	0.1	1.3	0.0	5.9	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	70	35	21	87	59	10	274	35	63	217	8
Future Volume (vph)	6	70	35	21	87	59	10	274	35	63	217	8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	5%	5%	7%	7%	7%	7%	7%	7%	6%	6%	6%
Adj. Flow (vph)	7	77	38	23	96	65	11	301	38	69	238	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	0	184	0	0	350	0	0	316	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	70	35	21	87	59	10	274	35	63	217	8
Future Vol, veh/h	6	70	35	21	87	59	10	274	35	63	217	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	5	5	7	7	7	7	7	7	6	6	6
Mvmt Flow	7	77	38	23	96	65	11	301	38	69	238	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	804	742	243	780	727	320	247	0	0	339	0	0
Stage 1	381	381	-	342	342	-	-	-	-	-	-	-
Stage 2	423	361	-	438	385	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.17	6.57	6.27	4.17	-	-	4.16	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.563	4.063	3.363	2.263	-	-	2.254	-	-
Pot Cap-1 Maneuver	298	340	788	307	345	709	1290	-	-	1198	-	-
Stage 1	635	608	-	663	629	-	-	-	-	-	-	-
Stage 2	603	621	-	588	602	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	196	314	788	223	318	709	1290	-	-	1198	-	-
Mov Cap-2 Maneuver	196	314	-	223	318	-	-	-	-	-	-	-
Stage 1	628	567	-	656	622	-	-	-	-	-	-	-
Stage 2	459	614	-	451	562	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.3	23.9	0.2	1.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1290	-	-	373	370	1198	-	-
HCM Lane V/C Ratio	0.009	-	-	0.327	0.496	0.058	-	-
HCM Control Delay (s)	7.8	0	-	19.3	23.9	8.2	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.4	2.7	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	2	87	1	1	5	69	323	4	8	280	69
Future Volume (vph)	72	2	87	1	1	5	69	323	4	8	280	69
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	5%	5%	14%	14%	14%	7%	7%	7%	8%	8%	8%
Adj. Flow (vph)	79	2	96	1	1	5	76	355	4	9	308	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	177	0	0	7	0	0	435	0	0	393	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

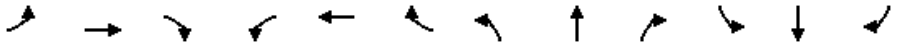
Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	72	2	87	1	1	5	69	323	4	8	280	69
Future Vol, veh/h	72	2	87	1	1	5	69	323	4	8	280	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	5	5	14	14	14	7	7	7	8	8	8
Mvmt Flow	79	2	96	1	1	5	76	355	4	9	308	76

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	876	875	346	922	911	357	384	0	0	359	0	0
Stage 1	364	364	-	509	509	-	-	-	-	-	-	-
Stage 2	512	511	-	413	402	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.24	6.64	6.34	4.17	-	-	4.18	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.24	5.64	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.24	5.64	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.626	4.126	3.426	2.263	-	-	2.272	-	-
Pot Cap-1 Maneuver	266	285	690	239	262	661	1148	-	-	1167	-	-
Stage 1	649	619	-	525	519	-	-	-	-	-	-	-
Stage 2	539	532	-	593	580	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	244	259	690	190	238	661	1148	-	-	1167	-	-
Mov Cap-2 Maneuver	244	259	-	190	238	-	-	-	-	-	-	-
Stage 1	595	613	-	481	476	-	-	-	-	-	-	-
Stage 2	489	488	-	504	574	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.9	13.9	1.5	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1148	-	-	375	411	1167	-	-
HCM Lane V/C Ratio	0.066	-	-	0.472	0.019	0.008	-	-
HCM Control Delay (s)	8.4	0	-	22.9	13.9	8.1	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	2.4	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	40	1	33	1	329	72	36	319	9
Future Volume (vph)	1	1	1	40	1	33	1	329	72	36	319	9
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	33%	33%	33%	12%	12%	12%	5%	5%	5%	8%	8%	8%
Adj. Flow (vph)	1	1	1	45	1	38	1	374	82	41	363	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	84	0	0	457	0	0	414	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	40	1	33	1	329	72	36	319	9
Future Vol, veh/h	1	1	1	40	1	33	1	329	72	36	319	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	33	33	33	12	12	12	5	5	5	8	8	8
Mvmt Flow	1	1	1	45	1	38	1	374	82	41	363	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	887	908	368	868	872	415	373	0	0	456	0	0
Stage 1	450	450	-	417	417	-	-	-	-	-	-	-
Stage 2	437	458	-	451	455	-	-	-	-	-	-	-
Critical Hdwy	7.43	6.83	6.53	7.22	6.62	6.32	4.15	-	-	4.18	-	-
Critical Hdwy Stg 1	6.43	5.83	-	6.22	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.43	5.83	-	6.22	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.797	4.297	3.597	3.608	4.108	3.408	2.245	-	-	2.272	-	-
Pot Cap-1 Maneuver	234	245	614	262	278	616	1169	-	-	1074	-	-
Stage 1	533	522	-	594	574	-	-	-	-	-	-	-
Stage 2	542	518	-	569	552	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	211	233	614	251	264	616	1169	-	-	1074	-	-
Mov Cap-2 Maneuver	211	233	-	251	264	-	-	-	-	-	-	-
Stage 1	532	497	-	593	573	-	-	-	-	-	-	-
Stage 2	507	517	-	539	526	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18	19	0	0.8
HCM LOS	C	C		

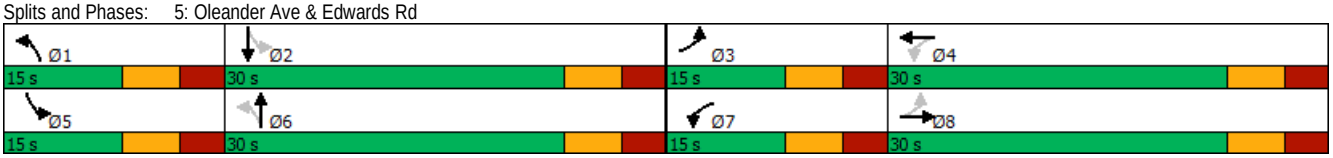
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1169	-	-	281	341	1074	-	-
HCM Lane V/C Ratio	0.001	-	-	0.012	0.247	0.038	-	-
HCM Control Delay (s)	8.1	0	-	18	19	8.5	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	1	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	350	207	28	229	30	169	222	51	42	194	65
Future Volume (vph)	53	350	207	28	229	30	169	222	51	42	194	65
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	8%	8%	8%	5%	5%	5%
Adj. Flow (vph)	56	372	220	30	244	32	180	236	54	45	206	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	56	592	0	30	276	0	180	290	0	45	275	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	3	8		7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		8.0	10.0		8.0	10.0	
Minimum Split (s)	13.0	17.0		13.0	17.0		15.0	17.0		15.0	17.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	16.7%	33.3%		16.7%	33.3%		16.7%	33.3%		16.7%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
v/c Ratio	0.15	0.62		0.11	0.37		0.45	0.48		0.10	0.65	
Control Delay	16.8	22.2		16.6	25.3		19.4	26.8		15.0	32.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.8	22.2		16.6	25.3		19.4	26.8		15.0	32.9	
Queue Length 50th (ft)	16	79		8	55		48	114		11	103	
Queue Length 95th (ft)	42	182		26	98		111	229		35	211	
Internal Link Dist (ft)		2737			3439			4912			1451	
Turn Bay Length (ft)	295			350			150					
Base Capacity (vph)	377	1200		291	1113		402	636		451	607	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.49		0.10	0.25		0.45	0.46		0.10	0.45	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 71.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Oleander Ave & Edwards Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	350	207	28	229	30	169	222	51	42	194	65
Future Volume (veh/h)	53	350	207	28	229	30	169	222	51	42	194	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1752	1752	1752	1781	1781	1781	1826	1826	1826
Adj Flow Rate, veh/h	56	372	0	30	244	0	180	236	54	45	206	69
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	7	7	7	10	10	10	8	8	8	5	5	5
Cap, veh/h	324	624		260	539		381	357	82	348	263	88
Arrive On Green	0.06	0.18	0.00	0.04	0.16	0.00	0.12	0.25	0.25	0.07	0.20	0.20
Sat Flow, veh/h	1711	3503	0	1668	3416	0	1697	1403	321	1739	1309	438
Grp Volume(v), veh/h	56	372	0	30	244	0	180	0	290	45	0	275
Grp Sat Flow(s),veh/h/ln	1711	1706	0	1668	1664	0	1697	0	1724	1739	0	1747
Q Serve(g_s), s	1.6	6.2	0.0	0.9	4.1	0.0	4.9	0.0	9.3	1.2	0.0	9.2
Cycle Q Clear(g_c), s	1.6	6.2	0.0	0.9	4.1	0.0	4.9	0.0	9.3	1.2	0.0	9.2
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.19	1.00		0.25
Lane Grp Cap(c), veh/h	324	624		260	539		381	0	439	348	0	351
V/C Ratio(X)	0.17	0.60		0.12	0.45		0.47	0.00	0.66	0.13	0.00	0.78
Avail Cap(c_a), veh/h	443	1272		411	1240		391	0	642	453	0	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	23.1	0.0	20.3	23.4	0.0	16.6	0.0	20.6	17.2	0.0	23.4
Incr Delay (d2), s/veh	0.3	1.3	0.0	0.2	0.8	0.0	0.9	0.0	1.7	0.2	0.0	3.9
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	0.6	2.4	0.0	0.3	1.5	0.0	1.8	0.0	3.6	0.4	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	24.4	0.0	20.5	24.2	0.0	17.5	0.0	22.3	17.3	0.0	27.3
LnGrp LOS	B	C		C	C		B	A	C	B	A	C
Approach Vol, veh/h		428	A		274	A		470			320	
Approach Delay, s/veh		23.8			23.8			20.5			25.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	19.4	10.7	17.0	11.3	22.7	9.4	18.3
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	23.0	8.0	23.0	8.0	23.0	8.0	23.0
Max Q Clear Time (g_c+I1), s	6.9	11.2	3.6	6.1	3.2	11.3	2.9	8.2
Green Ext Time (p_c), s	0.1	1.2	0.0	1.8	0.0	1.2	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	15	5	335	360	8
Future Volume (vph)	22	15	5	335	360	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	16	5	364	391	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	0	369	400	0
Sign Control	Stop			Free	Free	

Intersection Summary
Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	15	5	335	360	8
Future Vol, veh/h	22	15	5	335	360	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	16	5	364	391	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	770	396	400	0	-	0
Stage 1	396	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	369	653	1159	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	367	653	1159	-	-	-
Mov Cap-2 Maneuver	367	-	-	-	-	-
Stage 1	677	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0.1	0
HCM LOS	B		

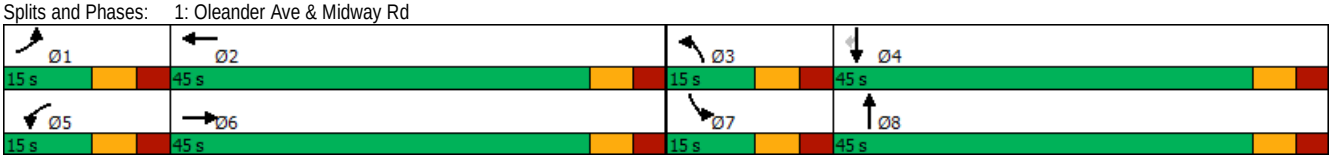
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1159	-	446	-	-
HCM Lane V/C Ratio	0.005	-	0.09	-	-
HCM Control Delay (s)	8.1	0	13.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

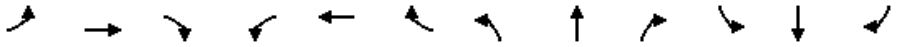
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	568	72	52	454	105	116	141	57	100	151	87
Future Volume (vph)	110	568	72	52	454	105	116	141	57	100	151	87
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	115	592	75	54	473	109	121	147	59	104	157	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	667	0	54	582	0	121	206	0	104	157	91
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases												4
Detector Phase	1	6		5	2		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	8.0	10.0		8.0	10.0		8.0	8.0		8.0	8.0	8.0
Minimum Split (s)	15.0	17.5		15.0	17.5		15.0	15.0		15.0	15.0	15.0
Total Split (s)	15.0	45.0		15.0	45.0		15.0	45.0		15.0	45.0	45.0
Total Split (%)	12.5%	37.5%		12.5%	37.5%		12.5%	37.5%		12.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min		None	Min		None	None		None	None	None
v/c Ratio	0.67	0.57		0.32	0.58		0.36	0.50		0.31	0.48	0.22
Control Delay	61.1	26.4		45.2	26.9		42.4	33.9		41.8	37.1	1.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	61.1	26.4		45.2	26.9		42.4	33.9		41.8	37.1	1.2
Queue Length 50th (ft)	59	156		27	130		31	91		26	75	0
Queue Length 95th (ft)	#174	236		73	200		68	179		60	148	2
Internal Link Dist (ft)		1626			1766			1811			2560	
Turn Bay Length (ft)	400			300			275			200		200
Base Capacity (vph)	171	1608		169	1581		332	830		332	857	817
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.67	0.41		0.32	0.37		0.36	0.25		0.31	0.18	0.11

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 84.1
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Oleander Ave & Midway Rd





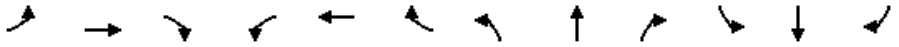
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	568	72	52	454	105	116	141	57	100	151	87
Future Volume (veh/h)	110	568	72	52	454	105	116	141	57	100	151	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	592	75	54	473	109	121	147	59	104	157	91
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	2	2	2
Cap, veh/h	177	916	116	129	747	171	347	200	80	333	287	243
Arrive On Green	0.10	0.29	0.29	0.07	0.26	0.26	0.10	0.16	0.16	0.10	0.15	0.15
Sat Flow, veh/h	1781	3174	401	1767	2849	652	3456	1269	509	3456	1870	1585
Grp Volume(v), veh/h	115	331	336	54	292	290	121	0	206	104	157	91
Grp Sat Flow(s),veh/h/ln	1781	1777	1798	1767	1763	1738	1728	0	1779	1728	1870	1585
Q Serve(g_s), s	4.5	11.9	11.9	2.1	10.6	10.8	2.4	0.0	8.0	2.0	5.6	3.8
Cycle Q Clear(g_c), s	4.5	11.9	11.9	2.1	10.6	10.8	2.4	0.0	8.0	2.0	5.6	3.8
Prop In Lane	1.00		0.22	1.00		0.38	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	177	513	519	129	463	456	347	0	280	333	287	243
V/C Ratio(X)	0.65	0.65	0.65	0.42	0.63	0.64	0.35	0.00	0.74	0.31	0.55	0.37
Avail Cap(c_a), veh/h	196	928	939	194	920	907	380	0	928	380	976	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	22.6	22.7	32.3	23.7	23.8	30.5	0.0	29.2	30.6	28.5	27.7
Incr Delay (d2), s/veh	6.5	2.3	2.3	2.2	2.4	2.5	0.6	0.0	4.5	0.5	2.0	1.1
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	2.2	5.0	5.1	1.0	4.5	4.5	1.0	0.0	3.6	0.8	2.6	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	25.0	25.0	34.4	26.2	26.3	31.1	0.0	33.7	31.2	30.4	28.8
LnGrp LOS	D	C	C	C	C	C	C	A	C	C	C	C
Approach Vol, veh/h		782			636			327			352	
Approach Delay, s/veh		26.9			26.9			32.8			30.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	26.1	14.3	18.2	12.3	28.0	14.0	18.5
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	38.0	8.0	38.0	8.0	38.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	6.5	12.8	4.4	7.6	4.1	13.9	4.0	10.0
Green Ext Time (p_c), s	0.0	6.2	0.1	1.4	0.0	7.1	0.1	1.4

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	68	25	21	65	52	15	324	30	84	276	9
Future Volume (vph)	6	68	25	21	65	52	15	324	30	84	276	9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	6	71	26	22	68	54	16	338	31	88	288	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	0	0	144	0	0	385	0	0	385	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	68	25	21	65	52	15	324	30	84	276	9
Future Vol, veh/h	6	68	25	21	65	52	15	324	30	84	276	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	2	2	2	4	4	4	2	2	2
Mvmt Flow	6	71	26	22	68	54	16	338	31	88	288	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	916	870	293	903	859	354	297	0	0	369	0	0
Stage 1	469	469	-	386	386	-	-	-	-	-	-	-
Stage 2	447	401	-	517	473	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	252	289	744	258	294	690	1253	-	-	1190	-	-
Stage 1	573	559	-	637	610	-	-	-	-	-	-	-
Stage 2	589	599	-	541	558	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	172	259	744	182	263	690	1253	-	-	1190	-	-
Mov Cap-2 Maneuver	172	259	-	182	263	-	-	-	-	-	-	-
Stage 1	564	509	-	627	600	-	-	-	-	-	-	-
Stage 2	474	589	-	409	508	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.2	25.7	0.3	1.9
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1253	-	-	299	315	1190	-	-
HCM Lane V/C Ratio	0.012	-	-	0.345	0.456	0.074	-	-
HCM Control Delay (s)	7.9	0	-	23.2	25.7	8.3	0	-
HCM Lane LOS	A	A	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.5	2.3	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	2	87	1	4	6	80	370	0	2	336	118
Future Volume (vph)	75	2	87	1	4	6	80	370	0	2	336	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	27%	27%	27%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	82	2	95	1	4	7	87	402	0	2	365	128
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	179	0	0	12	0	0	489	0	0	495	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	75	2	87	1	4	6	80	370	0	2	336	118
Future Vol, veh/h	75	2	87	1	4	6	80	370	0	2	336	118
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	27	27	27	4	4	4	4	4	4
Mvmt Flow	82	2	95	1	4	7	87	402	0	2	365	128

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1015	1009	429	1058	1073	402	493	0	0	402	0	0
Stage 1	433	433	-	576	576	-	-	-	-	-	-	-
Stage 2	582	576	-	482	497	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.37	6.77	6.47	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.37	5.77	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.37	5.77	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.743	4.243	3.543	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	214	237	620	182	199	597	1060	-	-	1146	-	-
Stage 1	595	577	-	461	464	-	-	-	-	-	-	-
Stage 2	494	497	-	521	505	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	191	211	620	141	178	597	1060	-	-	1146	-	-
Mov Cap-2 Maneuver	191	211	-	141	178	-	-	-	-	-	-	-
Stage 1	532	576	-	412	415	-	-	-	-	-	-	-
Stage 2	432	444	-	439	504	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.7	18.5	1.5	0
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1060	-	-	302	278	1146	-	-
HCM Lane V/C Ratio	0.082	-	-	0.59	0.043	0.002	-	-
HCM Control Delay (s)	8.7	0	-	32.7	18.5	8.1	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	3.5	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	71	0	44	0	407	40	21	385	0
Future Volume (vph)	0	0	0	71	0	44	0	407	40	21	385	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	10%	10%	10%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	0	0	0	77	0	48	0	442	43	23	418	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	125	0	0	485	0	0	441	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	71	0	44	0	407	40	21	385	0
Future Vol, veh/h	0	0	0	71	0	44	0	407	40	21	385	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	10	10	10	5	5	5	4	4	4
Mvmt Flow	0	0	0	77	0	48	0	442	43	23	418	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	952	949	418	928	928	464	418	0	0	485	0	0
Stage 1	464	464	-	464	464	-	-	-	-	-	-	-
Stage 2	488	485	-	464	464	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.2	6.6	6.3	4.15	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.59	4.09	3.39	2.245	-	-	2.236	-	-
Pot Cap-1 Maneuver	239	260	635	240	260	582	1125	-	-	1068	-	-
Stage 1	578	564	-	563	550	-	-	-	-	-	-	-
Stage 2	561	552	-	563	550	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	215	253	635	235	253	582	1125	-	-	1068	-	-
Mov Cap-2 Maneuver	215	253	-	235	253	-	-	-	-	-	-	-
Stage 1	578	548	-	563	550	-	-	-	-	-	-	-
Stage 2	515	552	-	547	535	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	24.9	0	0.4
HCM LOS	A	C		

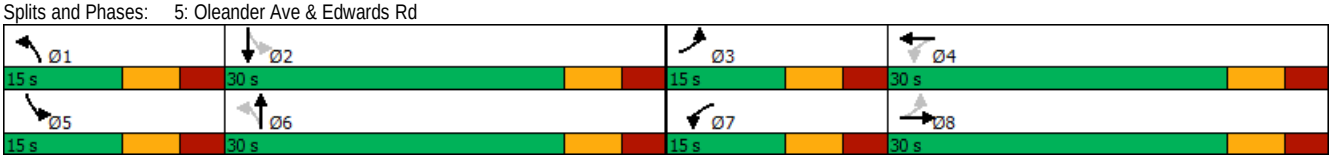
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1125	-	-	-	304	1068	-	-
HCM Lane V/C Ratio	-	-	-	-	0.411	0.021	-	-
HCM Control Delay (s)	0	-	-	0	24.9	8.4	0	-
HCM Lane LOS	A	-	-	A	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	1.9	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	325	236	33	366	40	192	317	43	56	227	82
Future Volume (vph)	100	325	236	33	366	40	192	317	43	56	227	82
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	105	342	248	35	385	42	202	334	45	59	239	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	590	0	35	427	0	202	379	0	59	325	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	3	8		7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		8.0	10.0		8.0	10.0	
Minimum Split (s)	13.0	17.0		13.0	17.0		15.0	17.0		15.0	17.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	16.7%	33.3%		16.7%	33.3%		16.7%	33.3%		16.7%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
v/c Ratio	0.32	0.59		0.13	0.56		0.54	0.60		0.15	0.73	
Control Delay	19.2	20.2		17.1	30.3		22.5	30.8		15.8	37.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.2	20.2		17.1	30.3		22.5	30.8		15.8	37.1	
Queue Length 50th (ft)	36	98		11	104		63	179		17	142	
Queue Length 95th (ft)	69	158		29	151		122	#342		43	252	
Internal Link Dist (ft)		2737			3439			4912			1451	
Turn Bay Length (ft)	295			350			150					
Base Capacity (vph)	342	1205		306	1099		376	634		394	578	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.31	0.49		0.11	0.39		0.54	0.60		0.15	0.56	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 76.5
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Oleander Ave & Edwards Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	325	236	33	366	40	192	317	43	56	227	82
Future Volume (veh/h)	100	325	236	33	366	40	192	317	43	56	227	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	342	0	35	385	0	202	334	45	59	239	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	2	2	2
Cap, veh/h	309	718		305	604		364	416	56	313	291	105
Arrive On Green	0.08	0.21	0.00	0.04	0.17	0.00	0.12	0.26	0.26	0.08	0.22	0.22
Sat Flow, veh/h	1753	3589	0	1767	3618	0	1781	1614	217	1781	1313	472
Grp Volume(v), veh/h	105	342	0	35	385	0	202	0	379	59	0	325
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1767	1763	0	1781	0	1831	1781	0	1785
Q Serve(g_s), s	3.2	5.8	0.0	1.1	6.9	0.0	5.7	0.0	13.1	1.6	0.0	11.7
Cycle Q Clear(g_c), s	3.2	5.8	0.0	1.1	6.9	0.0	5.7	0.0	13.1	1.6	0.0	11.7
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.12	1.00		0.26
Lane Grp Cap(c), veh/h	309	718		305	604		364	0	472	313	0	395
V/C Ratio(X)	0.34	0.48		0.11	0.64		0.56	0.00	0.80	0.19	0.00	0.82
Avail Cap(c_a), veh/h	383	1192		439	1201		369	0	624	382	0	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	23.6	0.0	21.4	26.0	0.0	18.0	0.0	23.4	18.0	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.7	0.0	0.2	1.6	0.0	1.8	0.0	5.6	0.3	0.0	5.3
Initial Q Delay(d3),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
%ile BackOfQ(50%),veh/ln	1.3	2.3	0.0	0.4	2.8	0.0	2.3	0.0	5.9	0.6	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	24.3	0.0	21.5	27.6	0.0	19.8	0.0	29.0	18.2	0.0	30.3
LnGrp LOS	C	C		C	C		B	A	C	B	A	C
Approach Vol, veh/h		447	A		420	A		581			384	
Approach Delay, s/veh		23.6			27.1			25.8			28.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	22.0	12.2	18.6	12.4	24.4	9.9	20.9
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	8.0	23.0	8.0	23.0	8.0	23.0	8.0	23.0
Max Q Clear Time (g_c+I1), s	7.7	13.7	5.2	8.9	3.6	15.1	3.1	7.8
Green Ext Time (p_c), s	0.0	1.3	0.1	2.7	0.0	1.4	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	14	10	16	367	400	25
Future Volume (vph)	14	10	16	367	400	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	11	17	399	435	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	0	0	416	462	0
Sign Control	Stop			Free	Free	

Intersection Summary
Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.6

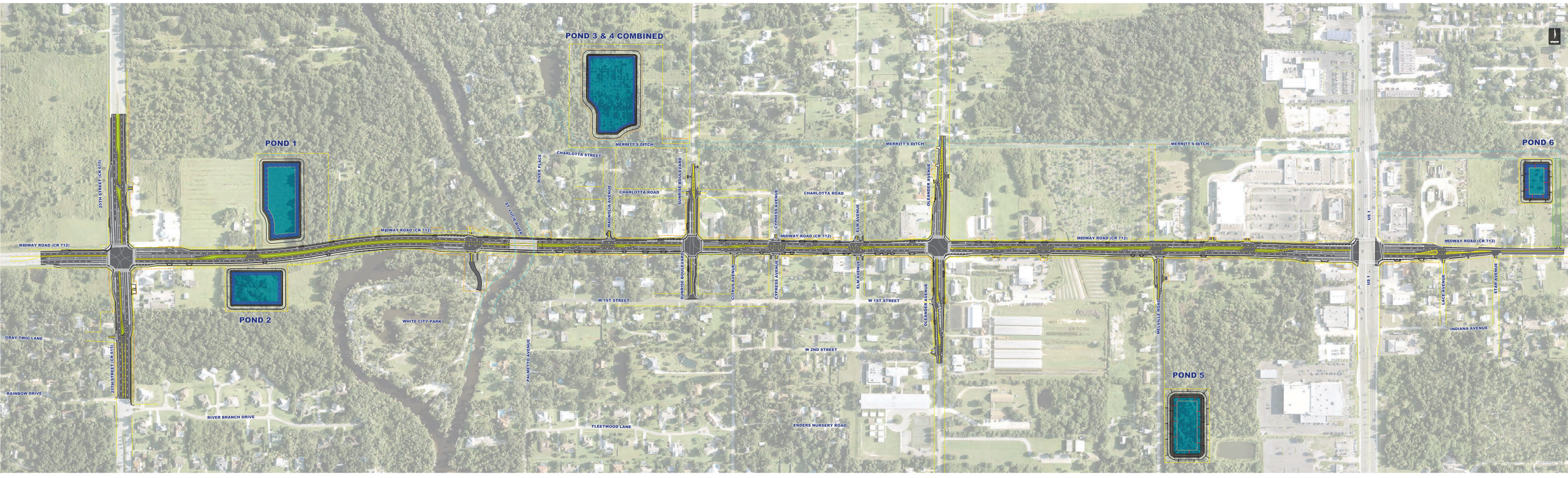
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	10	16	367	400	25
Future Vol, veh/h	14	10	16	367	400	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	11	17	399	435	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	882	449	462	0	-	0
Stage 1	449	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	317	610	1099	-	-	-
Stage 1	643	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	311	610	1099	-	-	-
Mov Cap-2 Maneuver	311	-	-	-	-	-
Stage 1	630	-	-	-	-	-
Stage 2	654	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1099	-	391	-	-
HCM Lane V/C Ratio	0.016	-	0.067	-	-
HCM Control Delay (s)	8.3	0	14.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

APPENDIX J
Midway Road Improvement Design


POND 3 & 4 COMBINED
POND 1
POND 2
POND 5
POND 6
MERRITT'S DITCH
CHARLOTTA STREET
CHARLOTTA ROAD
MIDWAY ROAD (CR 712)
25TH STREET (CR 635)
RIVER PLACE
ST LUCIE RIVER
MAGNOLIA AVENUE
SUNRISE BOULEVARD
CYPRESS AVENUE
ELM AVENUE
OLEANDER AVENUE
US 1
W 1ST STREET
W 2ND STREET
CITRUS AVENUE
PALMETTO AVENUE
MELVILLE ROAD
LACE AVENUE
STAR AVENUE
INDIANA AVENUE
WHITE CITY PARK
GRAY TWIG LANE
RAINBOW DRIVE
RIVER BRANCH DRIVE
FLEETWOOD LANE
ENDERS NURSERY ROAD

APPENDIX K
NCHRP Report 457 Outputs

Northbound Left-Turn Lane
AM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

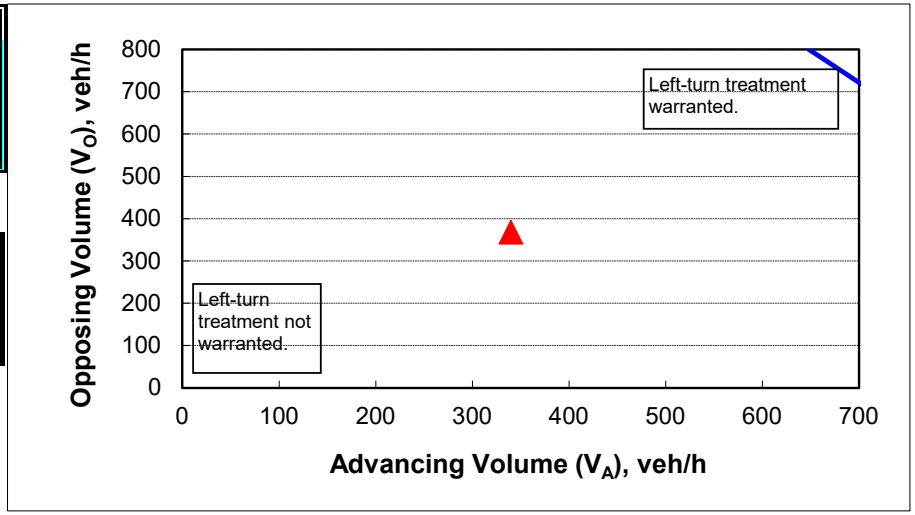
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	340
Opposing volume (V_O), veh/h:	368

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1006
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Northbound Left-Turn Lane
PM Peak Hour

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

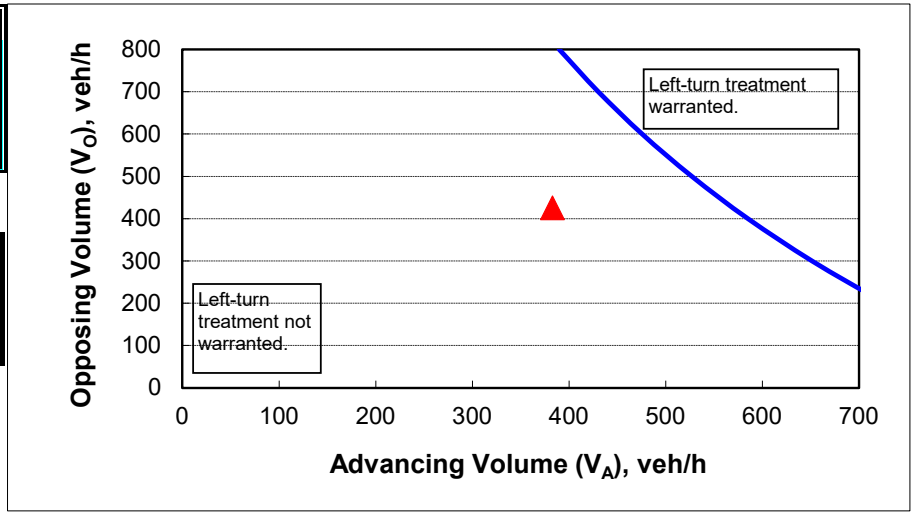
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	383
Opposing volume (V_O), veh/h:	425

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	570
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Southbound Right-Turn Lane
AM Peak Hour

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

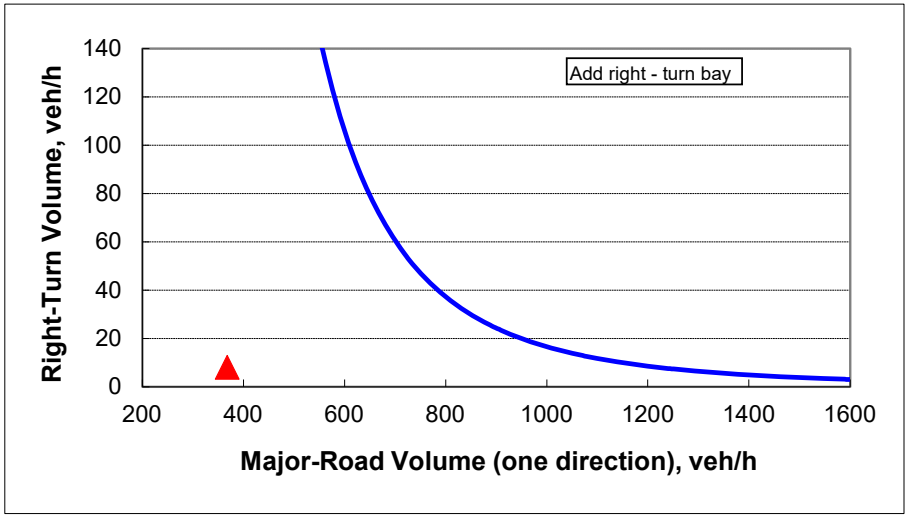
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	368
Right-turn volume, veh/h:	8

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	626
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Southbound Right-Turn Lane
PM Peak Hour

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

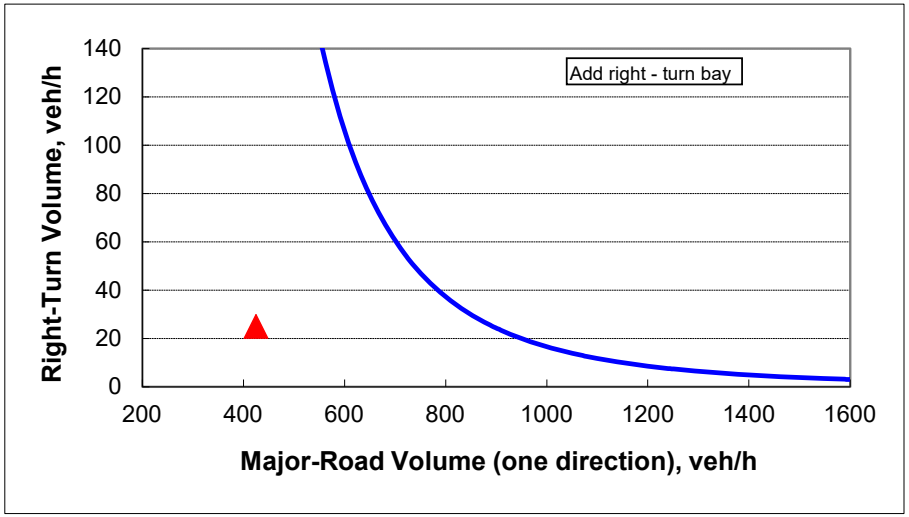
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	425
Right-turn volume, veh/h:	25

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	371
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Technical Review Committee **3. d.**

Meeting Date: 05/20/2021

REQUESTED ACTION

Site Plan – Kings Landing – 322 N. 2nd Street

LOCATION

322 N. 2nd Street
Parcel IDs:

1. 2410-503-0041-020-4
2. 2410-503-0012-010-9
3. 2410-503-0043-000-2
4. 2410-503-0020-000-5
5. 2410-503-0034-000-6
6. 2410-503-0019-000-5
7. 2410-503-0030-000-8

RESPONSIBLE STAFF

Brandon C. Creagan, MCRP, LEED Green Associate, Planner

RECOMMENDATION

Review & Provide Comments

Attachments

TRC Packet

Form Review

Form Started By: Brandon Creagan Started On: 04/30/2021 10:55 PM
Final Approval Date: 05/01/2021

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO: JACK ANDREWS, PE, CITY ENGINEER
MIKE REALS, FP PUBLIC WORKS MANAGER
CHIEF HOBLEY-BURNEY, FP POLICE DEPARTMENT
PAUL THOMAS, FP BUILDING OFFICIAL
JAMES CARNES, PE, FPUA ENGINEERING (WATER/WASTEWATER)
PAUL LAGUERRE, PE, FPUA ENGINEERING (ELECTRIC)
ROD REED, PLS, SLC SURVEYING
GRANT CHAMBERS, PE, SLC ENGINEERING
LESLIE OLSON, AICP, SLC PLANNING & DEVELOPMENT DIRECTOR
DIVISION CHIEF PAUL LANGEL, SLC FIRE DISTRICT
PEGGY ARRAIZ, FP CODE ENFORCEMENT
PETER BUCHWALD, AICP, SLC TRANSPORTATION PLANNING ORGANIZATION
MURRIAH DECKLE, AICP, SLC TRANSIT SERVICES

FROM: BRANDON CREAGAN, LEED GREEN ASSOCIATE, PLANNER

RE: TECHNICAL REVIEW PROJECT# 21-07000006

DATE: APRIL30, 2021

Development Review & Design Review – Kings Landing – 322 N 2nd Street

This is an application for a Development Review & Design Review for a mixed use development in Downtown Fort Pierce that will consist of residential, commercial, restaurants, and a hotel. The combined property size is approximately 7.82 acres. The parcel IDs are 2410-503-0041-020-4, 2410-503-0012-010-9, 2410-503-0043-000-2, 2410-503-0020-000-5, 2410-503-0034-000-6, 2410-503-0019-000-5, & 2410-503-0030-000-8.

Please review and provide comments on the project. Please send all comments to my email Bcreagan@cityoffortpierce.com or through interoffice mail to the Planning Department. If you have comments, please respond by May 18, 2021.

Please do not hesitate to contact me should you require any additional information at 772-467-3742.

Thank you.

Brandon Creagan

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

DEVELOPMENT REVIEW

Property address or Location 322 N. 2nd Street

Parcel ID #(s) 2410-503-0041-020-4, 2410-503-0012-010-9, 2410-503-0043-000-2, 2410-503-0020-000-5, 2410-503-0034-000-6, 2410-503-0019-000-5, 2410-503-0030-000-8

Project description Proposed Mixed Use development with associated site improvements

Fort Pierce Redevelopment Agency	Brad Currie, Vice President, Engineering Design & Const., Inc.
Property Owner(s)	**Applicant/Representative, Title, Company**
100 North US 1	10250 SW Village Parkway, Suite 201
Street Address	Street Address
Fort Pierce FL 34950	Port St. Lucie FL 34987
City State Zip	City State Zip
	772-462-2455
Phone Number	Phone Number
	bradcurrie@edc-inc.com
Email Address	Email Address

Property Owner(s) Acknowledgements: - This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 14 day of April, 20 21, by Nick Mimms who is personally known to me or has produced _____ as identification.

Sara A. Delgado
Signature of Notary (seal)

Sara A. Delgado
Notary Public
State of Florida
Comm# HH054871
Expires 10/19/2024

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____ Fees_____ Control #_____ B. Permit #_____
Intake Planner_____
Planner Assigned_____
Approved By_____ Date _____
Comments_____

Intake Date Stamp

☐ DEVELOPMENT REVIEW

General Information

- ☐ Incomplete application packets cannot be accepted.
- ☐ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
☑ Site Plan	☐ Conditional Use with New Const.	☐ Major Amendment
☐ Conceptual Development Plan		☐ Minor Amendment

Site Information:

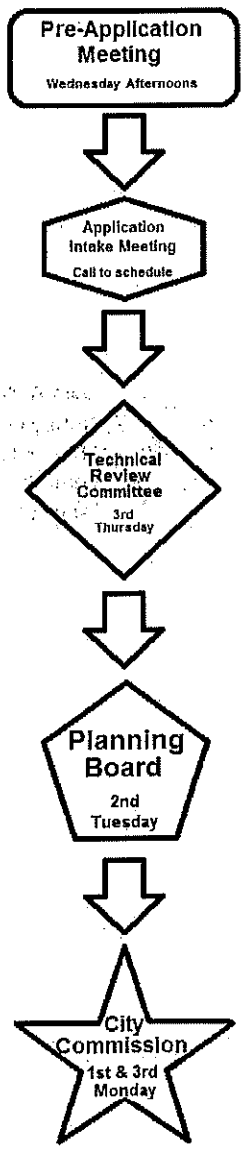
Non-Residential: Proposed Sq. Ft.: 162,650 sf

Residential: Proposed Units: 160,560 sf

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West
Vacant	Commercial	Marina	Vacant / Commercial

Application Outlook



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ☑ Complete notarized application
- ☑ Warranty Deed
- ☑ SLC Property Record Card
- ☑ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ☑ General location map (see Section 22-58.d.2)
- ☑ Survey (see Section 22-58.d.3)
- ☑ Site Plan (see Section 22-58.d.4)
- ☑ Landscaping Plan (see Section 22-187)
- ☑ Storm Drainage Plan (see Section 22-58.d.6)
- ☑ Environmental Impact Report
- ☐ Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ☑ Lighting Plan (see Section 22-58.d.8)
- ☑ Design Review submittals (see Design Review application)
- ☑ Traffic Impact Report
- ☑ Concurrency Review submittals (see Concurrency Review application)

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Vacant / Commercial	RH / I	ES
South	Commercial	CBD	C-4 / PUR
East	Marina	CBD	PUR
West	Commercial	GC / I	C-3 / I-1, C-4

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	CBD	PD	30 du / ac or 3.0 FAR	7.824	X / AE
****Proposed**	CBD	PD	30 du / ac or 3.0 FAR	7.824	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day 161,750 sf x 0.125 = 20,218.75 plus 118 DU x 2.6 x 100 = 30,680 TOTAL: 50,898.75
**Proposed Zoning/FLU	Total gallons per day 152,720 sf x 0.125 = 19,090 plus 118 DU x 2.6 x 100 = 30,680 TOTAL: 49,770.00
**Change in Demand	Total gallons per day Reduction of 1,128.75 gpd

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day 161,750 sf x 0.125 = 20,218.75 plus 118 DU x 2.6 x 100 = 30,680 TOTAL: 50,898.75
**Proposed Zoning/FLU	Total gallons per day 152,720 sf x 0.125 = 19,090 plus 118 DU x 2.6 x 100 = 30,680 TOTAL: 49,770.00
**Change in Demand	Total gallons per day Reduction of 1,128.75 gpd

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people			
Urban District	5 acres per 1,000 people	2,538.63	2,713.77	increase of 175.13
Community	2.5 acres per 1,000 people			
Neighborhood	1.36 acres per 1,000 people			

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name	Samuel Gaines Academy	Fort Pierce Westwood
City	Fort Pierce	Fort Pierce
Distance	5.5 miles	4.5 miles
Current Zoning/FLU Enrollment Demand	17.10	7.32
****Proposed Zoning/FLU Enrollment Demand**	17.10	7.32
****Change in Demand**	no change	no change

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)	
Demand Analysis	Maximum
Current Zoning/FLU	5,854.91 lbs (or 3.90 yards)
****Proposed Zoning/FLU**	5,737.52 lbs (or 3.83 yards)
***Change in Demand**	decrease of 117.39 lbs (or decrease of 0.0726 yards)

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	Stormwater runoff will be collected through a series of inlets. From there it will be directed into a master storm water system.

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	5359	352 / 512
****Proposed Zoning/FLU**	5056	332 / 481
***Change in Demand**	Trips decrease of 303	Trips decrease 20 / 31
Impact to Capacity	Decrease in capacity	

IV. Project Description

PHASING
Is this project (phase) part of a larger project? ☑ Yes ☐ No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: Single Family: Multifamily: 118 units
Non-residential (square footage): 161,750 sf
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached	1	8		1 yr from approval	1 yr after commencement
Multi-family		2 & 3		1 yr from approval	3-4 yrs after commencement
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**
Hotel	1	92,200 sf		1 yr after approval	1 yr from commencement
Restaurant B	2	5,655 sf		2 yrs after approval	3 years from commencement
Restaraunt B	3	10,030 sf		3 years after approval	4 years from commencement

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. ☐ Yes ☑ No

B. 1. Does this application involve demolition or re-use of any structure(s)? ☐ Yes ☑ No
If yes, what is the size of the structure(s) to be demolished or re-used? _____
2. What is the current use of the structure to be demolished or re-used? _____
3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? ☐ Yes ☑ No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

PROJECT NARRATIVE & COVER LETTER
Kings Landing
Application for Certificate of Appropriateness
April 6, 2021

Request

On behalf of the Petitioner, Engineering, Design, & Construction, Inc. (EDC) is submitting an application for Certificate of Appropriateness as required by the City of Fort Pierce for a project to be known as Kings Landing. The petitioner wishes to obtain approval for a mixed use development. The proposed development includes a 92,200 sf +/- five (5) story hotel, 40,080 sf +/- of retail, 17,185 sf +/- of restaurant, and 110 residential units with associated site improvements.

Site Characteristics

The subject properties are approximately 7.824 acres +/- and are located east of N. 2nd Street and south of Moore's Creek in Fort Pierce, Florida. The following table identifies the parcels associated with this request.

Parcel ID	Current FLU	Current Zoning
2410-503-0041-020-4	CBD	PD
2410-503-0012-010-9	CBD	PD
2410-503-0043-000-2	CBD	PD
2410-503-0020-000-5	CBD	PD
2410-503-0034-000-6	CBD	PD
2410-503-0019-000-5	CBD	PD
2410-503-0030-000-8	CBD	PD

The parcels are currently owned by the Fort Pierce Redevelopment Agency and are currently cleared and undeveloped. The applicant is proposing the construction of a mixed-use community with associated site improvements. There are applications currently under review by City of Fort Pierce for approval to change the Future Land Use Designation of the parcels and the underlying Zoning designation.

To the north of the subject parcels lies Moore's Creek followed by developed and undeveloped industrial parcels. These parcels have a Future Land Use designation of Industrial (I) and an underlying Zoning designation of Light Industrial (I-1).

To the east of the subject property is the right-of-way of N. Indian River Drive followed by a marina. The marina has a Future Land Use designation of Central Business District (CBD) and an underlying Zoning designation of Planned Unit Redevelopment Zone (PUR).

South of the property lies the Right-of-Way of Avenue B followed by developed commercial parcels. These parcels have a Future Land Use designation of Central Business District (CBD) and an underlying Zoning designation of Commercial Zone (C-4) to the southwest and Planned Unit Redevelopment Zone (PUR) to the southeast.

To the west of the subject property lies the Right-of-Way of N. 2nd Street followed developed commercial parcels and an undeveloped industrial parcel. The parcels southwest of the subject parcel have a Future Land Use designation of Central Business District) and an underlying Zoning designation of Central Commercial Zone (C-4). The parcels northwest of the subject parcel have a Future Land Use Designation of Industrial (I) and an underlying Zoning designation of Light Industrial (I-1).

APPLICATION REQUIREMENTS

Section 23-41 of the City of Fort Pierce Code of Ordinances identifies the requirements for Certificate of Appropriateness submittals. Additionally, the Certificate of Appropriateness Application outlines application requirement.

1) Application Fee
Please find the attached $ 10.00 payment for fees associated with this application.

2) Site Plan with dimensions.
Please see attached site plan as requested.

3) Architectural Plans
Please see attached architectural plans as requested.

4) Photos – One (1) color photograph of the main façade of the site and photographs of any areas affected by the proposed project.
Please see attached architectural plans as requested. This were submitted with the design review package and were also included in the RFP package that was awarded for this project.

5) Material(s) specifications and / or samples.
Please see attached architectural plans as requested. This were submitted with the design review package and were also included in the RFP package that was awarded for this project.

6) Color samples.
Please see attached architectural plans as requested. This were submitted with the design review package and were also included in the RFP package that was awarded for this project.

7) Demolition -Plans for what will be taking the demolished structure's place should be submitted.
There are no existing structures on the subject parcel.

Based on the above justification and attached information, the Petitioner respectfully requests approval of this request.

Z:\EDC-2019\19-361 - Kings Landing - HD King\ENGINEERING\Documents\Submittal Documents\Justification Statement\2021-04-07_Kings_Landing_COA_Narrative.docx

Aerial


Subject Propety
Kings Landing
General Location Map
Fort Pierce, FL
ENGINEERS & SURVEYORS & ENVIRONMENTAL
N Indian River Dr
S Indian River Dr
Melody Ln
St Andrews Ln
N 2nd St
S 2nd St
N Depot Dr
Depot Dr
N 5th St
S 5th
N 6th St
S 6th
S 7th
Ave A
Ave B
Ave C
Brewster
707
68

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 3401269 OR BOOK 3136 PAGE 2650, Recorded 10/15/2009 at 03:57 PM
Doc Tax: $0.70

This Instrument Prepared by and Return to:

Robert V. Schwerer, City Attorney
City of Fort Pierce
100 North U. S. 1
Fort Pierce, FL 34950

[Space Above This Line For Recording Data]

Special Warranty Deed

This Special Warranty Deed is made this 13TH day of October, 2009, between the **CITY OF FORT PIERCE, FLORIDA**, in its municipal capacity and on behalf of the **FORT PIERCE UTILITIES AUTHORITY,** whose address is 100 North U.S. 1, Fort Pierce, Florida 34950, "Grantor" and the **FORT PIERCE REDEVELOPMENT AGENCY**, a dependent special district of the City of Fort Pierce, whose address is 100 North U.S. 1, Fort Pierce, Florida, "Grantee":

(Whenever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that Grantor, for and in consideration of the sum TEN AND NO/100 DOLLARS ($10.00) and other good and valuable consideration to Grantor in hand paid by Grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the Grantee, and Grantee's heirs and assigns forever, the following described land, situate, lying and being in St. Lucie County, Florida, to-wit (the "Property"):

See Exhibit "A" attached hereto and made a part hereof.

Subject to restrictions, reservations, and easements of record, it any, provided however that this reference shall not serve to reimpose the same.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And Grantor hereby covenants with Grantee that at the time of the delivery of this deed: (a) Grantor is lawfully seized of the Property in fee simple; (b) Grantor has good right and lawful authority to sell and convey the Property; and (c) the premises were free from all encumbrances made by Grantor and that Grantor hereby fully warrants the title to the Property and will defend the Property against the lawful claims of all persons claiming by, through or under Grantor but against none other.

In Witness Whereof, Grantor has hereunto set Grantor's hand and seal the day and year first above written.

CITY OF FORT PIERCE, FLORIDA,
a municipal corporation

By: _____
Robert J. Benton, III, Mayor

CITY OF FORT PIERCE CORPORATE SEAL ST. LUCIE COUNTY

ATTEST:

_____
Cassandra Steele, City Clerk

Signed sealed and delivered in our presence:

_____
Signature of witness

Christine Famularo
Print name

_____
Signature of witness

MARY LOU PEREGRIN
Print name

STATE OF FLORIDA
COUNTY OF ST. LUCIE

I HEREBY CERTIFY that the foregoing instrument was acknowledged before me this 15th day of October, 2009, by **Robert J. Benton, III**, as **Mayor**, and **Cassandra Steele**, as **City Clerk**, of the **CITY OF FORT PIERCE, FLORIDA** a municipal corporation, who are personally known to me or who provided _____ as identification and who did not take an oath.

Christine Famularo
Notary Public, State of Florida at Large
Print name: Christine Famularo
My commission expires: Sept. 17, 2012
My commission number: DD823696

NOTARY PUBLIC-STATE OF FLORIDA
Christine Famularo
Commission # DD823696
Expires: SEP. 17, 2012
BONDED THRU ATLANTIC BONDING CO., INC

APPROVED AS TO FORM
AND CORRECTNESS

Robert V. Schwerer, Esq., City Attorney

BEING THE HEREIN PARCELS OF LAND LYING OVER A PORTION OF BLOCKS A, B, F, AND TROPICAL AVENUE, AS SHOWN ON AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PLAT BOOK 1, PAGE 189, PUBLIC RECORDS OF SAINT LUCIE COUNTY, FLORIDA, AND A PORTION OF THE NEW SUBDIVISION OF BLOCK E, AS RECORDED IN PLAT BOOK 1, PAGE 192, PUBLIC RECORDS OF SAINT LUCIE COUNTY, FLORIDA, AND A PORTION OF THE NORTHEAST QUARTER OF SECTION 10, TOWNSHIP 35 SOUTH, RANGE 40 EAST, SAID PARCELS BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

PARCEL 1:

COMMENCING AT THE SOUTHWEST CORNER OF LOT 8, BLOCK F, SAID AARON LEE'S MAP OF FORT PIERCE; PROCEED NORTH 04'53'21" WEST, ALONG THE EAST RIGHT-OF-WAY OF NORTH 2ND STREET (FORMALLY KNOW AS PINE STREET AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE) (A 60 FOOT WIDE RIGHT-OF-WAY) AND THE WEST LINE OF SAID BLOCK F, A DISTANCE OF 254.00 FEET TO THE SOUTHWEST CORNER OF LOT 2, SAID BLOCK F, AND THE POINT OF BEGINNING; THENCE CONTINUE NORTH 04'53'21" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE, AND SAID WEST LINE OF LOT 2, AND LOT 1, SAID BLOCK F, A DISTANCE OF 69.42 FEET TO AN ANGLE POINT IN THE EAST RIGHT-OF-WAY LINE OF THE REALIGNED PORTION OF NORTH 2ND AVENUE; THENCE NORTH 18'26'19" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE OF NORTH 2ND AVENUE (A 50 FOOT WIDE RIGHT-OF-WAY), A DISTANCE OF 371.24 FEET TO A POINT ON THE CENTERLINE OF A 2.6 FOOT CONCRETE BULKHEAD ON THE SOUTH TOP OF BANK OF MOORES CREEK AND REFERENCE POINT "A"; (THE FOLLOWING FIVE COURSES ARE ALONG THE CENTERLINE OF SAID CONCRETE BULKHEAD AND THE SOUTH TOP OF BANK OF MOORES CREEK) THENCE NORTH 70'33'12" EAST, DEPARTING SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 44.68 FEET; THENCE NORTH 79'01'13" EAST, A DISTANCE OF 179.28 FEET; THENCE NORTH 87'55'03" EAST, A DISTANCE OF 71.16 FEET; THENCE NORTH 77'41'52" EAST, A DISTANCE OF 224.31 FEET ; THENCE NORTH 75'24'46" EAST, A DISTANCE OF 29.63 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF INDIAN RIVER DRIVE, AS SHOWN ON THE STATE OF FLORIDA STATE ROAD DEPARTMENT RIGHT-OF-WAY MAP SECTION 94500, LAST REVISED OCTOBER 5, 1960 (A VARYING WIDTH RIGHT-OF-WAY); THENCE SOUTH 04'53'04" EAST, DEPARTING SAID CONCRETE BULKHEAD CENTERLINE, AND THE SOUTH TOP OF BANK OF MOORES CREEK, AND ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 491.42 FEET TO A POINT ON THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 2, AND LOT 3, SAID BLOCK F; THENCE SOUTH 85'09'39" WEST, DEPARTING SAID WEST RIGHT-OF-WAY LINE, AND ALONG SAID EASTERLY PROLONGATION, AND THE SOUTH LINE OF SAID LOT 3, AND 2, A DISTANCE OF 457.22 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THAT PORTION OF PARCEL 1 CONSISTING OF THE FOLLOWING:

THE EAST 20.00 FEET AND THE SOUTH 50.00 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0041-020-4 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND:

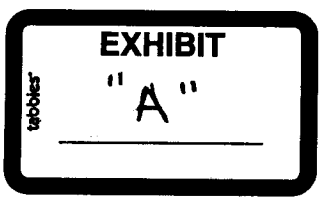
THE NORTH 165.00 FEET OF THE EAST 75.00 FEET OF SAID CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0041-020-4 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND:

THE SOUTH 50.00 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0043-000-2 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND:

THE SOUTH 87.00 FEET OF THE WEST 67.00 FEET OF SAID CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0043-000-2 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.



PARCEL 2:

COMMENCING AT THE AFOREMENTIONED REFERENCE POINT "A"; PROCEED NORTH 18'26'19" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 44.51 FEET TO A POINT ON THE CENTERLINE OF A 2.6 FOOT WIDE CONCRETE BULKHEAD ON THE NORTH TOP OF BANK OF MOORES CREEK AND THE POINT OF BEGINNING. THENCE NORTH 18'26'19" WEST, DEPARTING SAID CONCRETE BULKHEAD CENTERLINE AND THE SOUTH TOP OF BANK OF MOORES CREEK, AND ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 53.76 FEET TO A POINT ON THE WEST LINE OF LOT 1, SAID BLOCK A; THENCE NORTH 04'53'21" WEST, ALONG SAID WEST LINE, AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 67.04 FEET TO THE NORTHWEST CORNER OF SAID LOT 1, AND A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF AVENUE C (FORMERLY KNOWN AS SEMINOLE AVENUE AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE) (A 50 FOOT WIDE RIGHT-OF-WAY); THENCE NORTH 84'53'38" EAST, DEPARTING SAID NORTHWEST CORNER, AND ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 537.27 FEET TO A POINT ON SAID WEST RIGHT-OF-WAY LINE OF INDIAN RIVER DRIVE; THENCE SOUTH 04'53'04" EAST, DEPARTING SAID SOUTH RIGHT-OF-WAY LINE, AND ALONG SAID WEST RIGHT-OF-WAY LINE, A DISTANCE OF 63.48 FEET TO A POINT ON THE CENTERLINE OF A 2.6 FOOT WIDE CONCRETE BULKHEAD ON THE NORTH TOP OF BANK OF MOORES CREEK; (THE FOLLOWING FIVE COURSES ARE ALONG SAID BULKHEAD CENTERLINE, AND THE NORTH TOP OF BANK OF MOORES CREEK); THENCE SOUTH 74'25'26" WEST, A DISTANCE OF 224.10 FEET; THENCE SOUTH 88'30'05" WEST, A DISTANCE OF 64.66 FEET; THENCE SOUTH 79'28'36" WEST, A DISTANCE OF 181.91 FEET; THENCE SOUTH 84'38'58" WEST, A DISTANCE OF 53.29 FEET; THENCE SOUTH 66'51'46" WEST, A DISTANCE OF 5.89 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THAT PORTION OF PARCEL 2 CONSISTING OF THE FOLLOWING:

ALL OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2403-801-0025-000-3 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND:

THE EAST 92.70 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0012-000-6 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND:

THE WESTERLY 20.00 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 148, PAGE 156, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

PARCEL 3

COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 8, BLOCK F, PROCEED SOUTH 8609'39" WEST, ALONG THE NORTH RIGHT-OF-WAY LINE OF AVENUE A (FORMERLY KNOW AS PALMETTO AVENUE AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE) (A 65 FOOT WIDE RIGHT-OF-WAY), AND ALONG THE EASTERLY PROLONGATION OF THE SOUTH LINE OF SAID BLOCK E, AND ALONG THE SOUTH LINE OF SAID BLOCK E, A DISTANCE OF 310.00 FEET TO THE SOUTHWEST CORNER OF LOT 9, SAID BLOCK E AND A POINT ON THE EAST RIGHT-OF-WAY LINE OF THE FLORIDA EAST COAST RAILROAD AS SHOWN ON THE STATION MAP, SOUTHERN DIVISION FLORIDA EAST COAST RAILWAY COMPANY FLAGLER SYSTEM STATION 12741+93.7 TO STATION 12796+90.0, DATED SEPTEMBER 5, 1944; THENCE NORTH 04'53'21" WEST, DEPARTING SAID NORTH RIGHT-OF-WAY LINE, AND THE SOUTH LINE OF SAID BLOCK E, AND THE SOUTHWEST CORNER OF SAID LOT 9, AND ALONG SAID EAST RIGHT-OF-WAY LINE, AND THE WEST LINE OF SAID LOT 9, AND ALONG THE WEST LINE OF PALM TERRACE (ABANDON), A DISTANCE OF 185.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 04'53'21" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE, AND THE WEST LINE OF PALM TERRACE (ABANDON), AND THE WEST LINE OF LOT 6, SAID BLOCK E, A DISTANCE OF 215.00 FEET TO THE NORTHWEST CORNER OF SAID LOT 6; THENCE SOUTH 85'09'39" WEST, DEPARTING. SAID NORTHWEST CORNER, AND THE WEST LINE OF LOT 6, AND CONTINUING ALONG SAID EAST RIGHT-OF-WAY LINE, AND THE NORTH LINE OF LOT 7, SAID BLOCK E, A DISTANCE OF 48.76 FEET; THENCE NORTH 04'58'11" WEST, DEPARTING SAID NORTH LINE, AND CONTINUING ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 65.00 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF AVENUE B (FORMALLY KNOWN AS TROPICAL AVENUE AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE)(A 65 FOOT WIDE RIGHT-OF-WAY); THENCE NORTH 85'09'39" EAST, ALONG SAID NORTH RIGHT-OF-WAY LINE, AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 40.00 FEET; THENCE NORTH 04'58'11" WEST, DEPARTING SAID NORTH RIGHT-OF-WAY LINE, AND ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 72.51 FEET TO A POINT ON THE SOUTH TOP OF BANK OF MOORES CREEK; THENCE NORTH 63'48'24" EAST, DEPARTING SAID EAST RIGHT-OF-WAY LINE, AND ALONG SAID NORTH TOP OF BANK, A DISTANCE OF 64.50 FEET; THENCE NORTH 47'50'28" EAST, CONTINUING ALONG SAID SOUTH TOP OF BANK, A DISTANCE OF 70.44 FEET; THENCE NORTH 44'59'19" EAST, CONTINUING ALONG

SAID SOUTH TOP OF BANK, A DISTANCE OF 82.06 FEET; THENCE NORTH 14'06'44" EAST, CONTINUING ALONG SAID SOUTH TOP OF BANK, A DISTANCE OF 14.97 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF THE
REALIGNED PORTION OF NORTH 2ND STREET (A 50 FOOT WIDE RIGHT-OF-WAY); THENCE SOUTH 18'26'19" EAST, DEPARTING SAID SOUTH TOP OF BANK, AND ALONG SAID WEST RIGHT-OF-WAY LINE, A DISTANCE OF 320.88 FEET TO THE ANGLE POINT IN THE REALIGNED PORTION OF NORTH 2ND STREET (FORMERLY KNOWN AS PINE STREET, AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE) (A 60 FOOT WIDE RIGHT-OF-WAY); THENCE SOUTH 04'53'21"EAST, ALONG SAID WEST RIGHT-OF-WAY LINE, A DISTANCE OF 8.92 FEET TO THE SOUTHEAST CORNER OF LOT 1, SAID BLOCK E; THENCE SOUTH 85'09'39" WEST, DEPARTING SAID WEST RIGHT-OF-WAY LINE, AND SAID SOUTHEAST CORNER, AND ALONG THE SOUTH LINE OF SAID LOT 1, A DISTANCE OF 146.50 FEET TO A POINT ON A LINE LYING 3.50 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF LOT 2, SAID BLOCK E; THENCE SOUTH 04'53'21" EAST, DEPARTING SAID SOUTH LINE, AND ALONG SAID PARALLEL LINE, A DISTANCE OF 50.00 FEET TO A POINT ON THE SOUTH LINE OF SAID LOT 2; THENCE SOUTH 85'09'39" WEST, DEPARTING SAID PARALLEL LINE, AND ALONG SAID SOUTH LINE, A DISTANCE 3.50 FEET TO THE SOUTHWEST CORNER OF SAID LOT 2; THENCE SOUTH 04'53'21" EAST, DEPARTING SAID SOUTH LINE, AND SAID SOUTHWEST CORNER, AND ALONG THE WEST LINE OF LOTS 3 AND 4, SAID BLOCK E, AND THE SOUTHERLY PROLONGATION THEREOF, A DISTANCE OF 115.00 FEET; THENCE SOUTH 85'09'39" WEST, DEPARTING SAID SOUTHERLY PROLONGATION, AND ALONG A LINE 15 FEET SOUTH OF, AND PARALLEL WITH THE SOUTH LINES OF SAID LOT 6, AND 5, SAID BLOCK E, A DISTANCE OF 100.00 FEET TO THE POINT OF BEGINNING. LESS AND EXCEPT THAT PORTION OF THE ABOVE DESCRIBED PARCEL 3 THAT LIES SOUTHERLY OF AND ADJACENT TO THE NORTH LINE OF AVENUE "B" (TROPICAL AVENUE) AS SHOWN ON SAID PLAT OF AARON LEE'S MAP OF FORT PIERCE.

LESS AND EXCEPT THAT PORTION OF PARCEL 3 CONSISTING OF THE FOLLOWING:

THE NORTHERLY 20.00 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0019-000-5 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND:

THE NORTHERLY AND WESTERLY 20.00 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0020-000-5 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

CONTAINING 6.669 ACRES, MORE OR LESS.

B E A R I N G B A S E

THE SOUTH LINE OF BLOCKS E & F, AS SHOWN ON THE PLAT OF AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PLAT BOOK 1, PAGE 189, PUBLIC RECORDS OF ST. LUCIE COUNTY, IS TAKEN TO BEAR NORTH 85'09'39" EAST, AND ALL OTHER BEARINGS SHOWN ARE RELATIVE THERETO.

WARRANTY DEED
(FROM CORPORATION)

1103601

RAMCO FORM 33

This Warranty Deed *Made and executed the* 12th *day of* March *A. D.* 19 91 *by*

SOUTHEASTERN PUBLIC SERVICE COMPANY

a corporation existing under the laws of Delaware *, and having its principal place of business at*

hereinafter called the grantor, to City of Fort Pierce, Florida, for the use and benefit of the FORT PIERCE UTILITIES AUTHORITY P. O. Box 3191, Fort Pierce, Florida 34948

whose postoffice address is

hereinafter called the grantee:

(Wherever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

Witnesseth: *That the grantor, for and in consideration of the sum of* $10.00 *and other valuable considerations, receipt whereof is hereby acknowledged, by these presents does grant, bargain, sell, alien, remise, release, convey and confirm unto the grantee, all that certain land situate in* St. Lucie *County, Florida, viz:* Lots 5 and 6, of Block E, according to Aaron Lee's Map of the City of Fort Pierce, filed in Plat Book 1, at Page 189, and according to plat of the subdivision of Block E recorded in Plat Book 1, Page 192, all of the public records of St. Lucie County, Florida, and a strip of land 15.0 feet wide adjacent to and lying Southerly of said Lots 5 and 6, said strip of land being a portion of Palm Terrace (or Church Court), as per plat of the new Subdivision of Block E of Aaron Lee's Map of Fort Pierce, Florida, according to plat of said new Subdivision on file in Plat Book 1, Page 192 of the public records of St. Lucie County, Florida.

AND ALSO

Lot 1, and the West 3.5 feet of Lot 2, of the new Subdivision of Block E of Aaron Lee's Plat of Fort Pierce, Florida, as per plat thereof recorded in Plat Book 1, Page 192, of the public records of St. Lucie County, Florida. THIS DEED IS GIVEN CONJUNCTIVELY WITH THAT JUDGMENT IN EMINENT DOMAIN ENTERED IN CASE NO. 88-977-CA-05.

Together *with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.*

To Have and to Hold, *the same in fee simple forever.*

And *the grantor hereby covenants with said grantee that it is lawfully seized of said land in fee simple; that it has good right and lawful authority to sell and convey said land; that it hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances*

SOUTHEASTERN PUBLIC SERVICE COMPANY

(CORPORATE SEAL)

In Witness Whereof *the grantor has caused these presents to be executed in its name, and its corporate seal to be hereunto affixed, by its proper officers thereunto duly authorized, the day and year first above written.*

SOUTHEASTERN PUBLIC SERVICE COMPANY

Signed, sealed and delivered in the presence of:

[signature]

Marco Rojas

By Gilbert L. Bieger
Senior Vice President-Operations

STATE OF FLORIDA
COUNTY OF DADE

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Gilberg L. Bieger

well known to me to be the Senior Vice President-Operations respectively of the corporation named as grantor in the foregoing deed, and that they severally acknowledged executing the same in the presence of two subscribing witnesses freely and voluntarily under authority duly vested in them by said corporation and that the seal affixed thereto is the true corporate seal of said corporation.

WITNESS my hand and official seal in the County and State last aforesaid this 12 day of March A. D. 1991

0732 [illegible]2814

[signature]
Notary Public
My commission expires:
Notary Public, State of Florida
My Commission Expires May 15, 1993
Bonded Thru Troy Fain - Insurance Inc.

This Instrument prepared by:

Address Ben L. Bryan, Jr., Esquire
P. O. Box 1000
Fort Pierce, Florida 34954

1103601

'91 APR -4 P4:47

[illegible]
DOUGLAS DIXON
ST. LUCIE COUNTY

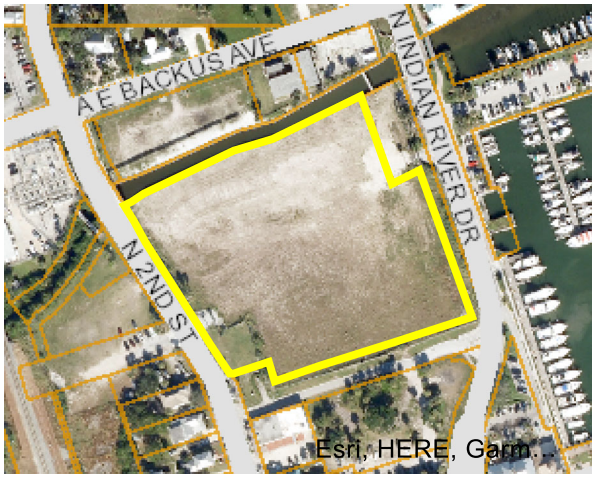
Rec Fee $ 10.50 DOUGLAS DIXON
Add Fee $ _____ St. Lucie County
Doc Tax $ .55 Clerk of Circuit Court
Int Tax $ _____ By _____
Deputy Clerk
Total $ 11.05

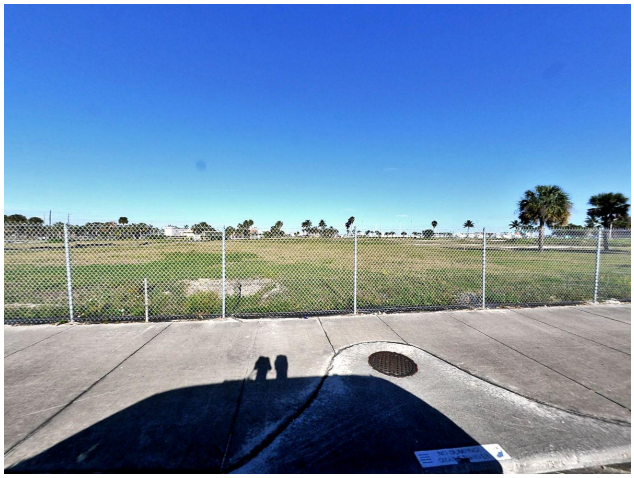
0732 PG2815

Saint Lucie County Property Appraiser
Michelle Franklin CFA

Report generated: Tuesday, June 25, 2019

Parcel Report





Parcel

Parcel ID:	2410-503-0041-020-4
Property ID:	23050
Owner 1:	Fort Pierce Redevelopment Agency
Site Address:	322 N 2nd ST

Owner

Owner 1:	Fort Pierce Redevelopment Agency
Owner 2:	
Owner 3:	
Mailing Address:	100 N US Highway 1 Fort Pierce, FL 34950-4205

Overview

Primary Land Use:	8000 - VAC GOVT
District Group:	9122 - Fort Pierce
Subdivision:	Aaron Lee's Map of Fort Pierce
Just/Market Value:	$2,842,300
Finished Area:	
Acres:	3.75
Total Area:	163,350

Legal Description

Legal Description: AARON LEE`S MAP OF FORT PIERCE 10 35 40 BEG AT SW COR OF LOT 2 BLK F RUN NWLY ALG E RD R/W LI OF N 2 ST TO S BANK OF MOORE`S CREEK,TH ELY ALG S BANK OF MOORE`S CREEK TO E RD R/W LI OF IND RIV DR,TH SLY ALG IND RIV DR TO SE COR OF BULKHEAD OF RECREATION PIER,TH WLY TO INT OF ELY RD R/W LI OF N 2 ST AND SW COR OF LOT 2 AND POB-LESS E 20 FT AND LESS S 50 FT AND LESS N 165 FT OF E 75 FT AND LESS S 87 FT OF W 67 FT- (MAP 24/10B) (3.75 AC) (OR 3136-2650)

Value History

Year	Just/Market Value	Building Value	Land Value	SFYI Value	Assessed Value	Exemption Amount	County Taxable	Save Our Home OR 10% Cap Differential	Ag Credit
2018	$2,842,300	$0	$2,842,300	$0	$2,842,300	$2,842,300	$0	$0	$0
2017	$2,842,300	$0	$2,842,300	$0	$2,605,460	$2,605,460	$0	$236,840	$0
2016	$2,368,600	$0	$2,368,600	$0	$2,368,600	$2,368,600	$0	$0	$0

Tax Links

SLC Tax Collector's Office taxes for this parcel

Download TRIM notice for this parcel

Special Assessments

Description	Start Year	Units	Amount
Fort Pierce Stormwater Charge	2010	11.6	$800.40

Exemptions

Description	Tax Year	Grant Year	Amount
City of Ft Pierce	2018		$2,842,300

Improvements

Building Sequence:	1
Bedrooms:	0
Bathrooms:	0
Building Type:	-
Story Height:	
No of Living Units:	
Total Finished Area:	0
Gross Sketched Area:	0
Year Built:	
Effective Year:	2014
Primary Roof Cover:	
Primary Roof Structure:	
Primary Wall:	
A/C %:	0

Land Lines

Line Number	Units	Unit Type
1	163,350	SqFt

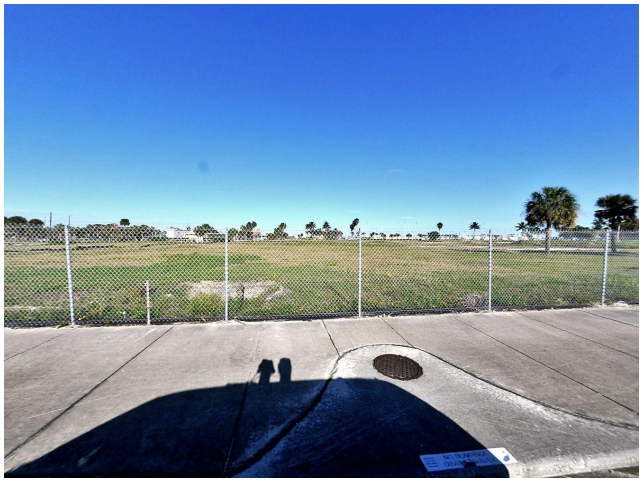
Permits

Permit Number	Issue Date	Description
0800001187	07/18/2008	Demolition
CR2004107	11/08/2004	Alterations/Remodeling
RF20041470	11/08/2004	Roof
RF2002-25	10/02/2002	Roof
F98-000063	03/26/1998	Alterations/Remodeling
F97-001070	10/03/1997	Additions to existing construction
F93-001281	01/05/1993	Roof
F91000912	07/19/1991	Shed

Sales History

Sale Date	Sale Price	Sale Code	Deed Type	Grantor	Book Page	View Document
10/15/2009	$100	0318	SP	Ft Pierce City Of	3136-2650	Clerk of Courts
12/31/1899	$0				-	Clerk of Courts

Photos



Saint Lucie County Property Appraiser
Michelle Franklin CFA

Report generated: Tuesday, June 25, 2019

Parcel Report





Parcel

Parcel ID:	2410-503-0012-010-9
Property ID:	175187
Owner 1:	Fort Pierce Redevelopment Agency
Site Address:	125 A E Backus AVE

Owner

Owner 1:	Fort Pierce Redevelopment Agency
Owner 2:	
Owner 3:	
Mailing Address:	100 N US Highway 1 Fort Pierce, FL 34950-4205

Overview

Primary Land Use:	8000 - VAC GOVT
District Group:	9122 - Fort Pierce
Subdivision:	Aaron Lee's Map of Fort Pierce
Just/Market Value:	$435,800
Finished Area:	
Acres:	0.69
Total Area:	30,056

Legal Description

Legal Description: AARON LEE`S MAP OF FORT PIERCE 10 35 40 BLK A LOTS 2, 3 AND 4 AND BLK B LOT 1-LESS W 20 FT AND LESS E 92.70 FT OF THE FOL DESC PARCEL: BLK A LOT 1 AND THAT LAND ABUTTING LOT 1 ON E LYG BTWN E LI OF LOT 1 AND W LI OF TRACT Y OF IND RIV MEMORIAL PARK- (PB 10-36) (0.69 AC) (OR 3136-2650)

Value History

Year	Just/Market Value	Building Value	Land Value	SFYI Value	Assessed Value	Exemption Amount	County Taxable	Save Our Home OR 10% Cap Differential	Ag Credit
2018	$435,800	$0	$435,800	$0	$435,800	$435,800	$0	$0	$0
2017	$435,800	$0	$435,800	$0	$435,800	$435,800	$0	$0	$0
2016	$435,800	$0	$435,800	$0	$435,800	$435,800	$0	$0	$0

Tax Links

SLC Tax Collector's Office taxes for this parcel

Download TRIM notice for this parcel

Special Assessments

Description	Start Year	Units	Amount
Fort Pierce Stormwater Charge	2010	1.9	$131.10

Exemptions

Description	Tax Year	Grant Year	Amount
City of Ft Pierce	2018	2010	$435,800

Improvements

Building Sequence:	1
Bedrooms:	0
Bathrooms:	0
Building Type:	-
Story Height:	
No of Living Units:	
Total Finished Area:	0
Gross Sketched Area:	0
Year Built:	
Effective Year:	2014
Primary Roof Cover:	
Primary Roof Structure:	
Primary Wall:	
A/C %:	0

Land Lines

Line Number	Units	Unit Type
1	30,056	SqFt

Permits

Permit Number	Issue Date	Description
BP12-0213	02/09/2012	Alterations/Remodeling
F98-000031	03/26/1998	Alterations/Remodeling
F94-001030	08/25/1994	Shed
F94-01030A	08/25/1994	Shed

Sales History

Sale Date	Sale Price	Sale Code	Deed Type	Grantor	Book Page	View Document
10/15/2009	$100	0318	SP	Ft Pierce City Of	3136-2650	Clerk of Courts
12/31/1899	$0				-	Clerk of Courts

Photos



Saint Lucie County Property Appraiser
Michelle Franklin CFA

Report generated: Tuesday, June 25, 2019

Parcel Report





Parcel

Parcel ID:	2410-503-0020-000-5
Property ID:	23038
Owner 1:	Fort Pierce Redevelopment Agency
Site Address:	N 2nd ST

Owner

Owner 1:	Fort Pierce Redevelopment Agency
Owner 2:	
Owner 3:	
Mailing Address:	100 N US Highway 1 Fort Pierce, FL 34950-4205

Overview

Primary Land Use:	8000 - VAC GOVT
District Group:	9122 - Fort Pierce
Subdivision:	Aaron Lee's Map of Fort Pierce
Just/Market Value:	$259,000
Finished Area:	
Acres:	0.41
Total Area:	17,860

Legal Description

Legal Description: AARON LEE`S MAP OF FORT PIERCE BLK B BEG INT OF N RD R/W LI OF AV B AND W RD R/W LI OF N 2 ST,TH RUN NLY 126.3 FT M/L,TH WLY 87 FT M/L,TH NLY TO MOORES CREEK,TH MEANDER ALG CREEK WLY TO R/W LI OF FEC RR,TH SLY ALG R/W LI TO N LI OF AV B,TH ELY TO POB-LESS NLY AND WLY 20 FT- (MAP 24/10D) (0.41 AC) (OR 3136-2650)

Value History

Year	Just/Market Value	Building Value	Land Value	SFYI Value	Assessed Value	Exemption Amount	County Taxable	Save Our Home OR 10% Cap Differential	Ag Credit
2018	$259,000	$0	$259,000	$0	$259,000	$259,000	$0	$0	$0
2017	$259,000	$0	$259,000	$0	$259,000	$259,000	$0	$0	$0
2016	$259,000	$0	$259,000	$0	$259,000	$259,000	$0	$0	$0

Tax Links

SLC Tax Collector's Office taxes for this parcel

Download TRIM notice for this parcel

Special Assessments

Description	Start Year	Units	Amount
Fort Pierce Stormwater Charge	2010	1.1	$75.90

Exemptions

Description	Tax Year	Grant Year	Amount
City of Ft Pierce	2018		$259,000

Improvements

Building Sequence:	1
Bedrooms:	0
Bathrooms:	0
Building Type:	-
Story Height:	
No of Living Units:	
Total Finished Area:	0
Gross Sketched Area:	0
Year Built:	
Effective Year:	2014
Primary Roof Cover:	
Primary Roof Structure:	
Primary Wall:	
A/C %:	0

Land Lines

Line Number	Units	Unit Type
1	17,860	SqFt

Permits

Permit Number	Issue Date	Description
F98-000032	03/26/1998	Alterations/Remodeling
F87000754D	10/31/1989	Demolition
F88000608T	05/01/1988	Trailer
F88000608P	05/01/1988	Patio
F88000754B	12/31/1987	Commercial New Construction

Sales History

Sale Date	Sale Price	Sale Code	Deed Type	Grantor	Book Page	View Document
10/15/2009	$100	0318	SP	Ft Pierce City Of	3136-2650	Clerk of Courts
06/01/1973	$0	XX01	CV		215-983	Clerk of Courts

Photos



Saint Lucie County Property Appraiser
Michelle Franklin CFA

Report generated: Tuesday, June 25, 2019

Parcel Report





Parcel

Parcel ID:	2410-503-0034-000-6
Property ID:	23047
Owner 1:	Ft Pierce City Of
Site Address:	218 Avenue B

Owner

Owner 1:	Ft Pierce City Of
Owner 2:	Ft Pierce Utilities Authority
Owner 3:	
Mailing Address:	P O Box 3191 Fort Pierce, FL 34948-3191

Overview

Primary Land Use:	8000 - VAC GOVT
District Group:	9122 - Fort Pierce
Subdivision:	Aaron Lee's Map of Fort Pierce
Just/Market Value:	$265,000
Finished Area:	
Acres:	0.494
Total Area:	21,500

Legal Description

Legal Description: AARON LEE`S MAP OF FORT PIERCE BLK E LOTS 5 AND 6 AND N 15 FT OF W 100 FT OF PALM TERR (MAP 24/10D)(DBK 261-544)(OR 732-2814)

Value History

Year	Just/Market Value	Building Value	Land Value	SFYI Value	Assessed Value	Exemption Amount	County Taxable	Save Our Home OR 10% Cap Differential	Ag Credit
2018	$265,000	$0	$265,000	$0	$265,000	$265,000	$0	$0	$0
2017	$265,000	$0	$265,000	$0	$265,000	$265,000	$0	$0	$0
2016	$265,000	$0	$265,000	$0	$265,000	$265,000	$0	$0	$0

Tax Links

SLC Tax Collector's Office taxes for this parcel

Download TRIM notice for this parcel

Special Assessments

Description	Start Year	Units	Amount
Fort Pierce Stormwater Charge	2019	1.4	$96.60

Exemptions

Description	Tax Year	Grant Year	Amount
City of Ft Pierce	2018		$265,000

Improvements

Building Sequence:	1
Bedrooms:	0
Bathrooms:	0
Building Type:	-
Story Height:	
No of Living Units:	
Total Finished Area:	0
Gross Sketched Area:	0
Year Built:	
Effective Year:	2014
Primary Roof Cover:	
Primary Roof Structure:	
Primary Wall:	
A/C %:	0

Land Lines

Line Number	Units	Unit Type
1	21,500	SqFt

Permits

Permit Number	Issue Date	Description
F92000074	01/26/1992	Fence

Sales History

Sale Date	Sale Price	Sale Code	Deed Type	Grantor	Book Page	View Document
03/11/1991	$100	XX02	WD	SOUTHEASTERN PUBLIC SERVICE CO	732-2814	Clerk of Courts

Photos



Saint Lucie County Property Appraiser
Michelle Franklin CFA

Report generated: Tuesday, June 25, 2019

Parcel Report





Parcel

Parcel ID:	2410-503-0019-000-5
Property ID:	23037
Owner 1:	Fort Pierce Redevelopment Agency
Site Address:	N 2nd ST

Owner

Owner 1:	Fort Pierce Redevelopment Agency
Owner 2:	
Owner 3:	
Mailing Address:	100 N US Highway 1 Fort Pierce, FL 34950-4205

Overview

Primary Land Use:	8000 - VAC GOVT
District Group:	9122 - Fort Pierce
Subdivision:	Aaron Lee's Map of Fort Pierce
Just/Market Value:	$63,200
Finished Area:	
Acres:	0.1
Total Area:	4,356

Legal Description

Legal Description: AARON LEE`S MAP OF FORT PIERCE BLK B FROM INT OF N RD R/W LI OF AV B AND W RD R/W LI OF N 2 ST,TH RUN NLY 126.3 FT M/L TO POB;TH WLY 87 FT M/L,TH AT RT ANGLE RUN NLY TO MOORE`S CREEK,TH MEANDER ALG CREEK TO W RD R/W LI OF N 2 ST,TH SLY ALG R/W TO POB-LESS NLY 20 FT- (MAP 24/10D) (0.10 AC) (OR 3136-2650)

Value History

Year	Just/Market Value	Building Value	Land Value	SFYI Value	Assessed Value	Exemption Amount	County Taxable	Save Our Home OR 10% Cap Differential	Ag Credit
2018	$63,200	$0	$63,200	$0	$63,200	$63,200	$0	$0	$0
2017	$63,200	$0	$63,200	$0	$63,200	$63,200	$0	$0	$0
2016	$63,200	$0	$63,200	$0	$63,200	$63,200	$0	$0	$0

Tax Links

SLC Tax Collector's Office taxes for this parcel

Download TRIM notice for this parcel

Special Assessments

Description	Start Year	Units	Amount
Fort Pierce Stormwater Charge	2010	0.3	$20.70

Exemptions

Description	Tax Year	Grant Year	Amount
City of Ft Pierce	2018		$63,200

Improvements

Building Sequence:	1
Bedrooms:	0
Bathrooms:	0
Building Type:	-
Story Height:	
No of Living Units:	
Total Finished Area:	0
Gross Sketched Area:	0
Year Built:	
Effective Year:	2014
Primary Roof Cover:	
Primary Roof Structure:	
Primary Wall:	
A/C %:	0

Land Lines

Line Number	Units	Unit Type
1	4,356	SqFt

Sales History

Sale Date	Sale Price	Sale Code	Deed Type	Grantor	Book Page	View Document
10/15/2009	$100	0318	SP	Ft Pierce City Of	3136-2650	Clerk of Courts
12/31/1899	$0				-	Clerk of Courts

Photos



Saint Lucie County Property Appraiser
Michelle Franklin CFA

Report generated: Tuesday, June 25, 2019

Parcel Report





Parcel

Parcel ID:	2410-503-0030-000-8
Property ID:	23043
Owner 1:	Ft Pierce City Of
Site Address:	N 2nd ST

Owner

Owner 1:	Ft Pierce City Of
Owner 2:	Ft Pierce Utilities Authority
Owner 3:	
Mailing Address:	PO Box 3191 Fort Pierce, FL 34948-3191

Overview

Primary Land Use:	8000 - VAC GOVT
District Group:	9122 - Fort Pierce
Subdivision:	Aaron Lee's Map of Fort Pierce
Just/Market Value:	$106,900
Finished Area:	
Acres:	0.169
Total Area:	7,375

Legal Description

Legal Description:	AARON LEE`S MAP OF FORT PIERCE BLK E LOT 1 AND W 3.5 FT OF LOT 2 (MAP 24/10B) (DBK 261-544)(OR 732-2814)

Value History

Year	Just/Market Value	Building Value	Land Value	SFYI Value	Assessed Value	Exemption Amount	County Taxable	Save Our Home OR 10% Cap Differential	Ag Credit
2018	$106,900	$0	$106,900	$0	$106,900	$106,900	$0	$0	$0
2017	$106,900	$0	$106,900	$0	$106,900	$106,900	$0	$0	$0
2016	$106,900	$0	$106,900	$0	$106,900	$106,900	$0	$0	$0

Tax Links

SLC Tax Collector's Office taxes for this parcel

Download TRIM notice for this parcel

Special Assessments

Description	Start Year	Units	Amount
Fort Pierce Stormwater Charge	1999	0.5	$34.50

Exemptions

Description	Tax Year	Grant Year	Amount
City of Ft Pierce	2018		$106,900

Improvements

Building Sequence:	1
Bedrooms:	0
Bathrooms:	0
Building Type:	-
Story Height:	
No of Living Units:	
Total Finished Area:	0
Gross Sketched Area:	0
Year Built:	
Effective Year:	2014
Primary Roof Cover:	
Primary Roof Structure:	
Primary Wall:	
A/C %:	0

Land Lines

Line Number	Units	Unit Type
1	7,375	SqFt

Sales History

Sale Date	Sale Price	Sale Code	Deed Type	Grantor	Book Page	View Document
03/11/1991	$100	XX02	WD	Fort Pierce Utilities Authority,	732-2814	Clerk of Courts

Photos



ENGINEERS & SURVEYORS
ENVIRONMENTAL

LETTER OF JUSTIFICATION
Kings Landing
April 6, 2021
Development Review Application

REQUEST

On behalf of the Petitioner, Engineering, Design, & Construction, Inc. (EDC) is requesting development review approval for a project to be known as Kings Landing. The subject properties are approximately 7.824 acres +/- and are located east of N. 2nd Street and south of Moore's Creek in Fort Pierce, Florida. The petitioner wishes to obtain approval for a mixed use development.

SITE CHARACTERISTICS & PROJECT HISTORY

The subject properties are approximately 7.824 acres +/- and are located east of N. 2nd Street and south of Moore's Creek in Fort Pierce, Florida. The petitioner wishes to obtain approval for a mixed use development. The subject parcels are identified in the below table:

Parcel ID	Current FLU	Current Zoning
2410-503-0041-020-4	CBD	PD
2410-503-0012-010-9	CBD	PD
2410-503-0043-000-2	CBD	PD
2410-503-0020-000-5	CBD	PD
2410-503-0034-000-6	CBD	PD
2410-503-0019-000-5	CBD	PD
2410-503-0030-000-8	CBD	PD
TOTAL:		

The parcels are currently owned by the Fort Pierce Redevelopment Agency and are currently cleared and undeveloped. The applicant is proposing the construction of a mixed-use community with associated site improvements. The subject parcels have a Future Land Use designation of Central Business District (CBD) and an underlying Zoning designation of Planned Development (PD).

To the north of the subject parcels lies Moore's Creek followed by developed and undeveloped industrial parcels. These parcels have a Future Land Use designation of Industrial (I) and an underlying Zoning designation of Light Industrial (I-1).

To the east of the subject property is the right-of-way of N. Indian River Drive followed by a marina. The marina has a Future Land Use designation of Central Business District (CBD) and an underlying Zoning designation of Planned Unit Redevelopment Zone (PUR).

South of the property lies the Right-of-Way of Avenue B followed by developed commercial parcels. These parcels have a Future Land Use designation of Central Business District (CBD) and an underlying Zoning designation of Commercial Zone (C-4) to the southwest and Planned Unit Redevelopment Zone (PUR) to the southeast.

To the west of the subject property lies the Right-of-Way of N. 2nd Street followed developed commercial parcels and an undeveloped industrial parcel. The parcels southwest of the subject parcel have a Future Land Use designation of Central Business District) and an underlying Zoning designation of Central Commercial Zone (C-4). The parcels northwest of the subject parcel has a Future Land Use Designation of Industrial (I) and an underlying Zoning designation of Light Industrial (I-1).

The petitioner is proposing the mixed-use development which includes:

Proposed Use	Square Footage
Five (5) Story Hotel	92,200 sf +/-
Retail	40,080 sf +/-
Restaurants	17,185 sf +/-
Residential	100 Residential Units

There are 114 proposd parking spaces to serve the development along with a proposed parking garage of which the final design has not yet been determine. Visitors would also be able to park downtown and at the nearby City garage.

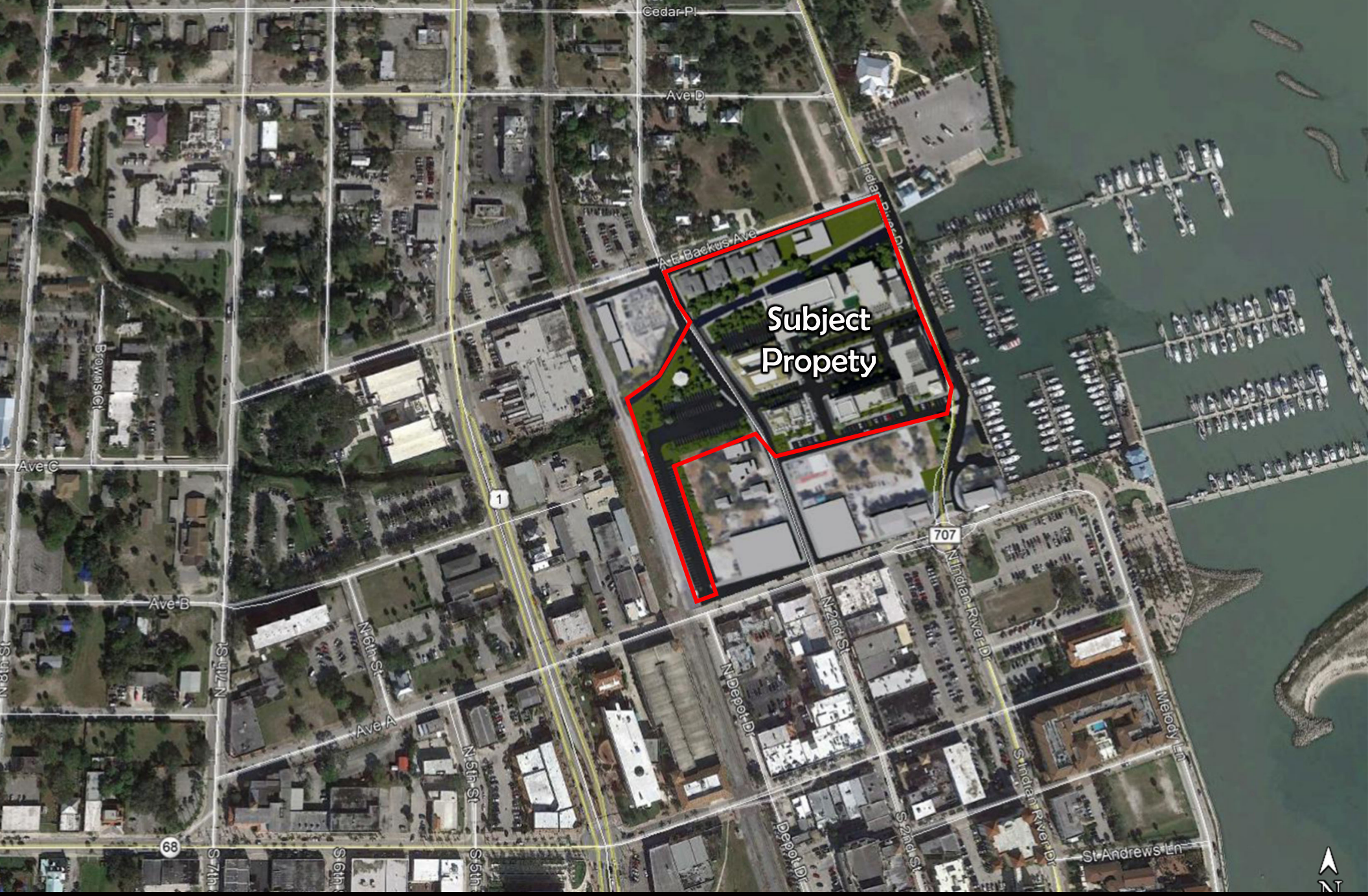
DEVELOPMENT REVIEW REQUIREMENTS

Section 125-313(a)(3) of the City of Fort Pierce Code of Ordinances identifies the requirements for Major and Minor Site Plan Applications. The attached materials meet all of the requirements of Section 125-313.

In addition to meeting the requirement of Section 125-313, the City of Fort Pierce requires the supplemental material as outlined in the development review application. Most of the items noted in the checklist are included as part of this submittal.

- A landscape plan is not included as part of this submittal. This will be supplied to the City later in the development review process.
- A lighting plan is not included as part of this submittal. This will be supplied to the City later in the development review process.
- A traffic impact report is not included as part of this submittal. This will be supplied to the City later in the development review process.
- Bean / Dune System Protection Plan is not applicable.

Based on the above and attached information, the applicant respectfully requests approval of the proposed application.



Kings Landing

General Location Map

Fort Pierce, FL

ENGINEERS SURVEYORS ENVIRONMENTAL

ALTA/NSPS LAND TITLE SURVEY

FOR: AUDUBON DEVELOPMENT, INC.

LEGAL DESCRIPTION (BY SURVEYOR):

PARCEL A:

BEING A PARCEL OF LAND LYING IN BLOCK "A", ACCORDING TO AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PLAT BOOK 1, PAGE 189 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF LOT 8, BLOCK F, OF SAID AARON LEE'S MAP OF FORT PIERCE, PROCEED NORTH 18°44'11" WEST ALONG THE WEST LINE OF BLOCK F AND THE EAST RIGHT-OF-WAY LINE OF NORTH 2ND STREET (FORMERLY KNOWN AS PINE STREET, AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE AND BEING A 60.00-FOOT-WIDE PUBLIC RIGHT-OF-WAY), A DISTANCE OF 254.00 FEET TO THE SOUTHWEST CORNER OF LOT 2 OF SAID MAP OF FORT PIERCE, SAID CORNER BEING THE POINT OF BEGINNING; THENCE NORTH 18°44'11" WEST, ALONG THE WEST LINE OF LOTS 2 AND 1 AND EAST RIGHT-OF-WAY LINE OF SAID 2ND STREET A DISTANCE OF 69.41 FEET TO A POINT OF INTERSECTION WITH THE EAST RIGHT-OF-WAY LINE OF THE ADJUSTED NORTH 2ND STREET; THENCE NORTH 32°17'09" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 371.24 FEET TO A POINT ON THE 3.50-FOOT-WIDE CONCRETE BULKHEAD BOUNDING MOORES CREEK; THENCE ALONG SAID BULKHEAD THE FOLLOWING (5) COURSES AND DISTANCES: NORTH 56°42'22" EAST, A DISTANCE OF 44.68 FEET; THENCE NORTH 65°10'23" EAST, A DISTANCE OF 179.28 FEET; THENCE NORTH 74°04'13" EAST, A DISTANCE OF 71.16 FEET; THENCE NORTH 63°51'02" EAST, A DISTANCE OF 224.31 FEET; THENCE NORTH 61°33'56" EAST, A DISTANCE OF 29.63 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF INDIAN RIVER DRIVE (A VARIABLE-WIDTH RIGHT-OF-WAY), AS SHOWN ON THE STATE OF FLORIDA STATE ROAD DEPARTMENT RIGHT-OF-WAY MAP SECTION 94500, LAST REVISED OCTOBER 5, 1960; THENCE SOUTH 18°43'54" EAST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 491.42 FEET TO A POINT ON THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 2, AND LOT 3, SAID BLOCK F; THENCE SOUTH 71°18'49" WEST, ALONG SAID EASTERLY PROLONGATION, AND THE SOUTH LINE OF SAID LOT 3, AND 2, A DISTANCE OF 457.21 FEET TO THE POINT OF BEGINNING.

CONTAINING 5.266 ACRES (229,381.98 SQUARE FEET), MORE OR LESS.

TOGETHER WITH PARCEL B (NORTH):

BEING A PARCEL OF LAND LYING IN BLOCK "A" AND A PORTION OF LOT 1, BLOCK "B", ACCORDING TO AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PLAT BOOK 1, PAGE 189 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF LOT 8, BLOCK F, OF SAID AARON LEE'S MAP OF FORT PIERCE, PROCEED NORTH 18°44'11" WEST ALONG THE WEST LINE OF BLOCK F AND THE EAST RIGHT-OF-WAY LINE OF NORTH 2ND STREET (FORMERLY KNOWN AS PINE STREET, AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE AND BEING A 60.00-FOOT-WIDE PUBLIC RIGHT-OF-WAY), A DISTANCE OF 323.41 FEET TO A POINT OF INTERSECTION WITH THE EAST RIGHT-OF-WAY LINE OF THE ADJUSTED NORTH 2ND STREET; THENCE NORTH 32°17'09" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 371.24 FEET TO A POINT ON THE 3.50-FOOT-WIDE CONCRETE BULKHEAD BOUNDING MOORES CREEK; THENCE CONTINUE NORTH 32°17'09" WEST, A DISTANCE OF 44.51 FEET TO A POINT ON THE NORTHERLY 3.50-FOOT-WIDE CONCRETE BULKHEAD, SAID POINT BEING THE POINT OF BEGINNING; THENCE NORTH 32°17'09" WEST, DEPARTING SAID CREEK, AND ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 53.76 FEET TO A POINT ON THE WEST LINE OF LOT 1, BLOCK "B"; THENCE NORTH 18°44'11" WEST, A DISTANCE OF 67.04 FEET TO THE NORTHWEST CORNER OF SAID LOT 1, AND A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF AVENUE C (FORMERLY KNOWN AS SEMINOLE AVENUE AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE); THENCE NORTH 71°02'48" EAST, DEPARTING SAID NORTHWEST CORNER AND ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 304.27 FEET TO THE WEST LINE OF THE EAST 92.7 FEET OF LOT 1 OF BLOCK "A" OF SAID AARON LEE'S MAP OF FORT PIERCE; THENCE SOUTH 18°43'54" EAST, A DISTANCE OF 103.40 FEET TO A POINT ON THE NORTHERLY 3.50-FOOT-WIDE CONCRETE BULKHEAD BOUNDING MOORES CREEK; THENCE ALONG SAID CONCRETE BULKHEAD THE FOLLOWING (4) COURSES AND DISTANCES: SOUTH 74°39'15" WEST, A DISTANCE OF 51.85 FEET; THENCE SOUTH 65°37'46" WEST, A DISTANCE OF 181.91 FEET; THENCE SOUTH 70°48'08" WEST, A DISTANCE OF 53.29 FEET; THENCE SOUTH 53°00'56" WEST, A DISTANCE OF 5.89 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.759 ACRES (33,042.66 SQUARE FEET), MORE OR LESS.

TOGETHER WITH PARCEL C (WEST):

A PARCEL OF LAND BEING LOTS 5 AND 6 OF BLOCK "E", PORTIONS OF LOTS 7 AND 8 OF BLOCK "E", A PORTION OF AVENUE "B" AS SHOWN ON AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PLAT BOOK 1, PAGE 189 TOGETHER WITH LOT 1 AND THE WEST 3.50 FEET OF LOT 2 OF THE NEW SUBDIVISION BLOCK E OF AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PLAT BOOK 1, PAGE 192, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF LOT 8, BLOCK F, OF SAID AARON LEE'S MAP OF FORT PIERCE, PROCEED SOUTH 71°18'49" WEST, ALONG THE EASTERLY PROLONGATION OF THE SOUTH LINE OF BLOCK "E" AND ALONG SAID SOUTH LINE, A DISTANCE OF 310.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID SOUTH BLOCK LINE SOUTH 71°25'01" WEST, A DISTANCE OF 8.93 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF THE FLORIDA EAST COAST RAILROAD AS SHOWN ON THE STATION MAP, SOUTHERN DIVISION, FLORIDA EAST COAST RAILWAY COMPANY FLAGLER SYSTEM STATION 12741+93.7 TO STATION 12796+90.0, DATED SEPTEMBER 5, 1944; THENCE NORTH 18°21'33" WEST, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 400.00 FEET A POINT ON THE NORTH LINE OF LOT 7, SAID BLOCK "E", SAID NORTH LINE ALSO BEING THE SOUTH RIGHT-OF-WAY LINE OF AVENUE "B", BEING FORMERLY KNOWN AS TROPICAL AVENUE AS SHOWN ON AFOREMENTIONED AARON LEE'S MAP OF FORT PIERCE (A 65.00-FOOT-WIDE RIGHT-OF-WAY); THENCE SOUTH 71°18'49" WEST, A DISTANCE OF 42.46 FEET; THENCE NORTH 18°49'01" WEST, A DISTANCE OF 65.00 FEET; THENCE NORTH 71°18'49" EAST, A DISTANCE OF 40.00 FEET;THENCE NORTH 18°49'01" WEST, A DISTANCE OF 72.51 FEET TO A POINT ON THE SOUTH TOP OF BANK OF MOORES CREEK; THENCE ALONG SAID SOUTH TOP OF BANK THE FOLLOWING (4) COURSES AND DISTANCES: NORTH 49°57'34" EAST, A DISTANCE OF 64.50 FEET; THENCE NORTH 33°59'38" EAST, A DISTANCE OF 70.44 FEET; THENCE NORTH 31°08'29" EAST, A DISTANCE OF 82.06 FEET; THENCE NORTH 0°15'54" EAST, A DISTANCE OF 14.97 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF THE ADJUSTED 2ND STREET (A 60.00-FOOT-WIDE PUBLIC RIGHT-OF-WAY); THENCE SOUTH 32°17'09" EAST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 320.88 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF 2ND STREET AS SHOWN ON AFOREMENTIONED AARON LEE'S MAP OF FORT PIERCE; THENCE SOUTH 18°44'11" EAST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 8.92 FEET TO A POINT ON THE SOUTHERLY LINE OF LOT 1, SAID BLOCK "E"; THENCE SOUTH 71°18'49" WEST, ALONG SAID SOUTHERLY LINE, A DISTANCE OF 146.50 FEET TO A POINT OF INTERSECTION WITH A LINE LYING AND BEING 3.50 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF LOT 2, SAID BLOCK "E"; THENCE SOUTH 18°44'11" EAST, A DISTANCE OF 50.00 FEET TO THE SOUTH LINE OF SAID LOT 2, SAID LINE ALSO BEING THE NORTH LINE OF LOT 3, SAID BLOCK "E"; THENCE SOUTH 71°18'49" WEST, ALONG SAID NORTH LOT LINE, A DISTANCE OF 3.50 FEET TO THE WEST LINE OF SAID LOT 3; THENCE SOUTH 18°44'11" EAST, ALONG THE WEST LINE OF LOTS 3 AND 4 AND THE SOUTHERLY PROLONGATION THEREOF, A DISTANCE OF 115.00 FEET TO A POINT ON A LINE LYING AND BEING 15.00 FEET SOUTH OF AND PARALLEL WITH THE NORTHERLY RIGHT-OF-WAY LINE OF CHURCH STREET, FORMERLY KNOWN AS PALM TERRACE ON THE AFOREMENTIONED AARON LEE'S MAP OF FORT PIERCE (A 50.00-FOOT-WIDE RIGHT-OF-WAY; THENCE SOUTH 71°18'49" WEST, ALONG SAID PARALLEL LINE, A DISTANCE OF 100.00 FEET TO A POINT OF INTERSECTION WITH THE NORTHERLY PROLONGATION OF THE WEST LINE OF LOT 9, SAID BLOCK "E"; THENCE SOUTH 18°44'11" EAST, ALONG SAID PROLONGATED LINE AND WEST LINE OF LOT 9 A DISTANCE OF 185.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 1.799 ACRES (78,361.87 SQUARE FEET), MORE OR LESS.

THIS DESCRIPTION WAS PREPARED BY THE SURVEYOR FOR THE PURPOSE OF SIMPLIFYING BOUNDARY LIMITS. THE LEGAL DESCRIPTION USED WHILE CONDUCTING THIS SURVEY IS SHOWN ON SHEET 2 OF 4, AND WAS SUPPLIED BY THE CLIENT VIA TITLE COMMITMENT POLICY.



ST. LUCIE COUNTY, FLORIDA

VICINITY MAP

NO SCALE

FLIGHT NOTES & ACCURACY REPORT:

1. THIS SITE WAS FLOWN ON DECEMBER 18, 2019, UTILIZING A DJI PHANTOM 4 PRO SERIES DRONE, WITH DRONE DEPLOY VERSION 2.34.0 FOR FLIGHT PLANNING AND POST PROCESSING.
2. THE FLIGHT WAS CONDUCTED BY CERTIFIED REMOTE PILOT NO. 4297810.
3. HORIZONTAL CONTROL STATEMENT: MAP BASED UPON NORTH AMERICAN DATUM OF 1983 (NAD83), FLORIDA STATE PLANE PROJECTION, EAST ZONE, US SURVEY FEET, FL83-EF AND UTILIZING EPSG CODE 2236. USE OF FOUND PLAT CONTROL, STATE RIGHT OF WAY POINTS, NGS MONUMENTATION AND/OR SECTIONAL BREAKDOWN WERE USED AS PART OF THE MAPPING PROCESS. DISTANCES SHOWN ARE IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
4. MEASUREMENTS OF DISTANCE, AREA AND VOLUME WITHIN THE MAP ARE ACCURATE TO WITHIN 1-3 TIMES THE GROUND SAMPLING DISTANCE. MAP MEASUREMENTS ARE WITHIN 1-3% OF GROUND-BASED MEASUREMENTS.
5. FEATURES ARE LIMITED TO THOSE VISIBLE AT TIME OF THE PHOTOGRAPHY AND ARE SUBJECT TO FIELD VERIFICATION BY THE END USER. BUILDING OUTLINES REPRESENT APPROXIMATE ROOF LINE LOCATIONS AS SEEN ON THE AERIAL PHOTOGRAPHY, UNLESS OTHERWISE NOTED.
6. AREAS DESIGNATED AS "OBSCURED" INDICATE THE GROUND IS OBSCURED BY VEGETATION AND/OR SHADOWS. MAPPING WITHIN THESE AREAS MAY NOT MEET STANDARD ACCURACY.
7. RELATIVE ACCURACY:
   - GROUND SAMPLING DISTANCE (GSD) RANGE= 0.34 IN/PIXEL
   - APPROX. HORIZONTAL RELATIVE ACCURACY RANGE = 0.16 IN
   - APPROX. VERTICAL RELATIVE ACCURACY RANGE = 0.04 IN (IF SHOWN)
   - OPTIMIZED CAMERA LOCATION ERROR RANGE = X0.11 IN Y0.11 IN Z0.18 IN
   - OPTIMIZED CAMERA LOCATION XYZ RMSE RANGE = 0.24 CM/PIXEL
   - TOTAL (RMSE) X: 0.1074 Y: 0.1134 Z: 0.178

GROUND CONTROL DATA:

LABEL	X ERROR (INCHES)	Y ERROR (INCHES)	Z ERROR (INCHES)
1	-0.0709	0.126	0.2795
2	0.0945	-0.0472	-0.2008
3	-0.0433	0.0906	0.0906
4	0.0748	-0.0591	-0.252
5	-0.0669	0.2441	0.0591
6	0.189	0	0.2677
7	0.0197	-0.1969	-0.1457
8	0.0394	0.0197	-0.0748
9	-0.1496	-0.0984	-0.2008
10	0.0906	-0.0394	0.1024
11	-0.1811	-0.0394	0.0748

SHEET INDEX:

1 VICINITY MAP, NOTES & CERTIFICATION
2 LEGAL DESCRIPTION & TITLE EXCEPTIONS
3 MAP SHEET
4 DETAIL SHEET

SURVEYORS NOTES AND REPORT:

1. REPRODUCTIONS OF THIS MAP ARE NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. THIS SURVEY CANNOT BE TRANSFERRED OR ASSIGNED WITHOUT THE SPECIFIC WRITTEN PERMISSION OF ENGINEERING, DESIGN AND CONSTRUCTION, INC. IT IS A VIOLATION OF CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, TO ALTER THIS SURVEY WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF THE SURVEYOR. ADDITIONS AND/OR DELETIONS MADE TO THE FACE OF THIS SURVEY WILL MAKE THIS SURVEY INVALID.
2. THE LAST DATE OF FIELD WORK WAS DECEMBER 23, 2019.
3. LEGAL DESCRIPTION SHOWN HEREON WAS PROVIDED BY THE CLIENT.
4. BEARINGS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN DATUM OF 1983, FLORIDA STATE PLANE PROJECTION PER THE LINE LABELED AS (BEARING BASIS) AND ALL OTHER BEARINGS ARE RELATIVE THERETO. DISTANCES ARE IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
5. SUB-SURFACE IMPROVEMENTS INCLUDING UNDERGROUND UTILITIES, UTILITY SERVICES, WERE NOT LOCATED AS PART OF THIS SURVEY.
6. REVISIONS SHOWN HEREON DO NOT REPRESENT A "FIELD SURVEY UPDATE" UNLESS OTHERWISE NOTED.
7. IN SOME INSTANCES, GRAPHIC REPRESENTATIONS AND SYMBOLS SHOWN HAVE BEEN EXAGGERATED TO MORE CLEARLY ILLUSTRATE THE RELATIONSHIP BETWEEN PHYSICAL IMPROVEMENTS AND/OR LOT LINES. THE DIMENSIONS SHOWN SHALL CONTROL THE LOCATION, OF THE IMPROVEMENTS, OVER THE SCALED POSITIONS.
8. THE OWNERSHIP OF PERIMETER FENCES, WALLS, HEDGES AND LANDSCAPING, IF ANY, SHOWN HEREON ARE NOT KNOWN AND ARE NOT LISTED AS ENCROACHMENTS. THEIR RELATIVE LOCATION IS SHOWN IN RELATION TO THE BOUNDARY LINES SHOWN.
9. THE SURVEY MAP SHOWN HEREON DOES NOT NECESSARILY CONTAIN ALL OF THE INFORMATION OBTAINED OR DEVELOPED BY THE UNDERSIGNED SURVEYOR IN HIS FIELD WORK, OFFICE WORK OR RESEARCH.
10. THE NORTH EAST CORNER OF PARCEL 8 (LOT 1,AND A PORTION OF LOT 2, BLOCK E) PROJECTS INTO THE REALIGNED PORTION OF N. 2ND STREET. THIS SURVEYOR HAS NO KNOWLEDGE OF ANY RIGHT OF WAY DEDICATION FOR THIS REALIGNMENT AND IT IS UNCLEAR IF THIS TRIANGULAR PORTION HAS BEEN TAKEN FOR RIGHT OF WAY OR IS RETAINED AS OWNERSHIP.
11. NO INSTRUMENT OF RECORD VACATING PLATTED RIGHTS OF WAY FOR RIVER STREET, 2ND STREET (PINE STREET), AND AVENUE "B" (TROPICAL AVENUE) HAVE BEEN PROVIDED TO THIS SURVEYOR, AND NO INSTRUMENT OF RECORD HAS BEEN PROVIDED REFLECTING TAKING FOR THE REALIGNMENT OF NORTH 2ND STREET. HATCHED AREAS ON THE MAP ATTACHED DESIGNATE AREAS THAT MAY BE IN CONFLICT WITH THE LEGAL DESCRIPTIONS THAT MAKE UP THE PROPERTY IN QUESTION.
12. THE LEGAL DESCRIPTION OF PARCEL 4 IS THE "WEST 20.00 FEET OF LOT 1, BLOCK B, AARON LEE'S MAP OF FORT PIERCE. THE DESCRIPTION DOES NOT ACCOUNT FOR THE ADJUSTED MAP OF 2ND STREET. THE HATCHED AREA SHOWN ON THE MAP IS THE PART OF THE WEST 20.00 FEET LYING OUTSIDE OF THE DESCRIPTION OF PARCEL 4.
13. MOORE'S CREEK AND PLATTED RIVER BANK HAVE BEEN DIGITIZED FROM THE PLAT OF AARON LEE'S MAP OF FORT PIERCE, FLORIDA, PER PLAT BOOK 1, PAGE 189, AND ARE FOR INFORMATIONAL PURPOSES ONLY.
14. FLOOD ZONE LINES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON F.E.M.A. FIRM NO. 12111C0179J, DATED FEBRUARY 16, 2012. THE PROPERTY WHICH IS THE SUBJECT OF THIS SURVEY APPEARS TO BE SITUATE IN FLOOD ZONES X AND AE-4 AT THIS TIME. THE EXACT DESIGNATION CAN ONLY BE DETERMINED BY AN ELEVATION CERTIFICATE.
15. NO EVIDENCE WAS FOUND IN THE REVIEW OF THE TITLE COMMITMENT PROVIDED THAT PROVIDES FOR OWNERSHIP OF THE LANDS BEYOND THE "PLATTED RIVER BANK" LINE SHOWN ON THE PLAT OF AARON LEE'S MAP OF FORT PIERCE, FLORIDA, AS RECORDED IN PLAT BOOK 1, PAGE 189 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.
16. THE LEGAL DESCRIPTION FOUND IN THE TITLE COMMITMENT PROVIDED BY THE CLIENT AND SHOWN ON SHEET 2 OF 4 CONTAINS SOME ERRORS. ITEMS OF CONCERN ARE SHOWN IN BOLD FONT, INSIDE BRACKETS, WITH SUPERSCRIPT NUMBERS TO CORRESPOND WITH NOTES AND CORRECTIONS LISTED BELOW:
   - 16.1. THE LEGAL DESCRIPTIONS THAT DESCRIBE PARCEL 1 MAKE CALLS TO THE CENTERLINE OF A 2.6' WIDE CONCRETE BULKHEAD THAT HAS BEEN MOVED OR MODIFIED SINCE THEY WERE CREATED. THE BEARINGS AND DISTANCES SHOWN HEREON FOLLOW THE SOUTH FACE OF THE NEW CONCRETE BULKHEAD INSTEAD.
   - 16.2. A SCRIVENER'S ERROR WAS FOUND IN THE LEGAL DESCRIPTION OF PARCEL 3. THE BEARING SHOWN IN TITLE COMMITMENT AS NORTH 04°53'21" IS MISSING A CALL ASSUMED TO BE TO THE WEST.
   - 16.3. A SCRIVENER'S ERROR WAS FOUND IN THE LEGAL DESCRIPTION OF PARCEL 3. THE BEARING AND DISTANCE HIGHLIGHTED WAS REDUNDANT AND SHOULD BE REMOVED.
   - 16.4. AN APPARENT SCRIVENER'S ERROR WAS FOUND IN THE LEGAL DESCRIPTION OF PARCEL 5. THE CALL OF "THENCE SOUTH 85°09'39" WEST, DEPARTING SAID WEST RIGHT-OF-WAY LINE, AND SAID SOUTHEAST CORNER, ALONG THE SOUTH LINE OF SAID LOT 1, A DISTANCE OF 146.50 FEET TO A POINT ON A LINE LYING 3.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF LOT 2..." SHOULD READ "THENCE SOUTH 85°09'39" WEST, DEPARTING SAID WEST RIGHT-OF-WAY LINE, AND SAID SOUTHEAST CORNER, ALONG THE SOUTH LINE OF SAID LOT 1, A DISTANCE OF 146.50 FEET TO A POINT ON A LINE LYING 3.50 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF LOT 2..." BASED ON THE CALL OF "THENCE SOUTH 85°09'39" WEST, DEPARTING SAID PARALLEL LINE, AND ALONG SAID SOUTH LINE, A DISTANCE OF **3.50** FEET TO THE SOUTHEAST CORNER OF SAID LOT 2" THAT COMES TWO CALLS LATER. THIS IS ALSO SUPPORTED BY THE DESCRIPTION FOR PARCEL 8 THAT INCLUDES THE WEST 3.5 FEET OF SAID LOT 2 AND THAT THE LENGTH OF THE LOTS OF BLOCK "E" OF THE PLAT OF AARON LEE'S MAP OF FORT PIERCE, FLORIDA, AS RECORDED IN PLAT BOOK 1, PAGE 189 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, ARE 150.00 FEET IN LENGTH.
   - 16.5. PER THE DESCRIPTION PROVIDED, THE POINT OF COMMENCEMENT OF PARCEL 6 (ALSO BEING THE POINT OF BEGINNING OF PARCEL 7) IS CALLED OUT AS THE INTERSECTION OF THE NORTH RIGHT-OF-WAY LINE OF AVENUE B AND THE WEST RIGHT-OF-WAY LINE OF NORTH 2ND STREET AS SHOWN ON THE PLAT OF AARON LEE'S MAP OF FORT PIERCE. SAID INTERSECTION LIES 9.27 FEET SOUTHWEST OF THE POINT OF COMMENCEMENT SHOWN ON THE SURVEY MAP ATTACHED HERETO AS MEASURED FROM A NORTHEASTERLY PROLONGATION OF SAID NORTH RIGHT-OF-WAY LINE. DEPENDING ON THE LOCATION OF SAID POINT OF COMMENCEMENT AND BEGINNING, THE AREA OF THE LAND DESCRIBED CAN VARY DRASTICALLY WHEN TAKING INTO ACCOUNT THE LOCATION OF THE ADJUSTED NORTH 2ND STREET.
   - 16.6. THIS CALL OF THE LEGAL DESCRIPTION OF PARCEL 10 MAKES A REFERENCE TO THE BOUNDARY LINE BEING 50.00 FEET EAST OF THE CENTERLINE OF THE SOUTHBOUND MAIN OF THE RAILROAD, BUT IT IS THE OPINION OF THIS OFFICE THAT THE SOUTHBOUND MAIN MAY HAVE BEEN MOVED SINCE THE ORIGINAL LEGAL DESCRIPTION WAS RECORDED.

ALTA CERTIFICATION:

TO: AUDOBON DEVELOPMENT, INC., DEAN, MEAD, MINTON & ZWEMER, OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 6(a)(b), 7(A)(C), 8, 9, 11, 13, 14, 15, 16, & 19 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON 12/23/2020 2020.

MICHAEL T. OWEN, PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA REGISTRATION #5556

MICHAEL T. OWEN LICENSE NUMBER No. 5556 STATE OF FLORIDA PROFESSIONAL SURVEYOR & MAPPER

2-25-2020
DATE OF MAP:

ENGINEERS & SURVEYORS
ENVIRONMENTAL
10250 VILLAGE PARKWAY
UNIT 201
PORT ST. LUCIE, FL 34987
772-462-2455
www.edc-inc.com
F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

RNJ DRAWN BY
MTO CHECKED BY
19-361 ALTA.dwg FILENAME
LAYOUT1 LAYOUT
AS SHOWN SCALE
February 27, 2020 DATE

REVISION COMMENTS | DATE

ALTA/NSPS LAND TITLE SURVEY
FOR: AUDUBON DEVELOPMENT, INC.
RECORD INFORMATION
SEC. 10, TWNSHP. 35 SOUTH, RGE. 40 EAST
SAINT LUCIE COUNTY, FLORIDA

10250 VILLAGE PARKWAY
UNIT 201
PORT ST. LUCIE, FL 34987
772-462-2455

19-361

1 OF 4

Z:\EDC-2019\19-361 - Kings Landing - HD Kng\SURVEY\Dwg - PDF\Survey\19-361 ALTA.dwg, 2/27/2020 6:35 PM
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ALTA/NSPS LAND TITLE SURVEY

FOR: AUDUBON DEVELOPMENT, INC.

LEGAL DESCRIPTION:

PARCEL 1: (2410-503-0041-020-4)

COMMENCING AT THE SOUTHWEST CORNER OF LOT 8, BLOCK F, OF AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PLAT BOOK 1, PAGE 189, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; PROCEED NORTH 04°53'21" WEST, ALONG THE EAST RIGHT-OF-WAY OF NORTH 2ND STREET (FORMERLY KNOWN AS PINE STREET AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE)(A 60 FOOT RIGHT-OF-WAY) AND THE WEST LINE OF SAID BLOCK F, A DISTANCE OF 254.00 FEET TO THE SOUTHWEST CORNER OF LOT 2, SAID BLOCK F, AND THE POINT OF BEGINNING; THENCE CONTINUE NORTH 04°53'21" WEST, ALONG SAID EAST RIGHT-OF-WAY, AND SAID WEST LINE OF LOT 2, AND LOT 1, SAID BLOCK F, A DISTANCE OF 69.42 FEET TO AN ANGLE POINT IN THE EAST RIGHT-OF-WAY LINE OF THE REALIGNED PORTION OF NORTH 2ND AVENUE; THENCE NORTH 18°26'19" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE OF NORTH 2ND AVENUE (A 50 FOOT WIDE RIGHT-OF-WAY), A DISTANCE OF 371.24 FEET TO A POINT ON THE CENTERLINE OF A 2.6 FOOT CONCRETE BULKHEAD ON THE SOUTH TOP OF BANK OF MOORES CREEK; PROCEED NORTH 18°26'19" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 44.51 FEET TO A POINT ON THE CENTERLINE OF A 2.6 FOOT WIDE CONCRETE BULKHEAD ON THE NORTH TOP OF BANK OF MOORE'S CREEK AND THE POINT OF BEGINNING; THENCE NORTH 18°26'19" WEST, DEPARTING SAID CONCRETE BULKHEAD CENTERLINE AND THE SOUTH TOP OF BANK OF MOORE'S CREEK, AND ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 53.76 FEET TO A POINT ON THE WEST LINE OF LOT 1, BLOCK A; THENCE NORTH 04°53'21" **[WEST]**[2], ALONG SAID WEST LINE, AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 67.04 FEET TO THE NORTHWEST CORNER OF SAID LOT 1, AND A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF AVENUE C (FORMERLY KNOWN AS SEMINOLE AVENUE AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE) (A 50 FOOT WIDE RIGHT-OF-WAY); THENCE NORTH 84°53'38" EAST, DEPARTING SAID NORTHWEST CORNER, AND ALONG SAID SOUTH RIGHT-OF-WAY LINE, A DISTANCE OF 537.27 FEET TO A POINT ON SAID WEST RIGHT-OF-WAY LINE OF INDIAN RIVER DRIVE; THENCE SOUTH 04°53'04" EAST, DEPARTING SAID SOUTH RIGHT-OF-WAY LINE, AND ALONG SAID WEST RIGHT-OF-WAY LINE, A DISTANCE OF 63.48 FEET TO A POINT ON THE CENTERLINE OF A 2.6 FOOT WIDE CONCRETE BULKHEAD ON THE NORTH TOP OF BANK OF MOORE'S CREEK; (THE FOLLOWING 5 COURSES ARE ALONG SAID BULKHEAD CENTERLINE, AND THE NORTH TOP OF BANK OF MOORE'S CREEK); THENCE SOUTH 74°25'26" WEST, A DISTANCE OF 224.10 FEET; THENCE SOUTH 88°30'05" WEST, A DISTANCE OF64.66 FEET; THENCE SOUTH 79°28'36" WEST, A DISTANCE OF 181.91 FEET; ~~[THENCE SOUTH 79°28'36" WEST, A DISTANCE OF 181.91 FEET,]~~[3] THENCE SOUTH 84°38'58" WEST, A DISTANCE OF 53.29 FEET; THENCE SOUTH 66°51'46" WEST, A DISTANCE OF 5.89 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE FOLLOWING: ALL OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2403-801-0025-0003.

AND

THE EAST 92.70 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0012-000-6 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND

THE WESTERLY 20.00 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 148, PAGE 156, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

AND:

THE NORTH 165.00 FEET OF THE EAST 75.00 FEET OF SAID CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0041-020-4 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND:

THE SOUTH 50.00 FEET OF THAT CERTAIN PARCEL OFLAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0043-000-2 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND:

THE SOUTH 87.00 FEET OF THE WEST 67.00 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0043-000-2 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

PARCEL 2: (2410-503-0043-000-2)

THE EASTERLY 20.00 FEET AND THE SOUTHERLY 50.00 FEET; THE NORTHERLY 165.00 FEET OF THE EASTERLY 75.00 FEET, AND THE SOUTHERLY 87.00 FEET OF THE WESTERLY 67.00 FEET, OF THE FOLLOWING DESCRIBED PARCEL OF LAND:

COMMENCING AT THE SOUTHWEST CORNER OF LOT 8, BLOCK F, OF AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PLAT BOOK 1, PAGE 189, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; PROCEED NORTH 04°53'21" WEST, ALONG THE EAST RIGHT-OF-WAY OF NORTH 2ND STREET (FORMERLY KNOWN AS PINE STREET AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE)(A 60 FOOT RIGHT-OF-WAY) AND THE WEST LINE OF SAID BLOCK F, A DISTANCE OF 254.00 FEET TO THE SOUTHWEST CORNER OF LOT 2, SAID BLOCK F, AND THE POINT OF BEGINNING; THENCE CONTINUE NORTH 04°53'21" WEST, ALONG SAID EAST RIGHT-OF-WAY, AND SAID WEST LINE OF LOT 2, AND LOT 1, SAID BLOCK F, A DISTANCE OF 69.42 FEET TO AN ANGLE POINT IN THE EAST RIGHT-OF-WAY LINE OF THE REALIGNED PORTION OF NORTH 2ND AVENUE; THENCE NORTH 18°26'19" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE OF NORTH 2ND AVENUE (A 50 FOOT WIDE RIGHT-OF-WAY), A DISTANCE OF 371.24 FEET TO A POINT ON THE CENTERLINE OF A 2.6 FOOT CONCRETE BULKHEAD ON THE SOUTH TOP OF BANK OF MOORES CREEK AND REFERENCE POINT "A"; (THE FOLLOWING FIVE COURSES ARE **[ALONG THE CENTERLINE OF SAID CONCRETE BULKHEAD]**[1] AND THE SOUTH TOP OF BANK OF MOORES CREEK) THENCE NORTH 70°33'12" EAST, DEPARTING SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 44.68 FEET; THENCE NORTH 79°01'13" EAST, A DISTANCE OF 179.28 FEET; THENCE NORTH 87°55'03" EAST, A DISTANCE OF 71.16 FEET; THENCE NORTH 77°41'52" EAST, A DISTANCE OF224.31 FEET; THENCE NORTH 75°24'46" EAST, A DISTANCE OF 29.63 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF INDIAN RIVER DRIVE, AS SHOWN ON THE STATE OF FLORIDA STATE ROAD DEPARTMENT RIGHT-OF-WAY MAP SECTION 94500, LAST REVISED OCTOBER 5, 1960 (A VARYING WIDTH RIGHT-OF-WAY); THENCE SOUTH 04°53'04" EAST, DEPARTING SAID CONCRETE BULKHEAD CENTERLINE AND SOUTH TOP OF BANK OF MOORE'S CREEK, AND ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 491.42 FEET TO A POINT ON THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 2, AND LOT 3, SAID BLOCK F; THENCE SOUTH 85°09'39" WEST, DEPARTING SAID WEST RIGHT-OF-WAY LINE, AND ALONG SAID EASTERLY PROLONGATION, AND THE SOUTH LINE OF SAID LOT 3, AND 2, A DISTANCE OF 457.22 FEET TO THE POINT OF BEGINNING. SAID LANDS BEING MORE PARTICULARLY DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0043-000-2 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

PARCEL 3: (2410-503-0012-010-9)

COMMENCING AT THE SOUTHWEST CORNER OF LOT 8, BLOCK F, OF AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PLAT BOOK 1, PAGE 189, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; PROCEED NORTH 04°53'21" WEST, ALONG THE EAST RIGHT-OF-WAY OF NORTH 2ND STREET (FORMERLY KNOWN AS PINE STREET AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE)(A 60 FOOT RIGHT-OF-WAY) AND THE WEST LINE OF SAID BLOCK F, A DISTANCE OF 254.00 FEET TO THE SOUTHWEST CORNER OF LOT 2, SAID BLOCK F; THENCE CONTINUE NORTH 04°53'21" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE, AND THE WEST LINE OF SAID LOT 2, AND LOT 1, SAID BLOCK F, A DISTANCE OF 69.42 FEET TO AN ANGLE POINT IN THE EAST RIGHT-OF-WAY LINE OF THE REALIGNED PORTION OF NORTH 2ND AVENUE; THENCE NORTH 18°26'19" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE OF NORTH 2ND AVENUE (A 50 FOOT WIDE RIGHT-OF-WAY), A DISTANCE OF 371.24 FEET TO A POINT ON THE CENTERLINE OF A 2.6 FOOT CONCRETE BULKHEAD ON THE SOUTH TOP OF BANK OF MOORES CREEK AND REFERENCE POINT "A"; (THE FOLLOWING FIVE COURSES ARE ALONG THE CENTERLINE OF SAID CONCRETE BULKHEAD AND THE SOUTH TOP OF BANK OF MOORE'S CREEK) THENCE NORTH 70°33'12" EAST, DEPARTING SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 44.68 FEET; THENCE NORTH 79°01'13" EAST, A DISTANCE OFT 79.28 FEET; THENCE NORTH 87°55'03" EAST, A DISTANCE OF 71.16 FEET; THENCE NORTH 77°41'52" EAST, A DISTANCE OF 224.31 FEET; THENCE NORTH 75°24'46" EAST, A DISTANCE OF 29.63 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF INDIAN RIVER DRIVE, AS SHOWN ON THE STATE OF FLORIDA STATE ROAD DEPARTMENT RIGHT-OF-WAY MAP SECTION 94500, LAST REVISED OCTOBER 5, 1960 (A VARYING WIDTH RIGHT-OF-WAY); THENCE SOUTH 04°53'04" EAST, DEPARTING SAID CONCRETE BULKHEAD CENTERLINE AND SOUTH TOP OF BANK OF MOORE'S CREEK, AND ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 491.42 FEET TO A POINT ON THE EASTERLY PROLONGATION OF THE SOUTHERLY LINE OF SAID LOT 2, AND LOT 3, SAID BLOCK F; THENCE SOUTH 85°09'39" WEST, DEPARTING SAID WEST RIGHT-OF-WAY LINE, AND ALONG SAID EASTERLY PROLONGATION, AND THE SOUTH LINE OF SAID LOT 3, AND 2, A DISTANCE OF 457.22 FEET TO THE POINT OF BEGINNING. SAID LANDS BEING MORE PARTICULARLY DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0043-000-2 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

PARCEL 4: (2410-503-0013-000-3)

THE WESTERLY 20 FEET OF LOT 1, BLOCK B, AARON LEE'S MAP OF FORT PIERCE, FLORIDA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 189, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

PARCEL 5: (2410-503-0020-000-5)

COMMENCING AT THE SOUTHWEST CORNER OF LOT 8, BLOCK F, AARON LEE'S MAP OF FORT PIERCE, FLORIDA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 189, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; PROCEED SOUTH 86°09'39" WEST, ALONG THE NORTH RIGHT-OF-WAY LINE OF AVENUE A (FORMERLY KNOWN AS PALMETTO AVENUE AS SHOWN ON SAID AARON LEES MAP OF FORT PIERCE) (A 65 FOOT WIDE RIGHT-OF-WAY), AND ALONG THE EASTERLY PROLONGATION OF THE SOUTH LINE OF SAID BLOCK E, AND ALONG THE SOUTH LINE OF SAID BLOCK E, A DISTANCE OF 310.00 FEET TO THE SOUTHWEST CORNER OF LOT 9, SAID BLOCK E AND A POINT ON THE EAST RIGHT-OF-WAY LINE OF THE FLORIDA EAST COAST RAILROAD AS SHOWN ON THE STATION MAP, SOUTHERN DIVISION, FLORIDA EAST COAST RAILWAY COMPANY FLAGLER SYSTEM STATION 12741+93.7 TO STATION 12796+90.0, DATED SEPTEMBER 5, 1944; THENCE NORTH 04°53'21" WEST, DEPARTING SAID NORTH RIGHT-OF-WAY LINE OF SAID BLOCK E, AND THE SOUTHWEST CORNER OF SAID LOT 9, AND ALONG SAID EAST RIGHT-OF-WAY LINE, AND THE WEST LINE OF SAID LOT 9, AND ALONG THE WEST LINE OF PALM TERRACE (ABANDON), A DISTANCE OF 185.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 04°53'21" WEST ALONG SAID EAST RIGHT-OF-WAY LINE, AND THE WEST LINE OF PALM TERRACE (ABANDON), AND THE WEST LINE OF LOT 6, SAID BLOCK E, A DISTANCE OF 215 FEET TO THE NORTHWEST CORNER OF SAID LOT 6; THENCE SOUTH 85°09'39" WEST, DEPARTING SAID NORTHWEST CORNER, AND THE WEST LINE OF LOT 6, AND CONTINUING ALONG SAID EAST RIGHT-OF-WAY LINE, AND THE NORTH LINE OF LOT 7, SAID BLOCK E, A DISTANCE OF 48.76 FEET; THENCE NORTH 04°58'11" WEST, DEPARTING SAID NORTH LINE, AND CONTINUING ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 65.00 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY OF AVENUE B (FORMERLY KNOWN AS TROPICAL AVENUE AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE)(A 65 FOOT WIDE RIGHT-OF-WAY); THENCE NORTH 85°09'39" EAST, ALONG SAID NORTH RIGHT-OF-WAY LINE, AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 40 FEET; THENCE NORTH 04°58'11" WEST, DEPARTING SAID NORTH RIGHT-OF-WAY LINE, AND ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 72.51 FEET TO A POINT ON THE SOUTH TOP OF BANK OF MOORES CREEK; THENCE NORTH 63°48'24" EAST, DEPARTING SAID EAST RIGHT-OF-WAY LINE, AND ALONG SAID NORTH TOP OF BANK, A DISTANCE OF 64.50 FEET; THENCE NORTH 47°50'28" EAST, CONTINUING ALONG SAID SOUTH TOP OF BANK, A DISTANCE OF 70.44 FEET; THENCE NORTH 44°59'19" EAST, CONTINUING ALONG SAID SOUTH TOP OF BANK, A DISTANCE OF 82.06 FEET; THENCE NORTH 14°06'44" EAST, CONTINUING ALONG SAID SOUTH TOP OF BANK, A DISTANCE OF 14.97 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF THE REALIGNED PORTION OF NORTH 2ND STREET (A 50 FOOT WIDE RIGHT-OF-WAY); THENCE SOUTH 18°26'19" EAST, DEPARTING SAID SOUTH TOP OF BANK, AND ALONG SAID WEST RIGHT-OF-WAY LINE, A DISTANCE OF 320.88 FEET TO THE ANGLE POINT IN THE REALIGNED PORTION OF NORTH 2ND STREET (FORMERLY KNOWN AS PINE STREET, AS SHOWN ON SAID AARON LEE'S MAP OF FORT PIERCE)(A 60 FOOT WIDE RIGHT-OF-WAY);THENCE SOUTH 04°53'21" EAST, ALONG SAID WEST RIGHT-OF-WAY LINE, A DISTANCE OF 8.92 FEET TO THE SOUTHEAST CORNER OF LOT 1, SAID BLOCK E; THENCE SOUTH 85°09'39" WEST, DEPARTING SAID WEST RIGHT-OF-WAY LINE, AND SAID SOUTHEAST CORNER, AND ALONG THE SOUTH LINE OF SAID LOT 1, A DISTANCE OF 146.50 FEET TO A POINT ON A LINE LYING ~~3.00~~ **[3.50]**[4] FEET EAST OF AND PARALLEL WITH THE WEST LINE OF LOT 2, SAID BLOCK E; THENCE SOUTH 04°53'21" EAST, DEPARTING SAID SOUTH LINE, AND ALONG SAID PARALLEL LINE, A DISTANCE OF 50.00 FEET TO A POINT ON THE SOUTH LINE OF SAID LOT 2; THENCE SOUTH 85°09'39" WEST, DEPARTING SAID PARALLEL LINE, AND ALONG SAID SOUTH LINE, A DISTANCE OF 3.50 FEET TO THE SOUTHWEST CORNER OF SAID LOT 2; THENCE SOUTH 04°53'21" EAST, DEPARTING SAID SOUTH LINE, AND SAID SOUTHWEST CORNER, AND ALONG THE WEST LINE OF LOTS 3 AND 4, SAID BLOCK E, AND THE SOUTHERLY PROLONGATION THEREOF, A DISTANCE OF 115.00 FEET; THENCE SOUTH 85°09'39" WEST, DEPARTING SAID SOUTHERLY PROLONGATION, AND ALONG A LINE 15 FEET SOUTH OF, AND PARALLEL WITH THE SOUTH LINES OF SAID LOT 6, AND 5, SAID BLOCK E, A DISTANCE OF 100.00 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THAT PORTION OF THE ABOVE DESCRIBED PARCEL THAT LIES SOUTHERLY OF AND ADJACENT TO THE NORTH LINE OF AVENUE "B" (TROPICAL AVENUE) AS SHOWN ON SAID PLAT OF AARON LEE'S MAP OF FORT PIERCE.

LESS AND EXCEPT THAT PORTION OF THE ABOVE DESCRIBED PARCEL CONSISTING OF THE FOLLOWING:

THE NORTHERLY 20.00 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0020-000-5 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

AND

THE NORTHERLY AND WESTERLY 20.00 FEET OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL CONTROL NUMBER 2410-503-0019-000-5 PER ST. LUCIE COUNTY, FLORIDA PROPERTY APPRAISER.

PARCEL 6: (2410-503-0019-000-5)

[COMMENCE AT THE INTERSECTION OF THE NORTH RIGHT-OF-WAY LINE OF AVENUE B, AND THE WEST RIGHT-OF-WAY LINE OF NORTH 2ND STREET, AS SHOWN ON AARON LEE'S MAP OF FORT PIERCE][5], ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 189, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE RUN NORTHERLY 126.3 FEET, MORE OR LESS, TO THE POINT OF BEGINNING; THENCE WESTERLY 87 FEET, MORE OR LESS; THENCE AT A RIGHT ANGLE RUN NORTHERLY TO MOORE'S CREEK; THENCE MEANDER ALONG SAID MOORE'S CREEK TO THE WEST RIGHT-OF-WAY LINE OF NORTH 2ND STREET; THENCE SOUTHERLY ALONG SAID RIGHT-OF-WAY TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE NORTHERLY 20 FEET.

PARCEL 7: (2410-503-0019-010-8)

THE NORTHERLY AND WESTERLY 20 FEET OF THE FOLLOWING DESCRIBED PARCEL:

[BEGIN AT THE INTERSECTION OF THE NORTH RIGHT-OF-WAY LINE OF AVENUE B, AND THE WEST RIGHT-OF-WAY LINE OF NORTH 2ND STREET, AS SHOWN ON AARON LEE'S MAP OF FORT PIERCE][5], ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 189, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE RUN NORTHERLY TO MOORE'S CREEK; THENCE MEANDER ALONG SAID MOORE'S CREEK WESTERLY TO THE RIGHT-OF-WAY LINE OF THE FEC RAILWAY; THENCE SOUTHERLY ALONG SAID RIGHT-OF-WAY LINE TO THE NORTH LINE OF AVENUE B; THENCE EASTERLY TO THE POINT OF BEGINNING.

PARCEL 8: (2410-503-0030-000-8)

LOT 1, AND THE WEST 3.5 FEET OF LOT 2, OF THE NEW SUBDIVISION BLOCK E OF AARON LEE'S MAP OF FORT PIERCE, FLORIDA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 192, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

PARCEL 9: (2410-503-0034-000-6)

LOTS 5 AND 6, BLOCK E, OF AARON LEE'S MAP OF FORT PIERCE, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 189, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, AND ACCORDING TO PLAT OF THE NEW SUBDIVISION BLOCK E OF AARON LEE'S MAP OF FORT PIERCE, FLORIDA, RECORDED IN PLAT BOOK 1, PAGE 192, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, AND A STRIP OF LAND 15.0 FEET WIDE ADJACENT TO AND LYING SOUTHERLY OF SAID LOTS 5 AND 6, SAID STRIP OF LAND BEING A PORTION OF PALM TERRACE (OR CHURCH COURT), AS PER PLAT OF THE NEW SUBDIVISION BLOCK E OF AARON LEE'S MAP OF FORT PIERCE, FLORIDA, RECORDED IN PLAT BOOK 1, PAGE 192, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

PARCEL 10: (2410-503-0036-010-3)

A PARCEL OFLAND BEING A PORTION OF LOTS 7 AND 8, BLOCK E, OF AARON LEE'S MAP OF FORT PIERCE, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 189, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF SAID LOT 8; THENCE SOUTH 72°55'07" WEST ALONG THE SOUTH LINE OF SAID LOT 8 AND THE NORTH RIGHT-OF-WAY LINE OF AVENUE "A" (A 70' RIGHT-OF-WAY), A DISTANCE OF8.93 FEET TO A POINT ON A LINE THAT IS **[50.00 FEET EAST OF, AS MEASURED AT RIGHT ANGLES TO, THE CENTERLINE OF THE SOUTHBOUND MAIN OF THE FLORIDA EAST COAST RAILROAD]**[6]; THENCE NORTH 16°51'27" WEST, ALONG SAID LINE, A DISTANCE OF 400 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF AVENUE "B" (A 65' RIGHT-OF-WAY); THENCE NORTH 72°55'07" EAST, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 6.30 FEET TO THE NORTHEAST CORNER OF SAID LOT 7; THENCE SOUTH 17°14'05" EAST, ALONG THE EAST LINE OF SAID LOTS 7 AND 8, A DISTANCE OF 400.00 FEET TO THE POINT OF BEGINNING.

PARCEL 11:

THAT PART OF "AVENUE B" (FORMERLY KNOWN AS TROPICAL AVENUE AS SHOWN ON AARON LEE'S MAP OF FORT PIERCE, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 189, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA), LYING SOUTHERLY AND ADJACENT TO PARCELS 5 AND 7, AS DESCRIBED HEREIN, NORTHERLY AND ADJACENT TO PARCELS 8, 9 AND 10, AS DESCRIBED HEREIN, WESTERLY AND ADJACENT TO THE WEST LINE OF NORTH 2ND STREET, AND THAT PORTION LYING EASTERLY AND ADJACENT TO THE EAST RIGHT-OF-WAY LINE OF THE FLORIDA EAST COAST RAILROAD AS SHOWN ON THE STATION MAP, SOUTHERN DIVISION, FLORIDA EAST COAST RAILWAY COMPANY FLAGLER SYSTEM STATION 12741+93.7 TO STATION 12796+90.0, DATED SEPTEMBER 5, 1944; SAID LANDS SITUATE, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA.

NOTE: ITEMS IN BOLD TYPE IN BRACKETS AND A SUPERSCRIPT NUMBER CORRESPOND WITH SURVEYOR'S NOTE ITEM #20.

SCHEDULE B-II EXCEPTIONS

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

AMERICAN LAND TITLE ASSOCIATION COMMITTMENT

ISSUING OFFICE FILE NUMBER: 037720072937

COMMITTMENT DATE: JANUARY 02,2020 @3:06PM

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT.

AFFECTS SUBJECT PROPERTY, NOT A SURVEY MATTER

2. FACTS WHICH WOULD BE DISCLOSED BY AN ACCURATE AND COMPREHENSIVE SURVEY OF THE PREMISES HEREIN DESCRIBED.

AFFECTS SUBJECT PROPERTY, SHOWN HEREON

3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION.

AFFECTS SUBJECT PROPERTY, NOT A SURVEY MATTER

4. CONSTRUCTION, MECHANIC'S, CONTRACTORS' OR MATERIALMEN'S LIEN CLAIMS, IF ANY, WHERE NO NOTICE THEREOF APPEARS OF RECORD.

AFFECTS SUBJECT PROPERTY, NOT A SURVEY MATTER

5. EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS.

AFFECTS SUBJECT PROPERTY, NOT A SURVEY MATTER

6. GENERAL OR SPECIAL TAXES AND ASSESSMENTS REQUIRED TO BE PAID IN THE YEAR 2020 AND SUBSEQUENT YEARS.

AFFECTS SUBJECT PROPERTY, NOT A SURVEY MATTER

7. RIGHTS OF TENANTS AND/OR PARTIES IN POSSESSION, AND ANY PARTIES CLAIMING, BY THROUGH OR UNDER SAID TENANTS OR PARTIES IN POSSESSION, AS TO ANY UNRECORDED LEASES OR RENTAL AGREEMENTS.

AFFECTS SUBJECT PROPERTY, NOT A SURVEY MATTER

8. ALL MATTERS CONTAINED ON THE PLAT OF AARON LEE'S MAP OF FORT PIERCE, AS RECORDED IN PAT BOOK 1, PAGE 189.

AFFECTS SUBJECT PROPERTY, SHOWN HEREON

9. ALL MATTERS CONTAINED ON THE PLAT OF NEW SUBDIVISION BLOCK E OF AARON LEE'S MAP OFFORT PIERCE, FLORIDA, AS RECORDED IN PLAT BOOK 1, PAGE 192.

AFFECTS SUBJECT PROPERTY, SHOWN HEREON

10. EASEMENT BETWEEN FLOWERS BAKING CO. OF FT. PIERCE, INC. AND THE CITY OF FORT PIERCE, FLORIDA, FOR THE USE AND BENEFIT OF THE FORT PIERCE UTILITIES AUTHORITY RECORDED IN OFFICIAL RECORDS BOOK 306, PAGE 1045. (PARCEL 3)

PLATTED BLOCK IDENTIFICATION IS ILLEGIBLE, HOWEVER DOES NOT APPEAR TO AFFECT SUBJECT PROPERTY

11. EASEMENT DEED BETWEEN THE CITY OF FORT PIERCE FOR THE USE AND BENEFIT OF THE FORT PIERCE UTILITIES AUTHORITY AND CITY OF FORT PIERCE, FLORIDA RECORDED IN OFFICIAL RECORDS BOOK 3691, PAGE 1220. (PARCEL 9)

AFFECTS SUBJECT PROPERTY, SHOWN HEREON

12. EASEMENT BETWEEN THE CITY OF FORT PIERCE, FLORIDA AND THE CITY OF FORT PIERCE, FLORIDA, FOR THE USE AND BENEFIT OF THE FORT PIERCE UTILITIES AUTHORITY RECORDED IN OFFICIAL RECORDS BOOK 3897, PAGE 1716. (PARCEL 4)

AFFECTS SUBJECT PROPERTY, SHOWN HEREON

13. EASEMENT BETWEEN CITY OF FORT PIERCE, FLORIDA AND CITY OF FORT PIERCE, FLORIDA, FOR THE USE AND BENEFIT OF THE FORT PIERCE UTILITIES AUTHORITY RECORDED IN OFFICIAL RECORDS BOOK 3897, PAGE 1719. (PARCEL 7)

AFFECTS SUBJECT PROPERTY, SHOWN HEREON

14. DECLARATION OF RESTRICTIVE COVENANT BY FORT PIERCE REDEVELOPMENT AGENCY, A DEPENDENT SPECIAL DISTRICT OF THE CITY OF FORT PIERCE TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION RECORDED IN OFFICIAL RECORDS BOOK 4111, PAGE 1502. (PARCEL 1)

AFFECTS SUBJECT PROPERTY, SHOWN HEREON

15. EASEMENT BETWEEN CITY OF FORT PIERCE, FLORIDA AND THE CITY OF FORT PIERCE, FLORIDA, FOR THE USE AND BENEFIT OF THE FORT PIERCE UTILITIES AUTHORITY RECORDED IN OFFICIAL RECORDS BOOK 4201, PAGE 1107. (PARCELS 1 AND 2)

AFFECTS SUBJECT PROPERTY, SHOWN HEREON

16. RESOLUTION NO. L 9-R05 OF THE CITY COMMISSION OF THE CITY OF FORT PIERCE, FLORIDA TO APPROVE THE CREATION AND RECORDATION OF A 50' PUBLIC ROAD RIGHT-OF-WAY EXTENDING FROM NORTH 2ND STREET TO INDIAN RIVER DRIVE, COMMONLY KNOWN AS AVENUE B, RECORDED IN OFFICIAL RECORDS BOOK 4232, PAGE 1382. (PARCEL 2)

AFFECTS SUBJECT PROPERTY, SHOWN HEREON

17. AGREEMENT FOR DEVELOPMENT OF KING'S LANDING BY AND BETWEEN AUDUBON DEVELOPMENT, INC., A FLORIDA CORPORATION AND THE CITY OF FORT PIERCE, A FLORIDA MUNICIPAL CORPORATION, AND THE FORT PIERCE REDEVELOPMENT AGENCY, A COMMUNITY REDEVELOPMENT AGENCY ESTABLISHED PURSUANT TO FLORIDA STATUTES CHAPTER 163, RECORDED IN OFFICIAL RECORDS BOOK 4353, PAGE 1200. (ALL PARCELS)

AFFECTS SUBJECT PROPERTY, BLANKET IN NATURE

18. RIPARIAN AND LITTORAL RIGHTS ARE NOT INSURED.

DOES NOT AFFECT SUBJECT PROPERTY, NOT A SURVEY MATTER

19. ANY ADVERSE OWNERSHIP CLAIM BY THE STATE OF FLORIDA BY RIGHT OF SOVEREIGNTY TO ANY PORTION OF THE LANDS INSURED HEREUNDER, INCLUDING SUBMERGED, FILLED AND ARTIFICIALLY EXPOSED LANDS AND LANDS ACCRETED TO SUCH LANDS.

AFFECTS SUBJECT PROPERTY, SHOWN HEREON.

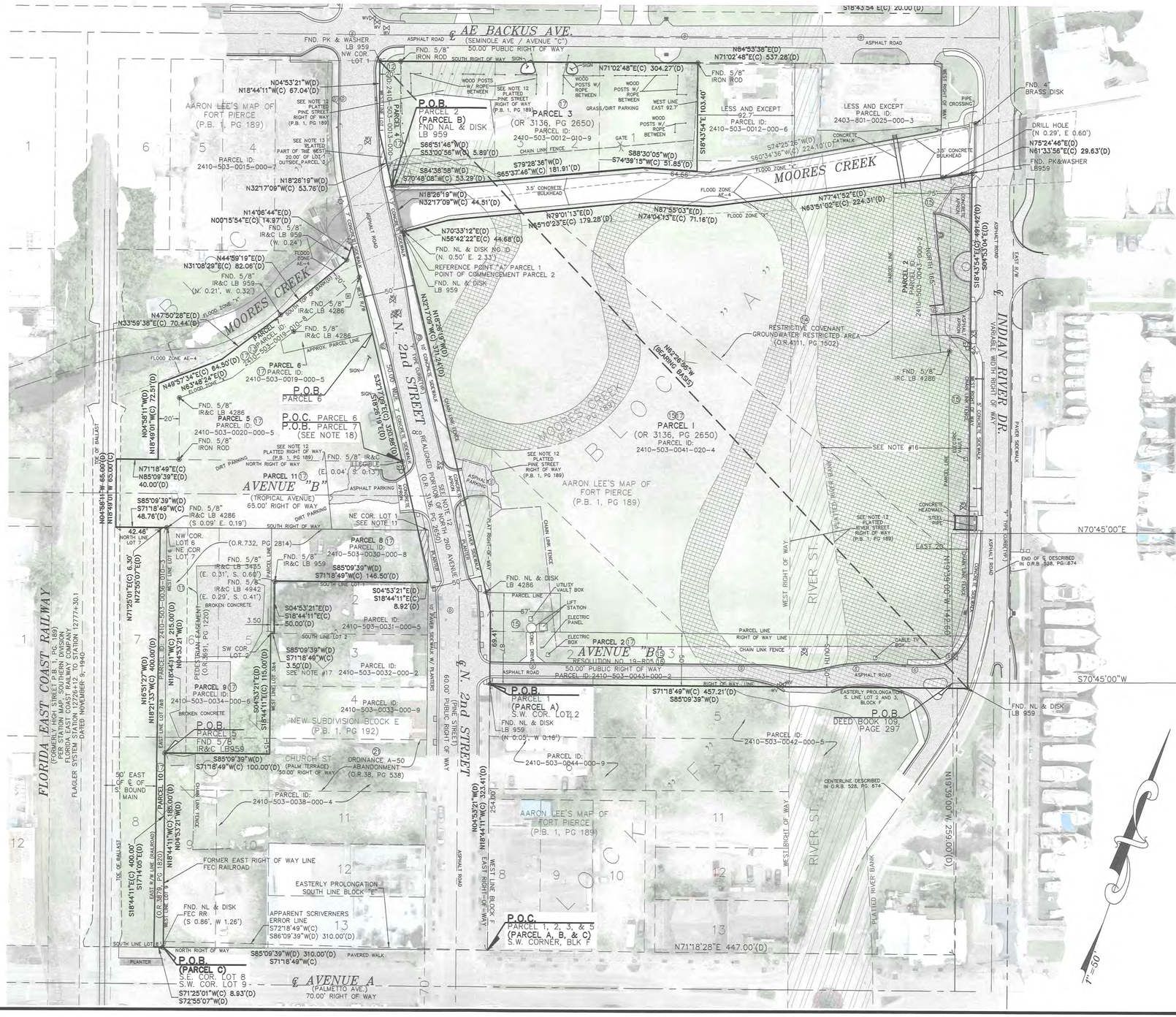
20. SUBJECT TO AUTOMATIC PHOSPHATE, METALS, MINERALS AND PETROLEUM RESERVATIONS BY VIRTUE OF SEC. 270.11 (1), F.S.

AFFECTS SUBJECT PROPERTY, NOT A SURVEY MATTER.

21. ORDINANCE NO. A-50 PASSED BY THE CITY COMMISSION OF THE CITY OF FORT PIERC

ALTA/NSPS LAND TITLE SURVEY

FOR: AUDUBON DEVELOPMENT, INC.



ABREVIAITION & SYMBOL LEGEND

FND = FOUND
NL = NAIL
ID = IDENTIFICATION
(C) = CALCULATED
(D) = DEED
FEC = FLORIDA EAST COAST
IR&C = IRON ROD & CAP
LB = LICENSED BUSINESS
O.R. = OFFICIAL RECORDS BOOK
PG. = PAGE
PK = PARKER & CAYLON
P.B. = PLAT BOOK
CL= CENTERLINE
WV = WATER VALVE

= AT&T RISER
= BACK FLOW PREVENTER
= BENCH
= BENCHMARK
= BIKE RACK
= CABLE RISER
= CABLE/TV HANDHOLD
= CATCH BASIN
= CLEAN OUT
= CONCRETE LIGHT POST
= CONCRETE POWER POLE
= CONCRETE POWER POLE W/STREET LIGHT
= CONCRETE SIGNAL LIGHT POLE
= DECORATIVE LIGHT POST
= DIAMETER
= DRAINAGE MANHOLE
= ELECTRIC BOX
= ELECTRIC HAND HOLE
= ELECTRIC METER
= ELECTRICAL PANEL
= EXISTING ELEVATION
= FIBER OPTIC RISER
= FIBER OPTIC VAULT
= GROUND LIGHT
= GUARD RAIL
= GUY WIRE ANCHOR
= HYDRANT
= IRRIGATION CONTROL VALVE
= IRRIGATION PUMP
= IRRIGATION VALVE
= LIGHT POST
= MAILBOX
= METAL LIGHT POST
= MONITORING WELL
= OVERHEAD WIRE
= PARKING METER
= RECLAIMED WATER VALVE
= SANITARY VALVE
= SET IRON ROD WITH CAP "L.B. 6599"
= SET NAIL AND DISK "L.B. 6599"
= SIGN
= SPIGOT
= SPRINKLER VALVE
= STREET SIGN
= WATER SERVICE METER
= CURB INLET
= WATER VALVE
= WOOD POLE STREET LIGHT
= WOOD POWER POLE
= TRAFFIC HANDHOLD
= UNKNOWN HANDHOLD
= UNKNOWN RISER BOX
= BLUE PAINT MARKS
= RED PAINT MARKS
= GREEN PAINT MARKS
= ORANGE PAINT MARKS
= WHITE PAINT MARKS
= AIR RELEASE VALVE
= FPL MANHOLE
= UNKNOWN TYPE MANHOLE
= SANITARY MANHOLE
= STORMWATER DRAIAGE MANHOLE

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PNJ DRAWN BY
MTO CHECKED BY
19-361 ALTA.dwg FILENAME
LAYOUT1 LAYOUT
AS SHOWN SCALE
February 27, 2020 DATE

REVISION COMMENTS | DATE

ALTA/NSPS LAND TITLE SURVEY
FOR: AUDUBON DEVELOPMENT, INC.

RECORD INFORMATION
SEC. 10, TWNSHP. 35 SOUTH, RGE. 40 EAST
SAINT LUCIE COUNTY, FLORIDA

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772-462-2455

19-361

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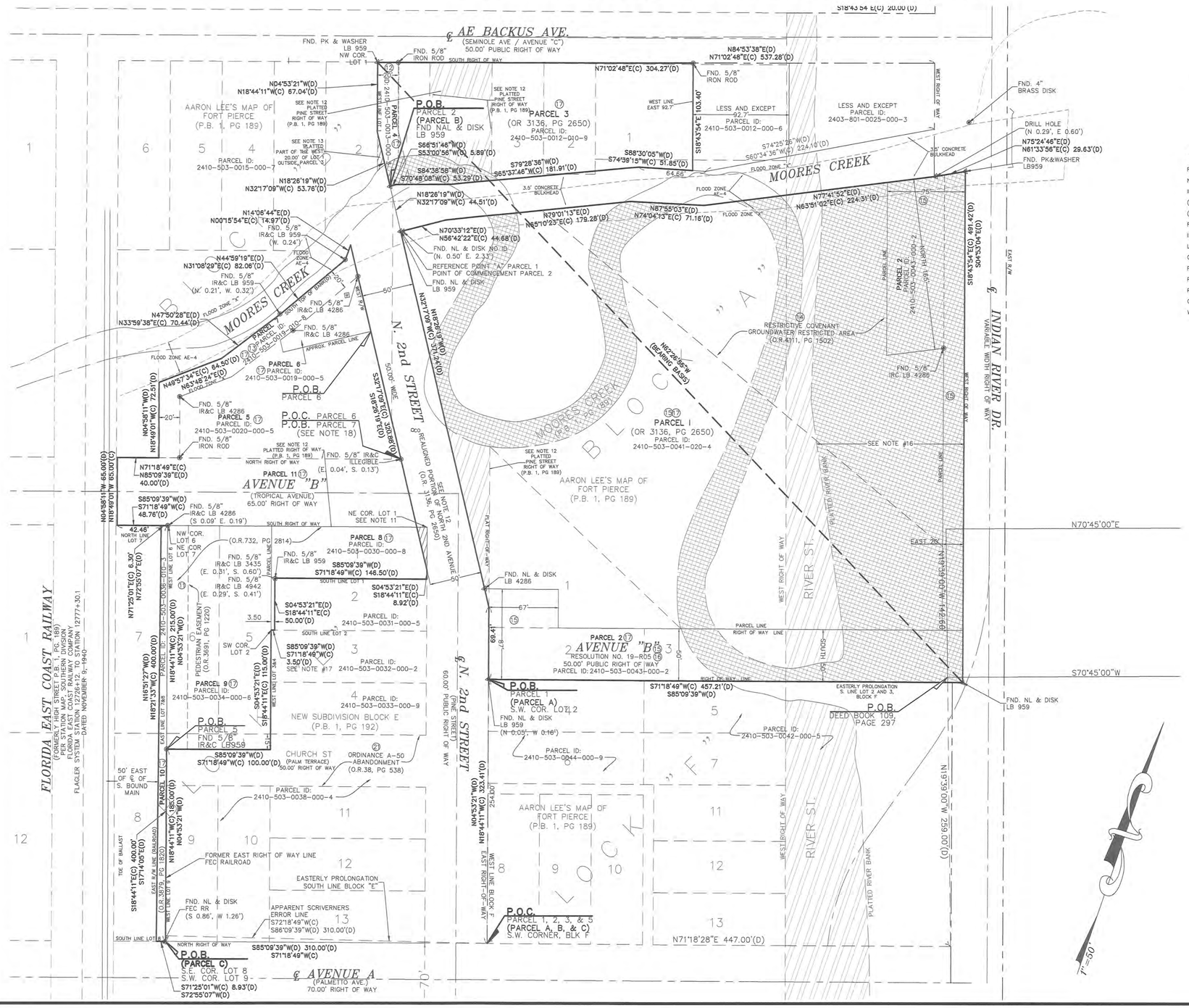
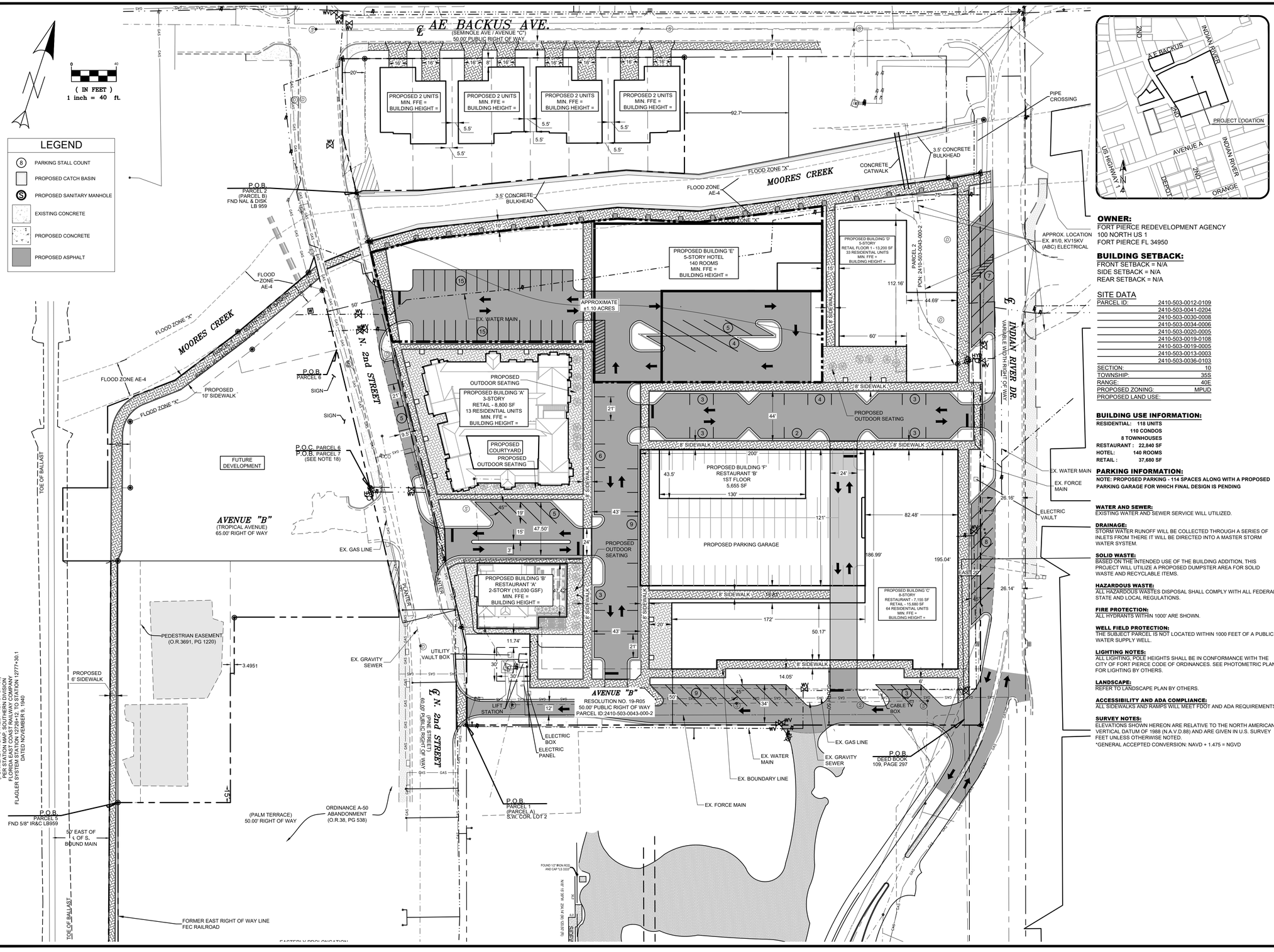
ALTA/NSPS LAND TITLE SURVEY

FOR: AUDUBON DEVELOPMENT, INC.


℄ AE BACKUS AVE.
(SEMINOLE AVE / AVENUE "C")
50.00' PUBLIC RIGHT OF WAY
P.O.B. PARCEL 2 (PARCEL B) FND NAL & DISK LB 959
PARCEL 3 (OR 3136, PG 2650)
PARCEL ID: 2410-503-0012-010-9
LESS AND EXCEPT PARCEL ID: 2403-801-0025-000-3
LESS AND EXCEPT PARCEL ID: 2410-503-0012-000-6
AARON LEE'S MAP OF FORT PIERCE (P.B. 1, PG 189)
MOORES CREEK
N. 2nd STREET
50.00' WIDE
℄ N. 2nd STREET
60.00' (PINE STREET) PUBLIC RIGHT OF WAY
℄ INDIAN RIVER DR.
VARIABLE WIDTH RIGHT OF WAY
RIVER ST.
BLOCK A
BLOCK E
BLOCK F
NEW SUBDIVISION BLOCK E (P.B. 1, PG 192)
PARCEL 1 (OR 3136, PG 2650) PARCEL ID: 2410-503-0041-020-4
RESTRICTIVE COVENANT GROUNDWATER RESTRICTED AREA (O.R.4111, PG 1502)
REFERENCE POINT "A" PARCEL 1 POINT OF COMMENCEMENT PARCEL 2
FND. NL & DISK LB 959
FND. 5/8" IRON ROD
FND. 4" BRASS DISK
DRILL HOLE (N 0.29', E 0.60')
FND. PK&WASHER LB959
FND. 5/8" IR&C LB 4286
FND. 5/8" IR&C LB 959
FND. PK & WASHER LB 959 NW COR. LOT 1
FND. NL & DISK NO ID (N. 0.50' E. 2.33')
FND. NL & DISK LB 4286
FND. NL & DISK FEC RR (S 0.86', W 1.26')
FND. 5/8" IRC LB 4286
FND. 5/8" IR&C (ILLEGIBLE) (E. 0.04', S. 0.13')
PARCEL 4 PARCEL ID: 2410-503-0015-000-4
PARCEL 5 PARCEL ID: 2410-503-0020-000-5
PARCEL 6 PARCEL ID: 2410-503-0019-000-5
PARCEL 7 PARCEL ID: 2410-503-0018-000-6
PARCEL 8 PARCEL ID: 2410-503-0030-000-8
PARCEL 9 PARCEL ID: 2410-503-0034-000-6
PARCEL ID: 2410-503-0031-000-5
PARCEL ID: 2410-503-0032-000-2
PARCEL ID: 2410-503-0033-000-9
PARCEL ID: 2410-503-0038-000-4
PARCEL ID: 2410-503-0044-000-9
PARCEL ID: 2410-503-0042-000-5
PARCEL 2 PARCEL ID: 2410-503-0043-000-2
PARCEL 10 PARCEL ID: 2410-503-0036-000-3
PARCEL 11 AVENUE "B" (TROPICAL AVENUE) 65.00' RIGHT OF WAY
PARCEL 2 AVENUE "B" RESOLUTION NO. 19-R05 50.00' PUBLIC RIGHT OF WAY PARCEL ID: 2410-503-0043-000-2
℄ AVENUE A (PALMETTO AVE.) 70.00' RIGHT OF WAY
CHURCH ST (PALM TERRACE) 50.00' RIGHT OF WAY
ORDINANCE A-50 ABANDONMENT (O.R.38, PG 538)
FLORIDA EAST COAST RAILWAY (FORMERLY HIGH STREET P.B. 1, PG 189) (FORMERLY FLORIDA MIDLAND RAILROAD) FLORIDA EAST COAST RAILWAY COMPANY FLAGLER SYSTEM STATION 12728+12, TO STATION 12777+30.1 DATED NOVEMBER 9, 1940
FORMER EAST RIGHT OF WAY LINE FEC RAILROAD
EASTERLY PROLONGATION SOUTH LINE BLOCK "E"
APPARENT SCRIVENERS ERROR LINE
P.O.C. PARCEL 6 P.O.B. PARCEL 7 (SEE NOTE 18)
P.O.B. PARCEL 5 FND 5/8" IR&C LB959
P.O.B. (PARCEL C) S.E. COR. LOT 8 S.W. COR. LOT 9
P.O.C PARCEL 1, 2, 3, & 5 (PARCEL A, B, & C) S.W. CORNER, BLK F
P.O.B. (PARCEL A) S.W. COR. LOT 2
P.O.B. DEED BOOK 109, PAGE 297
EASTERLY PROLONGATION S. LINE LOT 2, AND 3, BLOCK F
SEE NOTE #16
SEE NOTE #17
SEE NOTE 12 PLATTED PINE STREET RIGHT OF WAY (P.B. 1, PG 189)
SEE NOTE 13 PLATTED PART OF THE WEST 20.00' OF LOT 1 OUTSIDE PARCEL 2
SEE NOTE 11
SEE NOTE #18
SEE NOTE #19
SEE NOTE #20
SEE NOTE #21
SEE NOTE #22
SEE NOTE #23
SEE NOTE #24
SEE NOTE #25
SEE NOTE #26
SEE NOTE #27
SEE NOTE #28
SEE NOTE #29
SEE NOTE #30
SEE NOTE



OWNER:
FORT PIERCE REDEVELOPMENT AGENCY
100 NORTH US 1
FORT PIERCE FL 34950

BUILDING SETBACK:
FRONT SETBACK = N/A
SIDE SETBACK = N/A
REAR SETBACK = N/A

SITE DATA

PARCEL ID:	2410-503-0012-0109
	2410-503-0041-0204
	2410-503-0030-0008
	2410-503-0034-0006
	2410-503-0020-0005
	2410-503-0019-0108
	2410-503-0019-0005
	2410-503-0013-0003
	2410-503-0036-0103
SECTION:	10
TOWNSHIP:	35S
RANGE:	40E
PROPOSED ZONING:	MPUD
PROPOSED LAND USE:	

BUILDING USE INFORMATION:
RESIDENTIAL: 118 UNITS
110 CONDOS
8 TOWNHOUSES
RESTAURANT : 22,840 SF
HOTEL: 140 ROOMS
RETAIL : 37,680 SF

PARKING INFORMATION:
NOTE: PROPOSED PARKING - 114 SPACES ALONG WITH A PROPOSED PARKING GARAGE FOR WHICH FINAL DESIGN IS PENDING

WATER AND SEWER:
EXISTING WATER AND SEWER SERVICE WILL UTILIZED.

DRAINAGE:
STORM WATER RUNOFF WILL BE COLLECTED THROUGH A SERIES OF INLETS FROM THERE IT WILL BE DIRECTED INTO A MASTER STORM WATER SYSTEM.

SOLID WASTE:
BASED ON THE INTENDED USE OF THE BUILDING ADDITION, THIS PROJECT WILL UTILIZE A PROPOSED DUMPSTER AREA FOR SOLID WASTE AND RECYCLABLE ITEMS.

HAZARDOUS WASTE:
ALL HAZARDOUS WASTES DISPOSAL SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

FIRE PROTECTION:
ALL HYDRANTS WITHIN 1000' ARE SHOWN.

WELL FIELD PROTECTION:
THE SUBJECT PARCEL IS NOT LOCATED WITHIN 1000 FEET OF A PUBLIC WATER SUPPLY WELL.

LIGHTING NOTES:
ALL LIGHTING, POLE HEIGHTS SHALL BE IN CONFORMANCE WITH THE CITY OF FORT PIERCE CODE OF ORDINANCES. SEE PHOTOMETRIC PLAN FOR LIGHTING BY OTHERS.

LANDSCAPE:
REFER TO LANDSCAPE PLAN BY OTHERS.

ACCESSIBILITY AND ADA COMPLIANCE:
ALL SIDEWALKS AND RAMPS WILL MEET FDOT AND ADA REQUIREMENTS.

SURVEY NOTES:
ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D.88) AND ARE GIVEN IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
*GENERAL ACCEPTED CONVERSION: NAVD + 1.475 = NGVD

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L.B. CERTIFICATE OF AUTHORIZATION 8098

DCB — DESIGNED BY
JLW — DRAWN BY
19-361 site plan r14.dwg — FILENAME
Site Plan (with hotel) — LAYOUT
AS SHOWN — SCALE
0FFSET — DATE
04-07-21 — DATE
REVISIONS PER CITY EMAIL DATED 02/11/2021 — REVISION COMMENTS

HD KING
KINGS LANDING
SITE PLAN
FORT PIERCE FLORIDA

DAVID C. BAGGETT, P.E.(DATE)
#81375
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1 OF 2

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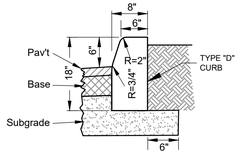
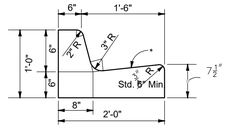


NOTES:

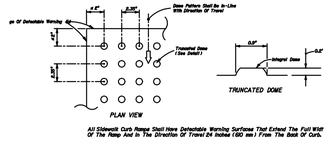
1. Use 3,000 P.S.I. concrete at 28 days for construction.
2. Subgrade to extend an additional 6" beyond Type "D" Curb.
3. Type "D" Curb to be constructed in accordance with FDOT Index #522-001.

TYPE "D" CURB



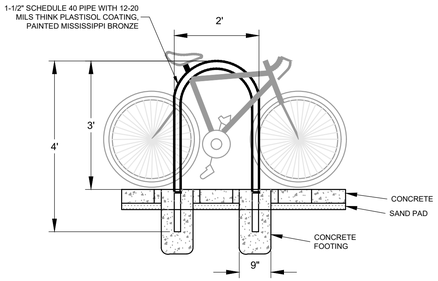
*NOTE: WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

TYPE F

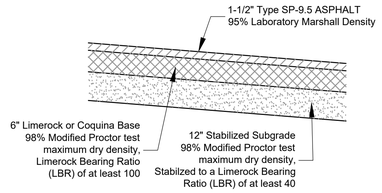


NOTES:
REFER TO FDOT INDEX 522-002 FOR FURTHER DETAILS

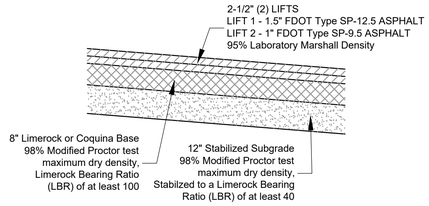
CURB RAMP DETECTABLE WARNING



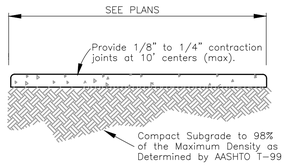
BIKE RACK DETAIL



TYPICAL LIGHT DUTY FLEXIBLE PAVEMENT SECTION

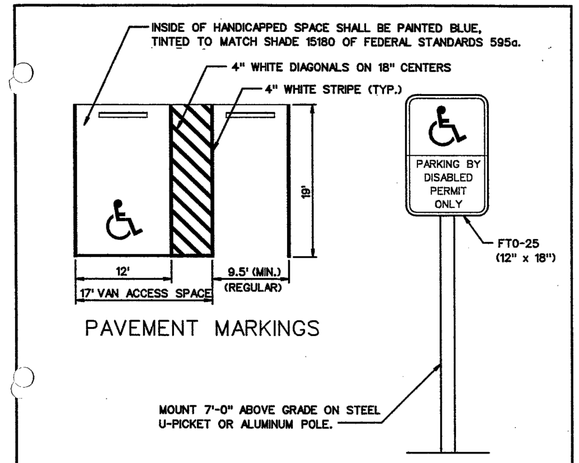


TYPICAL HEAVY DUTY FLEXIBLE PAVEMENT SECTION



NOTES:
1. Use 3,000 P.S.I. Concrete At 28 Days for sidewalk construction.
2. Sidewalk thickness to be increased to 6" thick at driveway locations.
3. All repairs required during construction shall be removed and replaced 10' minimum to next full joint.

4" THICK SIDEWALK DETAIL



NOTE:
FOR PARKING REQUIREMENTS SEE FORT PIERCE CODE.

CITY OF FORT PIERCE ● DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

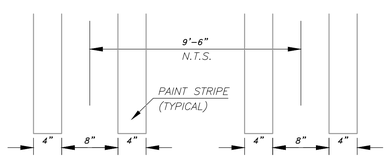
HANDICAPPED AND REGULAR PARKING DETAIL

REVISIONS

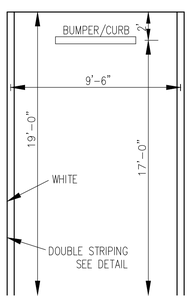
SCALE: N.T.S. | ISSUED AUGUST 1998 | SHEET No. PL2

SPACING OR REQUIRED ROADWAY / PARKING AREA TESTS						
ITEMS TO BE TESTED	DENSITY		L.B.R.		THICKNESS	
	MAX. SPACING		MAX. SPACING		MAX. SPACING	
	LIN.FT.	SQ.FT.	LIN.FT.	SQ.FT.	LIN.FT.	SQ.FT.
COMPACTED OR STABILIZED SUBGRADE	300	10,000	300	10,000	300	
LIMEROCK BASE	300	10,000	300	10,000	300	10,000
SHELLROCK BASE	300	10,000	300	10,000	300	10,000
ASPHALT	___	___	___	___	PER INSP.	10,000

NOTE: ALL TESTING SHALL BE TAKEN IN A STAGGERED SAMPLING PATTERN FROM A POINT 12" INSIDE THE LEFT EDGE OF THE ITEM TESTED, TO THE CENTER, TO A POINT 12" INSIDE



DOUBLE STRIPING DETAIL



19' PARKING STALL DETAIL

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DCB DESIGNED BY
JLW DRAWN BY
19-361 site plan r14.dwg FILENAME
Site Plan (2) LAYOUT
AS SHOWN SCALE
0[FEB]21 DATE

REVISION COMMENTS

DATE

HD KING
KINGS LANDING
SITE PLAN DETAILS
FORT PIERCE FLORIDA

DAVID C. BAGGETT, P.E.(DATE)
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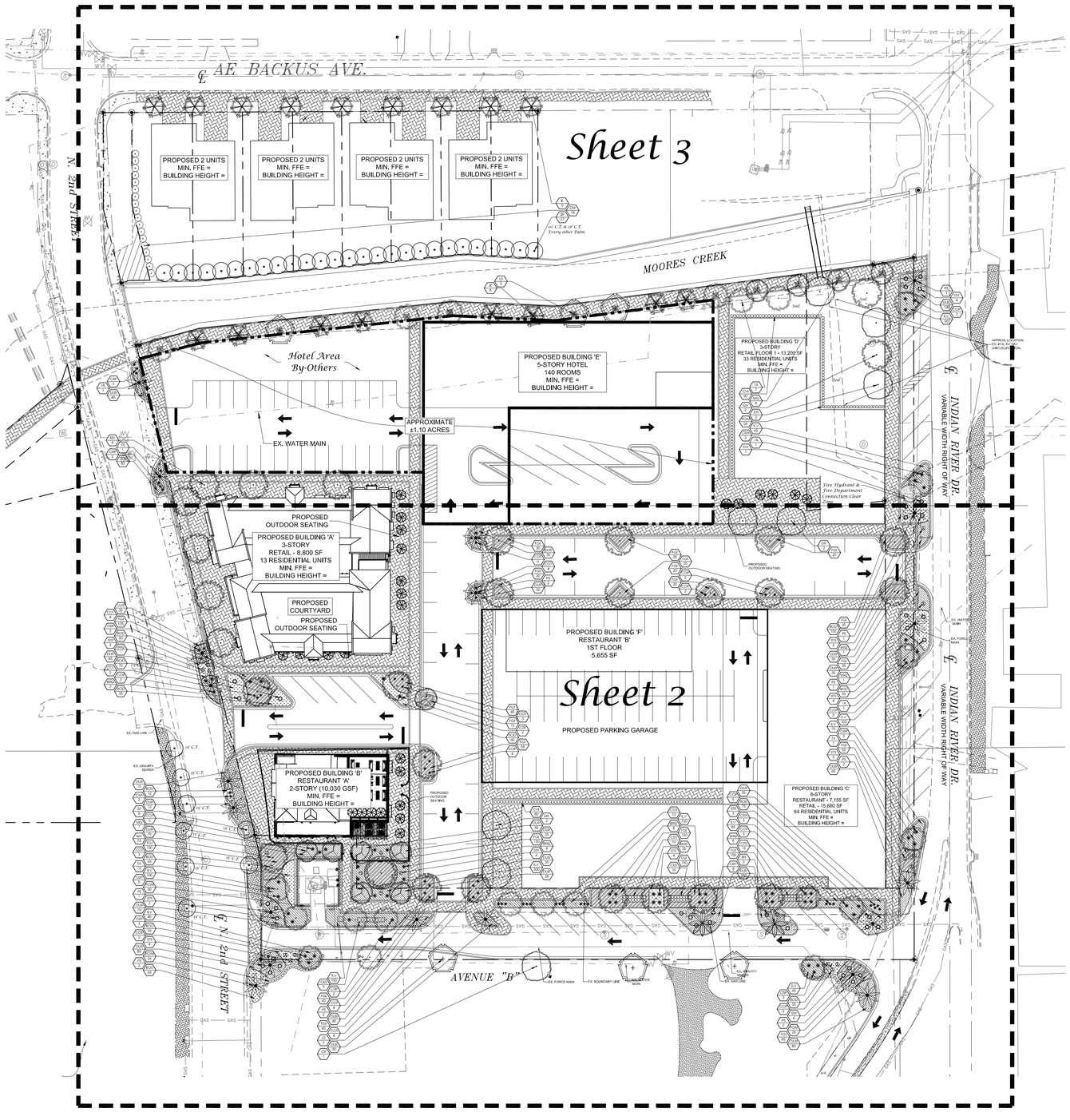

Sheet Legend

Sheet L-1 Key Sheet
Sheet L-2 Landscape Plan-South Section
Sheet L-3 Landscape Plan-North Section
Sheet L-4 Landscape Data, Plant List, Details & Specifications

Conceptual Design Group. Inc.
Landscape Architecture - Site Planning
900 East Ocean Boulevard, Suite 130d
Stuart, Florida 34994
(772) 344-2340
LC: 26000198

King's Landing

Indian River Drive - Avenue B - 2nd Street
City of Fort Pierce, Florida

City Project Number:

Jeffrey W. Smith, RLA
Florida Registration Number:
LA 0001635

Job No. 21-0201
Drawn By JWS
Submittal Dates 3-25-2021

Revision Dates

These drawings are the property of the landscape architect and are not to be used for other projects except by written permission from the landscape architect. Report any discrepancies immediately to the landscape architect.

Sheet L-1 of 4

Landscape Plan

North
Scale: 1" = 40'
0 20' 40' 80'

Match Line - See Sheet L-3

PROPOSED OUTDOOR SEATING

PROPOSED BUILDING 'A'
3-STORY
RETAIL - 8,800 SF
13 RESIDENTIAL UNITS
MIN. FFE =
BUILDING HEIGHT =

PROPOSED COURTYARD

PROPOSED OUTDOOR SEATING

PROPOSED BUILDING 'B'
RESTAURANT 'A'
2-STORY (10,030 GSF)
MIN. FFE =
BUILDING HEIGHT =

PROPOSED BUILDING 'F'
RESTAURANT 'B'
1ST FLOOR
5,655 SF

PROPOSED PARKING GARAGE

PROPOSED OUTDOOR SEATING

PROPOSED OUTDOOR SEATING

PROPOSED BUILDING 'C'
8-STORY
RESTAURANT - 7,155 SF
RETAIL - 15,680 SF
64 RESIDENTIAL UNITS
MIN. FFE =
BUILDING HEIGHT =

EX. GAS LINE

EX. GRAVITY SEWER

15' C.T.

N. 2nd STREET

AVENUE "B"

EX. FORCE MAIN

EX. BOUNDARY LINE

EX. WATER MAIN

EX. GRAVITY SEWER

EX. GAS LINE

EX. WATER MAIN

EX. FORCE MAIN

INDIAN RIVER DR.
VARIABLE WIDTH RIGHT OF WAY

Landscape Plan

North
Scale: 1" = 20'
0 10' 20' 40'

Conceptual Design Group, Inc.
Landscape Architecture - Site Planning
900 East Ocean Boulevard, Suite 130d
Stuart, Florida 34994
(772) 344-2340
LC: 26000198

King's Landing
Indian River Drive - Avenue B - 2nd Street
City of Fort Pierce, Florida

City Project Number:

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Revision Dates

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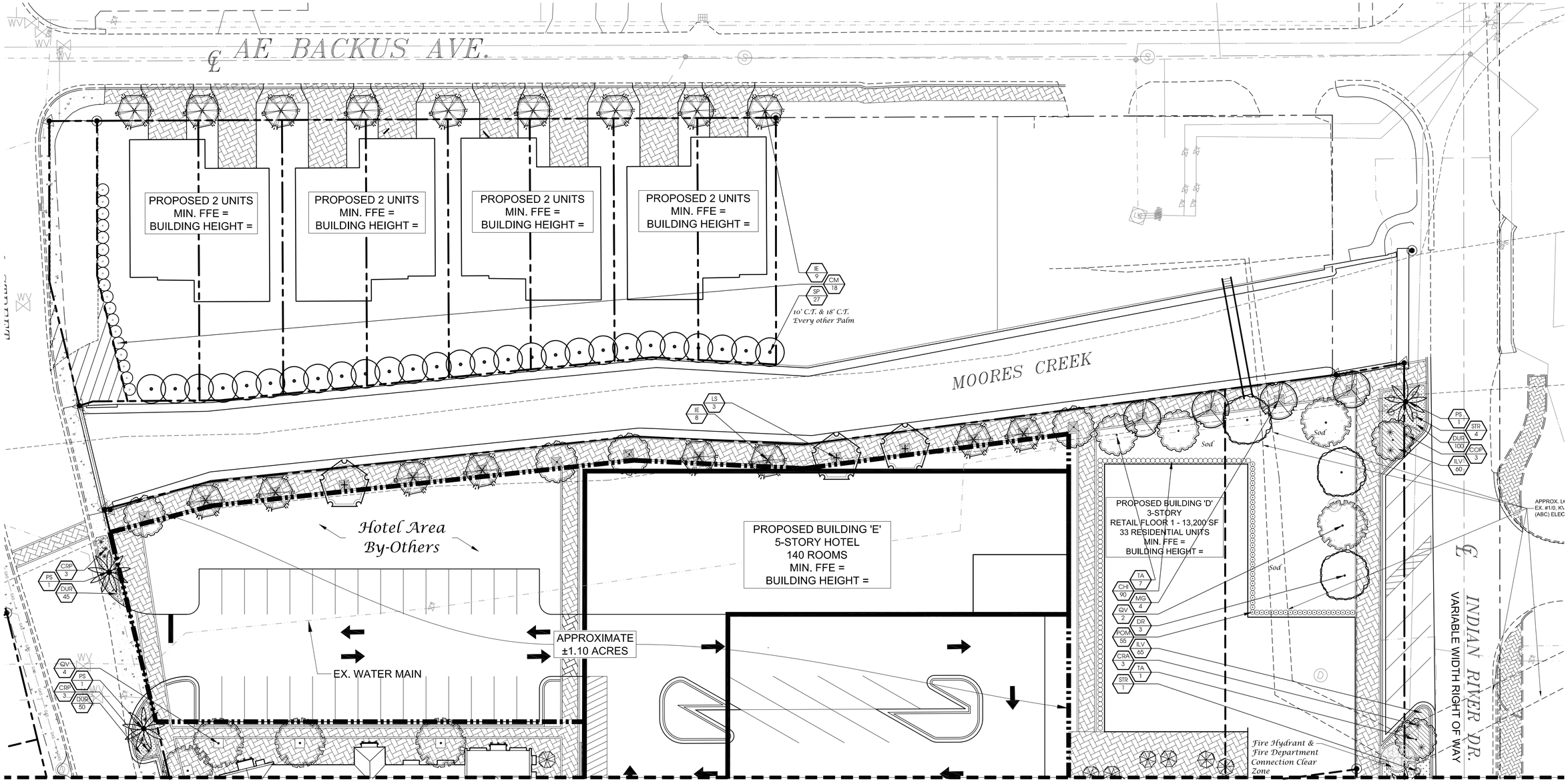

Match Line - See Sheet L-2

Landscape Plan

North
Scale: 1" = 20'
0 10' 20' 40'

Conceptual Design Group, Inc.
Landscape Architecture - Site Planning
900 East Ocean Boulevard, Suite 130d
Stuart, Florida 34994
(772) 344-2340
LC: 26000198

King's Landing
Indian River Drive - Avenue B - 2nd Street
City of Fort Pierce, Florida

City Project Number:

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Submittal Dates 3-25-2021

Revision Dates

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Landscape Specifications

1. All tree and plant material to be Florida No. 1 or better, as classified in "Grades and Standards for Nursery Plants", Part 1 and Part II, State of Florida, Dept. of Agriculture, Tallahassee. All plants not listed in "Grades and Standards for Nursery Plants" shall conform to a Florida No. 1 as to: (1) health and vitality, (2) condition of foliage, (3) root system, (4) freedom from pest or mechanical damage, (5) heavily branched and densely foliated according to the accepted normal shape of the species.
2. Undersizing or substitution of one species or cultivar for another species is a breach of contract and will be "Rejected" at the time of final landscape inspection unless approved by Landscape Architect.
3. Project Warranty: All plant material shall be warranted for a period of one (1) year after date of substantial completion against defects, including death and unsatisfactory growth, except for defects resulting from abuse or damage by others or unusual phenomena or incidents which are beyond the contractor's control.
4. Any and all conditions which the contractor feels will be detrimental to the success of the planting shall be brought to the owner or representative's attention.
5. The contractor shall verify the location of underground utilities prior to commencing work on any project area.
6. Mulch planting areas with 3" layer of Melaleuca, Eucalyptus, or Enviromulch. Cypress Mulch is NOT ACCEPTABLE. Planting beds to receive mulch throughout entire bed area.
7. All plants to be set to ultimate grade, No filling will be permitted around trunks or stems. Mulch to be kept a minimum of 2" away from trunks and stems.
8. Planting trees and shrubs: Excavate hole per planting detail. When plant is set, place additional backfill consisting of a 50% mixture of Peat humus and natural soil around the base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Water again after placing final layer of backfill and before installing mulch.
9. Guy and stake trees in 3 directions with galvanized wire, through flexible hose chafing guards, with wooden stake anchors immediately after planting. (See Detail)
10. Trees and shrubs shall be fertilized with a complete natural organic fertilizer with a ratio of approximately 3:0:2 or 3:0:3 (e.g. one labeled 12-0-8). Similar analysis such as 16-0-8 (4:0:2) can also be used. Fertilizers that are slow release, controlled release, sulphur coated or with nitrogen as IBDU or ureaformaldehyde have extended release period. Thirty to fifty percent of the nitrogen should be water insoluble or slow release.

Palms should receive a complete granular fertilizer formulated for palms ("Palm Special") at a rate of 5 to 8 lbs. per palm.

Agriform 20-0-5 twenty-one gram planting tablets may be substituted for granular fertilizer. If utilized, the following rates shall be utilized: Position plant in hole, Backfill halfway up the rootball, Place tablet(s) beside rootball about 1" from root tips. Do not place tablet(s) in bottom of hole.

1 Gallon 1 Tablet
3 Gallon 2 Tablets
25 Gallon & B&B Trees 2 per 1" caliper

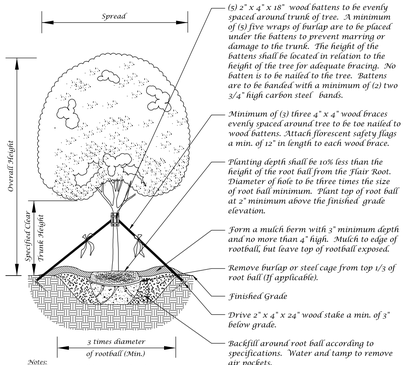
11. All planting areas and sod to be irrigated to provide 100% coverage. Shop drawings to be submitted by the irrigation contractor for approval prior to installation.
12. Maintain trees, shrubs, and other plants by watering, cultivating, and weeding as required for healthy growth. Restore planting saucers and mulch. Tighten and repair stake and guying and reset trees and shrubs to proper grade or vertical position as required. Spray as necessary to keep trees and shrubs free of insects and disease. The contractor shall begin maintenance immediately after planting and shall continue maintenance through final acceptance when Certificate of Occupancy is issued to the General Contractor by City and project is released by the General Contractor to Client.
13. Prune trees and shrubs only to remove damaged branches as directed by the Landscape Architect.
14. Planting Lawns: Provide clean, strongly rooted, uniformly sized strips of Stenotaphrom secundatus Floritam (unless otherwise noted), machine stripped not more than 24 hours prior to laying. Grade and roll prepared lawn surface. Water thoroughly but not to create muddy soil conditions. Lay sod strips with tight joints, roll or tamp lightly, and water thoroughly.
15. Maintain positive drainage, no planting is to block drainage.
16. Drainage Testing
    Prior to planting of trees, palms, and specimen material, each planting pit shall be tested in the following manner to verify adequate drainage.
    A) Dig each planting pit to the minimum specified size,
    B) Fill the planting pit with (12") twelve inches of water. If the water level in the planting pit drops (4") four or more inches within (4) four hours, the drainage is sufficient and a drainage channel is not required. If the water level drops less than (4") four inches within the (4) four hour period, then a drainage channel is required.
    C) When a drainage channel is required, the drainage channel must extend down through the non porous soil and into porous soil. (See Drainage Testing Detail)
    D) Discard all material removed from the drainage channel.
    E) When backfilling the planting pit, add course gravel to the drainage channel. Also, care must be taken to keep the consistency of the soil mix the same throughout the planting pit.

NOTES:
1. Contractor to include drainage testing for all trees and palms in bid. If drainage is inadequate, the soil specification in item #8 above shall be revised for site conditions. Contractor shall notify the Owner and Landscape Architect of poor drainage conditions in writing and written direction will be provided to the contractor of appropriate soil mixture specification to be used.
2. All fertilizers shall meet the City of Port St. Lucie's fertilizer ordinance.

Plant List

QTY	SYM	SPECIES	COMMON NAME/DESCRIPTION	SIZE	SPACING	REMARKS
		CANOPY / ORNAMENTAL TREES				
8	DR	DELONIX REGIA	ROYAL POINCIANA	14' x 5', 2.5" CAL.	A.S.	FULL CANOPY, 5' C.T. MIN.
17	IE	ILEX x ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY	14' x 5', 2.5" CAL.	A.S.	FULL CANOPY, LIMB-UP 3'
6	LS	LAGERSTROEMIA SPECIOSA	QUEEN'S CREPE MYRTLE	14' x 5', 2.5" CAL.	A.S.	FULL CANOPY, LIMB-UP 3'
11	MG*	MAGNOLIA GRANDIFLORA	D.D. BLANCHARD SOUTHERN MAGNOLIA	14' x 5', 2.5" CAL.	A.S.	FULL CANOPY, LIMB-UP 3'
29	QV*	QUERCUS VIRGINIANA	LIVE OAK	100 GALLON, 16' x 6' , 3.5" CAL.	A.S.	FULL CANOPY, 5' C.T. MIN.
22	TA	TABEBUIA AUREA	YELLOW TABEBUIA	14' x 5', 2.5" CAL.	A.S.	FULL CANOPY, CHARACTER SPECIMEN
		PALMS				
2	BN	BISMARCKIA NOBILIS	SILVER SELECT BISMARCK PALM	10' C.T.	A.S.	MATCHED SPECIMEN, THICK TRUNKS
18	CM	CARYOTA MITIS	FISHTAIL PALM	10' O.A.	5' O.C.	FULL & THICK
16	PS	PHOENIX SYLVESTRIS	SYLVESTER PALM	10' C.T.	A.S.	MATCHED SPECIMEN, THICK TRUNKS
35	SP*	SABAL PALMETTO	SABAL PALM	SEE PLAN	A.S.	SLICK TRUNKS
		LARGE SHRUBS / ACCENTS				
29	BRQ	BROMELIAD ALCANTAREA IMPERIALIS	ALCANTAREA IMPERIALIS BROMELIAD	#15, 3' x 3'	A.S.	TO BE SELECTED BY OWNER
57	CES*	CONOCARPUS ERECTUS VAR. SERICEUS	SILVER BUTTONWOOD	#3, 1.5' x1.5'	2' O.C.	FULL & THICK
170	CHI*	CHRYSOBALANUS ICACO	COCOPLUM	#3, 1.5' x1.5'	2' O.C.	FULL & THICK
8	CRA*	CRINUM ASIATICUM	CRINUM LILY	#15, 36" x 36"	A.S.	FULL, SPECIMEN
35	CRP	CRINUM AUGUSTUM	QUEEN EMMA SUPREME	#15, 36" x 36"	A.S.	FULL, SPECIMEN
31	COP	CORDYLINE TERMINALIS 'PURPLE PRINCE'	PURPLE PRINCE TI PLANT	#7, 3.5' O.A.	A.S.	FULL, SPECIMEN
44	COT	CORDYLINE TERMINALIS 'HAWAIIAN'	HAWAIIAN TI PLANT	#7, 3.5' O.A.	A.S.	FULL, SPECIMEN
167	POM	PODOCARPUS MAKII	PODOCARPUS	4' OA x 2' SPRD.	2' O.C.	FULL & THICK
40	STR	STRELITZIA REGINEA	ORANGE BIRD OF PARADISE	#15, 3' x 3'	4' O.C.	FULL, SPECIMEN
		MED. SHRUBS / GROUNDCOVERS / VINES				
652	BOD	BOUGAINVILLEA 'DWARF HELEN JOHNSON'	DWARF HELEN JOHNSON BOUGAINVILLEA	#3, 12" x 12"	24" O.C.	FULL, ATTACH TO WALL
1,307	DUR	DURANTA ERECTA	GOLD MOUND	#3, 12" x 12"	24" O.C.	FULL & THICK
1,455	FGI	FICUS MICROCARPA 'GREEN ISLAND'	FICUS GREEN ISLAND	#3, 1.5' x1.5'	2' O.C.	FULL & THICK
1,165	ILV*	ILEX VOMITORIA	DWARF YAUPON HOLLY	#3, 12" x 12"	24" O.C.	FULL & THICK
	SOD	STENOTAPHRUM SECUNDATUS	ST. AUGUSTINE SOD			SEE SPECS

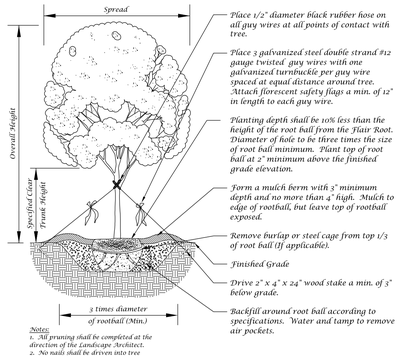
Landscape Details



Notes:
1. All pruning shall be completed at the direction of the Landscape Architect.
2. No nails shall be driven into tree

Large Tree Planting Detail (5" Caliper or Greater)

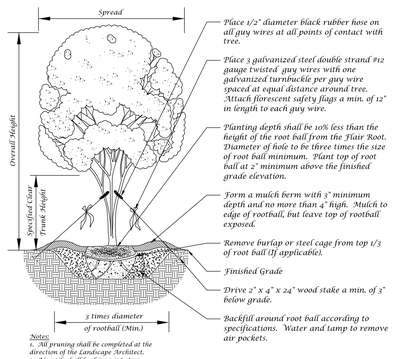
Not to Scale



Notes:
1. All pruning shall be completed at the direction of the Landscape Architect.
2. No nails shall be driven into tree

Tree Planting Detail

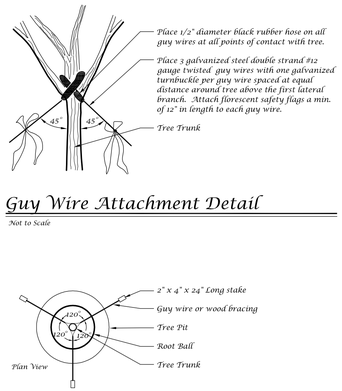
Not to Scale



Notes:
1. All pruning shall be completed at the direction of the Landscape Architect.
2. No nails shall be driven into tree

Multi-Trunk Tree Planting Detail

Not to Scale

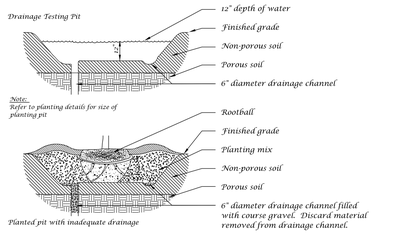


Guy Wire Attachment Detail

Not to Scale

Staking Detail

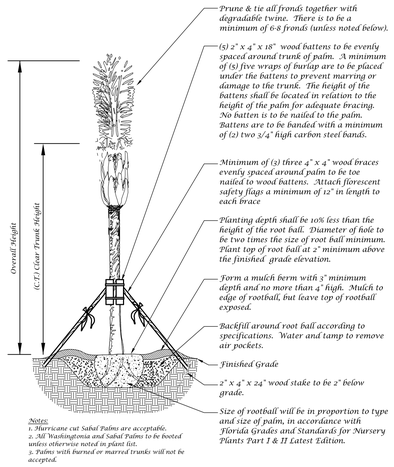
Not to Scale



Note:
Refer to planting details for size of planting pit

Drainage Testing Detail

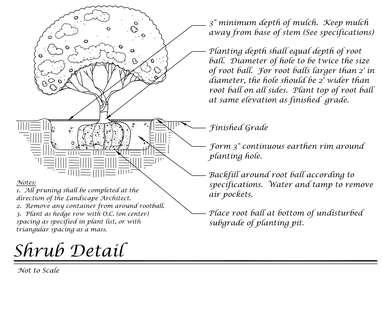
Not to Scale



Notes:
1. Hurricane cut Sabal Palms are acceptable.
2. All Washingtonia and Sabal Palms to be booted unless otherwise noted in plant list.
3. Palms with burned or marred trunks will not be accepted.

Palm Planting Detail

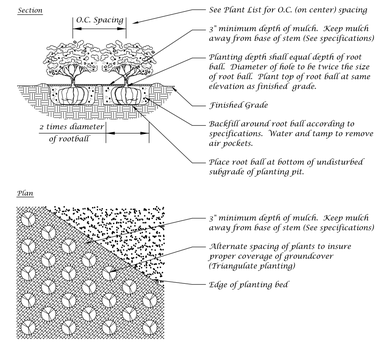
Not to Scale



Notes:
1. All pruning shall be completed at the direction of the Landscape Architect.
2. Remove any container from around rootball.
3. Plant as hedge row with O.C. (on center) spacing as specified in plant list, or with triangular spacing as a mass.

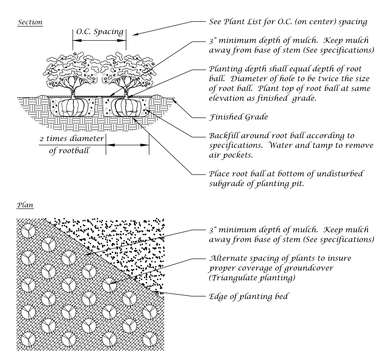
Shrub Detail

Not to Scale



Ground Cover Detail

Not to Scale



Ground Cover Detail

Not to Scale

Landscape Plan

Conceptual Design Group, Inc.
Landscape Architecture - Site Planning
900 East Ocean Boulevard, Suite 130d
Stuart, Florida 34994
(772) 344-2340
LC: 26000198

King's Landing
Indian River Drive - Avenue B - 2nd Street
City of Fort Pierce, Florida

City Project Number:

Jeffrey W. Smith, RLA
Florida Registration Number: LA 0001635

Job No. 21-0201
Drawn By JWS
Submittal Dates 3-25-2021

Revision Dates

These drawings are the property of the landscape architect and are not to be used for other projects except by written permission from the landscape architect. Report any discrepancies immediately to the landscape architect.

February 02, 2021

Dale Matteson
Audubon Development
184 Sunset Ave #38
Palm Beach, FL 33480

VIA Email: dale@audubondevelopment.com

Reference: **Environmental Assessment**
Kings Landing Redevelopment
Fort Pierce, St. Lucie County, FL

Dear Mr. Matteson,

EDC, Inc. (EDC) has completed this Environmental Assessment (EA) for the below referenced properties. The purpose of this evaluation was to conduct a review of the below listed parcels by means of site visit, review of available aerial photography, listed species review, review of soil resources, and review of environmental regulation pertaining to these parcels.

Parcel ID	Parcel Address	Acreage	Current FLU	Current Zoning
2410-503-0041-020-4	322 N. 2nd Street	5.27	I	LI
2410-503-0012-010-9	125 A E Backus Avenue	0.69	I	LI
2410-503-0020-000-5	N 2nd Street	0.41	I	LI
2410-503-0034-000-6	218 Avenue B	0.494	I	LI
2410-503-0019-000-5	N 2nd Street	0.1	I	LI
2410-503-0030-000-8	N. 2nd Street	0.169	I	LI
TOTAL ACRES:		**7.13**		

The following report details the findings of our on-site and desktop investigations of the properties as they pertain to City of Fort Pierce regulations.

Please contact the undersigned if you have any questions regarding this report.

Respectfully submitted,
EDC, Inc.



Anthony A. Adams, BS
Sr. Biologist | Certified Arborist

ENGINEERS ◆ SURVEYORS ◆ ENVIRONMENTAL

ENVIRONMENTAL ASSESSMENT

North 2nd Avenue and E Backus Street
Fort Pierce, St. Lucie County, FL

Date: February 01, 2021
Project # 19-361

Prepared For:
Dale Matteson
Audubon Development
184 Sunset Ave #38
Palm Beach, FL 33480
dale@audubondevelopment.com

Prepared By:
EDC, Inc.
10250 SW Village Parkway
Port St Lucie, Florida 34987
(772) 223-5200

The subject property evaluated as part of this Environmental Assessment consists of an approximately 7.13 acres, divided between six (6) parcels:

Parcel ID	Parcel Address	Acreage	Current FLU	Current Zoning
2410-503-0041-020-4	322 N. 2nd Street	5.27	I	LI
2410-503-0012-010-9	125 A E Backus Avenue	0.69	I	LI
2410-503-0020-000-5	N 2nd Street	0.41	I	LI
2410-503-0034-000-6	218 Avenue B	0.494	I	LI
2410-503-0019-000-5	N 2nd Street	0.1	I	LI
2410-503-0030-000-8	N. 2nd Street	0.169	I	LI
TOTAL ACRES:		**7.13**		

These properties are located at North 2nd Ave, East Backus Street, and 218 Avenue B in Fort Pierce, St Lucie County, Florida. According to the St Lucie County Property Appraiser, the subject property has a land use code of 8000 Light Industrial.

This environmental assessment was completed as a precursor to permitting and review by a governmental agency as an applicable document for the supporting information associated with a building permit or land development application. EDC, Inc. staff visited the property on January 29, 2021 in order to ascertain the status and composition of any critical habitats, such as wetlands and native uplands that may be onsite.

VEGETATION:

It is the opinion of EDC that there is no native upland habitat located on site. The habitat consisted of the following classification; 190 – Open Land with a regularly maintained groundcover.

The following native vegetation was found on site:

Common Name	Species Name
Cabbage Palm	*Sabal Palmetto*
Live Oak	*Quercus virginicus*

The following invasive vegetation was found on site:

Common Name	Species Name
Brazilian Pepper	*Schinus terebinthifolia*
Bahia Grass	*Paspalum notatum*

WETLAND DELINEATION:

According to aerial photographs and site visit, it appears that there are no wetlands on site. Based on the State definition, a wetland consists of three components: 1). Hydric soils. 2). Wetland plants. 3). Hydrologic patterns. These components were not found during the field reconnaissance on the property. At the time of the site reconnaissance, there were no wetland indicators.

A wetland delineation will not be needed.

WILDLIFE EVALUATION:
EDC, Inc. conducted a pedestrian survey throughout the property to investigate for the presence of any plant or animal listed species. No gopher tortoises or any other state or federally listed plant/animal species were found on site.

SOIL COMPOSITION:
Based on a review of the USDA Web Soil the site is composed of:

Urban land- This miscellaneous area is where the natural soil cannot be readily observed. The soils have been generally altered by grading and shaping, or have been covered with 5 to 12 inches of sandy fill material.

SITE HISTORY:
After reviewing aerial images provided by Google Earth and St Lucie County Property Appraiser, it is evident that approximately 3.75 acres, of the largest parcel was used for industrial purposes. Storage tanks, large building structures, and equipment can be seen. The site was demolished in 2008, according to aerials and permit history of the parcel. The parcel and surrounding parcels have remained vacant since the demolition occurred. According to the St Lucie County Property Appraiser, the current property owner is the Fort Pierce Redevelopment Agency.

CITY OF FORT PIERCE REGULATIONS:
The following City of Fort Pierce Land Development Regulations apply to the subject property:

Sec. 123-64. - Permit required.

(a) *Tree removal permit.* No person shall, directly or indirectly, cut down, substantially alter, destroy, remove, relocate, damage or authorize any such act involving a protected tree situated on land within the city, without first obtaining a tree removal permit. But the following activities may be done without applying for a permit:

There are native palms with a clear trunk of 10', based on site observations, as well as large oaks. To remove them, a mitigation plan will be needed as part of a Tree Removal Permit application.

SUMMARY:
It is the professional opinion of EDC that there is no native upland habitat on site. In addition, no wetlands were found on site. Lastly, no gopher tortoises or any other state or federally listed plant/animal species were found on site.

ENGINEERS ◆ SURVEYORS ◆ ENVIRONMENTAL

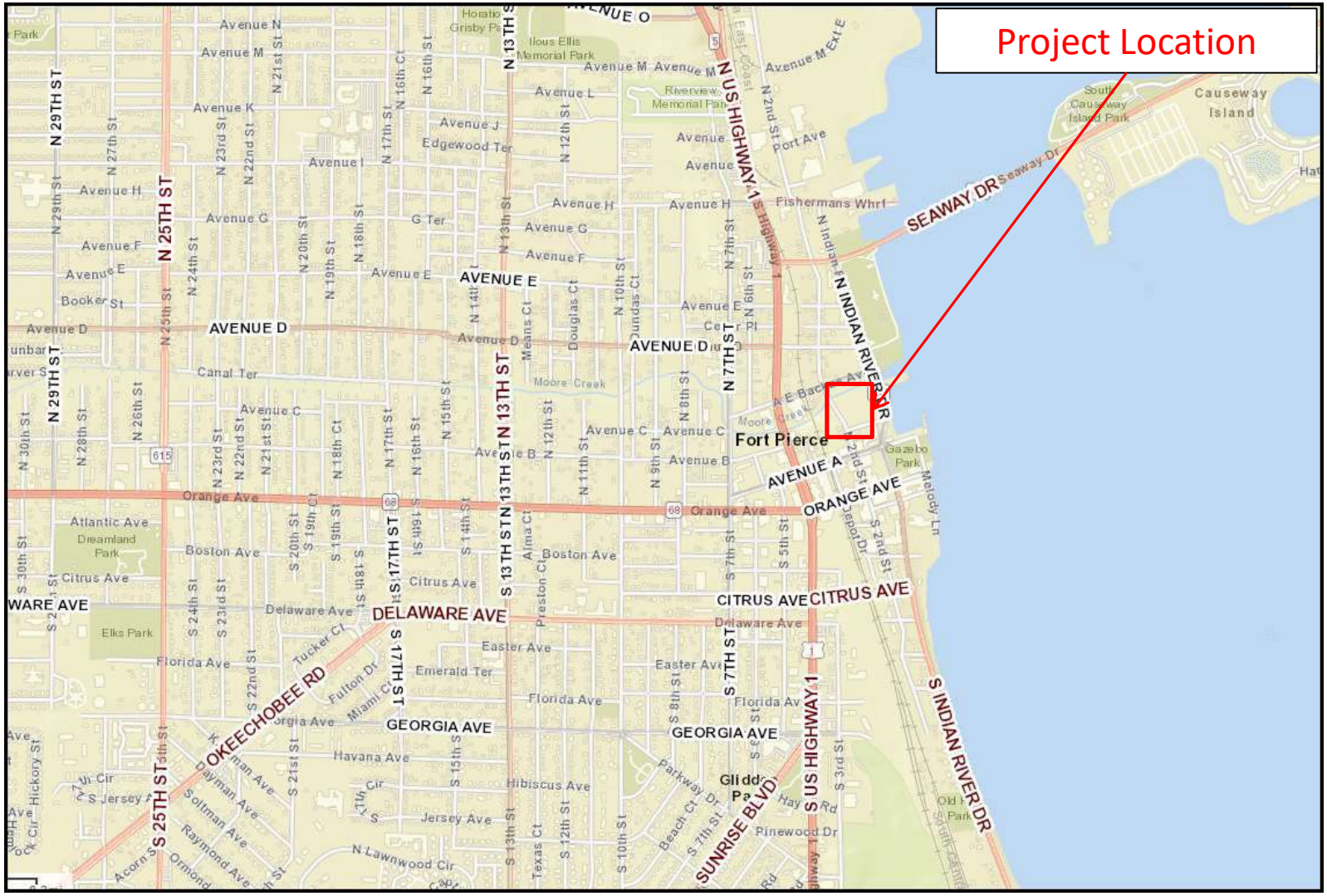
Environmental Site Assessment

North 2nd Street

City of Fort Pierce, FL

Location Map

Project: 19-361	Kings Landing	02/01/2021



ENGINEERS ◆ SURVEYORS ◆ ENVIRONMENTAL

Environmental Site Assessment

North 2nd Street

City of Fort Pierce, FL

Property Appraiser Map

Project: 19-361	Kings Landing	02/01/2021



ENGINEERS SURVEYORS ENVIRONMENTAL

Environmental Site Assessment

North 2nd Street

City of Fort Pierce, FL

Soil Map

Project: 19-361	Kings Landing	02/01/2021



St. Lucie County, Florida (FL111)

St. Lucie County, Florida (FL111)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
47	Urban land, 0 to 2 percent slopes	7.4	100.0%
Totals for Area of Interest		**7.4**	**100.0%**

ENGINEERS ◆ SURVEYORS ◆ ENVIRONMENTAL

Environmental Site Assessment

North 2nd Street

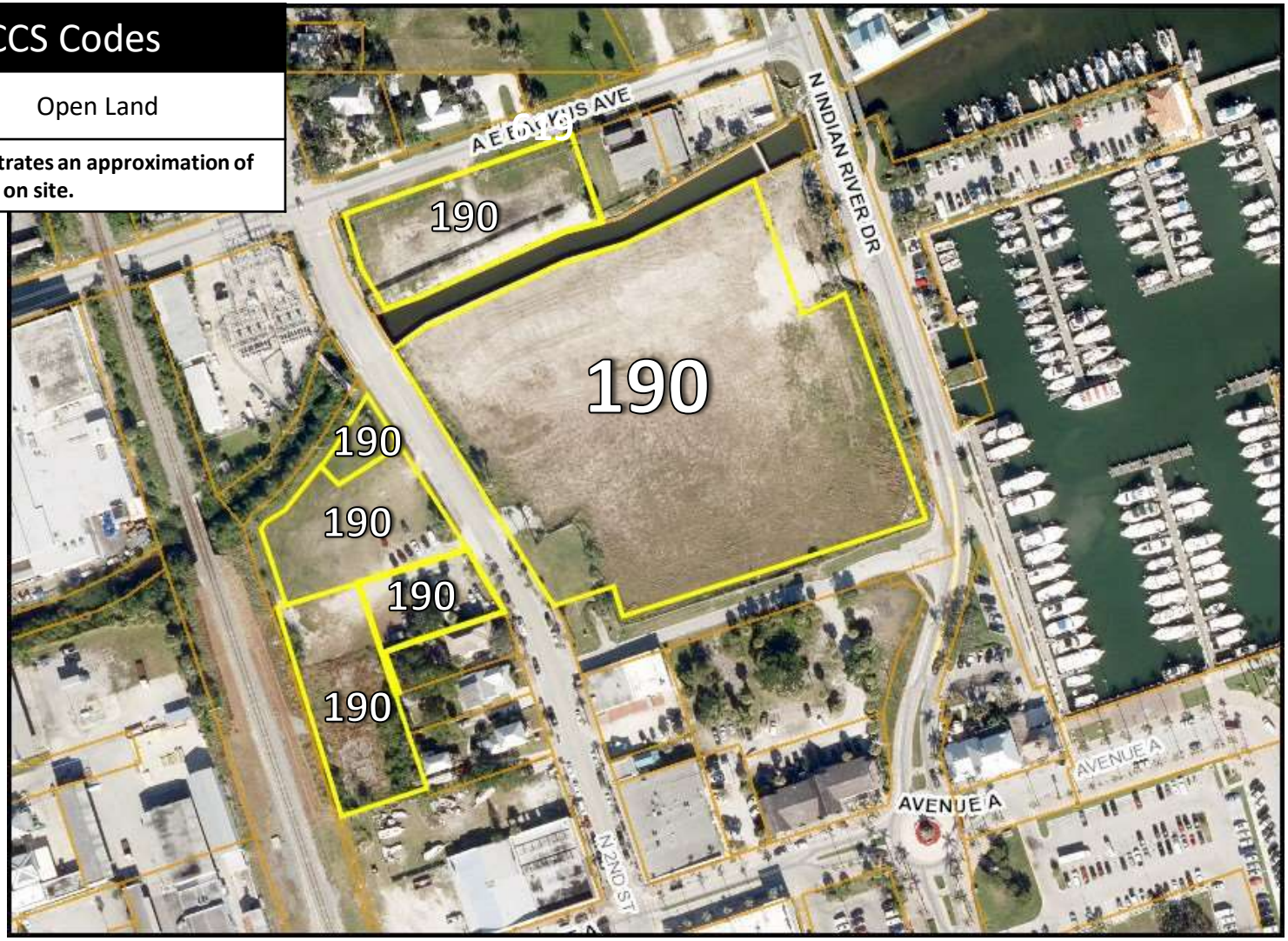
City of Fort Pierce, FL

Florida Land Use, Cover and Forms Classification System (FLUCCS) Map

Project: 19-361	Kings Landing	02/01/2021

FLUCCS Codes	
190	Open Land

***This map demonstrates an approximation of habitat boundaries on site.**



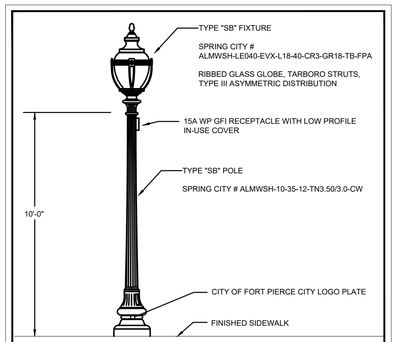


SITE PHOTOMETRIC PLAN

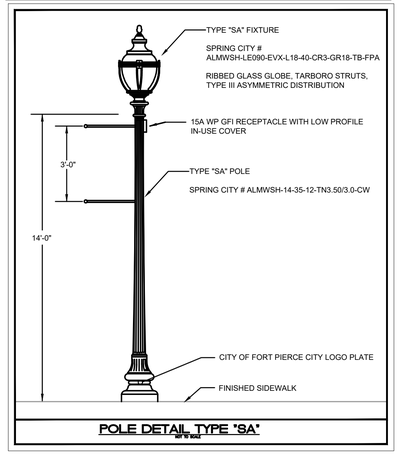
1"=50'-0" NORTH

Luminaire Schedule								
Project: HD KING SITE 04-08-2021								
Symbol	Qty	Label	[MANUFAC]	Description	Arr. Lum. Lumens	LLF	Lum. Watts	Total Watts
	46	SA	Spring City Electrical Manufacturing Co	DLR-LE095-2G2-40-CR3-GR18 MOUNT TO 14' DECORATIVE POLE	9294	0.900	95	4370
	17	SB	Spring City Electrical Manufacturing Co	KYW-LE040-2G2-40-CR3-GR18 MOUNT TO 10' DECORATIVE POLE	3911	0.900	40	680

Calculation Summary							
Project: HD KING SITE 04-08-2021							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
N 2ND STREET_Planar	Illuminance	Fc	1.55	2.5	0.7	2.21	3.57
OFF STREET PARKING_Planar	Illuminance	Fc	0.94	2.0	0.5	1.88	4.00
OUTDOOR SEATING_Planar	Illuminance	Fc	1.39	2.8	0.7	1.99	4.00
SIDEWALKS	Illuminance	Fc	1.31	2.9	0.4	3.28	7.25
SITE & PARKING_Planar	Illuminance	Fc	1.43	2.9	0.6	2.38	4.83



POLE DETAIL TYPE "SB"



POLE DETAIL TYPE "SA"

ISSUED FOR REVIEW -
NOT FOR PRICING OR CONSTRUCITON

KAMM CONSULTING PROJECT #: JOHN MAYR
PROJECT MANAGER: 2021-0229

KAMM Consulting
1408 Orange Avenue
Fort Pierce, Florida 34950
Phone 772.595.1744
bbrown@kammconsulting.com
Certification of Authorization #8189

PRINCIPAL
Bradly L Brown Florida License #58232

date

signed

ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL

10250 VILLAGE PARKWAY
SUITE 201
PORT ST. LUCIE, FL 34987
772-462-2455
www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
I.B. CERTIFICATE OF AUTHORIZATION 8098

DESIGNED BY: DCB
DRAWN BY: JLW
FILENAME: drawings27.dwg
Model
LAYOUT
SCALE: AS SHOWN
DATE: 02/18/21

REVISION COMMENTS

DATE

HD KING
KINGS LANDING
SITE PLAN
FORT PIERCE FLORIDA

SITE
PHOTOMERIC PPLAN

E1.1

O'ROURKE
ENGINEERING & PLANNING

TRAFFIC ANALYSIS

for
KINGS LANDING

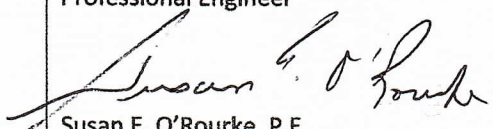
Prepared for:

Mr. Dale Matteson
Audubon Development
322 NE 8th Ave
Delray Beach, FL 33483

Prepared by:

O'Rourke Engineering & Planning
22 SE Seminole Street
Stuart, Florida 34994
772-781-7918

March 25, 2021
SR21025.0

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: 3/25/2021 License #: 42684

O'ROURKE
ENGINEERING & PLANNING

March 25, 2021

Mr. Dale Matteson
Audubon Development
322 NE 8th Ave
Delray Beach, FL 33483

Re: Kings Landing

Dear Mr. Matteson:

O'Rourke Engineering & Planning has completed the analysis of the proposed development of Kings Landing located south of AE Backus Avenue and west of Indian River Drive in Ft. Pierce, St. Lucie County, Florida. The steps in the analysis and the ensuing results are presented herein.

It has been a pleasure working with you. If you have any questions or comments, please give me a call.

Respectfully submitted,

O'Rourke Engineering & Planning

Susan E. O'Rourke, P.E.
Registered Civil Engineer - Traffic

C2 – Kings Landing – Concurrency Report

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INTERSECTION ANALYSIS / DRIVEWAY ANALYSIS 9

CONCLUSION 9

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APPENDIX A: Site Plan
APPENDIX B: St. Lucie County 2019 Level of Service Report/FDOT Traffic Data and Growth rate
APPENDIX C: Intersection/ Driveway Analysis Data

INTRODUCTION

O'Rourke Engineering & Planning was retained to prepare a traffic analysis for the proposed development consisting of Multifamily Housing, Shopping Center, Hotel and a High-turnover (sit-down) Restaurant located west of Indian River Drive and south of AE Backus Avenue in Ft. Pierce, St. Lucie County, Florida. A preliminary analysis had been conducted by PTC in 2019. To the extent applicable portion of that analysis will be referenced. The purpose of this report is to determine the projects 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:

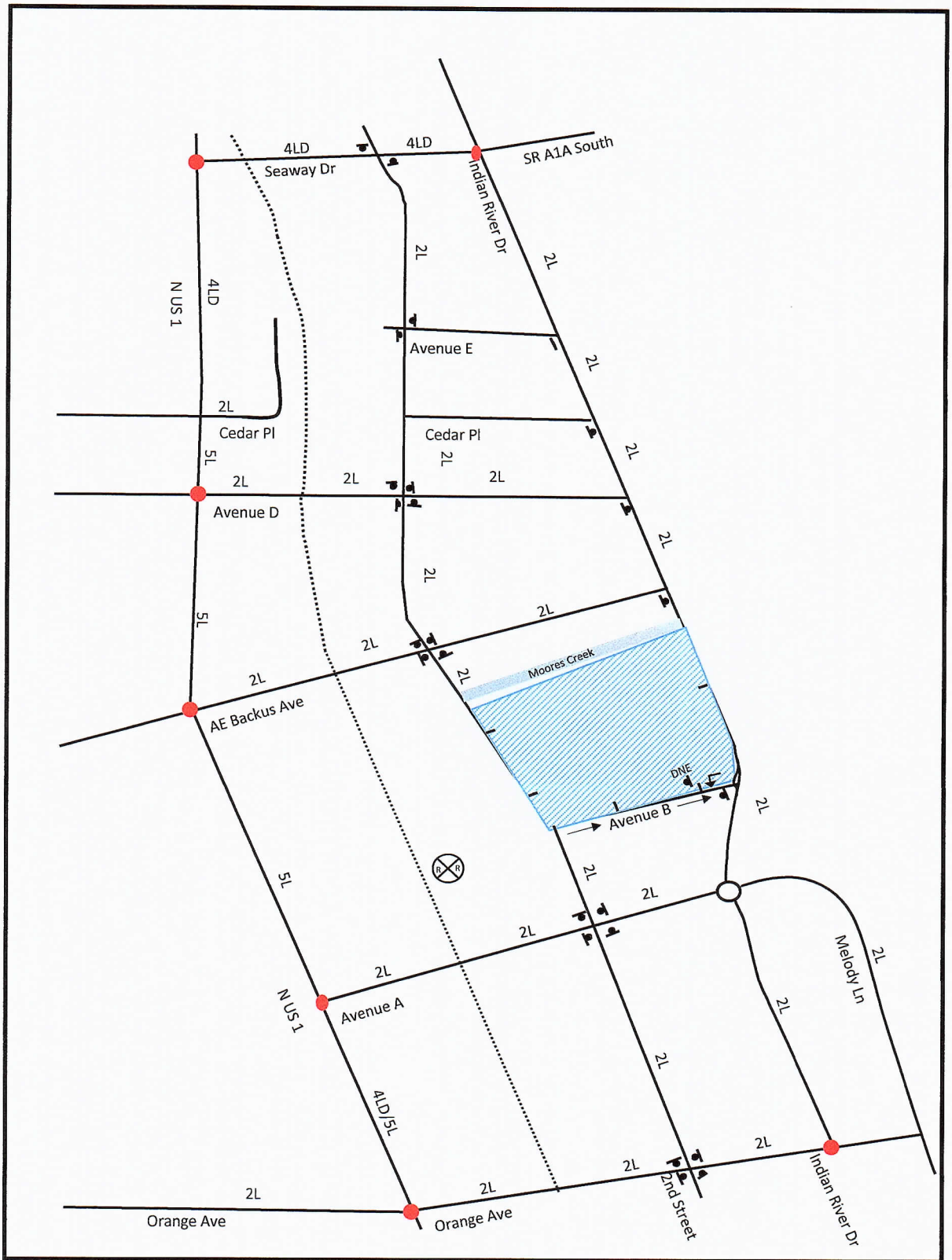
- summary of the project
- summary of existing lane geometries
- summary of the existing traffic volumes
- assessment of project traffic
- determination of impact area
- summary of buildout cumulative traffic volumes
- summary of levels of service with the project traffic added

Each of these steps is outlined herein.

PROJECT DESCRIPTION

The proposed development located west of Indian River Drive and south of AE Backus Avenue in Ft. Pierce, St. Lucie County, Florida, will consist of a 37,680 square feet Shopping Center, a 22,840 square feet High-turnover (sit-down) Restaurant, a 140 room Hotel and 118 Multifamily Housing units. The project location is shown in **Figure 1**. The project is expected to buildout in 2023.

Appendix A includes the project site plan.



O'ROURKE ENGINEERING & PLANNING NTS 22 SE Seminole Street Stuart, Fl, 34994 Job #: SR21025.0 Date: 03-01-21	Legend = Project Location DNE = Do not enter = Signalized Intersection = Stop Sign	Figure 1 Project Location Kings Landing

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 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.

- AE Backus Avenue is a two-lane major collector with an east/west alignment.
- Indian River Drive is a two-lane minor collector with a north/south alignment.
- Avenue B is a one-way eastbound local roadway until just west of Indian River Drive. The applicant proposes to reverse the direction so the street is one-way westbound.
- 2nd Street is a two-lane local roadway with a north/south alignment.
- Avenue D is a two-lane urban collector with an east/west alignment.
- US-1 is a five-lane divided Urban Principal Arterial with a north/south 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. The service volumes were developed based on the functional classification contained in the County Comprehensive Plan and the St. Lucie County Traffic Counts and Level of Service Report. The St. Lucie TPO 2019 Level of Service Report was used to establish capacity. These documents are included in **Appendix B.**

PROJECT TRAFFIC

To estimate future traffic generated by the development, The ITE 10th Edition *Trip Generation* rates for Multifamily Housing, Shopping Center, Hotel and a High-turnover (sit-down) Restaurant were used to estimate the trips generated by the proposed developments. These calculations are shown in **Tables 1a, 1b, and 1c**.

As shown, the project will generate 4,519 net new daily trips. There will be 306 net new AM peak hour trips with 180 trips entering the project and 126 trips exiting the project. The project will generate 329 net new PM peak hour trips. There will be 193 trips entering the project and 136 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		Gross Trips			Internalization Trips				Net External Trips			Pass-by Trips				Net New Trips		
					In	Out	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total
Multifamily Housing (Mid-Rise)	221	110	DU	(T) = 5.45(X) - 1.75	50%	50%	299	299	598	20	63	83	13.9%	279	236	515	-	-	-	0.0%	279	236	515
Multifamily Housing (Low-Rise)	220	8	DU	T = 7.56(X) - 40.86	50%	50%	10	10	20	1	2	3	15.0%	9	8	17	-	-	-	0.0%	9	8	17
Shopping Center	820	37,680	Sft	Ln(T) = 0.68Ln(X) + 5.57	50%	50%	1,548	1,548	3,096	189	207	396	12.8%	1,359	1,341	2,700	459	459	918	34.0%	900	882	1,782
High-Turnover (Sit-Down) Restaurant	932	22,840	Sft	T = 112.18(X)	50%	50%	1,281	1,281	2,562	315	162	477	18.6%	966	1,119	2,085	449	448	897	43.0%	517	671	1,188
Hotel	310	140	Rooms	T = 11.29(X) - 426.97	50%	50%	577	577	1,154	23	114	137	11.9%	554	463	1,017	-	-	-	0.0%	554	463	1,017
TOTALS							**3,715**	**3,715**	**7,430**	**548**	**548**	**1,096**	**14.8%**	**3,167**	**3,167**	**6,334**	**908**	**907**	**1,815**	**28.7%**	**2,259**	**2,260**	**4,519**

Source: ITE 10th Edition Trip Generation Rates

Table 1b: AM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips			Internalization Trips				Net External Trips			Pass-by Trips				Net New Trips		
					In	Out	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total
Multifamily Housing (Mid-Rise)	221	110	DU	Ln(T) = 0.98Ln(X) - 0.98	26%	74%	10	28	38	1	5	6	15.8%	9	23	32	-	-	-	0.0%	9	23	32
Multifamily Housing (Low-Rise)	220	8	DU	Ln(T) = 0.95Ln(X) - 0.51	23%	77%	1	3	4	-	1	1	25.0%	1	2	3	-	-	-	0.0%	1	2	3
Shopping Center	820	37,680	Sft	T = 0.50(X) + 151.78	62%	38%	106	65	171	12	8	20	11.7%	94	57	151	26	25	51	34.0%	68	32	100
High-Turnover (Sit-Down) Restaurant	932	22,840	Sft	T = 9.94(X)	55%	45%	125	102	227	16	11	27	11.9%	109	91	200	43	43	86	43.0%	66	48	114
Hotel	310	140	Rooms	T = 0.50(X) - 5.34	59%	41%	38	27	65	2	6	8	12.3%	36	21	57	-	-	-	0.0%	36	21	57
TOTALS							**280**	**225**	**505**	**31**	**31**	**62**	**12.3%**	**249**	**194**	**443**	**69**	**68**	**137**	**30.9%**	**180**	**126**	**306**

Source: ITE 10th Edition Trip Generation Rates

Table 1c: PM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips			Internalization Trips				Net External Trips			Pass-by Trips				Net New Trips		
					In	Out	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total	%	In	Out	Total
Multifamily Housing (Mid-Rise)	221	110	DU	Ln(T) = 0.96Ln(X) - 0.63	61%	39%	30	19	49	6	11	17	34.7%	24	8	32	-	-	-	0.0%	24	8	32
Multifamily Housing (Low-Rise)	220	8	DU	Ln(T) = 0.89Ln(X) - 0.02	63%	37%	4	2	6	1	1	2	33.3%	3	1	4	-	-	-	0.0%	3	1	4
Shopping Center	820	37,680	Sft	Ln(T) = 0.74Ln(X) + 2.89	48%	52%	127	137	264	29	25	54	20.5%	98	112	210	35	36	71	34.0%	63	76	139
High-Turnover (Sit-Down) Restaurant	932	22,840	Sft	T = 9.77(X)	62%	38%	138	85	223	23	26	49	22.0%	115	59	174	38	37	75	43.0%	77	22	99
Hotel	310	140	Rooms	T = 0.75(X) - 26.02	51%	49%	40	39	79	14	10	24	30.4%	26	29	55	-	-	-	0.0%	26	29	55
TOTALS							**339**	**282**	**621**	**73**	**73**	**146**	**23.5%**	**266**	**209**	**475**	**73**	**73**	**146**	**30.7%**	**193**	**136**	**329**

Source: ITE 10th Edition Trip Generation Rates

PROJECT DISTRIBUTION/ ASSIGNMENT/IMPACT

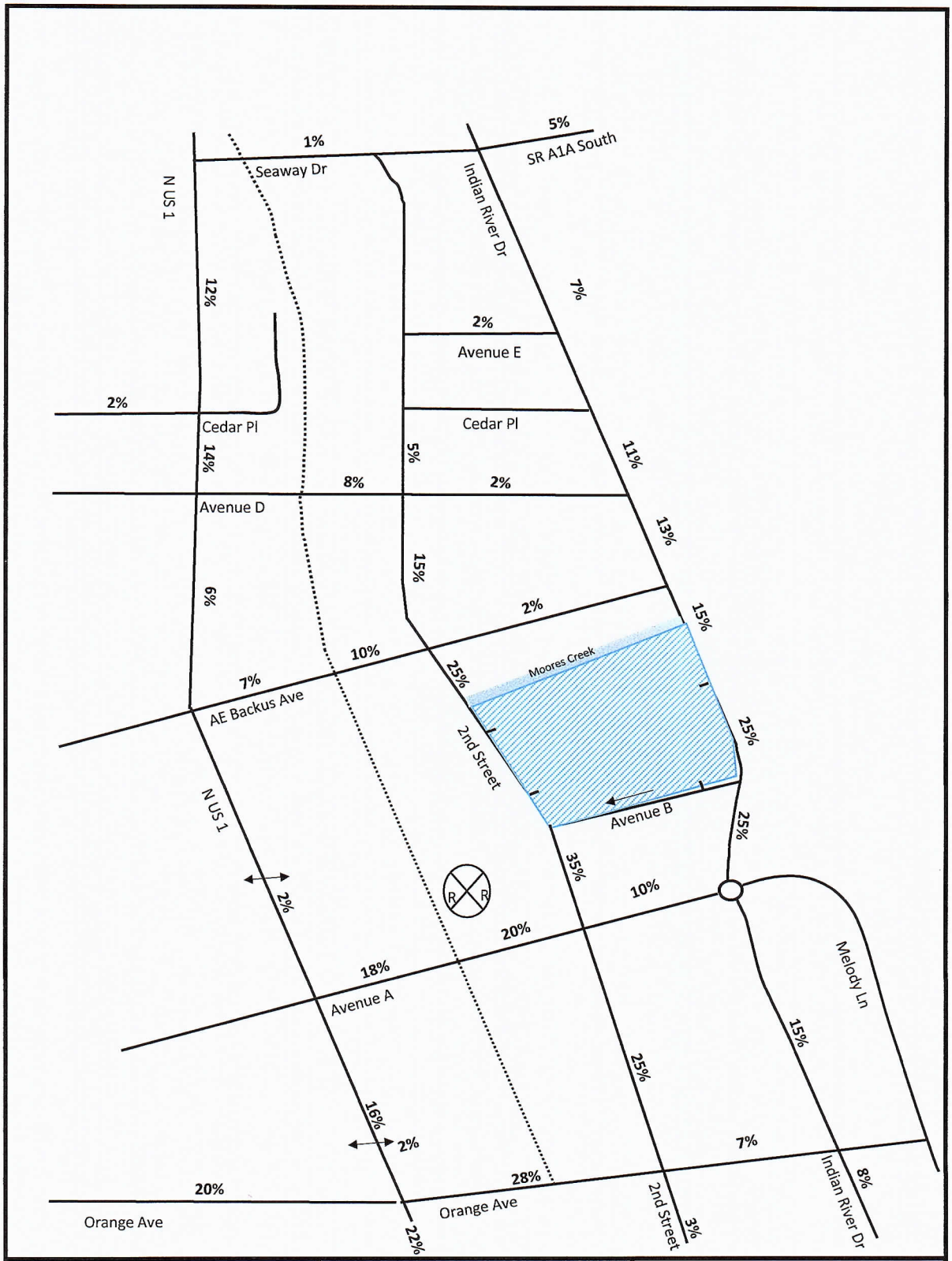
The project traffic was distributed by general geographic direction and then assigned to the roadway network.

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 several links.

LINK ANALYSIS / REVIEW

The project is significant on several links. These links were further analyzed to ensure they meet concurrency. **Tables 3a and 3b** summarize the link analysis. As shown, all links operate at an acceptable LOS at project buildout.



O'ROURKE ENGINEERING & PLANNING NTS 22 SE Seminole Street Stuart, Fl, 34994 Job #: SR21025.0 Date: 03-01-21	Legend = Project Location	Figure 2 Percent Assignment Kings Landing

TABLE 2a - Project Percent Impact - AM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links) [2]	Peak Hour Service Capacity (E+C) [1]	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment
Orange Ave	7th St [3]	US-1	EB	IN	Yes	540	36	6.67%	20%
	7th St [3]	US-1	WB	OUT	Yes	540	25	4.63%	20%
	US-1 [3]	2nd St	EB	OUT	Yes	540	35	6.48%	28%
	US-1 [3]	2nd St	WB	IN	Yes	540	50	9.26%	28%
	2nd St [3]	Indian River Drive	EB	OUT	No	540	9	1.67%	7%
	2nd St [3]	Indian River Drive	WB	IN	No	540	13	2.41%	7%
Avenue A	7th St	US-1	EB	IN	No	790	0	0.00%	0%
	7th St	US-1	WB	OUT	No	790	0	0.00%	0%
	US-1	Indian River Drive	EB	IN	Yes	600	36	6.00%	20%
	US-1	Indian River Drive	WB	OUT	Yes	600	25	4.17%	20%
AE Backus	US-1 [4]	2nd St	EB	IN	Yes	525	18	3.43%	10%
	US-1 [4]	2nd St	WB	OUT	No	525	13	2.48%	10%
	2nd St [4]	Indian River Drive	EB	OUT	No	525	3	0.57%	2%
	2nd St [4]	Indian River Drive	WB	IN	No	525	4	0.76%	2%
Avenue D	US-1 [4]	2nd Str	EB	IN	No	525	14	2.67%	8%
	US-1 [4]	2nd Str	WB	OUT	No	525	10	1.90%	8%
	2nd Str [4]	Indian River Drive	EB	IN	No	525	4	0.76%	2%
	2nd Str [4]	Indian River Drive	WB	OUT	No	525	3	0.57%	2%
Seaway Drive(SR A1A South)	Indian River Drive	US-1	EB	IN	No	1710	2	0.12%	1%
	Indian River Drive	US-1	WB	OUT	No	1710	1	0.06%	1%
Indian River Drive	Orange Ave	Avenue A	NB	IN	No	750	19	2.53%	15%
	Orange Ave	Avenue A	SB	OUT	No	750	19	2.53%	15%
	Avenue A [3]	Project Location	NB	IN	Yes	750	45	6.00%	25%
	Avenue A [3]	Project Location	SB	OUT	Yes	750	32	4.27%	25%
	Project Location [3]	AE Backus	NB	IN	No	750	19	2.53%	15%
	Project Location [3]	AE Backus	SB	OUT	No	750	19	2.53%	15%
	AE Backus [3]	Avenue D	NB	OUT	No	750	16	2.13%	13%
	AE Backus [3]	Avenue D	SB	IN	Yes	750	23	3.07%	13%
	Avenue D	SR A1A South	NB	OUT	No	790	14	1.77%	11%
	Avenue D	SR A1A South	SB	IN	No	790	20	2.53%	11%
2nd Street	Orange Ave	Avenue A	NB	IN	Yes	540	45	8.33%	25%
	Orange Ave	Avenue A	SB	OUT	Yes	540	32	5.93%	25%
	Avenue A	AE Backus	NB	IN	Yes	540	63	11.67%	35%
	Avenue A	AE Backus	SB	OUT	Yes	540	44	8.15%	35%
US-1	Orange Ave	Avenue A	NB	IN	No	1630	20	1.23%	16%
	Orange Ave	Avenue A	SB	OUT	No	1630	20	1.23%	16%
	Avenue A	AE Backus	NB	IN	No	1630	4	0.25%	2%
	Avenue A	AE Backus	SB	OUT	No	1630	3	0.18%	2%
	AE Backus	Avenue D	NB	OUT	No	1630	8	0.49%	6%
	AE Backus	Avenue D	SB	IN	No	1630	11	0.67%	6%
	Avenue D	SR A1A South	NB	OUT	No	1630	18	1.10%	14%
	Avenue D	SR A1A South	SB	IN	No	1630	25	1.53%	14%

(1) St. Lucie TPO 2019/2020 LOS Tables

(2) According to the Guidelines prepared by the TPO and modified by the City and County

(3) Modified to more accurately reflect roadway capacity

(4) FDOT 2020 LOS capacity

(5) Caclulated from TMC

Two-Way: 306
Net In: 180
Net Out: 126

TABLE 2b - Project Percent Impact - PM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links) [2]	Peak Hour Service Capacity (E+C) [1]	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment
Orange Ave	7th St [3]	US-1	EB	IN	Yes	540	39	7.22%	20%
	7th St [3]	US-1	WB	OUT	Yes	540	27	5.00%	20%
	US-1 [3]	2nd St	EB	OUT	Yes	540	38	7.04%	28%
	US-1 [3]	2nd St	WB	IN	Yes	540	54	10.00%	28%
	2nd St [3]	Indian River Drive	EB	OUT	No	540	10	1.85%	7%
	2nd St [3]	Indian River Drive	WB	IN	No	540	14	2.59%	7%
Avenue A	7th St	US-1	EB	IN	No	790	0	0.00%	0%
	7th St	US-1	WB	OUT	No	790	0	0.00%	0%
	US-1	Indian River Drive	EB	IN	Yes	600	39	6.50%	20%
	US-1	Indian River Drive	WB	OUT	Yes	600	27	4.50%	20%
AE Backus	US-1 [4]	2nd St	EB	IN	Yes	525	19	3.62%	10%
	US-1 [4]	2nd St	WB	OUT	No	525	14	2.67%	10%
	2nd St [4]	Indian River Drive	EB	OUT	No	525	3	0.57%	2%
	2nd St [4]	Indian River Drive	WB	IN	No	525	4	0.76%	2%
Avenue D	US-1 [4]	2nd Str	EB	IN	No	525	15	2.86%	8%
	US-1 [4]	2nd Str	WB	OUT	No	525	11	2.10%	8%
	2nd Str [4]	Indian River Drive	EB	IN	No	525	4	0.76%	2%
	2nd Str [4]	Indian River Drive	WB	OUT	No	525	3	0.57%	2%
Seaway Drive(SR A1A South)	Indian River Drive	US-1	EB	IN	No	1710	2	0.12%	1%
	Indian River Drive	US-1	WB	OUT	No	1710	1	0.06%	1%
Indian River Drive	Orange Ave	Avenue A	EB	IN	No	750	20	2.67%	15%
	Orange Ave	Avenue A	WB	OUT	No	750	20	2.67%	15%
	Avenue A [3]	Project Location	NB	IN	Yes	750	48	6.40%	25%
	Avenue A [3]	Project Location	SB	OUT	Yes	750	34	4.53%	25%
	Project Location [3]	AE Backus	NB	IN	No	750	20	2.67%	15%
	Project Location [3]	AE Backus	SB	OUT	No	750	20	2.67%	15%
	AE Backus [3]	Avenue D	NB	OUT	No	750	18	2.40%	13%
	AE Backus [3]	Avenue D	SB	IN	Yes	750	25	3.33%	13%
	Avenue D	SR A1A South	NB	OUT	No	790	15	1.90%	11%
	Avenue D	SR A1A South	SB	IN	No	790	21	2.66%	11%
2nd Street	Orange Ave	Avenue A	NB	IN	Yes	540	45	8.33%	25%
	Orange Ave	Avenue A	SB	OUT	Yes	540	32	5.93%	25%
	Avenue A	AE Backus	NB	IN	Yes	540	63	11.67%	35%
	Avenue A	AE Backus	SB	OUT	Yes	540	44	8.15%	35%
US-1	Orange Ave	Avenue A	NB	IN	No	1630	22	1.35%	16%
	Orange Ave	Avenue A	SB	OUT	No	1630	22	1.35%	16%
	Avenue A	AE Backus	NB	IN	No	1630	4	0.25%	2%
	Avenue A	AE Backus	SB	OUT	No	1630	3	0.18%	2%
	AE Backus	Avenue D	NB	OUT	No	1630	8	0.49%	6%
	AE Backus	Avenue D	SB	IN	No	1630	12	0.74%	6%
	Avenue D	SR A1A South	NB	OUT	No	1630	19	1.17%	14%
	Avenue D	SR A1A South	SB	IN	No	1630	27	1.66%	14%

(1) St. Lucie TPO 2019/2020 LOS Tables

(2) According to the Guidelines prepared by the TPO and modified by the City and County

(3) Modified to more accurately reflect roadway capacity

(4) FDOT 2020 LOS capacity

(5) Caclulated from TMC

Two-Way: 329
Net In: 193
Net Out: 136

TABLE 3a - Link Analysis - AM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	AADT 2019	K Factor	D Factor	2019 Peak Hour Directional Volumes [3]	Growth Rate [2]	2023 AM Peak Hour + Growth	2023 Growth + Committed Peak Direction	Peak Hour Service Capacity (E+C) [1]	Project Volume Peak Direction	Total Traffic (Peak Direction)	% Project of Capacity- Peak Hour	Does Project Meet Concurrency?	Project Percent Assignment
Orange Ave	7th St	US-1	EB	IN	Yes	6,700	0.09	0.475	386	1.88%	416	416	540	36	452	6.67%	YES	20%
	7th St	US-1	WB	OUT	Yes	6,700	0.09	0.525	427	1.88%	460	460	540	25	485	4.63%	YES	20%
	US-1	2nd St	EB	OUT	Yes	3,600	0.09	0.475	207	1.88%	223	223	540	35	258	6.48%	YES	28%
	US-1	2nd St	WB	IN	Yes	3,600	0.09	0.525	229	1.88%	247	247	540	50	297	9.26%	YES	28%
Avenue A	US-1	Indian River Drive	EB	IN	Yes	2,300	0.09	0.475	139	1.88%	150	150	600	36	186	6.00%	YES	20%
	US-1	Indian River Drive	WB	OUT	Yes	2,300	0.09	0.525	154	1.88%	166	166	600	25	191	4.17%	YES	20%
AE Backus	US-1	2nd St	EB	IN	Yes	1,600 [4]	0.09	0.475	71 [5]	1.88%	76	76	525	18	94	3.43%	YES	10%
Indian River Drive	Avenue A	Project Location	NB	IN	Yes	7,400	0.09	0.475	391	1.88%	421	421	750	45	466	6.00%	YES	25%
	Avenue A	Project Location	SB	OUT	Yes	7,400	0.09	0.525	433	1.88%	466	466	750	32	498	4.27%	YES	25%
	AE Backus	Avenue D	SB	IN	Yes	7,400	0.09	0.525	433	1.88%	466	466	750	23	489	3.07%	YES	13%
2nd Street	Orange Ave	Avenue A	NB	IN	Yes	2,217	0.09	0.475	128	1.88%	138	138	540	45	183	8.33%	YES	25%
	Orange Ave	Avenue A	SB	OUT	Yes	2,217	0.09	0.525	142	1.88%	153	153	540	32	185	5.93%	YES	25%
	Avenue A	AE Backus	NB	IN	Yes	2,217	0.09	0.475	128	1.88%	138	138	540	63	201	11.67%	YES	35%
	Avenue A	AE Backus	SB	OUT	Yes	2,217	0.09	0.525	142	1.88%	153	153	540	44	197	8.15%	YES	35%

(1) St. Lucie County 2019 Traffic Counts and LOS Report

(2) Area wide growth rate calculated from FDOT Historical AADT

(3) FDOT Florida Traffic Online

(4) estiomated based on Turning movement counts

(5) Caclulated from TMC

Two-Way:	306
Net In:	180
Net Out:	126
Years Grown:	4

TABLE 3b - Link Analysis - PM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	AADT 2019	K Factor	D Factor	2019 Peak Hour Directional Volumes [3]	Growth Rate [2]	2023 PM Peak Hour + Growth	2023 Growth + Committed Peak Direction	Peak Hour Service Capacity (E+C) [1]	Project Volume Peak Direction	Total Traffic (Peak Direction)	% Project of Capacity- Peak Hour	Does Project Meet Concurrency?	Project Percent Assignment
Orange Ave	7th St	US-1	EB	IN	Yes	6,700	0.09	0.475	343	1.88%	370	370	540	39	409	7.22%	YES	20%
	7th St	US-1	WB	OUT	Yes	6,700	0.09	0.525	380	1.88%	409	409	540	27	436	5.00%	YES	20%
	US-1	2nd St	EB	OUT	Yes	3,600	0.09	0.475	203	1.88%	219	219	540	38	257	7.04%	YES	28%
	US-1	2nd St	WB	IN	Yes	3,600	0.09	0.525	224	1.88%	241	241	540	54	295	10.00%	YES	28%
Avenue A	US-1	Indian River Drive	EB	IN	Yes	2,300	0.09	0.475	128	1.88%	138	138	600	39	177	6.50%	YES	20%
	US-1	Indian River Drive	WB	OUT	Yes	2,300	0.09	0.525	142	1.88%	153	153	600	27	180	4.50%	YES	20%
AE Backus	US-1	2nd St	EB	IN	Yes	1,600 [4]	0.09	0.475	71 [5]	1.88%	76	76	525	19	95	3.62%	YES	10%
Indian River Drive	Avenue A	Project Location	NB	IN	Yes	7,400	0.09	0.475	461	1.88%	497	497	750	48	545	6.40%	YES	25%
	Avenue A	Project Location	SB	OUT	Yes	7,400	0.09	0.525	509	1.88%	548	548	750	34	582	4.53%	YES	25%
	AE Backus	Avenue D	SB	IN	Yes	7,400	0.09	0.525	509	1.88%	548	548	750	25	573	3.33%	YES	13%
2nd Street	Orange Ave	Avenue A	NB	IN	Yes	2,217	0.09	0.475	120	1.88%	129	129	540	45	174	8.33%	YES	25%
	Orange Ave	Avenue A	SB	OUT	Yes	2,217	0.09	0.525	133	1.88%	143	143	540	32	175	5.93%	YES	25%
	Avenue A	AE Backus	NB	IN	Yes	2,217	0.09	0.475	120	1.88%	129	129	540	63	192	11.67%	YES	35%
	Avenue A	AE Backus	SB	OUT	Yes	2,217	0.09	0.525	133	1.88%	143	143	540	44	187	8.15%	YES	35%

(1) St. Lucie County 2019 Traffic Counts and LOS Report

(2) Area wide growth rate calculated from FDOT Historical AADT

(3) FDOT Florida Traffic Online

(4) estiomated based on Turning movement counts

(5) Caclulated from TMC

Two-Way:	329
Net In:	193
Net Out:	136
Years Grown:	4

INTERSECTION ANALYSIS / DRIVEWAY ANALYSIS

The project driveways as well **as** the intersections of AE Backus and 2nd Street, and Indian River Drive and Avenue B were analyzed for the AM and PM peak hours. Turning movement counts were conducted at the two intersections on March 2, 2021 and March 3, 2021 for the AM and PM peak hours. Growth rate and project traffic was added to show a two-year impact. The intersections were analyzed using HCS.

The results of the intersection analysis are summarized in **Table 4.**

Table 4: Intersection Results Summary - 2023

Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
AE Backus & 2nd Street	7.4	A	7.6	A
Indian River Dr & Avenue B	7.9	A	8.1	A

As shown, the intersections of AE Backus and 2nd Street will operate at a LOS A in the AM and PM peak hours. Indian River Drive and Avenue B will operate at a LOS B in the AM and PM peak hours with the addition of project traffic at project build out.

The project will have two (2) full access driveways located on 2nd Street (Driveways 1 and 2), two (2) right in / right out driveways located on Avenue B (Driveways 4 and 5), and a full access driveway located on Indian River Drive (Driveway 3). The project traffic at the driveways is shown in **Figure 3.** The project driveways were analyzed using HCS for unsignalized intersections.

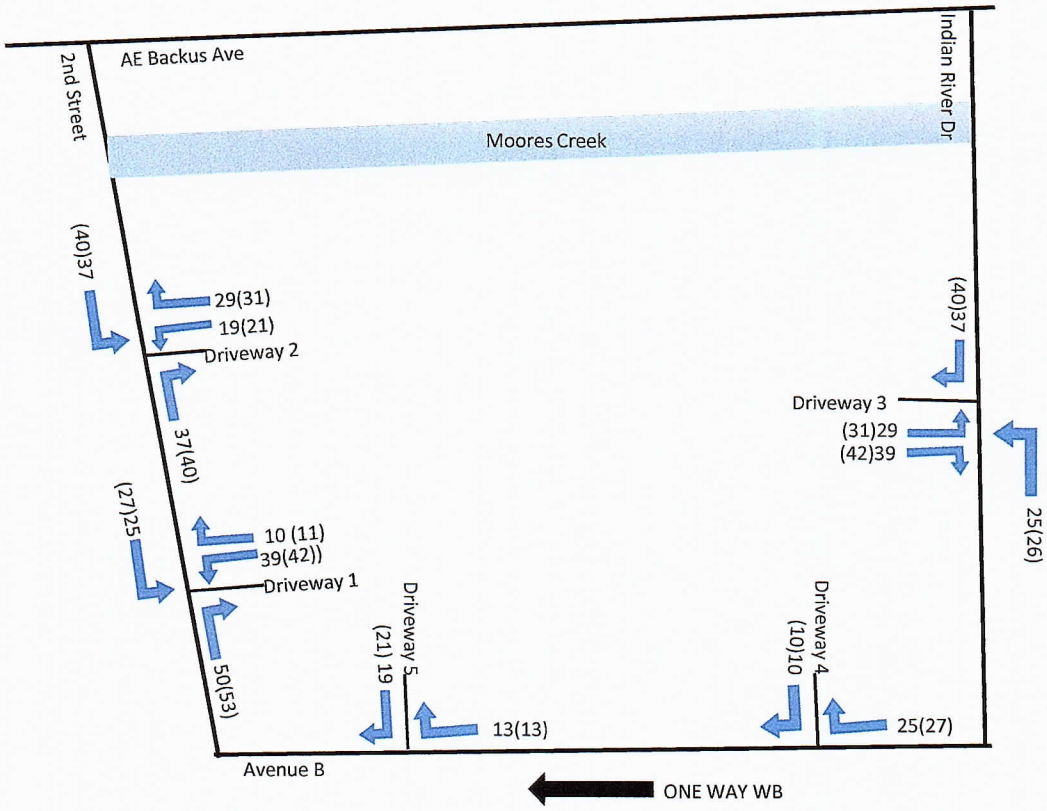
The results of the driveways are summarized in **Table 5.**

Table 5: Driveway Results Summary - 2023

Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
Driveway 1 & 2nd Street	9.9	A	10.3	B
Driveway 2 & 2nd Street	9.3	A	9.6	A
Driveway 3 & Indian River Dr	11.7	B	13.6	B
Driveway 4 & Avenue B	8.5	A	8.5	A
Driveway 5 & Avenue B	8.5	A	8.5	A

As shown, Driveways 1 and 2 will operate at a LOS A in the AM and PM peak hour. Driveways 4 and 5 will operate at LOS B in the AM and PM peak hour. Driveway 3 will operate at a LOS B in the AM and PM peak hour.

The intersection and driveway data are shown in **Appendix C.**



	TOTAL	IN	OUT
AM	443	249	194
PM	475	266	209

NTS

O'ROURKE ENGINEERING & PLANNING

22 SE Seminole Street
Stuart, Fl, 34994

Job #: SR21025.0 | Date: 03-01-21

Legend

XX = AM
(XX) = PM

Figure 3

Driveway Volumes

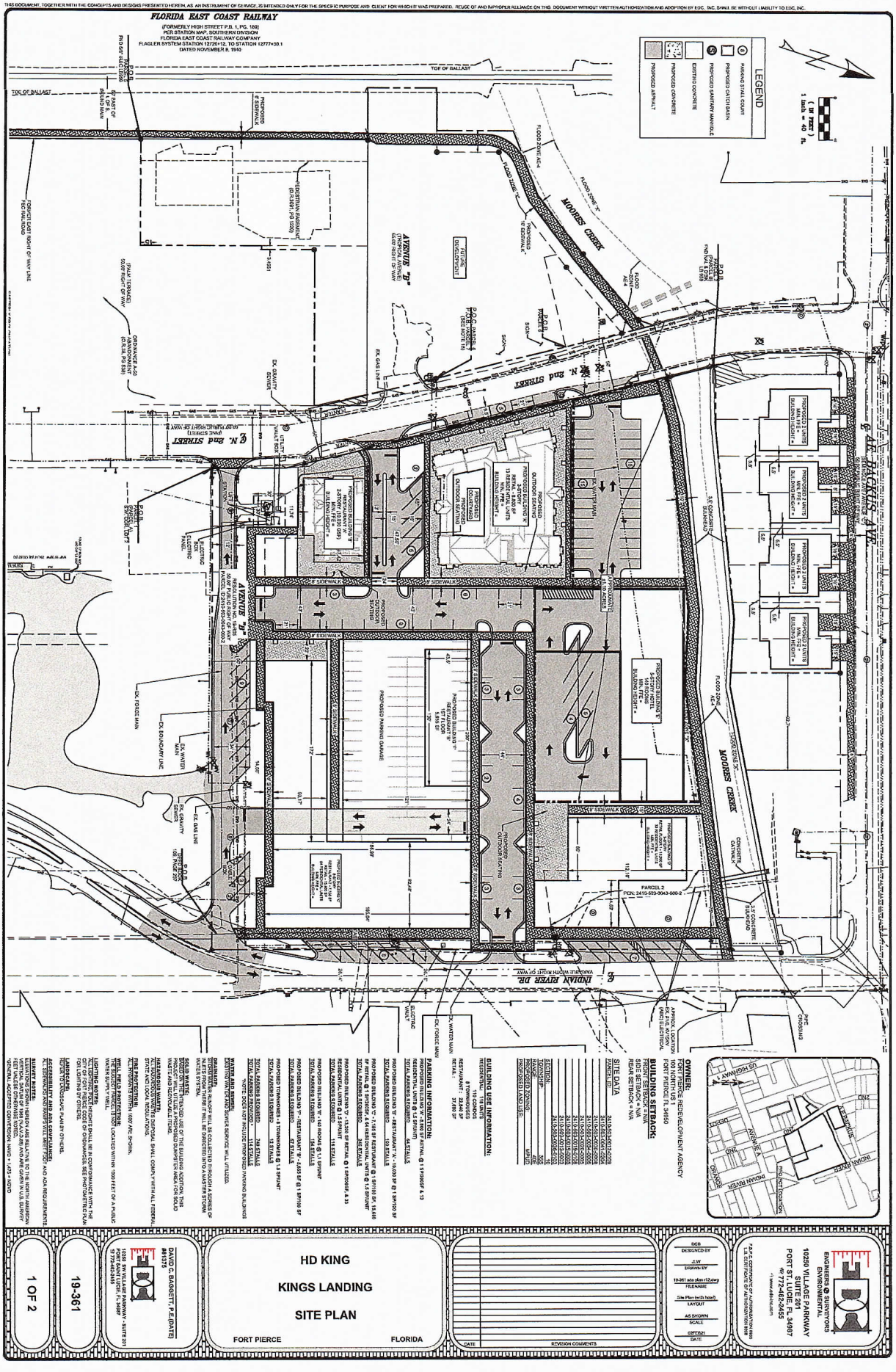
Kings Landing

CONCLUSION

With 306 net new AM peak hour trips and 329 net new PM peak hour trips, all links and intersections operate at acceptable levels of service. The project proposes to make Avenue B one way from Indian River Drive to 2nd Street. The project meets the requirements for concurrency.

APPENDIX A

SITE PLAN



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APPENDIX B

ST. LUCIE COUNTY 2019 LEVEL OF SERVICE REPORT
&
FDOT TRAFFIC DATA

TABLE 7 Generalized **Peak Hour Directional** Volumes for Florida's Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding directional volumes in this table by 1.2

BICYCLE MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

PEDESTRIAN MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
2	2,230	3,100	3,740	4,080
3	3,280	4,570	5,620	6,130
4	4,310	6,030	7,490	8,170
5	5,390	7,430	9,370	10,220
6	6,380	8,990	11,510	12,760

Urbanized

Lanes	B	C	D	E
2	2,270	3,100	3,890	4,230
3	3,410	4,650	5,780	6,340
4	4,550	6,200	7,680	8,460
5	5,690	7,760	9,520	10,570

Freeway Adjustments

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	580	890	1,200	1,610
2	Divided	1,800	2,600	3,280	3,730
3	Divided	2,700	3,900	4,920	5,600

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
1	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1] Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/

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						Volume	LOS	V/C	Volume	LOS	V/C
2ND ST	CITRUS AVE to ORANGE AVE	601	2,167	2017	540	190	C	0.704	161	C	0.596
2ND ST	ORANGE AVE to AVENUE A	602	2,217	2017	540	142	C	0.526	133	C	0.493
7TH ST	SUNRISE BLVD to GEORGIA AVE	519	1,022	2019	600	67	C	0.223	75	C	0.250
7TH ST	GEORGIA AVE to DELAWARE AVE	517	1,680	2019	790	101	C	0.259	106	C	0.272
7TH ST	DELAWARE AVE to CITRUS AVE	515	2,567	2019	790	155	C	0.397	153	C	0.392
7TH ST	CITRUS AVE to ORANGE AVE	515	2,567	2019	750	155	C	0.419	153	C	0.414
7TH ST	ORANGE AVE to AVENUE C	603	2,979	2016	750	204	C	0.551	225	C	0.608
7TH ST	AVENUE C to AE BACKUS AVE	603	2,979	2016	540	204	C	0.756	225	C	0.833
7TH ST	AE BACKUS AVE to AVENUE D	603	2,979	2016	750	204	C	0.551	225	C	0.608
7TH ST	AVENUE D to AVENUE H	604	1,767	2017	750	116	C	0.314	113	C	0.305
10TH ST	DELAWARE AVE to ORANGE AVE	605	233	2017	600	25	C	0.083	24	C	0.080
10TH ST	ORANGE AVE to AVENUE C	605	233	2017	600	25	C	0.083	24	C	0.080
10TH ST	AVENUE C to AVENUE D	605	233	2017	540	25	C	0.093	24	C	0.089
13TH ST	VIRGINIA AVE to NEBRASKA AVE	527	6,500	2020	750	401	D	0.535	420	D	0.560
13TH ST	NEBRASKA AVE to GEORGIA AVE	527	6,500	2020	790	401	D	0.508	420	D	0.532
13TH ST	GEORGIA AVE to DELAWARE AVE	525	4,746	2017	750	275	C	0.743	260	C	0.703
13TH ST	DELAWARE AVE to ORANGE AVE	523	3,886	2017	750	256	C	0.692	239	C	0.646
13TH ST	ORANGE AVE to AVENUE B	521	2,776	2017	750	164	C	0.443	160	C	0.432
13TH ST	AVENUE B to AVENUE D	521	2,776	2017	750	164	C	0.443	160	C	0.432
13TH ST	AVENUE D to AVENUE H	165	2,728	2017	750	163	C	0.441	151	C	0.408
13TH ST	AVENUE H to AVENUE I	165	2,728	2017	540	163	C	0.604	151	C	0.559
13TH ST	AVENUE I to AVENUE O	165	2,728	2017	540	163	C	0.604	151	C	0.559
13TH ST	AVENUE O to AVENUE Q	165	2,728	2017	540	163	C	0.604	151	C	0.559
17TH ST	GEORGIA AVE to DELAWARE AVE	606	3,233	2016	600	179	C	0.597	179	C	0.597
17TH ST	DELAWARE AVE to ORANGE AVE	607	6,200	2020	790	294	C	0.754	283	C	0.726

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						Volume	LOS	V/C	Volume	LOS	V/C
17TH ST	ORANGE AVE to AVENUE D	608	4,033	2016	750	236	C	0.638	225	C	0.608
17TH ST	AVENUE D to AVENUE Q	608	4,033	2016	750	236	C	0.638	225	C	0.608
25TH ST	MIDWAY RD to BELL AVE	940016	19,000	2019	2,100	1,362	C	0.678	1,270	C	0.632
25TH ST	BELL AVE to EDWARDS RD	159	19,040	2019	2,100	1,056	C	0.525	1,053	C	0.524
25TH ST	EDWARDS RD to CORTEZ BLVD	940021	21,500	2019	2,000	1,370	C	0.717	1,366	C	0.715
25TH ST	CORTEZ BLVD to VIRGINIA AVE	529	21,000	2020	2,000	1,182	C	0.619	1,261	C	0.660
25TH ST	VIRIGINIA AVE to NEBRASKA AVE	940015	23,000	2019	2,000	1,319	C	0.691	1,182	C	0.619
25TH ST	NEBRASKA AVE to OKEECHOBEE RD	940015	23,000	2019	2,000	1,319	C	0.691	1,182	C	0.619
25TH ST	OKEECHOBEE RD to GEORGIA AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	GEORGIA AVE to DELAWARE AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	DELAWARE AVE to ORANGE AVE	940014	22,000	2019	1,630	1,145	D	0.702	1,139	D	0.699
25TH ST	ORANGE AVE to AVENUE D	610	19,000	2020	1,630	877	D	0.538	904	D	0.555
25TH ST	AVENUE D to AVENUE Q	940050	19,700	2019	1,630	1,037	D	0.636	1,008	D	0.618
25TH ST	AVENUE Q to JUANITA AVE	945152	18,000	2019	2,000	1,017	C	0.532	932	C	0.488
25TH ST	JUANITA AVE to ST LUCIE BLVD	940791	14,647	2013	2,100	794	C	0.395	745	C	0.371
25TH ST	ST LUCIE BLVD to US 1	945165	9,800	2019	2,100	563	C	0.280	628	C	0.312
33RD ST	OKEECHOBEE RD to DELAWARE AVE	611	7,000	2020	750	419	D	0.559	368	C	0.995
33RD ST	DELAWARE AVE to ORANGE AVE	948507	6,200	2019	790	286	C	0.773	286	C	0.773
35TH ST	KIRBY LOOP RD to CORTEZ BLVD	612	6,300	2020	540	497	D	0.920	406	D	0.752
35TH ST	CORTEZ BLVD to VIRGINIA AVE	612	6,300	2020	790	497	D	0.629	406	D	0.514
35TH ST	VIRGINIA AVE to OKEECHOBEE RD	613	4,600	2016	750	279	C	0.754	280	C	0.757
53RD ST	ANGLE RD to JUANITA AVE	614	2,767	2016	540	148	C	0.548	163	C	0.604
AE BACKUS AVE	7TH ST to US 1	632	1,033	2017	750	70	C	0.189	81	C	0.219
AIROSO BLVD	PORT ST LUCIE BLVD to THORNHILL DR	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423
AIROSO BLVD	THORNHILL DR to CROSSTOWN PKWY	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423

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						Volume	LOS	V/C	Volume	LOS	V/C
AIROSO BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	243	15,827	2017	2,100	789	C	0.393	807	C	0.401
AIROSO BLVD	PRIMA VISTA BLVD to FLORESTA DR	101	14,344	2017	2,000	751	C	0.393	760	C	0.398
AIROSO BLVD	FLORESTA DR to ST JAMES DR	301	21,000	2019	2,100	1,114	C	0.554	1,130	C	0.562
ANGLE RD	ORANGE AVE to AVENUE D	100	10,000	2020	790	513	D	0.649	490	D	0.620
ANGLE RD	AVENUE D to AVENUE Q	100	10,000	2020	540	513	D	0.950	490	D	0.907
ANGLE RD	AVENUE Q to 53RD ST	615	8,600	2020	600	508	D	0.847	521	D	0.868
ANGLE RD	53RD ST to KEEN RD	616	6,000	2020	630	319	C	0.532	357	C	0.595
ANGLE RD	KEEN RD to KINGS HWY	616	6,000	2020	880	319	C	0.384	357	C	0.430
ANGLE RD	KINGS HWY to JOHNSTON RD	617	3,267	2016	1,070	201	B	0.529	195	B	0.513
ANGLE RD	JOHNSTON RD to FLORIDA'S TURNPIKE	948505	2,400	2019	1,070	125	B	0.298	125	B	0.298
AVENUE A	7TH ST to US 1	945034	1,000	2019	790	115	C	0.295	115	C	0.295
AVENUE A	US 1 to INDIAN RIVER DR	945033	2,300	2019	600	154	C	0.513	142	C	0.473
AVENUE D	ANGLE RD to 29TH ST	164	3,683	2016	600	209	C	0.697	205	C	0.683
AVENUE D	29TH ST to 25TH ST	164	3,683	2016	790	209	C	0.536	205	C	0.526
AVENUE D	25TH ST to 17TH ST	163	4,289	2016	750	241	C	0.651	227	C	0.614
AVENUE D	17TH ST to 13TH ST	162	3,711	2016	750	171	C	0.462	185	C	0.500
AVENUE D	13TH ST to 10TH ST	161	2,118	2016	750	100	C	0.270	112	C	0.303
AVENUE D	10TH ST to 7TH ST	160	2,383	2016	750	119	C	0.322	129	C	0.349
AVENUE D	7TH ST to US 1	160	2,383	2016	750	119	C	0.322	129	C	0.349
AVENUE I	25TH ST to 17TH ST	620	2,533	2016	750	218	C	0.589	171	C	0.462
AVENUE I	17TH ST to 13TH ST	620	2,533	2016	750	218	C	0.589	171	C	0.462
AVENUE H	13TH ST to 7TH ST	618	1,583	2017	540	92	C	0.341	99	C	0.367
AVENUE H	7TH ST to US 1	619	1,233	2017	750	67	C	0.181	66	C	0.178
AVENUE Q	ANGLE RD to 25TH ST	700	5,700	2020	750	301	C	0.814	289	C	0.781
AVENUE Q	25TH ST to 17TH ST	701	3,937	2016	750	281	C	0.759	314	C	0.849

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						Volume	LOS	V/C	Volume	LOS	V/C
I-95	ORANGE AVE to INDRIO RD	941905	57,000	2019	7,320	2,742	B	0.609	2,524	B	0.561
INDIAN RIVER DR	CITRUS AVE to ORANGE AVE	945029	6,800	2019	750	405	D	0.540	463	D	0.617
INDIAN RIVER DR	ORANGE AVE to AVENUE A	940003	5,600	2019	750	327	C	0.884	318	C	0.859
INDIAN RIVER DR	AVENUE D to SEAWAY DR	940004	7,400	2019	790	433	D	0.548	509	D	0.644
INDIAN RIVER DR	AVENUE A to AVENUE D	940004	7,400	2019	540	433	D	0.802	509	D	0.943
INDRIO RD	PRIVATE RD to I-95 W RAMP	940128	1,850	2019	1,080	135	B	0.329	146	B	0.356
INDRIO RD	I-95 W RAMP to I-95 E RAMP	940128	1,850	2019	3,240	135	B	0.075	146	B	0.081
INDRIO RD	I-95 E RAMP to KOBLEGARD RD	940038	10,200	2019	3,240	583	B	0.322	613	B	0.339
INDRIO RD	KOBLEGARD RD to JOHNSTON RD	940038	10,200	2019	700	583	C	0.883	613	C	0.929
INDRIO RD	JOHNSTON RD to EMERSON AVE	940038	10,200	2019	880	583	C	0.702	613	C	0.739
INDRIO RD	EMERSON RD to SEMINOLE RD	940281	11,200	2019	920	675	C	0.776	568	C	0.653
INDRIO RD	SEMINOLE RD to KINGS HWY	940281	11,200	2019	790	675	D	0.854	568	D	0.719
INDRIO RD	KINGS HWY to SLASH PINE TRL	114	6,600	2020	790	422	D	0.534	413	D	0.523
INDRIO RD	SLASH PINE TRL to US 1	114	6,600	2020	920	422	C	0.485	413	C	0.475
INDRIO RD	US 1 to OLD DIXIE HWY	672	917	2016	750	64	C	0.173	86	C	0.232
JENNINGS RD	US 1 to LENNARD RD	673	4,600	2016	2,100	304	C	0.151	248	C	0.123
JENKINS RD	EDWARDS RD to OKEECHOBEE RD	133	10,500	2020	880	549	C	0.661	553	C	0.666
JENKINS RD	OKEECHOBEE RD to GRAHAM RD	131	10,500	2020	920	593	C	0.682	569	C	0.654
JENKINS RD	GRAHAM RD to PETERSON RD	131	10,500	2020	630	593	C	0.988	569	C	0.948
JENKINS RD	PETERSON RD to ORANGE AVE	131	10,500	2020	920	593	C	0.682	569	C	0.654
JOHNSTON RD	ANGLE RD to L20	674	2,600	2016	1,070	176	B	0.463	171	B	0.450
JOHNSTON RD	L20 to MEADOWOOD DR	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	MEADOWOOD DR to OLD JOHNSTON RD	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	OLD JOHNSTON RD to INDRIO RD	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	INDRIO RD to RUSSOS RD	135	9,600	2020	1,070	544	C	0.716	545	C	0.717

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						Volume	LOS	V/C	Volume	LOS	V/C
MCNEIL RD	OKEECHOBEE RD to KIRBY LOOP RD	682	4,600	2020	790	281	C	0.721	280	C	0.718
MCNEIL RD	KIRBY LOOP RD to EDWARDS RD	682	4,600	2020	540	281	D	0.520	280	D	0.519
MCCARTY RD	WILLIAMS RD to MIDWAY RD	680	375	2017	540	33	C	0.122	35	C	0.130
MCCARTY RD	MIDWAY RD to OKEECHOBEE RD	681	400	2020	540	34	C	0.126	35	C	0.130
MELALEUCA BLVD	LENNARD RD to GREEN RIVER PKWY	683	9,804	2018	920	648	C	0.745	584	C	0.671
MIDWAY RD	EAST TORINO PKWY to MILNER DR	134	22,500	2020	880	1,216	F	1.382	1,304	F	1.482
MIDWAY RD	MILNER DR to W OF SELVITZ RD	134	22,500	2020	790	1,216	F	1.539	1,304	F	1.651
MIDWAY RD	OKEECHOBEE RD to SHINN RD	940732	8,400	2019	760	485	C	0.724	617	C	0.921
MIDWAY RD	SHINN RD to MCCARTY RD	940732	8,400	2019	630	485	C	0.808	617	D	0.979
MIDWAY RD	MCCARTY RD to I-95	940732	8,400	2019	700	485	C	0.735	617	C	0.935
MIDWAY RD	I-95 to GLADES CUT-OFF RD	945140	21,000	2019	2,100	1,168	C	0.581	1,295	C	0.644
MIDWAY RD	GLADES CUT-OFF RD to EAST TORINO PKWY	228	21,500	2020	2,100	1,226	C	0.610	1,281	C	0.637
MIDWAY RD	W OF SELVITZ RD to SELVITZ RD	134	22,500	2020	920	1,216	F	1.322	1,304	F	1.417
MIDWAY RD	SELVITZ RD to CHRISTENSEN RD	132	18,500	2020	920	973	F	1.058	940	F	1.022
MIDWAY RD	CHRISTENSEN RD to 25TH ST	132	18,500	2020	790	973	F	1.158	940	F	1.119
MIDWAY RD	25TH ST to SUNRISE BLVD	130	18,791	2016	790	1,025	F	1.220	942	F	1.121
MIDWAY RD	SUNRISE BLVD to OLEANDER AVE	130	18,791	2016	790	1,025	F	1.220	942	F	1.121
MIDWAY RD	OLEANDER AVE to US 1	242	15,309	2016	790	808	E	0.962	800	E	0.952
MIDWAY RD	US 1 to WALLACE ST	940023	3,800	2019	790	294	C	0.754	325	C	0.833
MIDWAY RD	WALLACE ST to WEATHERBEE RD	940023	3,800	2019	920	294	C	0.338	325	C	0.374
MIDWAY RD	WEATHERBEE RD to INDIAN RIVER DR	940023	3,800	2019	630	294	C	0.490	325	C	0.542
MORNINGSIDE BLVD	WESTMORELAND BLVD to PORT ST LUCIE BLVD	333	2,654	2017	920	159	C	0.183	152	C	0.175
MORNINGSIDE BLVD	PORT ST LUCIE BLVD to LYNGATE DR	331	2,900	2020	880	230	C	0.277	244	C	0.294
NEBRASKA AVE	25TH ST to 13TH ST	684	3,767	2017	1,710	234	C	0.304	197	C	0.256
OAKRIDGE DR	MOUNTWELL ST to OAKLYN ST	621	6,000	2019	700	373	C	0.565	324	C	0.491

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St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
ORANGE AVE	7TH ST to US 1	945134	6,700	2019	300	427	D	0.712	380	D	0.633
ORANGE AVE	US 1 to 2ND ST	945133	3,600	2019	300	229	C	0.763	224	C	0.747
ORANGE AVE	2ND ST to INDIAN RIVER DR	945133	3,600	2019	370	229	C	0.619	224	C	0.605
PARR DR	PORT ST LUCIE BLVD to DARWIN BLVD	209	1,108	2016	700	81	C	0.123	71	C	0.108
PARR DR	DARWIN BLVD to TULIP BLVD	723	1,900	2019	540	167	C	0.619	126	C	0.467
PARR DR	SAVONA BLVD to PORT ST LUCIE BLVD	209	1,108	2016	700	81	C	0.123	71	C	0.108
PARR DR	ROSSER BLVD to SAVONA BLVD	209	1,108	2016	630	81	C	0.135	71	C	0.118
PEACOCK BLVD	CALIFORNIA BLVD to CASHMERE BLVD	693	4,717	2017	630	408	C	0.680	340	C	0.567
PEACOCK BLVD	UNIVERSITY BLVD to CALIFORNIA BLVD	694	10,000	2019	920	746	C	0.857	634	C	0.729
PEACOCK BLVD	ST LUCIE WEST BLVD to UNIVERSITY BLVD	948514	18,000	2019	2,100	831	C	0.435	831	C	0.435
PETERSON RD	BENT CREEK DR to HARTMAN RD	695	1,183	2017	540	94	C	0.348	80	C	0.296
PICOS RD	CAMPBELL RD to KINGS HWY	696	1,333	2017	540	92	C	0.341	86	C	0.319
PORT ST LUCIE BLVD	MARTIN C.L. to BECKER RD	948519	15,200	2019	920	701	C	0.845	701	C	0.845
PORT ST LUCIE BLVD	BECKER RD to PAAR DR	948519	15,200	2019	920	701	C	0.845	701	C	0.845
PORT ST LUCIE BLVD	PAAR DR to TULIP BLVD	948519	15,200	2019	700	701	C	0.845	701	C	0.845
PORT ST LUCIE BLVD	TULIP BLVD to DARWIN BLVD	948519	15,200	2019	920	701	C	0.845	701	C	0.845
PORT ST LUCIE BLVD	DARWIN BLVD to GATLIN BLVD	697	32,000	2019	3,020	1,720	C	0.585	1,731	C	0.589
PORT ST LUCIE BLVD	GATLIN BLVD to DEL RIO BLVD	698	38,000	2019	3,170	2,215	C	0.717	1,957	C	0.633
PORT ST LUCIE BLVD	DEL RIO BLVD to CAMEO BLVD	945074	49,500	2019	3,170	3,310	F	1.044	3,004	C	0.972
PORT ST LUCIE BLVD	CAMEO BLVD to FLORIDA'S TURNPIKE	945074	49,500	2019	3,020	3,310	F	1.096	3,004	D	0.995
PORT ST LUCIE BLVD	FLORIDA'S TURNPIKE to BAYSHORE BLVD	945074	49,500	2019	3,170	3,310	F	1.044	3,004	C	0.972
PORT ST LUCIE BLVD	BAYSHORE BLVD to AIROSO BLVD	945073	47,500	2019	3,020	3,002	D	0.994	2,974	D	0.985
PORT ST LUCIE BLVD	AIROSO BLVD to FLORESTA DR	940780	51,500	2019	3,020	3,170	F	1.050	2,778	C	0.945
PORT ST LUCIE BLVD	FLORESTA DR to VETERANS MEMORIAL PKWY	940778	59,500	2019	3,020	4,264	F	1.412	3,180	F	1.053
PORT ST LUCIE BLVD	VETERANS MEMORIAL PKWY to MORNINGSIDE BLVD	940776	35,500	2019	3,020	2,137	C	0.727	1,895	C	0.645

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St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
SNEED RD	OKEECHOBEE RD to ORANGE AVE	151	1,079	2019	670	68	B	0.309	83	B	0.377
SOUTHBEND BLVD	BECKER RD to FLORESTA DR	337	16,000	2019	790	931	F	1.108	971	F	1.156
SR A1A NORTH	US 1 to OLD DIXIE HWY	940709	10,600	2019	920	715	C	0.822	716	C	0.823
SR A1A NORTH	OLD DIXIE HWY to N HWY A1A	706	10,500	2020	2,000	558	C	0.641	621	C	0.714
SR A1A NORTH	SHOREWINDS DR to INDIAN RIVER C.L.	940114	8,100	2019	920	435	C	0.500	478	C	0.549
SR A1A SOUTH	NETTLES ISLAND to FPL PLANT	940719	4,400	2019	920	269	C	0.309	241	C	0.277
SR A1A SOUTH	FPL PLANT to BLUE HERON BLVD	940116	3,500	2019	700	418	C	0.633	336	C	0.509
SR A1A SOUTH	BLUE HERON BLVD to SEAWAY DR	945016	8,300	2019	600	448	D	0.747	536	D	0.893
SR A1A SOUTH	OCEAN DR to BINNEY DR	940115	15,900	2019	600	791	F	1.236	827	F	1.292
SR A1A SOUTH	BINNEY DR to S CAUSEWAY PARK	940115	15,900	2019	790	791	E	0.942	827	E	0.985
SR A1A SOUTH	S CAUSEWAY PARK to INDIAN RIVER DR	940711	11,900	2019	1,550	655	C	0.949	592	C	0.858
SR A1A SOUTH	INDIAN RIVER DR to US 1	940711	11,900	2019	1,710	655	C	0.851	592	C	0.769
ST JAMES DR	AIROSO BLVD to ST JAMES BLVD	172	16,500	2020	2,100	1,129	C	0.562	1,088	C	0.541
ST JAMES DR	ST JAMES BLVD to PEACHTREE BLVD	239	19,000	2020	2,100	1,345	C	0.669	1,301	C	0.647
ST JAMES DR	PEACHTREE BLVD to TELFORD AVE	172	16,500	2020	1,800	1,129	C	0.656	1,088	C	0.633
ST JAMES DR	TELFORD AVE to MIDWAY RD	345	19,500	2020	2,100	1,188	C	0.591	1,173	C	0.584
ST JAMES BLVD	SELVITZ RD to ST JAMES DR	707	4,750	2017	790	279	C	0.715	275	C	0.705
ST LUCIE BLVD	KINGS HWY to KEEN RD	156	5,710	2019	880	310	C	0.373	407	C	0.490
ST LUCIE BLVD	KEEN RD to 25TH ST	156	5,710	2019	880	310	C	0.373	407	C	0.490
ST LUCIE BLVD	25TH ST to SENECA AVE	940270	5,600	2019	750	287	C	0.776	291	C	0.786
ST LUCIE BLVD	SENECA AVE to US 1	940270	5,600	2019	790	287	C	0.736	291	C	0.746
ST LUCIE WEST BLVD	COMMERCE CENTER DR to W OF I-95	152	13,500	2019	700	662	D	0.946	683	D	0.976
ST LUCIE WEST BLVD	I-95 to CALIFORNIA BLVD	318	36,000	2019	2,100	1,722	C	0.857	1,670	C	0.831
ST LUCIE WEST BLVD	CALIFORNIA BLVD to COUNTRY CLUB DR	318	36,000	2019	2,100	1,722	C	0.857	1,670	C	0.831
ST LUCIE WEST BLVD	COUNTRY CLUB DR to CASHMERE BLVD	318	36,000	2019	2,100	1,722	C	0.857	1,670	C	0.831

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0047 - AVE C- WEST OFN 2ND ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	2000 F	E 1400	W 600	9.00	52.50	7.80
2018	2000 C	E 1400	W 600	9.00	52.40	5.80
2017	700 V	0	0	9.00	52.00	10.00
2016	700 R	0	0	9.00	52.30	6.20
2015	700 T	0	0	9.00	52.70	41.80
2014	700 S			9.00	52.50	49.50
2013	700 F	0	0	9.00	55.90	11.90
2012	700 C	E 0	W 0	9.00	55.80	7.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0003 - CR 707/INDIAN RIVER DR - N OF ORANGE AVE (COUNTY 3)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	5600 C	N 3200	S 2400	9.00	52.50	10.80
2018	7400 C	N 3700	S 3700	9.00	52.40	7.40
2017	7200 C	N 3500	S 3700	9.00	52.00	7.40
2016	6300 C	N 3000	S 3300	9.00	52.30	7.40
2015	7300 C	N 3500	S 3800	9.00	52.70	21.00
2014	6700 C	N 3600	S 3100	9.00	52.50	21.00
2013	5300 C	N 2600	S 2700	9.00	55.90	21.00
2012	5100 C	N 2600	S 2500	9.00	55.80	8.70
2011	5400 C	N 2600	S 2800	9.00	56.20	8.70
2010	5300 C	N 2800	S 2500	11.16	56.34	8.70
2009	5800 C	N 2900	S 2900	11.51	56.49	7.70
2008	5100 C	N 2500	S 2600	11.31	55.19	7.70
2007	5300 C	N 2700	S 2600	11.33	56.77	15.70
2006	5000 C	N 2600	S 2400	11.16	57.49	5.90
2005	6500 C	N 3200	S 3300	11.60	56.20	3.70
2004	8000 C	N 4000	S 4000	11.10	57.00	3.70

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0004 - INDIAN RIVER DR - 707 S OF A1A/BRIDGE (COUNTY 4)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	7400 C	N 4200	S 3200	9.00	52.50	4.10
2018	7000 C	N 3900	S 3100	9.00	52.40	4.10
2017	7000 C	N 3900	S 3100	9.00	52.00	4.10
2016	7000 C	N 3900	S 3100	9.00	52.30	4.10
2015	6400 C	N 3600	S 2800	9.00	52.70	13.30
2014	5300 C	N 3000	S 2300	9.00	52.50	1.20
2013	6200 C	N 3400	S 2800	9.00	55.90	1.20
2012	5800 C	N 3200	S 2600	9.00	55.80	1.20
2011	6600 C	N 3700	S 2900	9.00	56.20	4.30
2010	6000 C	N 3500	S 2500	11.16	56.34	4.30
2009	7100 C	N 3800	S 3300	11.51	56.49	4.30
2008	5200 C	N 2800	S 2400	11.31	55.19	5.50
2007	7100 C	N 3300	S 3800	11.33	56.77	9.10
2006	3600 C	N 1900	S 1700	11.16	57.49	2.70
2005	6200 C	N 3000	S 3200	11.60	56.20	2.70
2004	7500 C	N 3900	S 3600	11.10	57.00	2.70

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0711 - SR A1A/S - E OF SR 5/US 1 (COUNTY 711)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	11900 C	E 6000	W 5900	9.00	52.50	9.00
2018	13900 C	E 6500	W 7400	9.00	52.40	6.30
2017	11800 C	E 5700	W 6100	9.00	52.00	6.30
2016	13900 C	E 6600	W 7300	9.00	52.30	6.30
2015	15500 C	E 8700	W 6800	9.00	52.70	17.10
2014	12200 C	E 6100	W 6100	9.00	52.50	17.10
2013	9800 C	E 4500	W 5300	9.00	55.90	17.10
2012	6600 C	E 3200	W 3400	9.00	55.80	11.80
2011	10300 C	E 5000	W 5300	9.00	56.20	11.80
2010	11700 C	E 5600	W 6100	11.16	56.34	11.80
2009	11600 C	E 5600	W 6000	11.51	56.49	9.00
2008	14600 C	E 7300	W 7300	11.31	55.19	9.00
2007	12700 C	E 6300	W 6400	11.33	56.77	8.60
2006	12300 C	E 6100	W 6200	11.16	57.49	3.40
2005	12800 C	E 6200	W 6600	11.60	56.20	4.60
2004	12500 C	E 6000	W 6500	11.10	57.00	4.60

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 5154 - AVE D - W. OF SR 5/US 1 (COUNTY 160)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	2500 C	E 1200	W 1300	9.00	51.00	7.80
2018	2500 V	E 1100	W 1400	9.00	51.30	5.80
2017	2500 R	E 1100	W 1400	9.00	50.90	10.00
2016	2500 T	E 1100	W 1400	9.00	50.90	6.20
2015	2500 S	E 1100	W 1400	9.00	51.00	41.80
2014	2500 F	E 1100	W 1400	9.00	50.80	49.50
2013	2500 C	E 1100	W 1400	9.00	50.80	11.90
2012	2700 S	E 1300	W 1400	9.00	56.80	7.10
2011	2700 F	E 1300	W 1400	9.00	57.20	7.60
2010	2700 C	E 1300	W 1400	10.32	55.40	4.40
2009	3400 F	E 1600	W 1800	10.27	57.35	4.40
2008	3400 C	E 1600	W 1800	10.45	58.06	4.40

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 5034 - AVE 'A' - W OF US 1 /ONE-WAY W BOUND (COUNTY 5034)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	1000 C	W 1000	0	9.00	99.90	7.50
2018	1400 C	W 1400	0	9.00	99.90	7.50
2017	1400 C	W 1400	0	9.00	99.90	7.50
2016	1300 C	W 1300	0	9.00	99.90	17.70
2015	1300 C	W 1300	0	9.00	99.90	17.70
2014	1500 C	W 1500		9.00	99.90	17.70
2013	1100 C	W 1100	0	9.00	99.90	2.20
2012	1500 C	W 1500	0	9.00	99.90	2.20
2011	1500 C	W 1500	0	9.00	99.90	11.30
2010	1700 F	0	0	10.32	99.99	11.30
2009	1700 C	W 1700	0	10.27	99.99	11.30
2007	1800 C	W 1800	0	10.31	99.99	4.50
2006	1800 C	W 1800	0	10.73	99.99	4.50
2005	1800 C	W 1800		10.80	99.90	6.20
2004	2200 C	W 2200	0	10.30	99.90	4.50

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 5134 - SR 68/ORANGE AVE - W OF SR 5/US 1 (COUNTY 5134)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	6700 C	E 3500	W 3200	9.00	51.00	4.70
2018	8200 C	E 4000	W 4200	9.00	51.30	4.70
2017	7300 C	E 4000	W 3300	9.00	50.90	4.70
2016	7200 C	E 4000	W 3200	9.00	50.90	16.10
2015	5800 C	E 3100	W 2700	9.00	51.00	16.10
2014	6500 C	E 3400	W 3100	9.00	50.80	5.10
2013	6700 C	E 3500	W 3200	9.00	50.80	2.40
2012	6000 C	E 3200	W 2800	9.00	56.80	2.40
2011	6800 C	E 3700	W 3100	9.00	57.20	7.00
2010	7000 C	E 4000	W 3000	10.32	55.40	7.00
2009	5100 C	E 2600	W 2500	10.27	57.35	7.00
2007	6700 C	E 3900	W 2800	10.31	58.74	5.30
2006	7300 C	E 4000	W 3300	10.73	65.89	5.30
2005	6900 C	E 3400	W 3500	10.80	60.70	9.90
2004	6800 C	E 3500	W 3300	10.30	99.90	9.90

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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 5133 - SR 68/ORANGE AVE - E OF US 1 (COUNTY 5133)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	3600 C	E 2000	W 1600	9.00	52.50	7.40
2018	5500 C	E 2900	W 2600	9.00	52.40	4.90
2017	4500 C	E 2500	W 2000	9.00	52.00	4.90
2016	4100 C	E 2200	W 1900	9.00	52.30	4.90
2015	3700 C	E 2000	W 1700	9.00	52.70	10.10
2014	3700 C	E 2100	W 1600	9.00	52.50	10.00
2013	3500 C	E 2000	W 1500	9.00	55.90	9.20
2012	3700 C	E 2000	W 1700	9.00	55.80	4.80
2011	2800 C	E 1400	W 1400	9.00	56.20	4.80
2010	3300 C	E 1900	W 1400	11.16	56.34	4.90
2009	3300 C	E 1700	W 1600	11.51	56.49	19.20
2008	3200 C	E 1900	W 1300	11.31	55.19	19.20
2007	3300 C	E 1800	W 1500	11.33	56.77	9.10
2006	3200 C	E 1700	W 1500	11.16	57.49	6.50
2005	4500 C	E 2300	W 2200	11.60	56.20	4.70
2004	3800 C	E 2000	W 1800	11.10	57.00	4.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 5033 - SR 68/AVE 'A' - E OF US 1 (COUNTY 5033)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	2300 C	E 1100	W 1200	9.00	52.50	5.30
2018	2500 C	E 1300	W 1200	9.00	52.40	3.60
2017	2800 C	E 1300	W 1500	9.00	52.00	7.70
2016	2800 C	E 1300	W 1500	9.00	52.30	7.70
2015	2800 C	E 1600	W 1200	9.00	52.70	9.90
2014	2600 C	E 1200	W 1400	9.00	52.50	9.90
2013	1950 C	E 950	W 1000	9.00	55.90	9.90
2012	1950 C	E 950	W 1000	9.00	55.80	5.50
2011	2400 C	E 1200	W 1200	9.00	56.20	5.50
2010	1850 C	E 900	W 950	11.16	56.34	5.50
2009	2400 C	E 1200	W 1200	11.51	56.49	19.50
2008	2100 C	E 1000	W 1100	11.31	55.19	19.50
2007	2200 C	E 1000	W 1200	11.33	56.77	10.20
2006	2900 C	E 1400	W 1500	11.16	57.49	5.20
2005	2500 C	E 1200	W 1300	11.60	56.20	4.20
2004	3300 C	E 1600	W 1700	11.10	57.00	4.20

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

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 9400 EAST-A1A TO US1

MOCF: 0.88

WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	1.02	1.16
2	01/06/2019 - 01/12/2019	0.98	1.11
3	01/13/2019 - 01/19/2019	0.93	1.06
* 4	01/20/2019 - 01/26/2019	0.91	1.03
* 5	01/27/2019 - 02/02/2019	0.89	1.01
* 6	02/03/2019 - 02/09/2019	0.87	0.99
* 7	02/10/2019 - 02/16/2019	0.85	0.97
* 8	02/17/2019 - 02/23/2019	0.85	0.97
* 9	02/24/2019 - 03/02/2019	0.85	0.97
*10	03/03/2019 - 03/09/2019	0.85	0.97
*11	03/10/2019 - 03/16/2019	0.85	0.97
*12	03/17/2019 - 03/23/2019	0.87	0.99
*13	03/24/2019 - 03/30/2019	0.88	1.00
*14	03/31/2019 - 04/06/2019	0.89	1.01
*15	04/07/2019 - 04/13/2019	0.90	1.02
*16	04/14/2019 - 04/20/2019	0.92	1.05
17	04/21/2019 - 04/27/2019	0.94	1.07
18	04/28/2019 - 05/04/2019	0.96	1.09
19	05/05/2019 - 05/11/2019	0.99	1.13
20	05/12/2019 - 05/18/2019	1.01	1.15
21	05/19/2019 - 05/25/2019	1.03	1.17
22	05/26/2019 - 06/01/2019	1.04	1.18
23	06/02/2019 - 06/08/2019	1.06	1.20
24	06/09/2019 - 06/15/2019	1.08	1.23
25	06/16/2019 - 06/22/2019	1.08	1.23
26	06/23/2019 - 06/29/2019	1.08	1.23
27	06/30/2019 - 07/06/2019	1.08	1.23
28	07/07/2019 - 07/13/2019	1.08	1.23
29	07/14/2019 - 07/20/2019	1.08	1.23
30	07/21/2019 - 07/27/2019	1.09	1.24
31	07/28/2019 - 08/03/2019	1.11	1.26
32	08/04/2019 - 08/10/2019	1.12	1.27
33	08/11/2019 - 08/17/2019	1.14	1.30
34	08/18/2019 - 08/24/2019	1.15	1.31
35	08/25/2019 - 08/31/2019	1.17	1.33
36	09/01/2019 - 09/07/2019	1.19	1.35
37	09/08/2019 - 09/14/2019	1.20	1.36
38	09/15/2019 - 09/21/2019	1.22	1.39
39	09/22/2019 - 09/28/2019	1.18	1.34
40	09/29/2019 - 10/05/2019	1.15	1.31
41	10/06/2019 - 10/12/2019	1.11	1.26
42	10/13/2019 - 10/19/2019	1.08	1.23
43	10/20/2019 - 10/26/2019	1.07	1.22
44	10/27/2019 - 11/02/2019	1.05	1.19
45	11/03/2019 - 11/09/2019	1.04	1.18
46	11/10/2019 - 11/16/2019	1.03	1.17
47	11/17/2019 - 11/23/2019	1.03	1.17
48	11/24/2019 - 11/30/2019	1.03	1.17
49	12/01/2019 - 12/07/2019	1.02	1.16
50	12/08/2019 - 12/14/2019	1.02	1.16
51	12/15/2019 - 12/21/2019	1.02	1.16
52	12/22/2019 - 12/28/2019	0.98	1.11
53	12/29/2019 - 12/31/2019	0.93	1.06

* PEAK SEASON

14-FEB-2020 15:39:28 830UPD 4_9400_PKSEASON.TXT

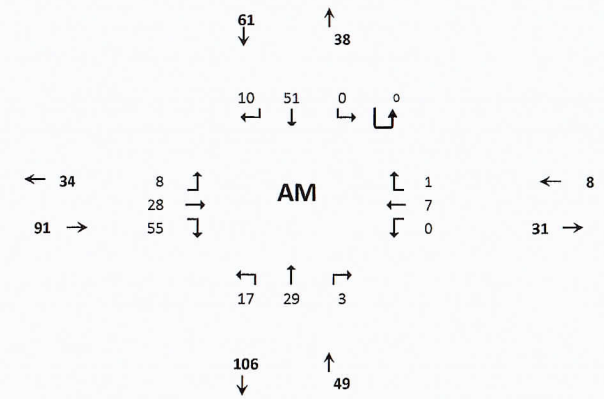
APPENDIX C

INTERSECTION ANALYSIS/DRIVEWAY DATA

TURNING MOVEMENT VOLUME COUNTS

N/S STREET: 2nd Street
E/W STREET: A.E. Backus Ave
CONTROL: TWSC
FILENAME: Kings Landing
COUNT DATE: 3/3/2021
DAY: Wednesday
CITY: Ft Pierce
INTERSECTI 2nd Street x A.E. Backus Ave
REPORT DATE: 3/3/2021
ANALYSIS YEAR: 2023

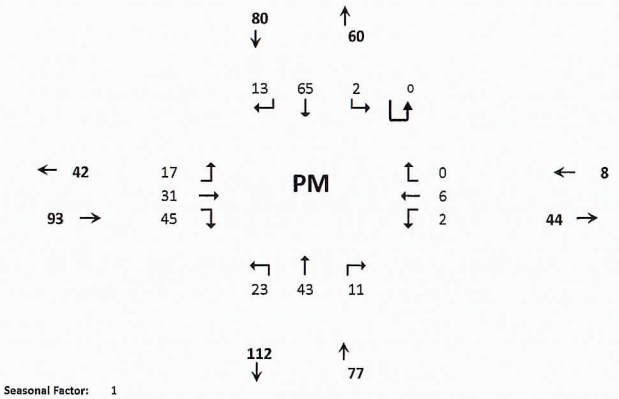
15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	2	2	0	0	3	2	1	7	5	0	4	0	26	129
7:15-7:30	0	1	0	0	3	0	1	6	4	0	1	0	16	125
7:30-7:45	2	2	1	0	7	6	4	10	17	0	2	0	51	125
7:45-8:00	0	5	2	0	10	2	2	4	10	0	0	1	36	98
8:00-8:15	0	4	0	0	4	3	2	5	3	0	0	1	22	83
8:15-8:30	0	5	0	0	5	0	0	2	2	2	0	0	16	
8:30-8:45	1	3	1	1	7	1	1	4	3	0	2	0	24	
8:45-9:00	0	0	1	0	11	1	0	1	6	1	0	0	21	
AM PEAK HOUR IS FROM:			7:00AM TO 8:00AM											
Volumes	4	10	3	0	23	10	8	27	36	0	7	1	129	
Season Factor	4	10	3	0	23	10	8	27	36	0	7	1	129	
Growth	4	10	3	0	24	10	8	28	37	0	7	1	134	
In/Out	out	out	out	in	In	-	-	In	In	In	out	-		
Percentage	10%	15%	0%	0%	15%	0%	0%	0%	10%	0%	0%	0%		
PROJECT	13	19	0	0	27	0	0	0	18	0	0	0	**77**	
Total	17	29	3	0	51	10	8	28	55	0	7	1	209	



Seasonal Factor: 1
Trips In 180
Trips Out 126
Growth Rate: 1.019
Years Grown: 2

C-1

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	2	4	3	0	14	2	1	7	5	2	4	0	44	171
4:15-4:30	2	7	5	0	7	8	3	12	9	0	1	0	54	168
4:30-4:45	3	5	1	1	6	3	6	6	6	0	1	0	38	167
4:45-5:00	2	6	2	1	8	0	6	5	5	0	0	0	35	155
5:00-5:15	0	8	5	3	9	2	2	5	6	0	1	0	41	140
5:15-5:30	1	5	2	2	16	2	3	11	6	1	4	0	53	
5:30-5:45	0	9	2	2	4	3	0	1	3	2	0	0	26	
5:45-6:00	0	3	0	4	4	1	3	2	3	0	0	0	20	
PM PEAK HOUR IS FROM:			4:00PM TO 5:00PM											
Volumes	9	22	11	2	35	13	16	30	25	2	6	0	171	
Season Factor	9	22	11	2	35	13	16	30	25	2	6	0	171	
Growth	9	23	11	2	36	13	17	31	26	2	6	0	177	
In/Out	out	out	out	in	In	-	-	In	In	In	out	-		
Percentage	10%	15%	0%	0%	15%	0%	0%	0%	10%	0%	0%	0%		
Project	14	20	0	0	29	0	0	0	19	0	0	0	**82**	
Total	23	43	11	2	65	13	17	31	45	2	6	0	258	



Seasonal Factor: 1
Growth Rate: 1.019
Trips In: 193
Trips Out: 136
Years Grown: 2

HCS7 All-Way Stop Control Report

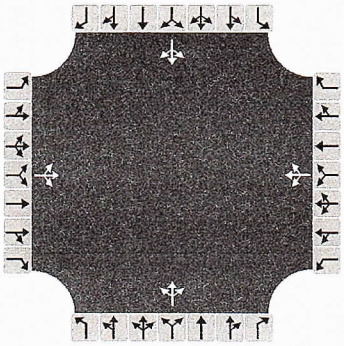
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Analysis Time Period (hrs)	0.25
Time Analyzed	AM
Project Description	Kings Landing

Site Information

Intersection	AE Backus & 2nd Street
Jurisdiction	St. Lucie County
East/West Street	AE Backus
North/South Street	2nd Street
Peak Hour Factor	0.92

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	8	28	55	0	7	1	17	29	3	0	51	10
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	99			9			53			66		
Percent Heavy Vehicles	2			2			2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.088			0.008			0.047			0.059		
Final Departure Headway, hd (s)	3.86			4.21			4.25			4.11		
Final Degree of Utilization, x	0.106			0.010			0.063			0.076		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	1.86			2.21			2.25			2.11		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	99			9			53			66		
Capacity	933			854			846			876		
95% Queue Length, Q_{95} (veh)	0.4			0.0			0.2			0.2		
Control Delay (s/veh)	7.3			7.3			7.5			7.4		
Level of Service, LOS	A			A			A			A		
Approach Delay (s/veh)	7.3			7.3			7.5			7.4		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh | LOS	7.4						A					

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HCS7 All-Way Stop Control Report

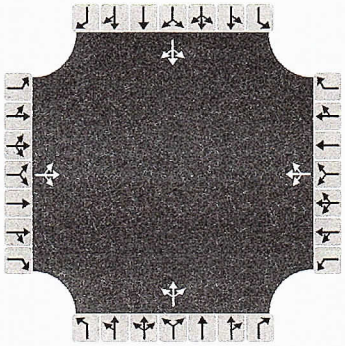
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Analysis Time Period (hrs)	0.25
Time Analyzed	PM
Project Description	Kings Landing

Site Information

Intersection	AE Backus & 2nd Street
Jurisdiction	St. Lucie County
East/West Street	AE Backus
North/South Street	2nd Street
Peak Hour Factor	0.92

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	17	31	45	2	6	0	23	43	11	2	65	13
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	101			9			84			87		
Percent Heavy Vehicles	2			2			2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.090			0.008			0.074			0.077		
Final Departure Headway, hd (s)	4.06			4.46			4.23			4.16		
Final Degree of Utilization, x	0.114			0.011			0.098			0.101		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, ts (s)	2.06			2.46			2.23			2.16		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	101			9			84			87		
Capacity	886			807			851			865		
95% Queue Length, Q_{95} (veh)	0.4			0.0			0.3			0.3		
Control Delay (s/veh)	7.6			7.5			7.7			7.6		
Level of Service, LOS	A			A			A			A		
Approach Delay (s/veh)	7.6			7.5			7.7			7.6		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh | LOS	7.6						A					

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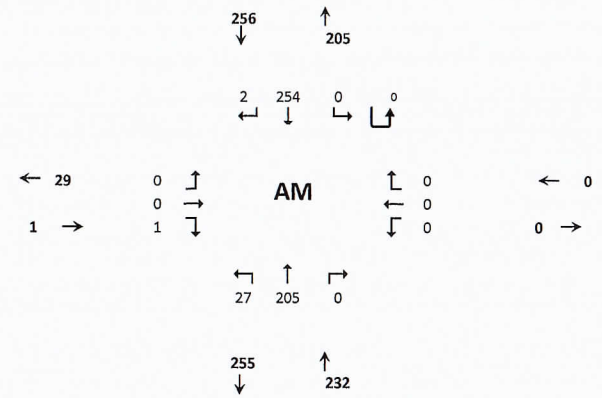
TURNING MOVEMENT VOLUME COUNTS

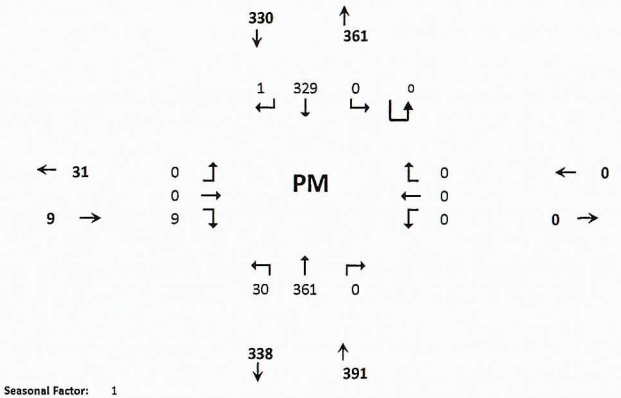
N/S STREET: Indian River Drive **E/W STREET:** Avenue B **CONTROL:** TWSC
FILENAME: Kings Landing
COUNT DATE: 3/2/2021 **DAY:** Tuesday **CITY:** Ft Pierce **INTERSECTI** Avenue B x Indian River Drive
REPORT DATE: 3/2/2021 **ANALYSIS YEAR:** 2023

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	0	14	0	0	22	0	0	0	0	0	0	0	36	352
7:15-7:30	0	45	0	0	48	0	0	0	0	0	0	0	93	395
7:30-7:45	0	44	0	0	59	0	0	0	1	0	0	0	104	397
7:45-8:00	0	54	0	0	64	1	0	0	0	0	0	0	119	379
8:00-8:15	0	42	0	0	36	1	0	0	0	0	0	0	79	341
8:15-8:30	0	40	0	0	55	0	0	0	0	0	0	0	95	
8:30-8:45	0	40	0	0	46	0	0	0	0	0	0	0	86	
8:45-9:00	0	34	0	0	47	0	0	0	0	0	0	0	81	
AM PEAK HOUR IS FROM:			7:30 AM TO 8:30AM											
Volumes	0	180	0	0	214	2	0	0	1	0	0	0	397	
Season Factor	0	180	0	0	214	2	0	0	1	0	0	0	397	
Growth	0	187	0	0	222	2	0	0	1	0	0	0	412	
In/Out	In	In	-	-	out	In	-	-	out	-	-	-		
Percentage	15%	10%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%		
PROJECT	27	18	0	0	32	0	0	0	0	0	0	0	77	
Total	27	205	0	0	254	2	0	0	1	0	0	0	489	



Seasonal Factor: 1
Trips In 180
Trips Out 126
Growth Rate: 1.019
Years Grown: 2

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	1	81	0	0	78	1	0	0	5	0	0	0	166	624
4:15-4:30	0	88	0	0	71	0	0	0	1	0	0	0	160	611
4:30-4:45	0	80	0	0	67	0	0	0	2	0	0	0	149	589
4:45-5:00	0	80	0	0	68	0	0	0	1	0	0	0	149	557
5:00-5:15	0	79	0	0	70	1	0	0	3	0	0	0	153	488
5:15-5:30	0	59	0	0	77	0	0	0	2	0	0	0	138	
5:30-5:45	0	57	0	0	59	0	0	0	1	0	0	0	117	
5:45-6:00	0	35	0	0	43	1	0	0	1	0	0	0	80	
PM PEAK HOUR IS FROM:			4:00PM TO 5:00PM											
Volumes	1	329	0	0	284	1	0	0	9	0	0	0	624	
Season Factor	1	329	0	0	284	1	0	0	9	0	0	0	624	
Growth	1	341	0	0	295	1	0	0	9	0	0	0	648	
In/Out	In	In	-	-	out	In	-	-	out	-	-	-		
Percentage	15%	10%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%		
Project	29	19	0	0	34	0	0	0	0	0	0	0	82	
Total	30	361	0	0	329	1	0	0	9	0	0	0	730	



Seasonal Factor: 1
Growth Rate: 1.019
Trips In: 193
Trips Out: 136
Years Grown: 2

C-4

HCS7 Two-Way Stop-Control Report

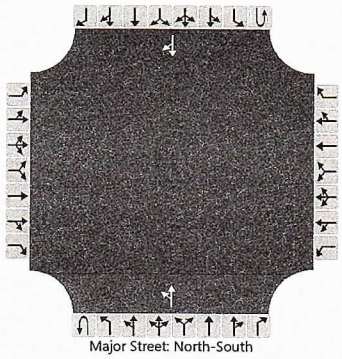
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/11/2021
Analysis Year	2023
Time Analyzed	AM
Intersection Orientation	North-South
Project Description	Project Buildout

Site Information

Intersection	Indian River Dr x Ave B
Jurisdiction	St. Lucie County
East/West Street	Avenue B
North/South Street	Indian River Drive
Peak Hour Factor	0.92
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	0	0	0	0	1	0	0	0	1	0
Configuration										LT						TR
Volume (veh/h)										27	205				254	2
Percent Heavy Vehicles (%)										3						
Proportion Time Blocked																
Percent Grade (%)																
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)										4.1						
Critical Headway (sec)										4.13						
Base Follow-Up Headway (sec)										2.2						
Follow-Up Headway (sec)										2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)										29						
Capacity, c (veh/h)										1279						
v/c Ratio										0.02						
95% Queue Length, Q_{95} (veh)										0.1						
Control Delay (s/veh)										7.9						
Level of Service (LOS)										A						
Approach Delay (s/veh)									1.1							
Approach LOS																

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HCS7 Two-Way Stop-Control Report

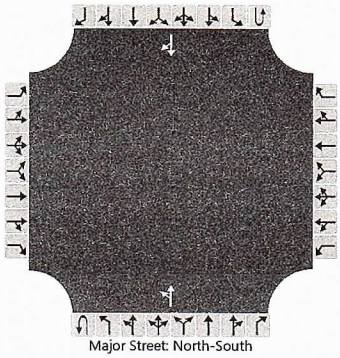
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/11/2021
Analysis Year	2023
Time Analyzed	PM
Intersection Orientation	North-South
Project Description	Project Buildout

Site Information

Intersection	Indian River Dr x Ave B
Jurisdiction	St. Lucie County
East/West Street	Avenue B
North/South Street	Indian River Drive
Peak Hour Factor	0.92
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	0	0	0	0	1	0	0	0	1	0
Configuration										LT						TR
Volume (veh/h)										30	361				329	1
Percent Heavy Vehicles (%)										3						
Proportion Time Blocked																
Percent Grade (%)																
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)										4.1						
Critical Headway (sec)										4.13						
Base Follow-Up Headway (sec)										2.2						
Follow-Up Headway (sec)										2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)										33						
Capacity, c (veh/h)										1194						
v/c Ratio										0.03						
95% Queue Length, Q_{95} (veh)										0.1						
Control Delay (s/veh)										8.1						
Level of Service (LOS)										A						
Approach Delay (s/veh)									0.9							
Approach LOS																

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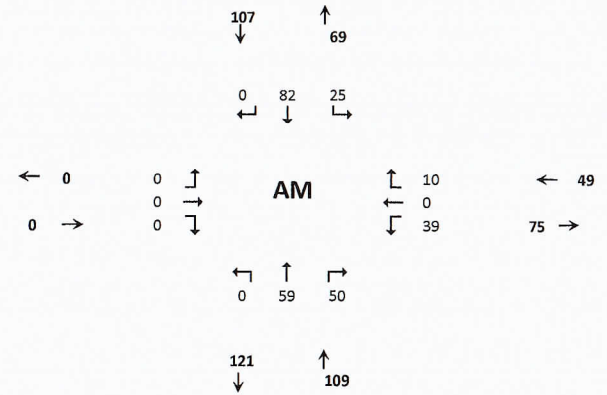
TURNING MOVEMENT VOLUME COUNTS

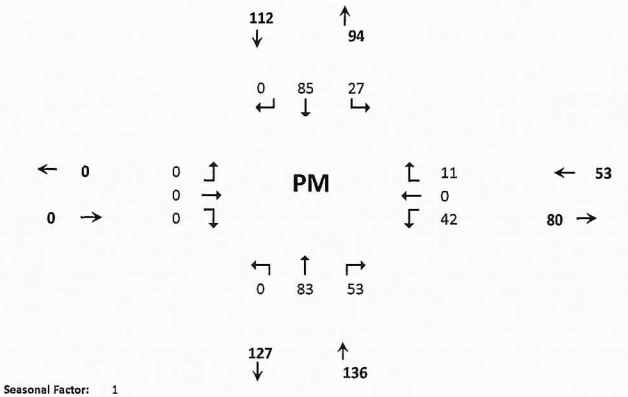
N/S STREET: 2nd Street
E/W STREET: Driveway 1
CONTROL: TWSC
FILENAME: Kings Landing
COUNT DATE: 3/3/2021
DAY: Wednesday
CITY: Ft Pierce
INTERSECTION:
REPORT DATE: 3/3/2021
ANALYSIS YEAR: 2023

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	0	4	0	0	8	0	0	0	0	0	0	0	12	76
7:15-7:30	0	1	0	0	7	0	0	0	0	0	0	0	8	75
7:30-7:45	0	5	0	0	24	0	0	0	0	0	0	0	29	81
7:45-8:00	0	7	0	0	20	0	0	0	0	0	0	0	27	67
8:00-8:15	0	4	0	0	7	0	0	0	0	0	0	0	11	59
8:15-8:30	0	5	0	0	9	0	0	0	0	0	0	0	14	
8:30-8:45	0	5	0	0	10	0	0	0	0	0	0	0	15	
8:45-9:00	0	1	0	0	18	0	0	0	0	0	0	0	19	
AM PEAK HOUR IS FROM:	7:30 AM TO 8:30AM													
Volumes	0	21	0	0	60	0	0	0	0	0	0	0	81	
Season Factor	0	21	0	0	60	0	0	0	0	0	0	0	81	
Growth	0	22	0	0	62	0	0	0	0	0	0	0	84	
In/Out	-	IN	IN	IN	OUT	-	-	-	-	OUT	-	OUT		
Percentage	0%	15%	20%	10%	10%	0%	0%	0%	0%	20%	0%	5%		
PROJECT	0	37	50	25	19	0	0	0	0	39	0	10	**180**	
Total	0	59	50	25	82	0	0	0	0	39	0	10	265	



Seasonal Factor: 1
Trips In 249
Trips Out 194
Growth Rate: 1.019
Years Grown: 2

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	0	9	0	0	21	0	0	0	0	0	0	0	30	104
4:15-4:30	0	14	0	0	16	0	0	0	0	0	0	0	30	102
4:30-4:45	0	9	0	0	12	0	0	0	0	0	0	0	21	103
4:45-5:00	0	10	0	0	13	0	0	0	0	0	0	0	23	102
5:00-5:15	0	13	0	0	15	0	0	0	0	0	0	0	28	89
5:15-5:30	0	8	0	0	23	0	0	0	0	0	0	0	31	
5:30-5:45	0	11	0	0	9	0	0	0	0	0	0	0	20	
5:45-6:00	0	3	0	0	7	0	0	0	0	0	0	0	10	
PM PEAK HOUR IS FROM:	4:00PM TO 5:00PM													
Volumes	0	42	0	0	62	0	0	0	0	0	0	0	104	
Season Factor	0	42	0	0	62	0	0	0	0	0	0	0	104	
Growth	0	44	0	0	64	0	0	0	0	0	0	0	108	
In/Out	-	IN	IN	IN	OUT	-	-	-	-	OUT	-	OUT		
Percentage	0%	15%	20%	10%	10%	0%	0%	0%	0%	20%	0%	5%		
Project	0	40	53	27	21	0	0	0	0	42	0	11	**194**	
Total	0	83	53	27	85	0	0	0	0	42	0	11	301	



Seasonal Factor: 1
Growth Rate: 1.019
Trips In: 266
Trips Out: 209
Years Grown: 2

C-7

HCS7 Two-Way Stop-Control Report

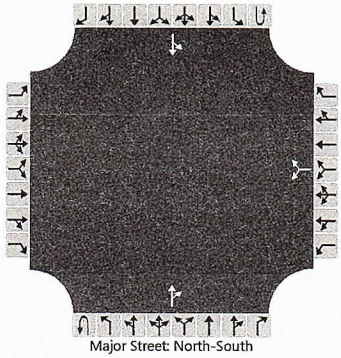
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	AM
Intersection Orientation	North-South
Project Description	Driveway Count

Site Information

Intersection	2nd Street & Driveway 1
Jurisdiction	St Lucie County
East/West Street	Driveway 1
North/South Street	2nd Street
Peak Hour Factor	0.92
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	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						39		10			59	50		25	82	
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)							53							27		
Capacity, c (veh/h)							774							1463		
v/c Ratio							0.07							0.02		
95% Queue Length, Q_{95} (veh)							0.2							0.1		
Control Delay (s/veh)							10.0							7.5		
Level of Service (LOS)							A							A		
Approach Delay (s/veh)						10.0							1.9			
Approach LOS						A										

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HCS7 Two-Way Stop-Control Report

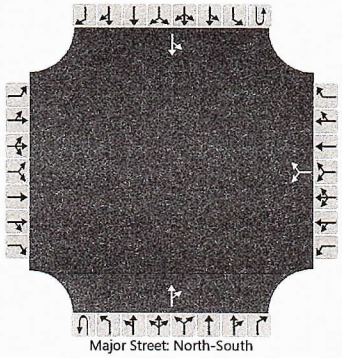
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	PM
Intersection Orientation	North-South
Project Description	Driveway Count

Site Information

Intersection	2nd Street & Driveway 1
Jurisdiction	St Lucie County
East/West Street	Driveway 1
North/South Street	2nd Street
Peak Hour Factor	0.92
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	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						42		11			83	53		27	85	
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)							58							29		
Capacity, c (veh/h)							740							1428		
v/c Ratio							0.08							0.02		
95% Queue Length, Q_{95} (veh)							0.3							0.1		
Control Delay (s/veh)							10.3							7.6		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)						10.3								2.0		
Approach LOS						B										

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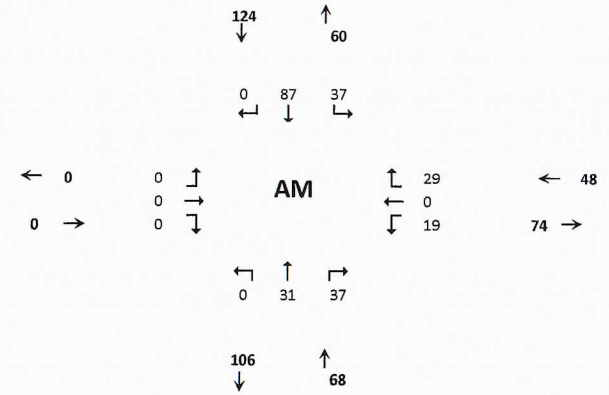
TURNING MOVEMENT VOLUME COUNTS

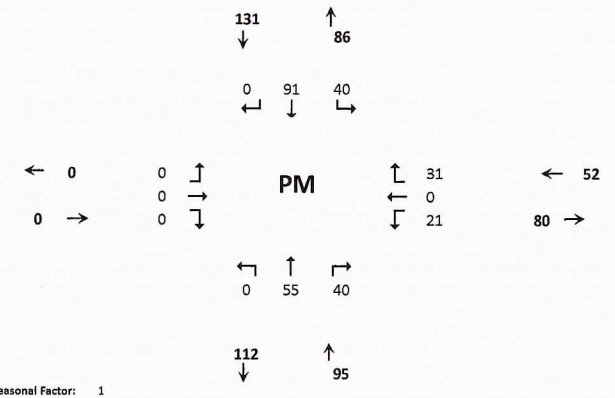
N/S STREET: 2nd Street **E/W STREET:** Driveway 2 **CONTROL:** TWSC
FILENAME: Kings Landing
COUNT DATE: 3/3/2021 **DAY:** Wednesday **CITY:** Ft Pierce **INTERSECTION:**
REPORT DATE: 3/3/2021 **ANALYSIS YEAR:** 2023

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	0	4	0	0	8	0	0	0	0	0	0	0	12	76
7:15-7:30	0	1	0	0	7	0	0	0	0	0	0	0	8	75
7:30-7:45	0	5	0	0	24	0	0	0	0	0	0	0	29	81
7:45-8:00	0	7	0	0	20	0	0	0	0	0	0	0	27	67
8:00-8:15	0	4	0	0	7	0	0	0	0	0	0	0	11	59
8:15-8:30	0	5	0	0	9	0	0	0	0	0	0	0	14	
8:30-8:45	0	5	0	0	10	0	0	0	0	0	0	0	15	
8:45-9:00	0	1	0	0	18	0	0	0	0	0	0	0	19	
AM PEAK HOUR IS FROM:			7:30 AM TO 8:30AM											
Volumes	0	21	0	0	60	0	0	0	0	0	0	0	81	
Season Factor	0	21	0	0	60	0	0	0	0	0	0	0	81	
Growth	0	22	0	0	62	0	0	0	0	0	0	0	84	
In/Out	-	OUT	IN	IN	IN	-	-	-	-	OUT	-	OUT		
Percentage	0%	5%	15%	15%	10%	0%	0%	0%	0%	10%	0%	15%		
PROJECT	0	10	37	37	25	0	0	0	0	19	0	29	158	
Total	0	31	37	37	87	0	0	0	0	19	0	29	240	



Seasonal Factor: 1
Trips In 249
Trips Out 194
Growth Rate: 1.019
Years Grown: 2

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	0	9	0	0	21	0	0	0	0	0	0	0	30	104
4:15-4:30	0	14	0	0	16	0	0	0	0	0	0	0	30	102
4:30-4:45	0	9	0	0	12	0	0	0	0	0	0	0	21	103
4:45-5:00	0	10	0	0	13	0	0	0	0	0	0	0	23	102
5:00-5:15	0	13	0	0	15	0	0	0	0	0	0	0	28	89
5:15-5:30	0	8	0	0	23	0	0	0	0	0	0	0	31	
5:30-5:45	0	11	0	0	9	0	0	0	0	0	0	0	20	
5:45-6:00	0	3	0	0	7	0	0	0	0	0	0	0	10	
PM PEAK HOUR IS FROM:			4:00PM TO 5:00PM											
Volumes	0	42	0	0	62	0	0	0	0	0	0	0	104	
Season Factor	0	42	0	0	62	0	0	0	0	0	0	0	104	
Growth	0	44	0	0	64	0	0	0	0	0	0	0	108	
In/Out	-	OUT	IN	IN	IN	-	-	-	-	OUT	-	OUT		
Percentage	0%	5%	15%	15%	10%	0%	0%	0%	0%	10%	0%	15%		
Project	0	11	40	40	27	0	0	0	0	21	0	31	170	
Total	0	55	40	40	91	0	0	0	0	21	0	31	278	



Seasonal Factor: 1
Growth Rate: 1.019
Trips In: 266
Trips Out: 209
Years Grown: 2

C-10

HCS7 Two-Way Stop-Control Report

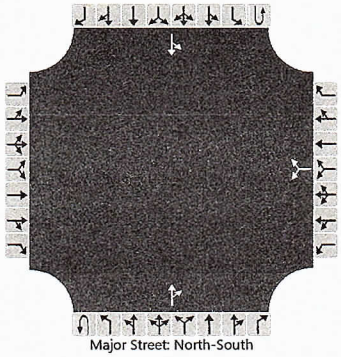
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	AM
Intersection Orientation	North-South
Project Description	Driveway Count

Site Information

Intersection	2nd Street & Driveway 2
Jurisdiction	St Lucie County
East/West Street	Driveway 2
North/South Street	2nd Street
Peak Hour Factor	0.92
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	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						19		29			31	37		37	87	
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)							52							40		
Capacity, c (veh/h)							881							1519		
v/c Ratio							0.06							0.03		
95% Queue Length, Q_{95} (veh)							0.2							0.1		
Control Delay (s/veh)							9.3							7.4		
Level of Service (LOS)							A							A		
Approach Delay (s/veh)					9.3								2.4			
Approach LOS					A											

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HCS7 Two-Way Stop-Control Report

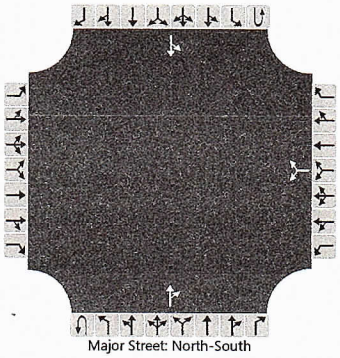
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	PM
Intersection Orientation	North-South
Project Description	Driveway Count

Site Information

Intersection	2nd Street & Driveway 2
Jurisdiction	St Lucie County
East/West Street	Driveway 2
North/South Street	2nd Street
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						21		31			55	40		40	91	
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)							57							43		
Capacity, c (veh/h)							840							1482		
v/c Ratio							0.07							0.03		
95% Queue Length, Q_{95} (veh)							0.2							0.1		
Control Delay (s/veh)							9.6							7.5		
Level of Service (LOS)							A							A		
Approach Delay (s/veh)						9.6								2.5		
Approach LOS						A										

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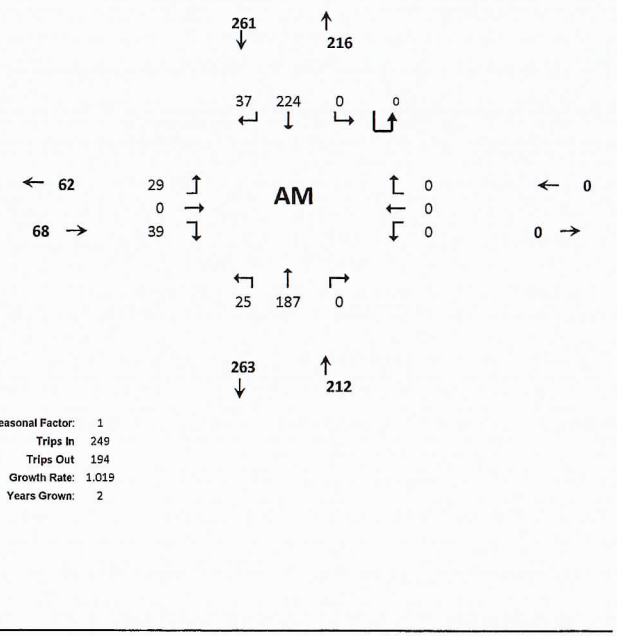
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Indian River Drive **E/W STREET:** Driveway 3 **CONTROL:** TWSC
FILENAME: Kings Landing
COUNT DATE: 3/2/2021 **DAY:** Tuesday **CITY:** Ft Pierce **INTERSECTI** Avenue B x Indian River Drive
REPORT DATE: 3/2/2021 **ANALYSIS YEAR:** 2023

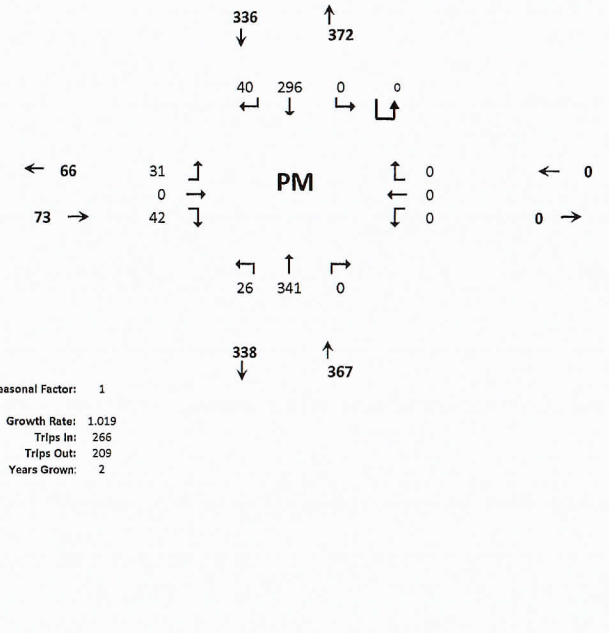
15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	0	14	0	0	22	0	0	0	0	0	0	0	36	351
7:15-7:30	0	45	0	0	48	0	0	0	0	0	0	0	93	394
7:30-7:45	0	44	0	0	59	0	0	0	0	0	0	0	103	396
7:45-8:00	0	54	0	0	65	0	0	0	0	0	0	0	119	379
8:00-8:15	0	42	0	0	37	0	0	0	0	0	0	0	79	341
8:15-8:30	0	40	0	0	55	0	0	0	0	0	0	0	95	
8:30-8:45	0	40	0	0	46	0	0	0	0	0	0	0	86	
8:45-9:00	0	34	0	0	47	0	0	0	0	0	0	0	81	
AM PEAK HOUR IS FROM:	7:30 AM TO 8:30AM													
Volumes	0	180	0	0	216	0	0	0	0	0	0	0	396	
Season Factor	0	180	0	0	216	0	0	0	0	0	0	0	396	
Growth	0	187	0	0	224	0	0	0	0	0	0	0	411	
In/Out	In	-	-	-	-	In	Out	-	Out	-	-	-		
Percentage	10%	0%	0%	0%	0%	15%	15%	0%	20%	0%	0%	0%		
PROJECT	25	0	0	0	0	37	29	0	39	0	0	0	**130**	
Total	25	187	0	0	224	37	29	0	39	0	0	0	541	



Seasonal Factor: 1
Trips In 249
Trips Out 194
Growth Rate: 1.019
Years Grown: 2

C-13

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	0	81	0	0	79	0	0	0	0	0	0	0	160	614
4:15-4:30	0	88	0	0	71	0	0	0	0	0	0	0	159	604
4:30-4:45	0	80	0	0	67	0	0	0	0	0	0	0	147	581
4:45-5:00	0	80	0	0	68	0	0	0	0	0	0	0	148	550
5:00-5:15	0	79	0	0	71	0	0	0	0	0	0	0	150	481
5:15-5:30	0	59	0	0	77	0	0	0	0	0	0	0	136	
5:30-5:45	0	57	0	0	59	0	0	0	0	0	0	0	116	
5:45-6:00	0	35	0	0	44	0	0	0	0	0	0	0	79	
PM PEAK HOUR IS FROM:	4:00PM TO 5:00PM													
Volumes	0	329	0	0	285	0	0	0	0	0	0	0	614	
Season Factor	0	329	0	0	285	0	0	0	0	0	0	0	614	
Growth	0	341	0	0	296	0	0	0	0	0	0	0	637	
In/Out	In	-	-	-	out	In	Out	-	out	-	-	-		
Percentage	10%	0%	0%	0%	0%	15%	15%	0%	20%	0%	0%	0%		
Project	26	0	0	0	0	40	31	0	42	0	0	0	**139**	
Total	26	341	0	0	296	40	31	0	42	0	0	0	776	



Seasonal Factor: 1
Growth Rate: 1.019
Trips In: 266
Trips Out: 209
Years Grown: 2

HCS7 Two-Way Stop-Control Report

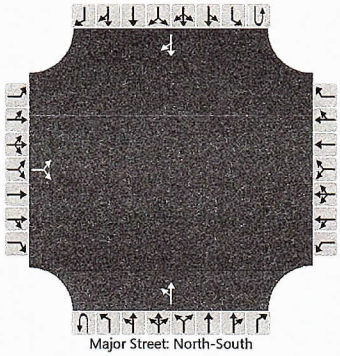
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	AM
Intersection Orientation	North-South
Project Description	Driveway Count

Site Information

Intersection	Indian River & Driveway3
Jurisdiction	St Lucie County
East/West Street	Driveway 3
North/South Street	Indian River Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		29		39						25	187				224	37
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)			74							27						
Capacity, c (veh/h)			628							1273						
v/c Ratio			0.12							0.02						
95% Queue Length, Q_{95} (veh)			0.4							0.1						
Control Delay (s/veh)			11.5							7.9						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		11.5								1.1						
Approach LOS		B														

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HCS7 Two-Way Stop-Control Report

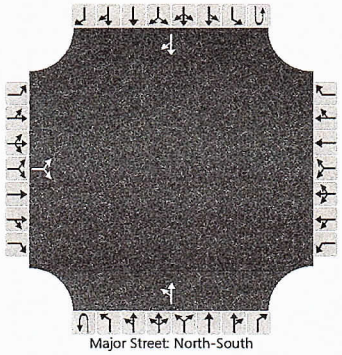
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	PM
Intersection Orientation	North-South
Project Description	Driveway Count

Site Information

Intersection	Indian River & Driveway3
Jurisdiction	St Lucie County
East/West Street	Driveway 3
North/South Street	Indian River Drive
Peak Hour Factor	0.92
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	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		31		42						26	341				296	40
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)			79							28						
Capacity, c (veh/h)			497							1188						
v/c Ratio			0.16							0.02						
95% Queue Length, Q_{95} (veh)			0.6							0.1						
Control Delay (s/veh)			13.6							8.1						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		13.6								0.8						
Approach LOS		B														

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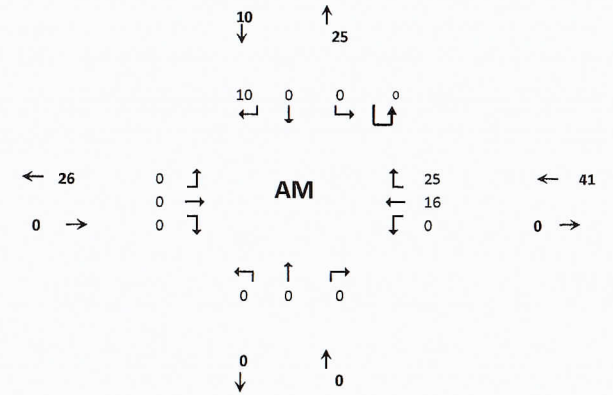
TURNING MOVEMENT VOLUME COUNTS

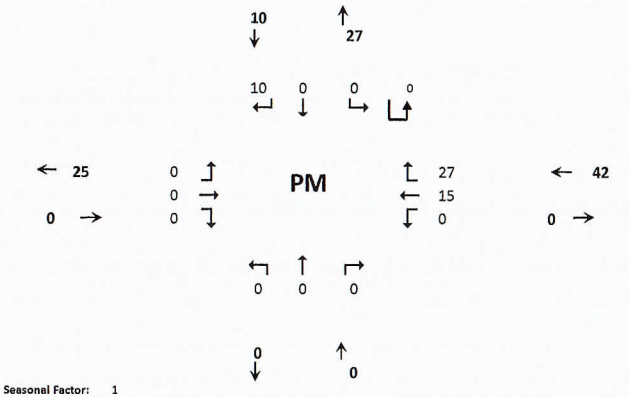
N/S STREET: Driveway 4 **E/W STREET:** Avenue B **CONTROL:** TWSC
FILENAME: Kings Landing
COUNT DATE: 3/2/2021 **DAY:** Tuesday **CITY:** Ft Pierce **INTERSECTI** Avenue B x Indian River Drive
REPORT DATE: 3/2/2021 **ANALYSIS YEAR:** 2023

15 Min Period	Northbound NBL	NBT	NBR	Southbound SBL	SBT	SBR	Eastbound EBL	EBT	EBR	Westbound WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45-8:00	0	0	0	0	0	0	0	0	0	0	1	0	1	2
8:00-8:15	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	0	0	0	0	0	0	0	0	0	0	2	0	2	
Season Factor	0	0	0	0	0	0	0	0	0	0	2	0	2	
Growth	0	0	0	0	0	0	0	0	0	0	2	0	2	
In/Out	-	-	-	-	-	OUT	-	-	-	-	IN	IN		
Percentage	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	5%	10%		
PROJECT	0	0	0	0	0	10	0	0	0	0	13	25	**48**	
Total	0	0	0	0	0	10	0	0	0	0	16	25	51	



Seasonal Factor: 1
Trips In 249
Trips Out 194
Growth Rate: 1.019
Years Grown: 2

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	0	0	0	0	0	0	0	0	0	2	0	2	2
4:15-4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30-4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45-5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00-5:15	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5:15-5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30-5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45-6:00	0	0	0	0	0	0	0	0	0	0	1	0	1	
PM PEAK HOUR IS FROM:			4:00PM TO 5:00PM											
Volumes	0	0	0	0	0	0	0	0	0	0	2	0	2	
Season Factor	0	0	0	0	0	0	0	0	0	0	2	0	2	
Growth	0	0	0	0	0	0	0	0	0	0	2	0	2	
In/Out	-	-	-	-	-	OUT	-	-	-	-	IN	IN		
Percentage	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	5%	10%		
Project	0	0	0	0	0	10	0	0	0	0	13	27	**50**	
Total	0	0	0	0	0	10	0	0	0	0	15	27	52	



Seasonal Factor: 1
Growth Rate: 1.019
Trips In: 266
Trips Out: 209
Years Grown: 2

C-16

HCS7 Two-Way Stop-Control Report

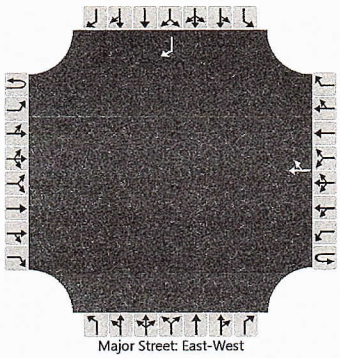
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	Driveway Count

Site Information

Intersection	Ave B & Driveway 4
Jurisdiction	St Lucie County
East/West Street	Avenue B
North/South Street	Driveway 4
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	0	0		0	0	1
Configuration								TR								R
Volume (veh/h)							16	25								10
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.2
Critical Headway (sec)																6.23
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																11
Capacity, c (veh/h)																1040
v/c Ratio																0.01
95% Queue Length, Q_{95} (veh)																0.0
Control Delay (s/veh)																8.5
Level of Service (LOS)																A
Approach Delay (s/veh)													8.5			
Approach LOS													A			

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HCS7 Two-Way Stop-Control Report

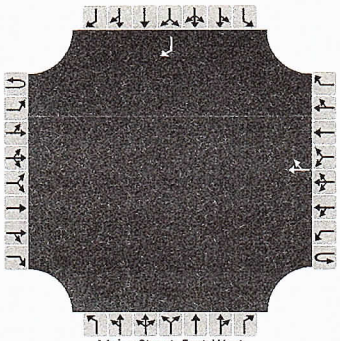
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Driveway Count

Site Information

Intersection	Ave B & Driveway 4
Jurisdiction	St Lucie County
East/West Street	Avenue B
North/South Street	Driveway 4
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	0	0		0	0	1
Configuration								TR								R
Volume (veh/h)							15	27								10
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.2
Critical Headway (sec)																6.23
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																11
Capacity, c (veh/h)																1040
v/c Ratio																0.01
95% Queue Length, Q_{95} (veh)																0.0
Control Delay (s/veh)																8.5
Level of Service (LOS)																A
Approach Delay (s/veh)													8.5			
Approach LOS													A			

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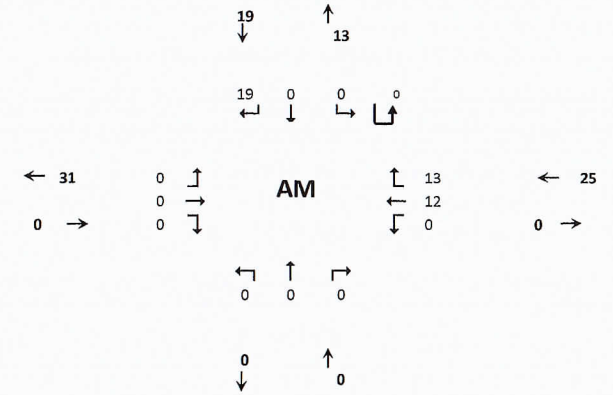
TURNING MOVEMENT VOLUME COUNTS

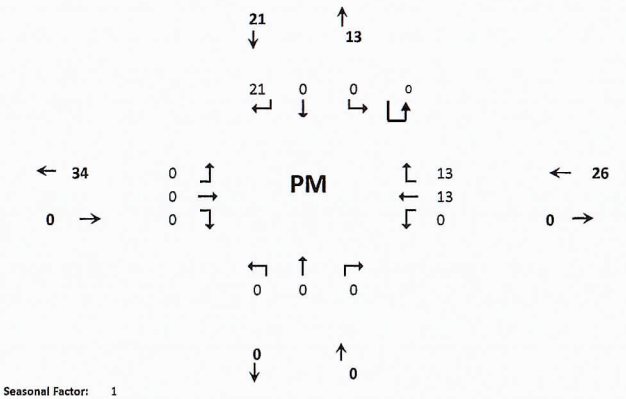
N/S STREET: Driveway 5 **E/W STREET:** Avenue B **CONTROL:** TWSC
FILENAME: Kings Landing
COUNT DATE: 3/2/2021 **DAY:** Tuesday **CITY:** Ft Pierce **INTERSECTI Avenue B x Indian River Drive**
REPORT DATE: 3/2/2021 **ANALYSIS YEAR:** 2023

15 Min Period	Northbound			Southbound			Eastbound			Westbound				ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45-8:00	0	0	0	0	0	0	0	0	0	0	1	0	1	2
8:00-8:15	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM PEAK HOUR IS FROM:			7:15AM TO 8:15AM											
Volumes	0	0	0	0	0	0	0	0	0	0	2	0	2	
Season Factor	0	0	0	0	0	0	0	0	0	0	2	0	2	
Growth	0	0	0	0	0	0	0	0	0	0	2	0	2	
In/Out	-	-	-	-	-	OUT	-	-	-	-	OUT	IN		
Percentage	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	5%	5%		
PROJECT	0	0	0	0	0	19	0	0	0	0	10	13	**43**	
Total	0	0	0	0	0	19	0	0	0	0	12	13	44	



Seasonal Factor: 1
Trips In 249
Trips Out 194
Growth Rate: 1.019
Years Grown: 2

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	0	0	0	0	0	0	0	0	0	0	2	0	2	2
4:15-4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30-4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45-5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00-5:15	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5:15-5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30-5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45-6:00	0	0	0	0	0	0	0	0	0	0	1	0	1	
PM PEAK HOUR IS FROM:			4:00PM TO 5:00PM											
Volumes	0	0	0	0	0	0	0	0	0	0	2	0	2	
Season Factor	0	0	0	0	0	0	0	0	0	0	2	0	2	
Growth	0	0	0	0	0	0	0	0	0	0	2	0	2	
In/Out	-	-	-	-	-	OUT	-	-	-	-	OUT	IN		
Percentage	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	5%	5%		
Project	0	0	0	0	0	21	0	0	0	0	10	13	**45**	
Total	0	0	0	0	0	21	0	0	0	0	13	13	47	



Seasonal Factor: 1
Growth Rate: 1.019
Trips In: 266
Trips Out: 209
Years Grown: 2

C-19

HCS7 Two-Way Stop-Control Report

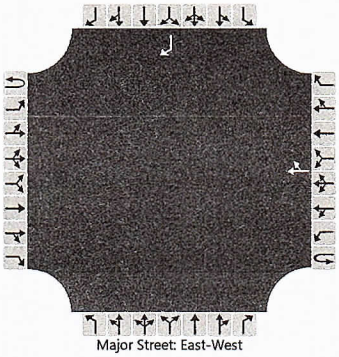
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	Driveway Count

Site Information

Intersection	Ave B & Driveway 5
Jurisdiction	St Lucie County
East/West Street	Avenue B
North/South Street	Driveway 5
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	0	0		0	0	1
Configuration								TR								R
Volume (veh/h)							12	13								19
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.2
Critical Headway (sec)																6.23
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																21
Capacity, c (veh/h)																1055
v/c Ratio																0.02
95% Queue Length, Q_{95} (veh)																0.1
Control Delay (s/veh)																8.5
Level of Service (LOS)																A
Approach Delay (s/veh)													8.5			
Approach LOS													A			

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HCS7 Two-Way Stop-Control Report

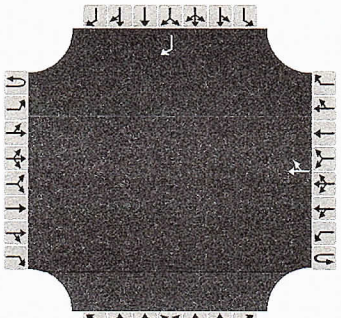
General Information

Analyst	Gatah Louis
Agency/Co.	O'Rourke Engineering
Date Performed	3/17/2021
Analysis Year	2023
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Driveway Count

Site Information

Intersection	Ave B & Driveway 5
Jurisdiction	St Lucie County
East/West Street	Avenue B
North/South Street	Driveway 5
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	0	0		0	0	1
Configuration								TR								R
Volume (veh/h)							13	13								21
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.2
Critical Headway (sec)																6.23
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																23
Capacity, c (veh/h)																1053
v/c Ratio																0.02
95% Queue Length, Q_{95} (veh)																0.1
Control Delay (s/veh)																8.5
Level of Service (LOS)																A
Approach Delay (s/veh)													8.5			
Approach LOS													A			

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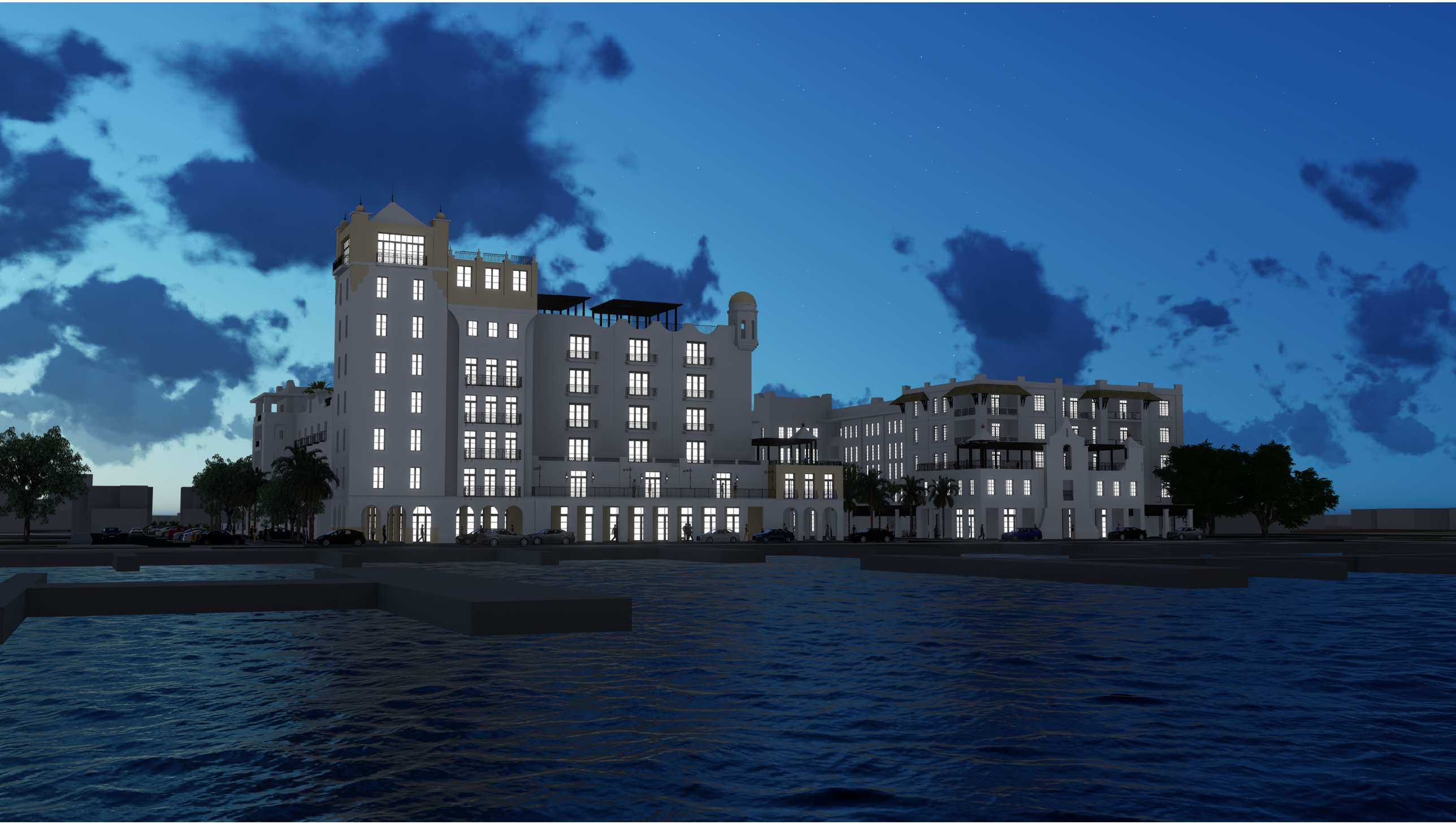



Technical Review Committee **3. e.**

Meeting Date: 05/20/2021

REQUESTED ACTION

Site Plan, Preliminary Plat and Variance - Surfside Quadruplex - Parcel ID: 2412-501-0132-000-3

LOCATION

Parcel ID: 2412-501-0132-000-3

RESPONSIBLE STAFF

Brandon C. Creagan, MCRP, LEED Green Associate, Planner

RECOMMENDATION

Review & Provide Comments

Attachments

TRC Packet

Form Review

Form Started By: Brandon Creagan Started On: 04/30/2021 11:36 PM

Final Approval Date: 05/05/2021

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO: JACK ANDREWS, PE, CITY ENGINEER
MIKE REALS, FP PUBLIC WORKS MANAGER
CHIEF HOBLEY-BURNEY, FP POLICE DEPARTMENT
PAUL THOMAS, FP BUILDING OFFICIAL
JAMES CARNES, PE, FPUA ENGINEERING (WATER/WASTEWATER)
PAUL LAGUERRE, PE, FPUA ENGINEERING (ELECTRIC)
ROD REED, PLS, SLC SURVEYING
GRANT CHAMBERS, PE, SLC ENGINEERING
LESLIE OLSON, AICP, SLC PLANNING & DEVELOPMENT DIRECTOR
DIVISION CHIEF PAUL LANGEL, SLC FIRE DISTRICT
PEGGY ARRAIZ, FP CODE ENFORCEMENT
PETER BUCHWALD, AICP, SLC TRANSPORTATION PLANNING ORGANIZATION
MURRIAH DECKLE, AICP, SLC TRANSIT SERVICES

FROM: BRANDON CREAGAN, LEED GREEN ASSOCIATE, PLANNER

RE: TECHNICAL REVIEW PROJECT# 21-07000007

DATE: APRIL 30, 2021

Development Review – Surfside Quadraplex – Parcel ID: 2412-501-0132-000-3

This is an application for a Development Review, Subdivision, Design Review, and a Variance. This will be a quadraplex development with associated site improvements. The current zoning on the property is Hutchinson Island Medium Density Residential (R-4A) with a Future Land Use of Hutchinson Island Residential (HIR). The property size is approximately 0.54 acres. The parcel ID is 2412-501-0132-000-3.

Please review and provide comments on the project. Please send all comments to my email Bcreagan@cityoffortpierce.com or through interoffice mail to the Planning Department. If you have comments, please respond by May 18, 2021.

Please do not hesitate to contact me should you require any additional information at 772-467-3742.

Thank you.

Brandon Creagan

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

DEVELOPMENT REVIEW

Property address or Location: Surfside Drive, Fort Pierce, FL

Parcel ID #(s): 2412-501-0132-000-3

Project description: Four (4) Multi-Family Units

Surfside Land, LLC	Schulke, Bittle & Stoddard, LLC c/o Jodah B. Bittle, P.E.
~~Property Owner(s)~~	~~Applicant/Representative, Title, Company~~
9481 Campi Drive	1717 Indian River Boulevard, Suite 201
Street Address	Street Address
Lake Worth FL 33467-6998	Vero Beach FL 32960
City State Zip	City State Zip
561-703-7755	772-770-9622
Phone Number	Phone Number
ramy.gali@gmail.com; daniel.kecskes@gmail.com	jbittle@sbsengineers.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY Palm Beach

The foregoing instrument was acknowledged before me this 22 day of APRIL, 2021, by

RAMY R. GALI who is personally known to me or has produced

DL PC as identification.

Signature of Notary

NOTARY PUBLIC (seal)

LEODICIA J. PERALTA
Notary Public, State of Florida
Commission# GG249925
My comm. expires Aug. 16, 2022

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____

Intake Planner_____

Planner Assigned_____

Approved By_____Date _____

Comments_____

Fees_____ Control #_____ B. Permit #_____

Intake Date Stamp

❑ DEVELOPMENT REVIEW

General Information

- ❑ Incomplete application packets cannot be accepted.
- ❑ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
❑ Site Plan	■ Conditional Use with New Const.	❑ Major Amendment
❑ Conceptual Development Plan		❑ Minor Amendment

Site Information:

Non-Residential: Proposed Sq. Ft.: _____ Residential: Proposed Units: 4

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West
Condominium	Vacant / Residential	N/A	Vacant / Residential

Application Outlook



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ❑ Complete notarized application
- ❑ Warranty Deed
- ❑ SLC Property Record Card
- ❑ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ❑ General location map (see Section 22-58.d.2)
- ❑ Survey (see Section 22-58.d.3)
- ❑ Site Plan (see Section 22-58.d.4)
- ❑ Landscaping Plan (see Section 22-187)
- ❑ Storm Drainage Plan (see Section 22-58.d.6)
- ❑ Environmental Impact Report
- ❑ Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ❑ Lighting Plan (see Section 22-58.d.8)
- ❑ Design Review submittals (see Design Review application)
- ❑ Traffic Impact Report
- ❑ Concurrency Review submittals (see Concurrency Review application)

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Design Review

Property address or Location: Surfside Drive, Fort Pierce, FL

Parcel ID #(s): 2412-501-0132-000-3

Project Description: Four (4) Multi-Family Units

Surfside Land, LLC	Schulke, Bittle & Stoddard, LLC
Property Owner(s)	Applicant/Representative, Title, Company
9481 Campi Drive	1717 Indian River Boulevard, Suite 201
Street Address	Street Address
Lake Worth FL 33467-6998	Vero Beach FL 32960
City State Zip	City State Zip
561-703-7755	772-770-9622
Phone Number	Phone Number
ramy.gali@gmail.com; daniel.kecskes@gmail.com	jbittle@sbsengineers.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Application (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY Palm Beach

The foregoing instrument was acknowledged before me this 22 day of APRIL 2021, by RAMY R. GALI who is personally known to me or has produced DL FL as identification.

Signature of Notary

LEODICIA J. PERALTA
Notary Public, State of Florida
Commission# GG249925
My comm. expires Aug. 16, 2022

(seal)

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic Districts	Historic Designation

Pre-Application Meeting Date _____ Fees _____ Control # _____ B. Permit _____

Intake Planner _____

Planner Assigned _____

Approved _____ Date _____

Comments _____

Intake Date Stamp

Design Review Application Checklist
(City Code of Ordinances 22-59)

Submittal for Administrative Approval

a. A survey (1" = 30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of section 22-194, location of bordering streets and, if applicable, wetlands and beaches.
b. A site analysis study to include a discussion of specimen trees and other natural vegetation, access, significant topography, wetlands, buffers, setbacks, views, orientation, the surrounding built environment and other site features that may influence design elements.
c. A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis study results.
d. Context photographs of neighboring uses and architectural styles.
e. Photographs and/or drawings of architectural buildings or objects that serve as a precedent for the proposed building design. Models should be taken from local exemplary buildings, either existing or demolished. Documentation of such buildings is available in the city's planning department.
f. Photographs of all existing structures located on the property. If existing structures on the property are more than fifty (50) years of age, documentation of these structures with data from the Florida Master Site File form is also required.
g. Conceptual site plan (to scale) showing proposed location of all buildings, structures, parking areas, signs and landscaping.
h. Landscape plan, at the same scale as the site plan. The planning director or designee may request enlarged plans of detailed planting areas. Planting schedule with sizes of proposed plantings must be included.
i. Accurate color rendering of proposed signs showing dimensions, type of lettering, materials and actual color samples that demonstrates cohesiveness with the project design.
j. Exterior elevations showing architectural character, external architectural features and streetscape of the proposed development, including materials, colors, shadow lines and landscaping. The street elevation shall encompass the entire proposed project and generally identify the major elements of the adjacent two (2) properties on either side of the site. If the adjacent properties are vacant or underutilized, a diagram shall be provided that identifies the mass and form that is allowable under current zoning. If the street elevation must be drawn at such a scale as to render architectural details of the building unreadable, drawings of individual buildings at a larger scale should be provided as well.
k. Design review concurrent with conceptual development plan procedure according to subsection 22-58(e) is also available.

Submittal for Board Approval

a. A written narrative describing how the project conforms to administrative approval and design review guidelines of this section.
b. A final site plan meeting the requirements of section 22-58
c. A final site lighting plan that meets the requirements of subsection 22-58(d)(8).
d. A final landscape plan that meets the requirements of Article XII, Landscaping and Trees.
e. Final floor plans and elevation drawings (1/8" = 1'-0" minimum scale), as detailed under administrative approval, showing exterior building materials and colors with architectural sections and details to adequately describe the project.
f. A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Subdivision

Property address or Location: Surfside Drive, Fort Pierce, FL

Parcel ID #(s): 2412-501-0132-000-3

Project description: Four (4) Multi-Family Units

Property Owner(s)
Surfside Land, LLC

Street Address
9481 Campi Drive

City State Zip
Lake Worth, FL 33467-6998

Phone Number
561-703-7755

Email Address
ramy.gali@gmail.com; daniel.kecskes@gmail.com

Applicant/Representative, Title, Company
Schulke, Bittle & Stoddard, LLC c/o Jodah B. Bittle, P.E.

Street Address
1717 Indian River Boulevard, Suite 201

City State Zip
Vero Beach, FL 32960

Phone Number
772-770-9622

Email Address
jbittle@sbsengineers.com

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY Palm Beach

The foregoing instrument was acknowledged before me this 22 day of April, 2021, by Ramy R-Gali who is personally known to me or has produced DL FL as identification.

Signature of Notary

LEODICIA J. PERALTA
Notary Public, State of Florida
Commission# GG249925
My comm. expires Aug. 16, 2022
(seal)

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____
Intake Planner_____
Planner Assigned_____
Approved By_____Date _____
Comments_____

Fees_____ Control #_____ B. Permit #_____

Intake Date Stamp

☑ SUBDIVISION: PRELIMINARY PLAT

Please submit one (1) original and thirteen (13) hard copies and one (1) CD of the following:

- ☐ Preliminary Plat prepared by a surveyor registered in the State of Florida meeting the requirements of Sections 18-5, & 18-10 (a) (1-3) & (c)
- ☐ A copy of the deed
- ☐ Signed and sealed survey
- ☐ Concurrency application, complete
- ☐ Complete, notarized application

☐ SUBDIVISION: INFRASTRUCTURE PLAN REVIEW

Please submit one (1) original and four (4) hard copies and one (1) CD of the following, stamped by a state of Florida registered engineer meeting the requirements of 18-10 (a) (4) :

- ☐ Street construction plans
- ☐ Electric Infrastructure plans
- ☐ Water & Sewer system construction plans
- ☐ Gas Infrastructure plans
- ☐ Stormwater Retention plans
- ☐ Complete, notarized application

☐ SUBDIVISION: FINAL PLAT

Please submit one (1) original and thirteen (13) hard copies and one (1) CD of the following:

- ☐ A copy of the deed
- ☐ Signed and sealed survey
- ☐ Final Plat stamped by a state of Florida registered surveyor meeting the requirements of 18-5, & 18-10 (b & c):
- ☐ Complete, notarized application

☐ SUBDIVISION: MINOR REPLAT

Please submit one (1) original and thirteen (13) hard copies and one (1) CD of the following:

- ☐ A copy of the deed
- ☐ As-built survey of original parcel stamped by a registered surveyor in the State of Florida
- ☐ Scaled drawing, stamped by a registered surveyor in the State of Florida, of surveyed parcel indicating
  - o proposed lots, including acreage, square footage, & dimensions.
  - o any & all easements, rights-of-way, or similar instruments found on or adjacent to the subject property
- ☐ Complete, notarized application

THE SUNRISE CITY
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PLANNING DEPARTMENT Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Condo	HIR	R-4A
South	Vacant - Residential	HIR	R-1
East	N/A	N/A	N/A
West	Vacant - Residential	HIR	R-4A

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	HIR	R-4A	8 units / acre	0.94	X & VE-8
****Proposed**	HIR	R-4A	4.3 units / acre	0.94	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum 1,040
Current Zoning/FLU	Total gallons per day 1,040
**Proposed Zoning/FLU	Total gallons per day 1,040
**Change in Demand	Total gallons per day 1,040

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum 1,040
Current Zoning/FLU	Total gallons per day 1,040
**Proposed Zoning/FLU	Total gallons per day 1,040
**Change in Demand	Total gallons per day 1,040

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people	2.21	2.21	0
Urban District	5 acres per 1,000 people	2.21	2.21	0
Community	2.5 acres per 1,000 people	2.21	2.21	0
Neighborhood	1.36 acres per 1,000 people	2.21	2.21	0

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name	Lawnwood Elem. / Dan McCarty Middle	Lincoln Park Academy
City	Ft. Pierce	Ft. Pierce
Distance	N/A	N/A
Current Zoning/FLU Enrollment Demand	0.58	0.25
****Proposed Zoning/FLU Enrollment Demand**	0.58	0.25
****Change in Demand**	0.00	0.00

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)

Demand Analysis	Maximum
Current Zoning/FLU	2
****Proposed Zoning/FLU**	2
***Change in Demand**	2

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	No volume discharge increase proposed

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	32	4 / 6
****Proposed Zoning/FLU**	32	4 / 6
***Change in Demand**	Trips - 32	Trips - 4/6
Impact to Capacity	Deminimus	

IV. Project Description

PHASING
Is this project (phase) part of a larger project? ☐ Yes ☑ No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: Single Family: Multifamily:
Non-residential (square footage):
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA

Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family	1	4	0.94	11/1/2021	11/1/2022
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. ☐Yes ☑No

B. 1. Does this application involve demolition or re-use of any structure(s)? ☐Yes ☑No
If yes, what is the size of the structure(s) to be demolished or re-used? _____

2. What is the current use of the structure to be demolished or re-used? N/A

3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? ☐Yes ☑No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested: N/A

** Complete section if requesting a change in zoning, future land use, or expanding

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

VARIANCE

Property address or Location: Surfside Drive, Fort Pierce, FL

Parcel ID #(s): 2412-501-0132-000-3

Project description: Four (4) Multi-Family Units

Property Owner(s)	Applicant/Representative, Title, Company
Surfside Land, LLC	Schulke, Bittle & Stoddard, LLC
9481 Campi Drive	1717 Indian River Boulevard, Suite 201
Street Address	Street Address
Lake Worth FL 33467-6998	Vero Beach FL 32960
City State Zip	City State Zip
	772-770-9622
Phone Number	Phone Number
ramy.gali@gmail.com; daniel.keoskes@gmail.com	jbittle@sbsengineers.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein.*

Property Owner(s) Signature(s)

STATE OF FL -- COUNTY Palm Beach

The foregoing instrument was acknowledged before me this 26 day of April, 2021, by Ramy Gali who is personally known to me or has produced FL Driver License as identification.

Signature of Notary (seal)

NOTARY PUBLIC
GUIOMARY SCHIAVONI
Notary Public, State of Florida
Commission# GG 226684
My comm. expires June 10, 2022

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3737

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____

Intake Planner_____

Planner Assigned_____

Approved By_____ Date _____

Comments_____

Fees_____ Control #_____ B. Permit #_____

Intake Date Stamp

VARIANCE

Submit eight (8) hard copies and one (1) CD of the following for initial submittal, subsequent submittals will be required:

- ☐ Site plan, to scale, including all relevant improvements:
  - ☐ Existing & proposed structures
  - ☐ Landscaping & parking,
  - ☐ Fencing, signs, etc.
- ☐ As-built Survey
- ☐ Criteria Narrative
- ☐ Complete, notarized application

Application Outlook



Description of request: 6' Building setback instead of 10' along north property line

Reason for request: The above variance request is needed in order to construct the proposed four (4) multi-family units

Existing Use : Vacant Date Property was Purchased: July 23, 2020

Alterations made to the site since purchase: N/A

Has a request for this variance been denied in the past? ☐ Yes ■ No

If yes, what has changed since the denial? _____

Criteria:

In order to determine whether your request for Variance meets all the criteria in Section 22-108 of the City Code, please answer the following questions. Please provide answers of questions on separate pages:

1. Describe those conditions peculiar to the specific property and not applicable to other lands, structures, or buildings in the same zoning district.
2. Do special conditions or circumstances result from actions other than that of yours? Please explain
3. Identify any undue hardships or deprivation of commonly enjoyed property rights that would result in the literal interpretation of the code for the zoning district.
4. What is the minimum variance that would give the reasonable use of the land, building, or structure?
5. Explain how the variance request would not impair the intent of the zoning ordinance or be detrimental to the general public welfare:

JOSEPH W. SCHULKE, P.E.
JODAH B. BITTLE, P.E.
WILLIAM P. STODDARD, Ph.D., P.E.

SCHULKE, BITTLE & STODDARD, L.L.C.

CIVIL & STRUCTURAL ENGINEERING • LAND PLANNING • ENVIRONMENTAL PERMITTING

April 30, 2021
Revised: May 3, 2021

Brandon Creagan, MCRP, LEED Green Associate
Planner
City of Fort Pierce
100 North US Highway 1
Fort Pierce, FL 34950

RE: Surfside Quadplex
Variance Criteria Questions

In response to the variance criteria questions listed on Page 2 of the application, we offer the following responses:

1. Describe those conditional peculiars to the specific property and not applicable to other lands, structures or buildings in the same zoning district.

   a. Building Setback Variance: Uniquely & atypically narrow for Multi Family parcel. The lot is also decreased by Coastal Construction Control Line, "VE" Flood Zone and Seaward limits of construction restrictions for this lot. Therefore, to make a comfortable width for the residences we must decrease the setback from 10' to 6'. Only requesting on North Side with the minimum variance possible and placed in the least obtrusive location for the adjacent lots.

2. Do special conditions or circumstances result from actions other than that of yours? Please explain.

   a. Building Setback Variance: Uniquely & atypically narrow for Multi Family parcel. The lot is also decreased by Coastal Construction Control Line, "VE" Flood Zone and Seaward limits of construction restrictions for this lot. Therefore, to make a comfortable width for the residences we must decrease the setback from 10' to 6'. Only requesting on North Side with the minimum variance possible and placed in the least obtrusive location for the adjacent lots.

3. Identify any undue hardships or deprivation of commonly enjoyed property rights that would result in the literal interpretation of the code for the zoning district.

   a. Building Setback Variance: Uniquely & atypically narrow for Multi Family parcel. The lot is also decreased by Coastal Construction Control Line, "VE" Flood Zone and Seaward limits of construction restrictions for this lot. Therefore, to make a comfortable width for the residences we must decrease the setback from 10' to 6'. Only requesting on North Side with the minimum variance possible and placed in the least obtrusive location for the adjacent lots.

1717 INDIAN RIVER BLVD., SUITE 201, VERO BEACH, FLORIDA 32960
TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbsengineers.com
Certification of Authorization No: 00008668

4. What is the minimum variance that would give the reasonable use of the land, building or structure?

   a. Building Setback Variance: The variance from 10' to 6' is the least amount required for this site. We are placing this Variance on one side due to the adjacent property to the north being setback so far from this property.

5. Explain how the variance request would not impair the intent of the zoning ordinance or be detrimental to the general public welfare

   a. Building Setback Variance: The 60 feet side setback property to north Building spacing remains much more than 20 foot Code intention. We are proposing a privacy wall and enhances landscaping on BOTH Sides. Eliminate pedestrians cutting through, damaging the Dune Ecosystem; Allows floor plans that are not so narrow as to be marginally functionally obsolete. Helps to Provide closure to a longstanding Developmental challenge unique to this property that has precluded and prevented needed infill for 20 years or longer

Project will provide solution to "dead end sidewalk" danger & liability.

Project will add more than 3 Million dollars to the Tax Roles of the-City & County, potentially totaling an additional $75,000-$100,000 annual Ad Valorem Property Tax Revenue increase, compounding to Millions over the next few decades.

If you have any questions, please contact me at our office. Thank you.

Sincerely,

Jodah B. Bittle, P.E.

JAMES E.
GILGENBACH
ARCHITECT

ARCHITECTURE
&
PLANNING
FL AR-7457

28 APRIL 2021

SURFSIDE QUADPLEX TOWNHOME PROJECT

The 1700 Surfside Townhomes project is a multi-family development that includes 4 townhome type dwelling units and are 4 stories high. This project is a fee simple ownership located on a vacant oceanfront lot at the North end of Surfside Drive just East of South Ocean Drive, Fort Pierce, Florida.

The ground floor has the car garages facing Surfside Drive with one driveway for the 2 north units and another driveway for the 2 south units. Above that ground level are 3 floors consisting of the townhome dwelling units. There will be stair access to the roofs where there will be patio areas.

The property is zoned R4A and this property is being designed with consideration of transitioning from multifamily condominiums to the North and single-family homes to the South. The proposed development is located seaward of the coastal construction control line and is being designed in accordance with rules and regulations of 62B-33 Florida Administrative Code. Since the project is seaward of the coastal construction control line a conditional use approval will be required from the City of Fort Pierce.

The existing project to the north of this project are 4-story condominium residential apartment buildings with parking on the ground level of the building. The existing property to the south of this project is a single-family single story residential structure.

This development will have a contemporary design style and includes secured garage parking and an elevated swimming pool for each unit. The developer intends to begin construction as soon as all the required permits have been secured.

JOSEPH W. SCHULKE, P.E.
JODAH B. BITTLE, P.E.
WILLIAM P. STODDARD, Ph.D., P.E.

SCHULKE, BITTLE & STODDARD, L.L.C.

CIVIL & STRUCTURAL ENGINEERING • LAND PLANNING • ENVIRONMENTAL PERMITTING

April 30, 2021

Brandon Creagan, MCRP, LEED Green Associate
Planner
City of Fort Pierce
100 North US Highway 1
Fort Pierce, FL 34950

Subject: **Surfside Quadplex**
Parcel ID: 2412-501-0132-000-3 – Pre-Application Comments
March 3rd, 2021 Conference Call

Dear Mr. Creagan,

Enclosed, please find the following documents to complete the plat and conditional use submittal package for the above referenced project and a response to the March 3rd Pre-Application comments:

1. City of Fort Pierce Design Review Application (1 original, 2 copies)
2. City of Fort Pierce Development Review / Conditional Use Application with New Construction (1 original, 2 copies)
3. City of Fort Pierce Subdivision – Preliminary Plat Application (1 original, 2 copies)
4. City of Fort Pierce – Variance Application (1 original, 2 copies)
5. Concurrency – Capacity Analysis
6. Application Fee of $1,710.00 for Design Review, Development Review / Conditional Use with New Construction and Preliminary Plat
7. Application Fee of $1,000.00 for Variance
8. SLC Property Record Card (3 copies)
9. Three (3) sets of civil plans with lighting plan
10. Warranty Deed (3 copies)
11. S&S Survey (3 originals)
12. S&S Landscape Plan (3 originals)
13. S&S Architectural Plans (3 originals)

Fort Pierce Planning:

1. A landscape plan shall be provided at the time of application that is signed and sealed by a Florida Registered Landscape Architect pursuant to City Code 123-37, General Landscaping requirements. **A landscape plan that is signed and sealed by a Florida Registered Landscape Architect is included with this submittal package.**

2. A lighting plan or photometric survey shall be provided at the time of application that complies with lighting on the beach pursuant to City Code 16-28. **A lighting plan is included with this submittal package. A photometric plan is not required for this project.**

3. A Design Review application shall be submitted with the application pursuant to City Code 125-314. **Please see attached Design Review application.**

1717 INDIAN RIVER BLVD., SUITE 201, VERO BEACH, FLORIDA 32960
TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbsengineers.com
Certification of Authorization No: 00008668

4. Alongside the Design Review application, an Application for Development Review / Conditional Use with New Construction will need to be provided as this property is seaward of the Costal Construction Control Line (CCCL). **Please see attached Application for Development Review / Conditional Use with New Construction.**

5. As this is seaward of the CCCL, approval will also need to be obtained by the FDEP. **Acknowledged.**

6. To be able to utilize the zoning designation of Planned Development (PD) the project has to provide some sort of public benefit and the designs whether they are the architectural renderings or landscape package must go above and beyond what typically would be required by code. Planned Developments should not be used as the sole purpose of avoiding development or zoning regulations. An example of a public benefit could be a pedestrian beach access path. **The project is not being submitted as a Planned Development.**

7. If a Planned Development is sought, an Application for Zoning Atlas Map Amendment will also need to be submitted. **The project is not being submitted as a Planned Development.**

8. If this PD is to be for townhomes a plat will also be required. **The project is not being submitted as a Planned Development. We are submitting a plat for this project.**

9. What is your timeline for application submission? **As soon as possible.**

10. Note that all fees for advertising, mailing and signs shall be paid upfront with the application fees. These fees can be found on the City website under the Planning Departments page under *"Public Notice Fee"*. The City also temporarily reduced some application fees and those can be found under the link *"Fee Schedule – Temporarily Reduced Fees Expire 11/30/2020"*. **Acknowledged.**

Fort Pierce Engineering:

1. The proposed Planned Development depicts two 2-way drives which will service four residential development. In accordance with Code requirements (Section 125-316) the minimum driveway separation for 2-way driveways servicing a multi-family development is 50' along a local road. This 50' shall be measured from edge of driveway to edge of driveway along the R/W line. It appears that a spacing of 10' +/- is proposed. **We have submitted a variance for this issue.**

2. According to the Code (Section 125-316) driveway setbacks from side property lines shall be a minimum of 25'. The submitted site plan does not appear to meet this criterion. **We have submitted a variance for this issue.**

3. The proposed building will encroach 4' into the required 10' building setback on the west side, will a request for a Variance be submitted? **We have submitted a variance for this issue.**

4. How will on-site stormwater run-off be treated? **We are proposing an exfiltration trench for stormwater runoff.**

5. The development encroaches seaward of the CCCL and therefore an FDEP permit is required prior to any construction. **Acknowledged. An FDEP permit will be obtained prior to any construction.**

Fort Pierce Code Enforcement

1. No Comment at this time. **Acknowledged.**

FPUA

1. W/WW Engineering:
   - Water is available to serve the proposed multifamily development. Sewer is not readily available and would require a main extension from either sewer manhole 14-14 or 14-10 which are highlighted on the attached FPUA utility map. It will be the responsibility of the developer to check the existing manhole inverts to see if an extension is a possibility. The inverts listed below are to be verified in the field. Please submit 3 complete sets of Utility Construction plans along with a completed plan review and commercial service application to Water and Wastewater Engineering at 1701 S 37th Street, Fort Pierce, FL 34947. For more information, please contact: Lugey Dawson at 772-466-1660 ext. 3428 **Acknowledged. Utility Construction plans will be submitted under separate cover to the Water and Wastewater Engineering Department.**

2. Electric & Gas Engineering: Approved.
   - Electric service is available from the SW corner (FPI 10771) of the parcel. Please provide electric load information for the new service(s) and AutoCAD drawing. **Acknowledged.**

     Customer will be responsible for all conduits and secondary conductors (if there is two or more propose services, customer to provide and install the service wire). For more information and project coordination, please contact:
     - Sal Scimeca
       Engineering Technician II
       Electric and Gas Engineering
       1701 S. 37th Street, Fort Pierce, FL 34947
       sscimeca@fpua.com
       Office: (772) 466-1600 ext. 6957

Fort Pierce Building Comments:

1. This project must be designed and constructed in compliance with the FBC Building volume requirements. **Acknowledged. This project is designed and will be constructed in compliance with the FBC Building volume requirements.**

2. This project is east of CCCL, and must comply additionally with FBC Building, Ch. 3109 and DEP requirements. This will require Deep Pile Foundation, etc. **Acknowledged.**

3. This project requires Automatic Sprinkler System throughout. **Acknowledged.**

Fort Pierce Urban Forester:

1. Submit a Tree Mitigation Survey and Landscape Plan for review at time of application. **A tree mitigation survey and landscape plan are included with this submittal package for review.**

St. Lucie County Erosion District

1. The subject property includes a previously recorded perpetual easement associated with the Fort Pierce Shore Protection Project, a federally authorized beach project. This project includes periodic beach nourishment adjacent to the subject property. In some instances, construction is required landward of the Erosion Control Line (ECL). As this property is positioned at the southernmost terminus of the federal beach project, beach fill placement will be limited to project end tapers, which fill placement transitions into the existing dune. Please be advised that structures seaward of the elevation 9.0' contour (NAD 27) are generally discouraged because of potential impact with future beach construction. **Acknowledged.**

   If in event structures are proposed within the area describer above (at a later date), the applicant should contact Joshua Revord, St. Lucie County's Sr. Coastal Engineer (772-462-1269) to discuss preliminary plans prior to design and / or permitting facts.

2. The subject project is seaward of the Costal Construction Control Line (CCCL) and requires a CCCL permit from the Florida Department of Environmental Protection. Please be advised that projects seaward of the CCCL require no net loss of sand within the proposed parcel, to preserve beach dune integrity. **Acknowledged. A CCCL permit from the Florida Department of Environmental Protection will be obtained.**

Upon your review, should you have any questions, or require further information, please do not hesitate to contact me at our office. Thank you.

Sincerely,

Jodah B. Bittle, P.E.

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 4736593 OR BOOK 4454 PAGE 2102, Recorded 07/31/2020 03:10:32 PM Doc Tax: $3972.50

This Document Prepared By and Return to:
Christopher J. Twohey, PA
844 SE Ocean Blvd. Suite A
Stuart, Florida 34994

Parcel ID Number: 2412-501-0132-000/3

Warranty Deed

This Indenture, Made this **23rd** day of **July** ,**2020** A.D., **Between**
L & K Developers, LLC, an Illinois limited liability company
of the County of **Cook** , State of **Illinois** , **grantor,** and
Surfside Land, LLC, a Florida limited liability
whose address is: **9481 Campi Dr., Lake Worth, FL 33467**
of the County of **Palm Beach** , State of **Florida** , **grantee.**

Witnesseth that the GRANTOR, for and in consideration of the sum of
TEN DOLLARS ($10)
and other good and valuable consideration to GRANTOR in hand paid by GRANTEE, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said GRANTEE and GRANTEE'S heirs, successors and assigns forever, the following described land, situate, lying and being in the County of **Saint Lucie**
State of **Florida** to wit:

Lot 13, Block 11, SURFSIDE UNIT ONE, according to the Plat thereof, as recorded in Plat Book 10, Page 17, Public Records of Saint Lucie County, Florida.

SUBJECT TO:

1. Taxes for the year 2020, and all subsequent years;

2. Zoning restrictions, prohibitions and other requirements imposed by governmental authority;

3. Restrictions and matters appearing on the Plat or otherwise common to the subdivision; and

4. Public utility easements of record, if any.

and the grantor does hereby fully warrant the title to said land, and will defend the same against lawful claims of all persons whomsoever.

Laser Generated by ©Disolav Systems, Inc. 2020 (863) 763-5555 netForm FLWD-1

Warranty Deed - Page 2

Parcel ID Number: 2412-501-0132-000/3

In Witness Whereof, the grantor has hereunto set his hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Eileen M. Keating
Printed Name:
Witness

Robert A. Bosco
Printed Name:
Witness

L & K Developers, LLC
By: Robert H Lohens (Seal)
Robert H. Lohens, Member
P.O. Address: 1237 S. Delphia Ave., Park Ridge, IL 60068

State of Illinois
County of Cook

The foregoing instrument was acknowledged before me by means of ☑ physical presence or ☐ online notarization, this 23 day of July , 2020 , by Robert H. Lohens, Member of L & K Developers, LLC, an Illinois limited liability company on behalf of the limited liability company who is personally known to me or who has produced his driver's license as identification.

Ashley M. Spyrdz
Printed Name:
Notary Public Ashley Spyrdz
My Commission Expires: 8/23/2020

ASHLEY M SPYRDZ
Official Seal
Notary Public - State of Illinois
My Commission Expires Aug 23, 2020

1700 Surfside Quadplex Dune Vegetation Protection

As Design Build Construction Manager for, and on behalf of Surfside Land LLC,

I, Steven M. Weaver Sr., as President of RealTime Property Development Services Inc. CGC15005490, as discussed with COFP Planning Brandon Creagan, per the attached email correspondence, in regards to 1700 Surdfside Drive, have confirmed that the necessary Vegetation Information is contained on the attached FDEP compliant Comprehensive Survey perfomed by Karner Surveying, and the Dune Protection, and Stormwater Prevention Plan are contained within the attached SBS Engineers Conditional Use Civil Engineering PlanSet. The building area to be disturbed will be well West of the dune vegetation. The Project will be conducted in accordance City and FDEP regulatort Permits, as well as with all Federal, State & Local Laws.

Steven M. Weaver Sr.
RealTime Property Development Services Inc. CGC 1505490

RE: 1700 Surfside Quadplex

Tue, Apr 20, 2021 1:50 pm**Brandon Creagan** (bcreagan@cityoffortpierce.com)To:you Details
Both of your questions would be fine, move forward as you described.

Best Wishes,
Brandon

Brandon C. Creagan, MCRP, LEED Green Associate | Planner | City of Fort Pierce
Planning Department
Phone: 772-467-3742 Fax: 772-466-5808 100 North U.S. 1 Fort Pierce, FL 34950

From: realtimefla@aol.com
Sent: Tuesday, April 20, 2021 1:13 PM
To: Brandon Creagan
Subject: 1700 Surfside Quadplex

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

Good Afternoon Brandon,
I have looked through several conditional use files for residential builds on Surfside and do not see Environmental Impact reports.
The dune vegetation will be noted on the Site plan, and the Survey, and appropriate protection is REQUIRED by the FDEP Permit Conditions, and we will be protecting all of it as per all City & State regulations.
Can we utilize an owners statement or would a waiver be possible for this requirement considering the location and the FDEP parallel protective regulations?
Thank You for your consideration of this matter.

Separately, our Traffic Impact Statement / Letter will be authored/calculated by a State Registered Architect with knowledge and fluency with the ITE Trip Generation Manual, Volume 10.

Steven M. Weaver Sr.
RealTime Property Development Services Inc. CGC 1505490
Commercial/Waterfront/Investment Properties Development
Direct: (386) 405-0286 - VM / Office: (772) 344-7100

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

Property Identification

Site Address: Surfside DR	Parcel ID: 2412-501-0132-000-3	Account #: 24058	Sec/Town/Range: 07/35S/41E
		Map ID: 25/07N	Zoning: HI Medium
Use Type: 0000	Jurisdiction: Fort Pierce		

Ownership

Surfside Land LLC

9481 Campi DR
Lake Worth, FL 33467

Legal Description

SURFSIDE-UNIT ONE- BLK 11 LOT 13(0.54 AC)

Current Values

Just/Market:	$405,300	Assessed:	$405,300
Exemptions:	$0	Taxable:	$405,300

Historical Values 3-year

Year	Just/Market	Assessed	Exemptions	Taxable
2020	$405,300	$405,300	$0	$405,300
2019	$452,000	$452,000	$0	$452,000
2018	$435,800	$435,800	$0	$435,800

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
07-23-2020	4454 / 2102	0001	WD	L and K Developers	$567,500
02-04-2016	3834 / 2662	0001	WD	Marchiori Frank A	$490,000
04-21-2005	2242 / 2471	XX00	WD	Consalo Augustus	$1,075,000

Primary Building Information

Finished Area of this building: 0 SF
Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:	Building Type:
Year Built: N/A	Frame:	Grade:	Effective Year: N/A
Primary Wall:	Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	A/C %: 0%	Electric:	Primary Int Wall:
Full Baths: 0	Heated %: N/A%	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Sprinkled %: 0%	Heat Fuel:	Primary Floors:



Image or Sketch unavailable for display

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	0.54
Land Size (SF):	23,500
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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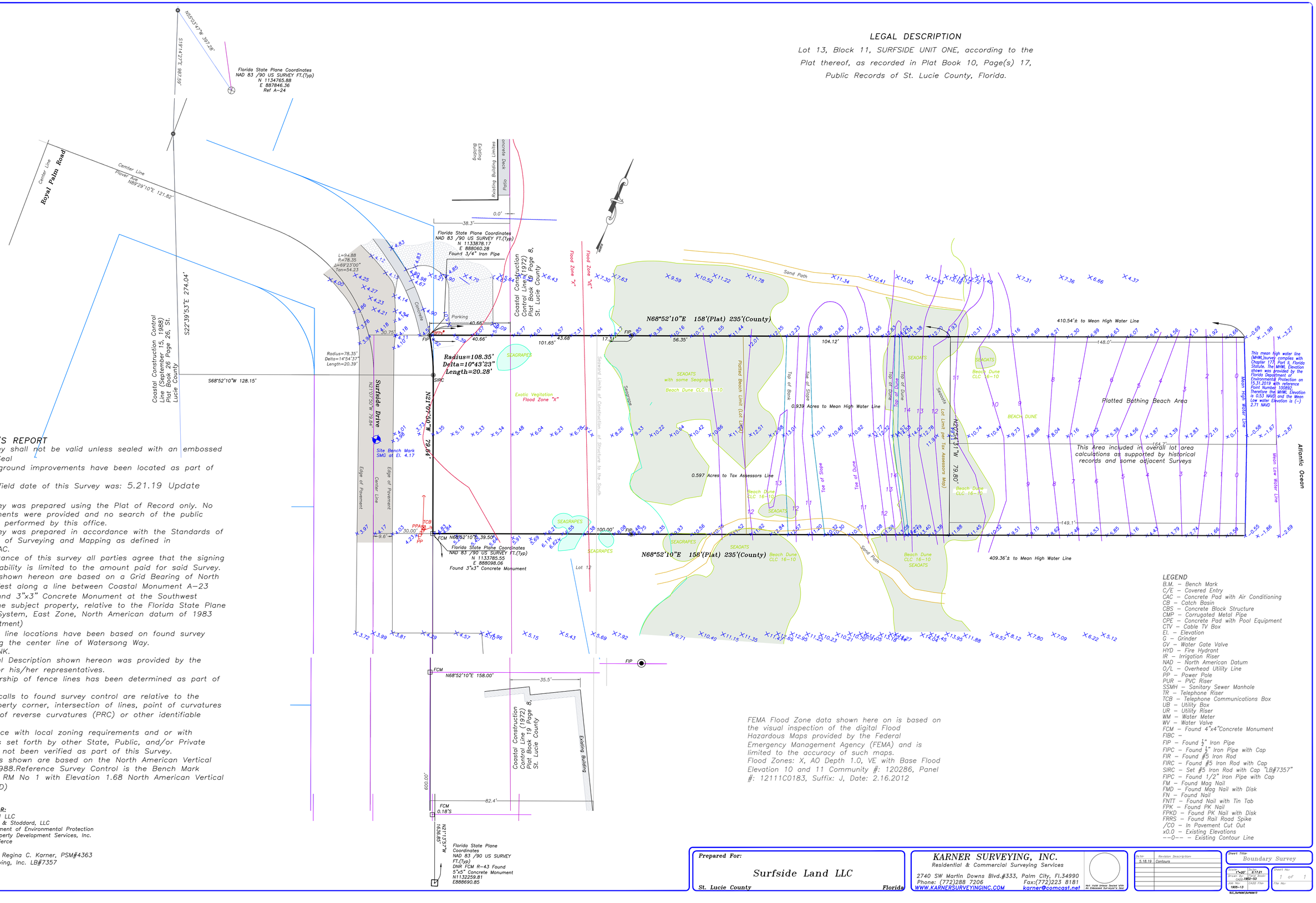
LEGAL DESCRIPTION

Lot 13, Block 11, SURFSIDE UNIT ONE, according to the Plat thereof, as recorded in Plat Book 10, Page(s) 17, Public Records of St. Lucie County, Florida.



SURVEYOR'S REPORT

1 This Survey shall not be valid unless sealed with an embossed Surveyor's Seal
2 No underground improvements have been located as part of this Survey.
3 The last field date of this Survey was: 5.21.19 Update 2.4.2021
4 This Survey was prepared using the Plat of Record only. No other documents were provided and no search of the public records was performed by this office.
5 This Survey was prepared in accordance with the Standards of the Practice of Surveying and Mapping as defined in 5J-17.050FAC.
6 By acceptance of this survey all parties agree that the signing surveyor's liability is limited to the amount paid for said Survey.
7 Bearings shown hereon are based on a Grid Bearing of North 21°13'57" West along a line between Coastal Monument A-23 and the Found 3"x3" Concrete Monument at the Southwest corner of the subject property, relative to the Florida State Plane Coordinate System, East Zone, North American datum of 1983 (2007 adjustment)
8 parcel/lot line locations have been based on found survey control along the center line of Watersong Way.
9 LEFT BLANK.
10 The Legal Description shown hereon was provided by the client and/or his/her representatives.
11 No ownership of fence lines has been determined as part of this Survey.
12 Off set calls to found survey control are relative to the nearest property corner, intersection of lines, point of curvatures (PC), point of reverse curvatures (PRC) or other identifiable point.
13 Compliance with local zoning requirements and or with requirements set forth by other State, Public, and/or Private entities has not been verified as part of this Survey.
14 Elevations shown are based on the North American Vertical datum of 1988.Reference Survey Control is the Bench Mark 94-77-A18 RM No 1 with Elevation 1.68 North American Vertical Datum (NAVD)

PREPARED FOR:
Surfside Land LLC
Schulke, Bittle & Stoddard, LLC
Florida Department of Environmental Protection
Real Time Property Development Services, Inc.
City of Fort Pierce

Prepared By: Regina C. Karner, PSM#4363
Karner Surveying, Inc. LB#7357

LEGEND

B.M. – Bench Mark
C/E – Covered Entry
CAC – Concrete Pad with Air Conditioning
CB – Catch Basin
CBS – Concrete Block Structure
CMP – Corrugated Metal Pipe
CPE – Concrete Pad with Pool Equipment
CTV – Cable TV Box
El. – Elevation
G – Grinder
GV – Water Gate Valve
HYD – Fire Hydrant
IR – Irrigation Riser
NAD – North American Datum
O/L – Overhead Utility Line
PP – Power Pole
PUR – PVC Riser
SSMH – Sanitary Sewer Manhole
TR – Telephone Riser
TCB – Telephone Communications Box
UB – Utility Box
UR – Utility Riser
WM – Water Meter
WV – Water Valve
FCM – Found 4"x4"Concrete Monument
FIBC –
FIP – Found ½" Iron Pipe
FIPC – Found ½" Iron Pipe with Cap
FIR – Found #5 Iron Rod
FIRC – Found #5 Iron Rod with Cap
SIRC – Set #5 Iron Rod with Cap "LB#7357"
FIPC – Found 1/2" Iron Pipe with Cap
FM – Found Mag Nail
FMD – Found Mag Nail with Disk
FN – Found Nail
FNTT – Found Nail with Tin Tab
FPK – Found PK Nail
FPKD – Found PK Nail with Disk
FRRS – Found Rail Road Spike
xCO – In Pavement Cut Out
x0.0 – Existing Elevations
--0-- – Existing Contour Line

FEMA Flood Zone data shown here on is based on the visual inspection of the digital Flood Hazardous Maps provided by the Federal Emergency Management Agency (FEMA) and is limited to the accuracy of such maps. Flood Zones: X, AO Depth 1.0, VE with Base Flood Elevation 10 and 11 Community #: 120286, Panel #: 12111C0183, Suffix: J, Date: 2.16.2012

Prepared For:
Surfside Land LLC
St. Lucie County Florida

KARNER SURVEYING, INC.
Residential & Commercial Surveying Services
2740 SW Martin Downs Blvd.#333, Palm City, Fl.34990
Phone: (772)288 7206 Fax:(772)223 8181
WWW.KARNERSURVEYINGINC.COM karner@comcast.net

Not Valid Unless Sealed With An Embossed Surveyor's Seal

No.	Revision Description	Date
	Contours	5.18.19

Sheet Title: Boundary Survey
Scale: 1"=30' | Date: 5.17.21
Drawn By: | Check By: CAC
Job No: 1905-13 | CASS File:
Sheet No: 1 of 1
File No:
SLC_Surfside\Surfside13

DocuSign Envelope ID: D4A745A1-8C13-42A7-B7A0-838D716D80AB

CONDITIONAL USE SITE PLAN/ PRELIMINARY PLAT

FOR

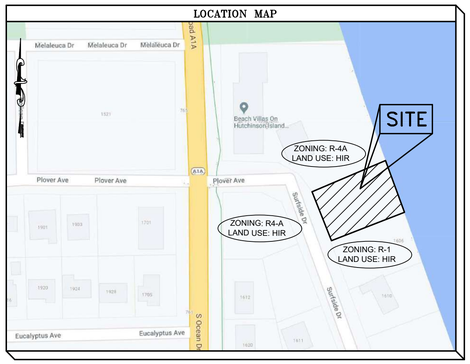
SURFSIDE QUAD PLEX

SECTION 07, TOWNSHIP 35 S, RANGE 41 E
CITY OF FT. PIERCE, FLORIDA

LEGAL DESCRIPTION

SURFSIDE - UNIT ONE - BLK 11 LOT 13

LOCATION MAP



DRAWING INDEX

SHEET	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS AND POLLUTION PREVENTION
3	POLLUTION PREVENTION DETAILS
~~4~~	~~SOIL BORINGS~~
5	PRELIMINARY PLAT
6	SITE PLAN
7	PAVING, GRADING AND DRAINAGE PLAN
8	CROSS SECTIONS
9-12	MISCELLANEOUS DETAILS
13	LIGHTING PLAN
14	AERIAL
ATTACHED	SURVEY LANDSCAPE PLAN ARCHITECTURAL PLAN

SITE DATA

OWNER/DEVELOPER	SURFSIDE LAND LLC 9481 CAMRI DR LAKE WORTH, FL 33467-6998
ENGINEER	SCHULKE, BITTLE & STODDARD, L.L.C. JODAH B. BITTLE, P.E. 57396 1717 INDIAN RIVER BLVD. SUITE 201 VERO BEACH, FL 32960 (772) 770-9622
SURVEYOR:	KARNER SURVEYING, INC. REGINA KARNER, PSM #4363 2740 SW MARTIN DOWNS BLVD. #333 PALM CITY, FL 34990 PH. (772) 288-7206
EXISTING USE	UNDEVELOPED
PROPOSED USE	FOUR (4) MULTI-FAMILY UNITS
PROJECT LOCATION	SECOND LOT FROM THE CORNER OF SR A-1-A AND SURFSIDE DRIVE
SITE ADDRESS	SURFSIDE DRIVE, FT. PIERCE, FL
PARCEL I.D. NUMBER	2412-501-0132-000-3
CURRENT LAND USE	HIR (HUTCHINSON ISLAND RESIDENTIAL)
CURRENT ZONING	R-4A (HUTCHINSON ISLAND MEDIUM DENSITY RESIDENTIAL)
PROPOSED ZONING	R-4A (HUTCHINSON ISLAND MEDIUM DENSITY RESIDENTIAL)

DEVELOPMENT PARAMETERS :

	EXISTING R-4A ZONING	PROPOSED DEVELOPMENT
MIN. LOT AREA	5,000 SF PER UNIT	40,902 SF
MIN. OVERALL LOT WIDTH	75'	100'
MIN. INTERIOR LOT DEPTH	70'	235'
MIN. YARD SETBACKS:		
FRONT (WEST)	25'	25.9'
SIDE (NORTH)	10'	6.0'
SIDE (SOUTH)	10'	10.0'
REAR (WEST)	20'	327.1'
MAX. LOT COVERAGE BY BLDGS	40%	10.7%
MIN. OPEN SPACE	25%	83.2%
MAX. IMPERVIOUS AREA	75%	16.8%
MAXIMUM DENSITY	8 UNITS/ACRE	4.3 UNITS/ACRE
MAX. BLDG. HEIGHT	45'	45'

AREA CALCULATIONS:

SITE AREAS:		PROPOSED		
DEVELOPABLE AREA:	40,902 SF	0.94 AC	100.0%	
IMPERVIOUS AREA:	6,882 SF	0.16 AC	16.8%	
BUILDING AREA:	4,387 SF	0.10 AC	10.7%	
PAVING AREA:	1,708 SF	0.04 AC	4.2%	
CONCRETE/PATIO AREA:	787 SF	0.02 AC	1.9%	
PERVIOUS AREA:	34,020 SF	0.78 AC	83.2%	
GREEN SPACE:	34,020 SF	0.78 AC	83.2%	

NATIVE VEGETATION/PRESERVATION:
SEE SURVEY FOR DUNE VEGETATION

PARKING CALCULATIONS:
REQUIRED: 2 SPACE PER UNIT
4 UNITS X 2 SPACES/UNIT = 8 SPACES
PROVIDED: 8 INTERIOR DRIVEWAY PARKING SPACES

AVERAGE DAILY TRIPS:
PROPOSED USE: PER ITE 9TH EDITION TRIP GENERATION MANUAL, LAND USE 230
4 MULTI-FAMILY UNITS X 7.78 TRIPS/UNIT = 31.1 OR 32 TRIPS

CONSTRUCTION SCHEDULE:

DATE OF COMMENCEMENT	DATE OF COMPLETION
1/22	1/23

VARIANCES FOR THIS PROJECT:
1. REQUIRED: 10 FOOT SETBACK FROM NORTH PROPERTY LINE
PROPOSED: 6 FOOT BUILDING SETBACK FROM NORTH PROPERTY LINE
2. REQUIRED: 50 FOOT SETBACK BETWEEN DRIVEWAYS
PROPOSED: 20.5 FOOT SETBACK BETWEEN DRIVEWAYS
3. REQUIRED: 25 FOOT SETBACK FOR DRIVEWAYS FROM PROPERTY LINES
PROPOSED: 15.5 FOOT SETBACK FOR DRIVEWAYS FROM PROPERTY LINES

GENERAL NOTES
1. PROPOSED PUBLIC WATER SUPPLY – FT. PIERCE UTILITY AUTHORITY
2. PROPOSED PUBLIC SEWER – FT. PIERCE UTILITY AUTHORITY
3. GARBAGE IS HANDLED WITH CANS STORED IN THE UNITS. NO DUMPSTER PROPOSED.
4. THE PARCEL OF LAND SHOWN HEREON APPEARS TO BE IN FLOOD ZONE X, X (2%), & VE-8 PER FLOOD INSURANCE RATE MAP #12111C0183 J, DATED FEBRUARY 16TH, 2012.
5. ALL CONSTRUCTION ON SITE TO BE DONE PER ALL CITY OF FT. PIERCE STANDARDS AND SPECIFICATIONS.
6. ALL UTILITY CONSTRUCTION ON SITE TO BE DONE PER F.P.U.A. UTILITY STANDARDS AND SPECIFICATIONS, LATEST EDITION.
7. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSIONS OF THE M.U.T.C.D., FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS, AND CITY OF FT PIERCE TYPICAL PAVEMENT MARKINGS AND SIGNING DETAILS. IN ADDITION, ALL PAVEMENT MARKINGS WITHIN THE RIGHT-OF-WAY SHALL BE INSTALLED IN THERMO-PLASTIC.
8. EXISTING DRIVES AND/OR INTERSECTIONS SHOWN ARE WITHIN THE 300' RADIUS REQUIRED FROM THE PROPOSED SITE.
9. THE EXISTING SPEED LIMIT FOR SEAWAY DRIVE IS 35 M.P.H.
10. ALL PROPOSED TRAFFIC CONTROL DEVICES SHOWN ON SITE TO BE PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
11. THE SITE LIGHTING (SOURCE OF ILLUMINATION) CANNOT BE VISIBLE FROM THE SITE.
12. ANY NUISANCE/EXOTIC PLANTS IN THE DEVELOPED AREA WILL BE REMOVED.
13. AT INTERSECTIONS, WALLS, FENCES, PLANTS OR SIGHT OBSTRUCTIONS OF ANY KIND OVER 18" IN HEIGHT ARE PROHIBITED WITHIN THE SITE DISTANCE TRIANGLE AS REQUIRED BY FDOT INDEX 546, 2014 EDITION.
14. ANY DISTURBED AREAS ON SITE OR IN THE COUNTY RIGHT-OF-WAY TO BE SODDED.
15. RUN-OFF FROM ROOF TO BE DIRECTED TO STORMWATER SYSTEM.
16. ALL LIGHTS MUST MEET THE FOLLOWING CRITERIA:
– ALL POLES MUST BE BLACK OR BRONZE
– ALL LIGHTS MUST BE DIRECTED DOWNWARD, WITH A 90 DEG. CUT-OFF
– LIGHTS MUST NOT CAUSE GLARE ONTO ADJACENT R/W OR PROPERTIES.
17. ALL STOP SIGNS (R1-1) SHALL BE 30"
18. NO DEWATERING BETWEEN 8 PM AND 6 AM WITHOUT CITY OF FT PIERCE APPROVAL.
19. AN ENTRANCE GATE IS PROPOSED FOR THIS SITE.
20. CITY OF FT. PEIRCE OR FDOT MAY HAVE UNDERGROUND CONDUIT FOR TRAFFIC SIGNAL INTERCONNECTIONS IN THIS AREA AS WELL AS OTHER TRAFFIC SIGNAL EQUIPMENT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT SUNSHINE STATE ONE CALL SYSTEM AT 1-800-432-4770 FOR LOCATIONS OF THIS EQUIPMENT AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
21. ALL SOLID, NON-BREAKAWAY OBJECTS (GATE POSTS/COLUMNS, BOLLARDS, STREET LIGHT POLES, ETC.) ALONGSIDE INTERIOR STREETS AND DRIVING AISLES SHALL BE LOCATED OUTSIDE THE CLEAR ZONE. FOR STREETS AND DRIVING AISLES WITH A DESIGN SPEED OF 25 MPH OR LESS, THE MINIMUM CLEAR ZONE IS 2.5 FEET FROM THE FACE OF THE CURB (TYPE 'D' OR 'F'), OR 6 FEET FROM THE EDGE OF THE TRAVEL LANE. THIS APPLIES TO PUBLIC AND PRIVATE PROPERTY.
22. THE BEARING BASE FOR THIS SURVEY IS A GRID BEARING OF S46°30'43"W, ALONG THE NORTH R/W LINE OF SEAWAY DRIVE AND BASED ON FOUND MONUMENTATION.
23. THE ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988. THE BENCHMARK IS COS MONUMENT G 231 1965, ELEVATION 4.47' NAVD. SECONDARY BENCHMARK IS AS SHOWN HEREON. THE CONVERSION TO NGVD'29 IS BY ADDING 1.499 FT.
24. ALL CONSTRUCTION WILL COMPLY WITH SECTIONS 17 AND 22 OF THE CITY OF FT. PIERCE CODE OF ORDINANCES.
25. ANY ABANDONED FLOW WELLS FOUND ON SITE SHALL BE PLUGGED PURSUANT TO D.O.H. AND SFWMD REGULATIONS.
26. ALL PAVEMENT MARKINGS IN THE RIGHT-OF-WAY SHALL BE 90 MIL., EXTRUDED TYPE, ALKYD BASE THERMOPLASTIC.
27. ALL HANDICAPPED PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH THE FDOT STANDARD INDEX 17346, 2014 EDITION.
28. ALL STOP SIGNS SHALL BE HIGH INTENSITY RETRO-REFLECTIVETY
29. ALL UTILITIES MUST BE PLACED UNDERGROUND.
30. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITY LINES AND STRUCTURES PRIOR TO CONSTRUCTION.
31. FRE SPRINKLER SYSTEM IS PROPOSED FOR THIS BUILDING.

CONSTRUCTION NOTES

1. SUBMITTALS
A. PRODUCT DATA AND SHOP DRAWINGS
1. FOR ALL SITE WORK CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT PRODUCT DATA IN THE FORM OF MANUFACTURERS' CUT SHEETS AND CATALOG DATA FOR ALL PRODUCTS, MATERIAL AND EQUIPMENT CLEARLY INDICATING THE SPECIFIC PART OR PRODUCT CATALOG NUMBER(S) FOR APPROVAL.
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PRODUCTS, MATERIALS AND EQUIPMENT REQUIRED TO BE FABRICATED, OR WHEN STANDARD PUBLISHED PRODUCT DATA IS NOT SUITABLE FOR USE.
3. SUBMIT 6 COPIES OF REQUESTED INFORMATION, NEATLY BOUND AND INDEXED PER CATEGORY FOR THE FOLLOWING:
A. UTILITIES:
ALL PIPE, FITTINGS, VALVES, OTHER MISCELLANEOUS APPURTENANCES, CONTROLS, PUMP STATION EQUIPMENT, COMPONENTS AND STRUCTURES, AND ALL OTHER UTILITY SYSTEM PRODUCTS, MATERIALS AND COMPONENTS AND SIMILAR CONTROLS.
B. DRAINAGE:
ALL PIPE, FITTINGS, AND COMPONENTS THEREOF, STRUCTURES, FRAMES, GRATES, LIDS, GASKETS,FASTENERS, COUPLINGS AND SIMILAR, AND ALL OTHER DRAINAGE SYSTEM PRODUCTS, MATERIALS, AND COMPONENTS AND SIMILAR CONTROLS.
C. PAVING AND GRADING:
FDOT CERTIFICATIONS AND LAB ANALYSIS/RESULTS FOR PAVEMENT, BASE, SUBGRADE, AND FILL MATERIALS. INCLUDE EVIDENCE (CERTIFICATIONS) THAT THE MATERIALS PROPOSED TO BE USED MEET OR EXCEED FDOT SPECIFICATIONS AND THE CONTRACT DOCUMENTS.
D. SIGNING AND PAVEMENT MARKING:
SIGN AND PAVEMENT MARKING PRODUCTS AND MATERIALS, AND EVIDENCE THAT THE PRODUCTS AND MATERIALS PROPOSED TO BE USED MEET OR EXCEED REQUIREMENTS SPECIFIED IN THE CONTRACT DOCUMENTS, LOCAL ENGINEERING DEPARTMENT, MUTCO AND FDOT SPECIFICATIONS.
E. IRRIGATION:
ALL PIPE, FITTINGS, VALVES, OTHER MISCELLANEOUS APPURTENANCES, CONTROLS, PUMP STATION EQUIPMENT, COMPONENTS AND STRUCTURES, AND ALL OTHER UTILITY SYSTEM PRODUCTS, MATERIALS AND COMPONENTS AND SIMILAR CONTROLS, WELLS, AND/OR OTHER IRRIGATION SOURCES. THE CONTRACTOR SHALL SUBMIT AN IRRIGATION COORDINATION DRAWING, INDICATING CONTRACTOR'S PROPOSED LOCATION OF MAIN LINES, SECONDARY LINES, HEAD LOCATIONS, WELL PUMP, CONTROL PANEL, SENSORS, CONTROL VALVE AND VALVE LOCATIONS. THIS DRAWING SHOULD CLEARLY DEPICT ADJUSTMENTS OR CHANGES THE CONTRACTOR PROPOSES. THE DRAWINGS SHALL INDICATE ALL PROPOSED SUBSTITUTIONS OF SIZE, MATERIAL, AND/OR MANUFACTURER.
4. ALLOW TWO WEEKS FOR THE ENGINEER TO COMPLETE REVIEW OF PRODUCT DATA AND SHOP DRAWINGS. ENGINEER WILL NOT BE RESPONSIBLE FOR PROJECT DELAYS RELATED TO DELIVERY AND TRANSMISSION OF THE DOCUMENTS ONCE INFORMATION HAS LEFT ENGINEER'S OFFICE. ITEMS REQUIRING A LONG LEAD TIME SHOULD BE SUBMITTED AS SOON AS POSSIBLE.
5. THE CONTRACTOR SHALL PROVIDE A STAMP INDICATING ITS REVIEW AND APPROVAL, INITIALED OR SIGNED,CERTIFYING TO REVIEW OF SUBMITTAL, VERIFICATION OF PRODUCTS, FIELD MEASUREMENTS AND FIELD CONSTRUCTION CRITERIA, AND COORDINATION OF THE INFORMATION WITHIN THE SUBMITTAL WITH REQUIREMENTS OF THE WORK AND OF CONTRACT DOCUMENTS, INCLUDING PLANS AND SPECIFICATIONS OF OTHER DESIGN PROFESSIONALS (I.E.; ARCHITECT, MECHANICAL, ELECTRICAL, AND STRUCTURAL ENGINEERS).

B. TESTING
1. WATER: PRESSURE (MAIN AND TAPS), BACTERIOLOGICAL, BACKFILL DENSITIES, BACKFLOW PREVENTOR TESTS AND CERTIFICATION; AND AS PER PROJECT SPECIFICATIONS, LOCAL UTILITIES DEPARTMENT, AND FDEP REQUIREMENTS.
2. SEWER: EXFIL TY, AND BACKFILL DENSITIES. PRESSURE TEST (MAINS AND TAPS) LIFT STATION START-UP, ALL PER PROJECT SPECIFICATIONS, COVB AND FDEP REQUIREMENTS.
3. DRAINAGE: EXFIL, LAMPING (FIELD), AND BACKFILL DENSITIES PER PROJECT SPECIFICATIONS AND LOCAL ENGINEERING REQUIREMENTS.
4. EARTHWORK & PAVING: DENSITIES, LBR'S AND FBV'S AS PER PROJECT SPECIFICATIONS AND LOCAL ENGINEERING REQUIREMENTS.
5. SUBMIT ALL TEST RESULTS FOR ENGINEERING REVIEW WITHIN 3 DAYS OF TESTING. FAILURE TO PROVIDE TEST RESULTS, OR PROVIDING FAILING TEST RESULTS WILL BE GROUNDS FOR DELAY AND/OR REJECTION OF PAY REQUEST APPLICATIONS.

C. AS-BUILTS
1. GRADING: LOCATION AND ELEVATION OF ALL: CONCRETE AND PAVEMENT (VEHICLE USE AND PEDESTRIAN USE IMPROVEMENTS) AT HI/LOW POINTS, EDGE OF PAVEMENT, AND CENTERLINE AT 50' ON CENTER AND AT CHANGE OF DIRECTION, GRADE BREAKS; PROPERTY LINES (CROSS SECTIONS 50' ON CENTER); TOP OF BANK AND T.O.E. OF SLOPE AND/OR CENTERLINE OF SWALES AND RETENTION AREAS; CROSS SECTIONS 50' ON CENTER ON STORMWATER LAKES FROM TOP TO BOTTOM; MECHANICAL PADS AND FINISHED FLOOR ELEVATIONS; DETAILED LOCATION AND TOPOGRAPHY OF DRIVEWAY TURNOUTS.
2. WATER AND SEWER FORCE MAINS: LOCATION, TOP ELEVATION AND STATE PLANE COORDINATES AT ALL FITTINGS, VALVES, CHANGES OF DIRECTION AND AT 100' ON CENTER.
3. GRAVITY SEWER:
- SEWER STRUCTURES: DIAMETER OR SIZE, AND LOCATION AND ELEVATION OF STRUCTURES, TOP, BOTTOMS, AND SEWER INVERTS.
- MAINS AND LATERALS: LOCATION AND INVERT ELEVATIONS AT CONNECTIONS, FITTINGS, AND TERMINATION.
- LIFT STATIONS: HORIZONTAL LAYOUT AND LOCATION OF ALL EQUIPMENT, PANELS, VAULTS, WET WELL, VALVES; LOCATION OF CONDUIT RUNS AND WATER SERVICE/ HOSE BIBB; LOCATION AND INVERT ELEVATIONS OF GRAVITY AND FORCE MAINS TO AND FROM LIFT STATION; WET WELL DIAMETER, TOP AND BOTTOM ELEVATIONS; PUMP(S) SIZE, TYPE, DISCHARGE DIAMETER, MANUFACTURER AND MODEL #.
4. DRAINAGE: ALL STRUCTURES DIAMETER OR SIZE, LOCATION, AND ELEVATION OF TOP, BOTTOM, AND INVERT ELEVATIONS; ALL PIPES, DIAMETER, TYPE/MATERIAL, LOCATION AND INVERT ELEVATION AT CONNECTIONS, FITTINGS, AND TERMINATION POINTS.
5. IRRIGATION: ALL LINES, SYSTEM EQUIPMENT COMPONENTS, MATERIALS INCLUDING PIPES, VALVES, FITTINGS, SPRINKLER HEADS, AND MISCELLANEOUS APPURTENANCES.

D. OPERATION AND MAINTENANCE MANUALS
1. CONTRACTOR SHALL PROVIDE THE OWNER WITH OPERATION AND MAINTENANCE MANUALS FOR ALL OPERABLE EQUIPMENT (PUMP STATIONS AND CONTROLS, AUTOMATIC CONTROL VALVES, AND OTHER AUTOMATED EQUIPMENT; CONTROL PANELS, ETC.).
2. OPERATION AND MAINTENANCE MANUALS SHALL BE SUBMITTED AS A PRE-REQUISITE TO THE PROJECT BEING DEEMED SUBSTANTIALLY COMPLETE.

E. WARRANTY
THE CONTRACTOR SHALL PROVIDE ALL WARRANTIES, CERTIFICATIONS, GUARANTIES, AND WARRANTY BONDS AS SPECIFIED IN THE CONTRACT DOCUMENTS AND PERMIT CONDITIONS INCLUDING:
-UTILITY MAINTENANCE BOND - FOR ALL PUBLIC WATER AND SEWER UTILITIES INFRASTRUCTURE - (25% OF CONTRACT VALUE)
-ENGINEERING MAINTENANCE BOND - FOR ALL PAVING, GRADING, AND DRAINAGE IMPROVEMENTS AND INFRASTRUCTURE (25% OF CONTRACT VALUE)

F. OWNER TRAINING
THE CONTRACTOR SHALL INCLUDE 2 HOURS OF OWNER TRAINING (FOR EACH WATER, SEWER,DRAINAGE, AND IRRIGATION SYSTEMS) FOR ALL OPERABLE EQUIPMENT AND SHALL INCLUDE THE TIME FOR INITIAL ADJUSTMENTS OF EQUIPMENT AND TIME FOR ONE FOLLOW-UP VISIT AND ADJUSTMENTS OF EQUIPMENT 60 DAYS AFTER END USER HAD OPERATIONAL TIME WITH THE EQUIPMENT.

SCHULKE, BITTLE & STODDARD, L.L.C.

CIVIL & STRUCTURAL ENGINEERING · LAND PLANNING · ENVIRONMENTAL PERMITTING

CERTIFICATION OF AUTHORIZATION NO.: 00008668

1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960
TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbsengineers.com

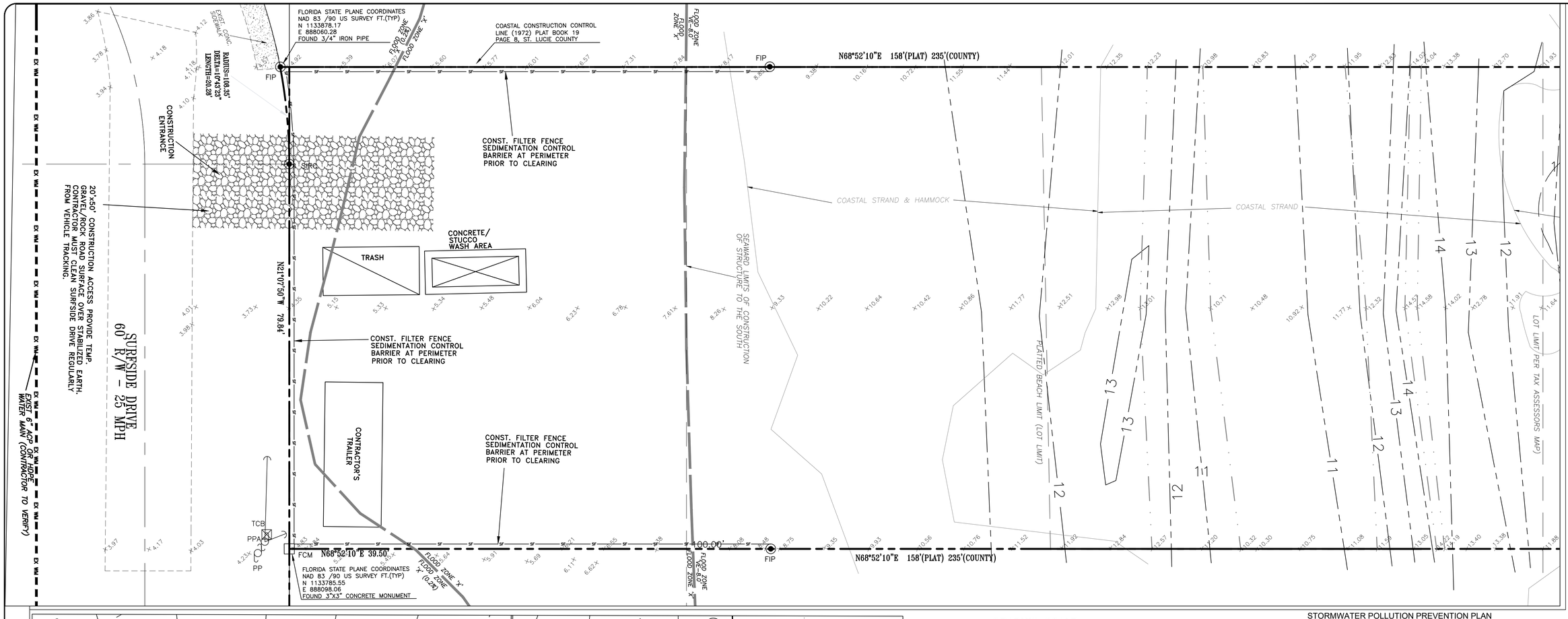
ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57396 STATE OF FLORIDA PROFESSIONAL ENGINEER

JODAH B. BITTLE
FL. REG. NO. 57396
DocuSigned by: Jodah Bittle
DATE: 4/30/2021

PROJECT NO.	SHEET
21-008	1

DocuSign Envelope ID: D4A745A1-8C13-42A7-B7A0-838D716D80AB



GRAPHIC SCALE

10 0 10 20 40 80

(IN FEET)
1 inch = 10 ft.

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 CONTRACTOR 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 (½" OR GREATER) 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, 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.
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, IN ADDITION TO THESE PLANS.
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 REQUIREMENTS.
17. POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITIONAL BMP'S MAYBE NECESSARY AT CONTRACTOR'S EXPENSE. NOI TO BE POSTED ON SITE.
18. NO TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK AND MUST BE REPORTED TO THE PROJECT ENGINEER.
19. DEWATERING ACTIVITIES:
    A. DISCHARGE MUST NOT EXCEED STATE WATER QUALITY STANDARDS.
    B. CONTRACTOR MUST HAVE OR OBTAIN A TRANSFERABLE SJRWMD CONSUMPTIVE USE PERMIT KNOWN AS A "NOTICED GENERAL PERMIT FOR SHORT TERM CONSTRUCTION DE-WATERING". UNLESS DEWATERING ACTIVITIES WILL RESULT IN LESS THAN 300,000 GPD FOR 30 DAYS OR LESS.
    C. NO HYDRAULIC PUMPS MAY BE USED FOR DEWATERING UNLESS APPROVED BY THE WATER MANAGEMENT DISTRICT FOR THAT AREA. DEWATERING EXISTING STORMWATER RETENTION AREAS (PONDS/LAKES) MAY BE EXEMPT FROM THIS CONDITION. CONTRACTOR TO CONFIRM WITH SJRWMD.
    D. NO TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK AND MUST BE REPORTED TO THE PROJECT ENGINEER AND TO CITY OF FT. PIERCE.
20. SEE ADDITIONAL DETAILS, SPECIFICATIONS AND REQUIREMENTS OF SHEET 4, 11-13.

STORMWATER POLLUTION PREVENTION PLAN

A SITE PLAN MUST BE DEVELOPED AND MUST CONTAIN, AT A MINIMUM, THE FOLLOWING INFORMATION:
1. DRAINAGE PATTERNS,- SEE SURVEY AND DRAINAGE PLAN SHEET 3 & 7.
2. APPROXIMATE SLOPES AFTER MAJOR GRADING ACTIVITIES - SEE SHEET 7.
3. AREAS OF SOIL DISTURBANCE, - SEE SHEETS 2, AND THIS SHEET.
4. OUTLINE ALL AREAS THAT ARE NOT TO BE DISTURBED - N/A.
5. LOCATION OF ALL MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS,-THIS SHEET.
6. THE LOCATION OF EXPECTED STABILIZATION PRACTICES, -THIS SHEET.
7. NO WETLANDS AND SURFACE WATERS.
8. LOCATIONS WHERE STORMWATER MAY DISCHARGE TO A SURFACE WATER OR MS4. SEE SHEET 7.

DESCRIBE THE NATURE OF THE CONSTRUCTION ACTIVITY:
DEMOLITION, LAND CLEARING, EARTHWORK, PAVING AND UTILITY WORK FOR BUILDING, PARKING AND SITE IMPROVEMENTS.

DESCRIBE THE INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:
1. SITE PREPARATION AND STABILIZE CONSTRUCTION ENTRANCE.
2. INSTALL SILT FENCE AROUND PERIMETER OF SITE. INSTALL TURBIDITY BARRIERS AT ALL OUTFALL LOCATIONS. CLEAR LAND. CONSTRUCT BERM ON PERIMETER AND TEMPORARY SWALES AS SHOWN ON PLANS. BERM SHALL BE CONSTRUCTED USING INITIAL IMPORTED FILL MATERIAL. THE BERM AND SWALE SHALL BE SEEDED.

TOTAL AREA OF THE SITE: 0.94 ACRES
TOTAL AREA OF THE SITE TO BE DISTURBED: 0.25 ACRES

EXISTING DATA DESCRIBING THE SOIL OR QUALITY OF ANY STORMWATER DISCHARGE:
SEE SOIL BORINGS BY SHEETS 2. NO DISCHARGE FROM DISTURBED AREAS IS ANTICIPATED.

DRAINAGE AREA SIZE FOR EACH DISCHARGE POINT:
ENTIRE SITE = 0.25 ACRES

LATITUDE AND LONGITUDE OF THE SITE:
LATITUDE = N 27° 27' 04.4"
LONGITUDE = W 80° 17' 05.2"

NOTES:
1 THIS PLAN (SHEETS 4 AND 5), COPY OF FDEP NOI (STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES) AND ALL REQUIRED INSPECTION REPORTS, TESTS, AND ALL OTHER DOCUMENTATION SHALL BE KEPT AT THE PROJECT SITE.
2.THE FOLLOWING CERTIFICATION SHALL BE COMPLETED BY AL CONTRACTORS/ SUB-CONTRACTORS RESPONSIBLE FOR ANY PORTION OF THE IMPLEMENTATION OF THE S.W.P.P.P.:

CERTIFICATION:
" I CERTIFY UNDER THE 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,"

SWPPP DESCRIPTION OF WORK/ RESPONSIBILITY	NAME TITLE	CONTRACTOR OR SUB CONTRACTOR (NAME, ADDRESS, PHONE)	NAME/SIGNATURE TO CERTIFICATION	DATE
			BY: SIGNATURE	
			BY: SIGNATURE	
			BY: SIGNATURE	

MARK	REVISION	DATE

DRAWING 21-008 CONST
DESIGNED JBB DRAWN JBB
CHECKED JBB DATE 04/16/21
SCALE 1"=10'

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SCHULKE, BITTLE & STODDARD, L.L.C.
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TEL 772-770-9622 FAX 772-770-9496 EMAIL jbittle@sbsengineers.com
WEBSITE https://www.sbsengineers.com

EXISTING CONDITIONS/ DEMOLITION AND POLLUTION PREVENTION PLAN

SURFSIDE QUAD PLEX

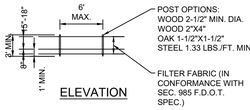
ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57396 STATE OF FLORIDA PROFESSIONAL ENGINEER

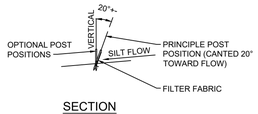
JODAH B. BITTLE
FL. REG. NO. 57396
DocuSigned by: Jodah Bittle
A99EF7695C8C46B...
DATE: 4/30/2021

PROJECT NO. 21-008
SHEET 2

DocuSign Envelope ID: D4A745A1-8C13-42A7-B7A0-838D716D80AB



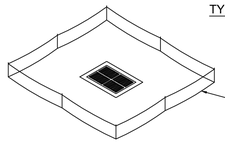
ELEVATION



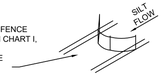
SECTION

NOTES: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (L.F.)

TYPE III SILT FENCE



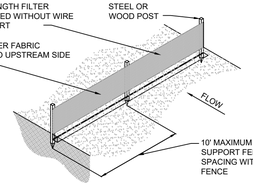
NOTE: SPACING FOR TYPE III FENCE TO BE IN ACCORDANCE WITH CHART I, SHEET 1 OF 3 AND DITCH INSTALLATIONS AT DRAINAGE STRUCTURES SHEET 2 OF 3

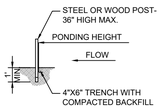


DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

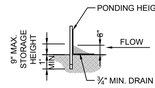
SILT FENCE APPLICATIONS-N.T.S.

NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.



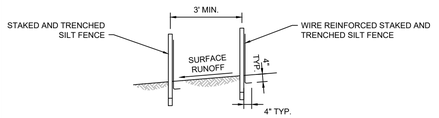


TRENCH DETAIL



INSTALLATION WITHOUT TRENCHING

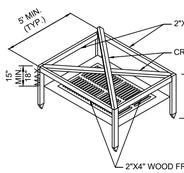
TYPE IV SILT FENCE-N.T.S.



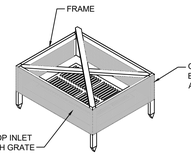
DOUBLE ROW STAKED SILT FENCE FOR USE AROUND WETLANDS-N.T.S.

COMPLETED INLET — DITCH BOTTOM INLET

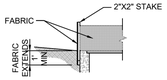
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



VIEW OF FRAME WITHOUT SILT FENCE



VIEW OF FRAME WITH SILT FENCE



SILT FENCE INLET PROTECTION-N.T.S.

- All turbidity, erosion, and sedimentation controls shall be in accordance with `Best Management Practices' as described in the Florida Land Development Manual: A Guide to Sound Land and Water Management.
- Reference F.D.O.T. Index #102.

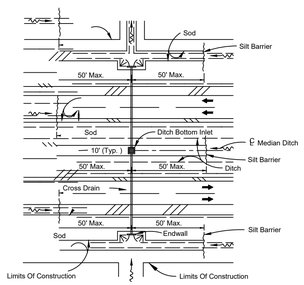
EROSION CONTROL DETAILS

N.T.S.

NOTES:

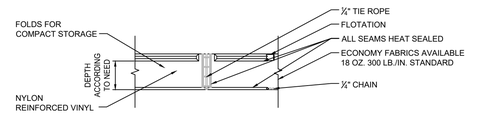
WETLAND PROTECTION PLAN

a. SILT FENCE MUST BE INSTALLED BY HAND ALONG SURVEYED CONSERVATION EASEMENT BOUNDARIES (AT TOE OF SLOPE-SEE SECTIONS EE,N,O) PRIOR TO CONSTRUCTION.
b. NO TURBID DISCHARGE TO WETLANDS IS PERMITTED.
c. ALL STOCKPILE AND/OR CONSTRUCTION STAGING AREAS MUST BE LOCATED 100 FT. FROM WETLANDS.



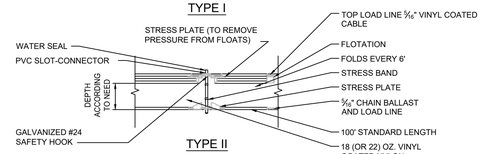
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES

TYPE I. DOT FOR WATERS WITH LOW CURRENTS (NO MORE THAN ONE FOOT PER SECOND) AND LIGHT WINDS: LAKES, PONDS, SMALL STREAMS, MARSHES. FLEXIBLE TOP FLOTATION SECTION WITH ENCAPSULATED EPS FOAM FLOTATION LOGS (6"X6"X4')



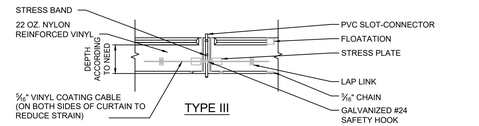
TYPE I

TYPE 2. DOT FOR HIGHER CURRENT WATERS (UP TO FIVE FEET PER SECOND): DEEPER LAKES, STREAMS, INTERCOASTAL AND TIDAL AREAS. INCLUDES AN ENCAPSULATED STEEL LOAD CABLE ALONG TOP OF BARRIER AND 8"X8"X4' FLOTATION LOGS. WEAR STRESS POINTS ARE REINFORCED WITH SHIELDS.



TYPE II

TYPE 3. DOT IS SIMILAR TO TYPE 2. DOT EXCEPT THAT POLYPROPYLENE FILTER FABRIC IS PERMANENTLY INSERTED INTO THE BARRIER SKIRT TO MEET SOME STATE'S SPECIFICATIONS.



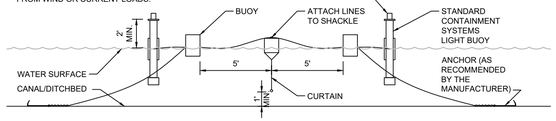
TYPE III



BLOW-UP OF SHACKLE CONNECTION

NOTE: ANCHORING TO BUOYS AS SHOWN REMOVES ALL VERTICAL FORCES FROM THE CURTAIN, HENCE, THE CURTAIN WILL NOT SINK FROM WIND OR CURRENT LOADS.

AUTOMATIC FLASHING LIGHT (ON AT DUSK-OFF AT DAWN) 100' ON CENTER SHALL BE USED IN NAVIGABLE CHANNELS ONLY



ORIENTATION WHEN INSTALLED (TIDAL SITUATION-TYPE III)-N.T.S.

DOUBLE ROW STAKED SILT FENCE FOR USE AROUND WETLANDS-N.T.S.

COMPLETED INLET — DITCH BOTTOM INLET

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

VIEW OF FRAME WITHOUT SILT FENCE

VIEW OF FRAME WITH SILT FENCE

SILT FENCE INLET PROTECTION-N.T.S.

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- Reference F.D.O.T. Index #102.

EROSION CONTROL DETAILS

N.T.S.

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AUTOMATIC FLASHING LIGHT (ON AT DUSK-OFF AT DAWN) 100' ON CENTER SHALL BE USED IN NAVIGABLE CHANNELS ONLY

ORIENTATION WHEN INSTALLED (TIDAL SITUATION-TYPE III)-N.T.S.

FILTER SACKS FOR GRATED INLETS AND STABILIZED ROADWAYS-N.T.S.

NOTE: IF FILTER FABRIC HAS BEEN INSTALLED BENEATH INLET GRATE, IT SHALL BE REMOVED IMMEDIATELY AFTER ROAD SURFACE HAS BEEN STABILIZED AND THE FILTER SACK SHALL BE IMMEDIATELY INSTALLED.

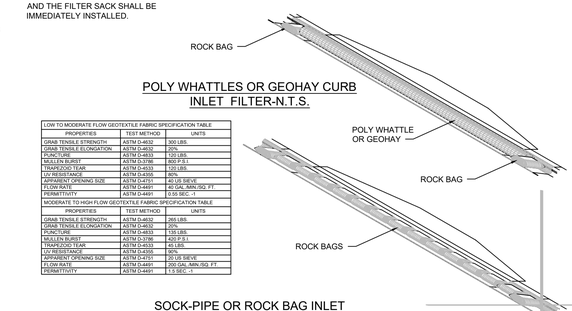
NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. A ROLL OFF CONTAINER SPECIFICALLY MANUFACTURED FOR CONCRETE AND STUCCO WASHOUT MAY BE SUBSTITUTED.

PLAN
TYPE "ABOVE GRADE" WITH COMPACTED FILL

CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)

CONCRETE & STUCCO WASTE MANAGEMENT—N.T.S.

CONCRETE & STUCCO WASTE MANAGEMENT-N.T.S.



POLY WHATTLES OR GEOHAY CURB INLET FILTER-N.T.S.

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS.
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS.
MULLEN BURST	ASTM D-3786	600 P.S.I.
TRAPEZOID TEAR	ASTM D-4533	120 LBS.
UV RESISTANCE	ASTM D-4355	70%
APPARENT OPENING SIZE	ASTM D-4751	#0 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL./MIN./SQ. FT.
PERMITTIVITY	ASTM D-4491	0.55 SEC.-1
MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	365 LBS.
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	130 LBS.
MULLEN BURST	ASTM D-3786	420 P.S.I.
TRAPEZOID TEAR	ASTM D-4533	50 LBS.
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	70 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL./MIN./SQ. FT.
PERMITTIVITY	ASTM D-4491	1.5 SEC.-1

SOCK-PIPE OR ROCK BAG INLET FILTER-N.T.S.

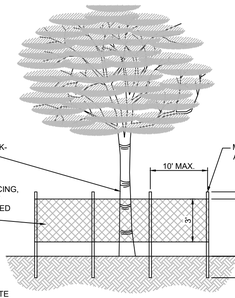
TEMPORARY ADS OUTFALL N.T.S.

CONCRETE & STUCCO WASTE MANAGEMENT-N.T.S.

PLAN

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT-N.T.S.

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS.THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. 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.
4. TRUCKS ENTERING ROADWAY SIGNS SHALL BE INSTALLED EACH DIRECTION IN ADVANCE OF CONSTRUCTION ENTRANCE PER MUTCD.



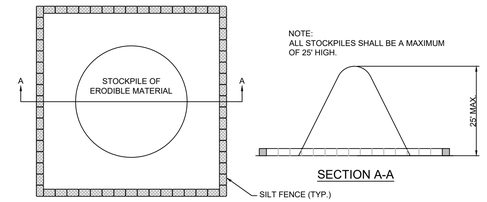
ELEVATION

NOTES:
1. ALL TREES RETAINED ON A SITE SHALL BE PROTECTIVELY BARRICADED BEFORE AND DURING CONSTRUCTION ACTIVITIES.
2. UNDERGROUND UTILITY LINES SHALL BE ROUTED AROUND EXISTING TREES TO THE OUTSIDE OF THE DRIPLINE WHERE ABLE.
3. INSTALLATION OF FENCES AND WALLS SHALL TAKE INTO CONSIDERATION THE ROOT SYSTEMS OF EXISTING TREES.
4. FENCE/BARRICADE SHALL BE INSTALLED AT PERIMETER OF ALL TRESS OR GROUP OF TREES TO BE PRESERVED. FENCE SHALL BE MAINTAINED DURING CONSTRUCTION.
5. DO NOT PARK HEAVY EQUIPMENT ON TREE ROOTS. DO NOT ADD FILL 4" TO 6" AROUND TREE. ALL WORK WITHIN THE CRZ MUST BE DONE BY HAND.



PLAN

PROTECTIVE FENCING FOR TREES-N.T.S.



SECTION A-A

NOTE: FOR STOCKPILING ERODIBLE MATERIAL FOR EXTENDED PERIODS, THE AREA SHALL BE SEEDED AND MULCHED.

SEDIMENT CONTROL DETAIL FOR STOCKPILING OF ERODIBLE MATERIAL-N.T.S.



STAPLE DETAIL

EROSION CONTROL AND DEWATERING 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 UPSLOPE 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 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN 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 OR PROTECTED 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 OR SLOPE DRAIN STRUCTURE.
8. SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM DRAIN SYSTEM, DITCH, OR CHANNEL. ALL STORM SEWER 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 CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT LEAVING THE PROPERTY. 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.
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.
14. EROSION CONTROL DESIGN AND CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS IN INDEX NOS. 101, 102, AND 103 OF FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, AND THE DETAILS AND NOTES ON THE PLANS.
15. CONTRACTOR 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 REQUIREMENTS.
17. THIS POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITIONAL BMP'S MAY BE NECESSARY AT CONTRACTORS EXPENSE.
18. NO TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK (BY THE CONTRACTOR) AND MUST BE REPORTED TO THE PROJECT ENGINEER. LOCATION SHALL BE DETERMINED BY THE ENGINEER.
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", UNLESS DE-WATERING ACTIVITIES WILL RESULT IN LESS THAN 300,000 GPD FOR 30 DAYS OR LESS.
C - NO HYDRAULIC PUMPS MAY BE USED FOR DE-WATERING UNLESS APPROVED BY THE WATER MANAGEMENT DISTRICT FOR THAT AREA. DEWATERING EXISTING STORMWATER RETENTION AREAS (PONDS/LAKES) MAY BE EXEMPT FROM THIS CONDITION. CONTRACTOR TO CONFIRM WITH SJRWMD.
D - NO TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK AND MUST BE REPORTED TO THE PROJECT ENGINEER.
20. THE CONTRACTOR SHALL OBTAIN GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUND WATER FROM ANY NON-CONTAMINATED SITE. ACTIVITY.
A - BEFORE DISCHARGE OF PRODUCED GROUND WATER CAN OCCUR FROM THE SITE, ANALYTICAL TESTS ON SAMPLES OF THE PROPOSED UNTREATED DISCHARGE WATER SHALL BE PERFORMED TO DETERMINE IF CONTAMINATION EXISTS BY CONTRACTOR). IF NONE EXISTS, THE RESULTS SHALL BE SUBMITTED TO THE FDEP INDUSTRIAL WASTEWATER PERMITTING WITHIN ONE WEEK OF COMMENCEMENT OF DISCHARGE (C.O. ALI KAZI, P.E., 3319 MAGUIRE BLVD. SUITE 232, ORLANDO, FL 32803). WITH A LETTER NOTIFYING THE AGENCY THAT DE-WATERING ACTIVITIES WILL COMMENCE PURSUANT TO 62-621.300(2) F.A.C. AND THE SITE QUALIFIES FOR THE GENERIC PERMIT.
B - THE FACILITY IS AUTHORIZED TO DISCHARGE PRODUCED GROUND WATER FROM ANY NON-CONTAMINATED SITE ACTIVITY WHICH DISCHARGES BY A POINT SOURCE TO SURFACE WATERS OF THE STATE, AS DEFINED IN CHAPTER62-620, F.A.C., ONLY IF THE REPORTED VALUES FOR THE PARAMETERS LISTED IN TABLE 1 DO NOT EXCEED ANY OF THE LISTED SCREENING VALUES.
C - MINIMUM REPORTING REQUIREMENTS FOR ALL PRODUCED GROUND WATER DISCHARGERS. THE EFFLUENT SHALL BE SAMPLED (BY CONTRACTOR) BEFORE THE COMMENCEMENT OF DISCHARGE, AGAIN WITHIN THIRTY (30)DAYS AFTER COMMENCEMENT OF DISCHARGE, AND THEN ONCE EVERY SIX (6)MONTHS FOR THE LIFE OF THE PROJECT TO MAINTAIN CONTINUED COVERAGE UNDER THIS GENERIC PERMIT.SAMPLES TAKEN IN COMPLIANCE WITH THE PROVISIONS OF THIS PERMIT SHALL B

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CONCEPTUAL USE SITE PLAN
PRELIMINARY PLAT
FOR SURFSIDE QUADPLEX
SECTION 07, TOWNSHIP 35 S, RANGE 41 E
CITY OF FT PIERCE, FLORIDA

SURFSIDE DRIVE
60' R/W - 25 MPH

EXIST. 6" A.C.P. WATER MAIN (CONTRACTOR TO VERIFY)

EXIST. CONC. SIDEWALK

RADIUS=108.35'
DELTA=10°43'23"
LENGTH=20.28'

FLORIDA STATE PLANE COORDINATES
NAD 83 /90 US SURVEY FT.(TYP)
N 1133878.17
E 888060.28
FOUND 3/4" IRON PIPE

FIP

SIRC

COASTAL CONSTRUCTION CONTROL LINE (1972) PLAT BOOK 19 PAGE 8, ST. LUCIE COUNTY

FLOOD ZONE 'X' (0.2%)

FLOOD ZONE 'X'

FLOOD ZONE VE-8.0' ZONE 'X'

N68°52'10"E 158'(PLAT) 235'(COUNTY)

N21°07'50"W 79.84'

LOT 1
1,975 SF
0.045 AC

LOT 2
1,573 SF
0.036 AC

LOT 3
1,573 SF
0.036 AC

LOT 4
1,975 SF
0.045 AC

15.9' | 75.5' | 1.0'

26.1'

20.8'

10' BLDG SETBACK

SEAWARD LIMITS OF CONSTRUCTION TO THE SOUTH

TRACT A
33,806 SF
0.776 AC

COASTAL STRAND & HAMMOCK

COASTAL STRAND

PLATTED BEACH LIMIT (LOT LIMIT)

LOT LIMIT PER TAX ASSESSORS MAP

TCB

PPA

PP

FCM

N68°52'10"E 39.50'

100.00'

5.0'

FLORIDA STATE PLANE COORDINATES
NAD 83 /90 US SURVEY FT.(TYP)
N 1133785.55
E 888098.06
FOUND 3"X3" CONCRETE MONUMENT

MATCHLINE A-A

BEACH DUNE

FLOOD ZONE VE-9.0'
FLOOD ZONE VE-8.0'

MEAN HIGH WATER LINE

MEAN LOW WATER LINE

ATLANTIC OCEAN

THIS MEAN HIGH WATER LINE (MHWL)SURVEY COMPLIES WITH CHAPTER 177, PART II, FLORIDA STATUTE. THE MHWL ELEVATION SHOWN WAS PROVIDED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION ON 15.31.2019 WITH REFERENCE POINT NUMBER 100892. THEREFORE THE MHWL ELEVATION IS 0.53 NAVD AND THE MEAN LOW WATER ELEVATION IS 2.71 NAVD.

GRAPHIC SCALE
10 0 10 20 40 80
(IN FEET)
1 inch = 10 ft.

NORTH

MATCHLINE A-A

MARK	REVISION	DATE

DRAWING 21-008 CONST
DESIGNED JBB | DRAWN JBB
CHECKED JBB
SCALE 1"=10' | DATE 04/16/21

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SCHULKE, BITTLE & STODDARD, L.L.C.
CIVIL & STRUCTURAL ENGINEERING . LAND PLANNING . ENVIRONMENTAL PERMITTING
CERTIFICATION OF AUTHORIZATION NO.: 00008668
1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960
TEL 772-770-9622 FAX 772-770-9496 EMAIL jbittle@sbsengineers.com
WEBSITE https://www.sbsengineers.com

PRELIMINARY PLAT

SURFSIDE QUAD PLEX

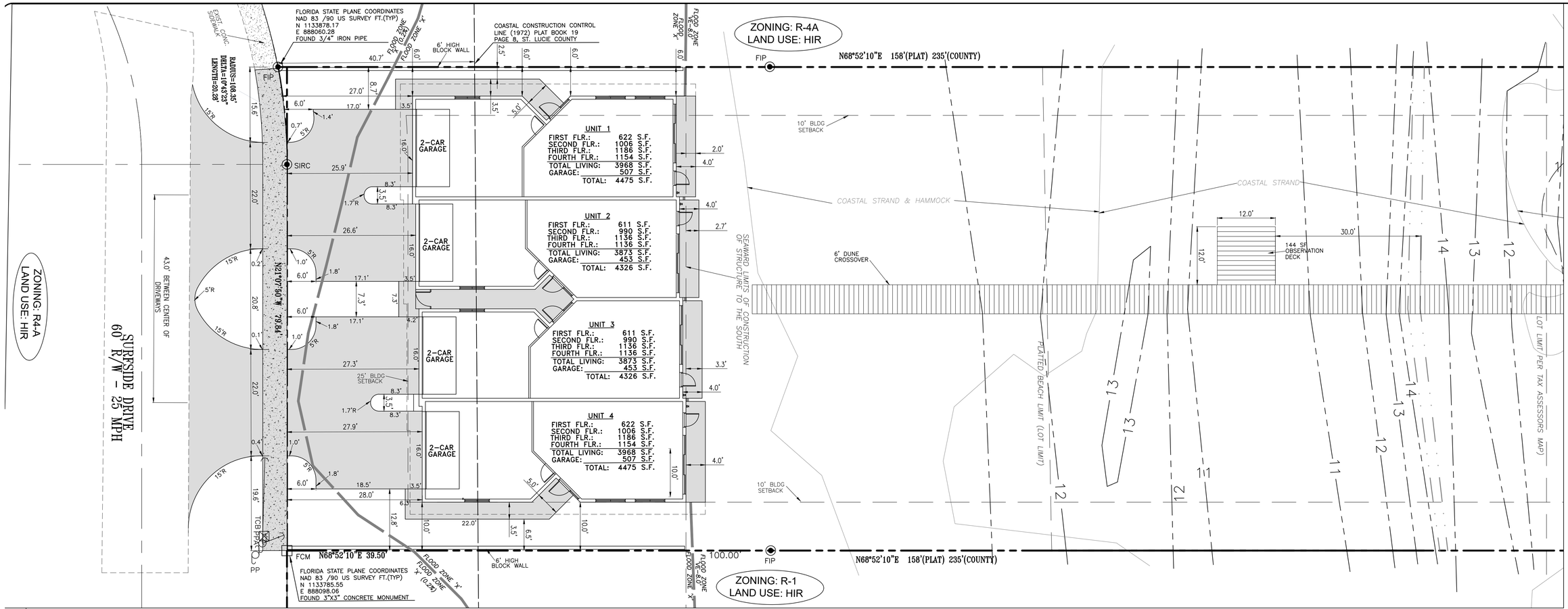
ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57306 STATE OF FLORIDA PROFESSIONAL ENGINEER

JODAH B. BITTLE
FL. REG. NO. 57306
Digitally signed by Joan Bittle
DATE: 4/30/2021

PROJECT NO. 21-008
SHEET 5

DocuSign Envelope ID: D4A745A1-8C13-42A7-B7A0-838D716D80AB



OWNER/DEVELOPER	SURFSIDE LAND LLC 9481 CAMPI DR LAKE WORTH, FL 33467-6998
ENGINEER	SCHULKE, BITTLE & STODDARD, L.L.C. JODAH B. BITTLE, P.E. 57396 1717 INDIAN RIVER BLVD. SUITE 201 VERO BEACH, FL 32960 (772) 770-9622
SURVEYOR:	KARNER SURVEYING, INC. REGINA KARNER, PSM #4363 2740 SW MARTIN DOWNS BLVD. #333 PALM CITY, FL 34990 PH. (772) 288-7206
EXISTING USE	UNDEVELOPED
PROPOSED USE	FOUR (4) MULTI-FAMILY UNITS
PROJECT LOCATION	SECOND LOT FROM THE CORNER OF SR A-1-A AND SURFSIDE DRIVE
SITE ADDRESS	SURFSIDE DRIVE, FT. PIERCE, FL
PARCEL I.D. NUMBER	2412-501-0132-000-3
CURRENT LAND USE	HIR (HUTCHINSON ISLAND RESIDENTIAL)
CURRENT ZONING	R-4A (HUTCHINSON ISLAND MEDIUM DENSITY RESIDENTIAL)
PROPOSED ZONING	PD (PLANNED DEVELOPMENT)

LEGAL DESCRIPTION

SURFSIDE - UNIT ONE - BLK 11 LOT 13

HATCH LEGEND

- PROPOSED CONCRETE OR BRICK PAVERS
- PROPOSED CONCRETE

GRAPHIC SCALE

10 0 10 20 40 80

(IN FEET)
1 inch = 10 ft.

DEVELOPMENT PARAMETERS :

	EXISTING R-4A ZONING	PROPOSED PD ZONING
MIN. OVERALL LOT WIDTH	200'	100'
MIN. INTERIOR LOT SIZE	1,500 SF	1,500 SF
MAX. INTERIOR LOT WIDTH	24'	21'
MIN. INTERIOR LOT DEPTH	90'	90'
MIN. YARD SETBACKS:		
FRONT (WEST)	10'	10'
SIDE (NORTH)	10'	6'
SIDE (SOUTH)	10'	10'
REAR (WEST)	15'	15'
DISTANCE BETWEEN BLDGS.	20'	20'
MAX. LOT COVERAGE BY BLDGS	45%	45%
MIN. OPEN SPACE	25%	25%
MAX. IMPERVIOUS AREA	75%	75%
MAXIMUM DENSITY	8 UNITS/ACRE	8 UNITS/ACRE
A/C/ PAD SETBACK	10'	1'
MAX. BLDG. HEIGHT	45'	45'

AREA CALCULATIONS:

SITE AREAS:		PROPOSED	
DEVELOPABLE AREA:	40,902 SF	0.94 AC	100.0%
IMPERVIOUS AREA:	6,927 SF	0.16 AC	16.9%
BUILDING AREA:	4,387 SF	0.10 AC	10.7%
PAVING AREA:	1,753 SF	0.04 AC	4.3%
CONCRETE/PATIO AREA:	787 SF	0.02 AC	1.9%
PERVIOUS AREA:	33,975 SF	0.78 AC	83.1%
GREEN SPACE:	33,975 SF	0.78 AC	83.1%

NATIVE VEGETATION/PRESERVATION:
N/A. NO PRESERVATION REQUIRED, NO NATIVE HABITAT IS EXISTING

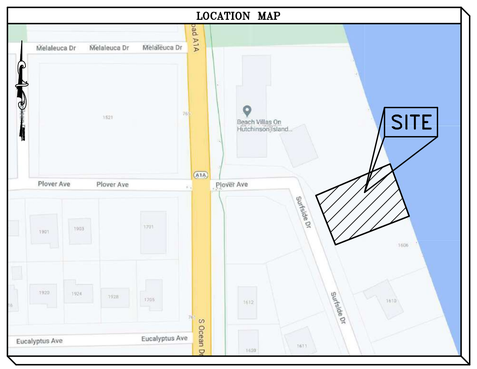
PARKING CALCULATIONS:
REQUIRED: 2 SPACE PER UNIT
4 UNITS X 2 SPACES/UNIT = 8 SPACES
PROVIDED: 8 INTERIOR DRIVEWAY PARKING SPACES

AVERAGE DAILY TRIPS:
PROPOSED USE: PER ITE 9TH EDITION TRIP GENERATION MANUAL, LAND USE 230
4 MULTI-FAMILY UNITS X 7.78 TRIPS/UNIT = 31.1 OR 32 TRIPS

CONSTRUCTION SCHEDULE:

DATE OF COMMENCEMENT	DATE OF COMPLETION
1/22	1/23

LOCATION MAP



NOTES

1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY SHALL BE SODDED. SEED AND MULCH IS NOT ACCEPTABLE.
2. ANY DAMAGE TO THE EXISTING INFRASTRUCTURE, INCLUDING SIDEWALKS, BY THE CONTRACTOR MUST BE REPLACED PRIOR TO FINAL INSPECTION. SIDEWALK PATCHING IS NOT ACCEPTABLE.
3. CURB RAMPS MUST MEET THE REQUIREMENTS OF FDOT STANDARD INDEX 304.
4. ALL STRIPING WITHIN THE RIGHT-OF-WAY SHALL BE THERMOPLASTIC.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING PUBLIC ROADWAY, CURBS, GUTTERS, SIDEWALKS, DRAINAGE SYSTEMS AND UTILITIES AS A DIRECT RESULT OF NEW CONSTRUCTION. ROAD IMPROVEMENTS SUCH AS BUT NOT LIMITED TO RESURFACING MAYBE REQUIRED.
6. THE SITE DRAINAGE AND CONSTRUCTION IMPROVEMENTS SHALL NOT ADVERSELY IMPACT ADJOINING PROPERTIES AND/OR ROADWAYS.
7. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT SUNSHINE STATE ONE CALL SYSTEM AT 1-800-432-4770 FOR LOCATIONS OF THIS EQUIPMENT AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
8. ANY CONFLICTS WITH THE PLANS AND EXISTING UTILITIES, DRAINAGE, ETC TO BE REPORTED TO ENGINEER FOR RESOLUTION OF ISSUES.
9. CONTRACTOR TO FIELD VERIFY ALL REPORTED INVERTS AND UTILITIES AND REPORT TO ENGINEER.
10. PROPANE TANKS TO BE UNDERGROUND.
11. ALL CONSTRUCTION WILL COMPLY WITH SECTIONS 17 AND 22 OF THE CITY OF FT. PIERCE CODE OF ORDINANCES.

MARK	REVISION	DATE

DRAWING 21-008 CONST
DESIGNED JBB | DRAWN JBB
CHECKED JBB | DATE 04/16/21
SCALE 1"=10'

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WEBSITE https://www.sbsengineers.com

SITE PLAN

SURFSIDE QUAD PLEX

ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57396 STATE OF FLORIDA PROFESSIONAL ENGINEER

JODAH B. BITTLE
FL REG. NO. 57396
Docusigned by: Joan Bittle
DATE: 4/30/2021
DocuSign Envelope ID: 6BEF7565C6C46B...

PROJECT NO. 21-008 | SHEET 6

DocuSign Envelope ID: D4A745A1-8C13-42A7-B7A0-838D716D80AB

FLORIDA STATE PLANE COORDINATES
NAD 83 /90 US SURVEY FT.(TYP)
N 1133878.17
E 888060.28
FOUND 3/4" IRON PIPE

COASTAL CONSTRUCTION CONTROL LINE (1972) PLAT BOOK 19 PAGE 8, ST. LUCIE COUNTY

6' HIGH BLOCK WALL

FIP

N68°52'10"E 158'(PLAT) 235'(COUNTY)

FLOOD ZONE X

FLOOD ZONE VE-8.0'

RADIUS=108.35'
DELTA=10°43'23"
LENGTH=20.28'

EXIST. CONC. SIDEWALK

CONSTRUCT TRENCH DRAIN FDOT INDEX 436-001

SIRC

8 LF 12" RCP

D1

D2

58 LF 2" HDPE DR11 WATER SERVICE

25 LF 2" HDPE DR11 WATER SERVICE

8 LF 6" PVC SEWER SERVICE @1% SLOPE

10 LF 6" PVC SEWER SERVICE @1% SLOPE

35 LF 6" PVC SEWER SERVICE @1% SLOPE

30 LF 6" PVC SEWER SERVICE @1% SLOPE

71 LF 18" PERFORATED RCP EXFILTRATION TRENCH

2-CAR GARAGE

GARAGE FF = 6.50'

LIVING AREA FF = 8.00'

UNIT 1	
FIRST FLR.:	622 S.F.
SECOND FLR.:	1006 S.F.
THIRD FLR.:	1156 S.F.
FOURTH FLR.:	1154 S.F.
TOTAL LIVING:	3968 S.F.
GARAGE:	507 S.F.
TOTAL:	4475 S.F.

UNIT 2	
FIRST FLR.:	611 S.F.
SECOND FLR.:	990 S.F.
THIRD FLR.:	1136 S.F.
FOURTH FLR.:	1136 S.F.
TOTAL LIVING:	3873 S.F.
GARAGE:	453 S.F.
TOTAL:	4326 S.F.

UNIT 3	
FIRST FLR.:	611 S.F.
SECOND FLR.:	990 S.F.
THIRD FLR.:	1136 S.F.
FOURTH FLR.:	1136 S.F.
TOTAL LIVING:	3873 S.F.
GARAGE:	453 S.F.
TOTAL:	4326 S.F.

UNIT 4	
FIRST FLR.:	622 S.F.
SECOND FLR.:	1006 S.F.
THIRD FLR.:	1186 S.F.
FOURTH FLR.:	1154 S.F.
TOTAL LIVING:	3968 S.F.
GARAGE:	507 S.F.
TOTAL:	4475 S.F.

CO INV= 2.55'
CO INV= 2.45'
CO INV= 2.10'
CO INV= 2.00'
CO INV= 1.95'

SEAWARD LIMITS OF CONSTRUCTION TO THE SOUTH

COASTAL STRAND & HAMMOCK

COASTAL STRAND

PLATTED BEACH LIMIT (LOT LIMIT)

LOT LIMIT PER TAX ASSESSORS MAP

MATCHLINE A-A

SURFSIDE DRIVE
60' R/W - 25 MPH

EXIST 6" ACP OR HDPE WATER MAIN (CONTRACTOR TO VERIFY)

6" BY 4" REVERSE TAPPING SADDLE WITH GATE VALVE SAMPLING POINT #1

10 LF 4" HDPE DR11 WATER MAIN

90° BEND

30 LF 4" HDPE DR11 WATER MAIN DIRECTIONAL BORE

FVE (5) 2" SERVICES W/ BACKFLOW METERS AND RPZ (BY FPUA) ONE IS FOR IRRIGATION

20 LF 4" HDPE DR11 WATER MAIN W/ 4" MJDV

CONSTRUCT TRENCH DRAIN FDOT INDEX 436-001

PROPOSED SEWER MANHOLE S-1
S-1 RIM = 4.25'
S-1 INV = 1.56'

300 LF 8" PVC SEWER SERVICE @0.35% SLOPE

FCM N68°52'10"E 39.50'

FLORIDA STATE PLANE COORDINATES
NAD 83 /90 US SURVEY FT.(TYP)
N 1133785.55
E 888098.06
FOUND 3"X3" CONCRETE MONUMENT

FLOOD ZONE 'X' (0.2%)

100.00

ATLANTIC OCEAN

MEAN HIGH WATER LINE

MEAN LOW WATER LINE

BEACH DUNE

FLOOD ZONE VE-9.0'

FLOOD ZONE VE-8.0'

THIS MEAN HIGH WATER LINE (MHW) SURVEY COMPLIES WITH CHAPTER 177.28 (1) PART ELEVATION. BENCHMARK ELEVATION SHOWN WAS PROVIDED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION MONUMENT NUMBER T1089 WITH THEREFORE THE MHW ELEVATION IS 0.53 NAVD AND THE MEAN LOW WATER ELEVATION IS (-) 2.71 NAVD

PROPOSED DRAINAGE STRUCTURES

D1 JUNCTION MANHOLE W/SUMP
TOP =5.25'
W. INV = 2.00'
S. INV = 2.00'

D2 JUNCTION MANHOLE W/SUMP
TOP =5.25'
W. INV = 2.00'
N. INV = 2.00'

PROPOSED SEWER STRUCTURES

S-1 SEWER MANHOLE
TOP = 4.00'
S. INV = 1.00'

HATCH LEGEND

PROPOSED CONCRETE OR BRICK PAVERS

PROPOSED CONCRETE

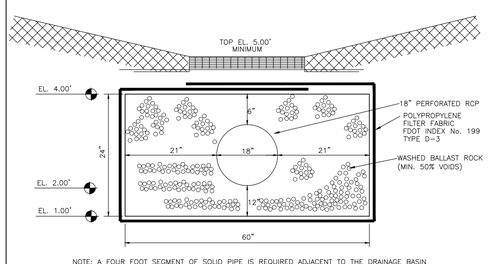
LEGEND

EX SAN / EX SAN	EXISTING SANITARY SEWERLINE
SAN. / SAN	PROPOSED SANITARY SEWERLINE
	EXISTING DRAINAGE PIPE
	PROPOSED DRAINAGE PIPE
EX WM / EX WM	EXISTING WATER MAIN
WAT / WAT	PROPOSED WATER MAIN
SF / SF / SF	FILTER FENCE/SEDIMENT BARRIER
	EXISTING WOOD FENCE
	PROPOSED FENCE
24.45	PROPOSED SPOT ELEVATION AT EOP/SIDEWALK
25.0	PROPOSED GRADE / CONTOUR
	PROPOSED DRAINAGE FLOW DIRECTION
9.0'R	PROPOSED EOP RADIUS
PROPANE	1,000 GAL UNDERGROUND PROPANE TANK
	24" ADS YARD DRAIN
	STORMTECH DRAIN
	PROPOSED WALL
	TRENCH DRAIN
	STREET LIGHT
	MODIFIED TYPE 'C' INLET
D	JUNCTION MANHOLE
DS-1	DRAINAGE STRUCTURE LABEL
	FIRE HYDRANT
	PROPOSED SIGN
S	SEWER MANHOLE

GRAPHIC SCALE

10 0 10 20 40 80

(IN FEET)
1 inch = 10 ft.



NOTE: A FOUR FOOT SEGMENT OF SOLID PIPE IS REQUIRED ADJACENT TO THE DRAINAGE BASIN

EXFILTRATION TRENCH DETAIL
N.T.S.

MARK	REVISION	DATE

DRAWING 21-008 CONST.
DESIGNED JBB DRAWN JBB
CHECKED JBB SCALE 1"=10' DATE 04/16/21

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WEBSITE https://www.sbsengineers.com

PAVING, GRADING & DRAINAGE PLAN

SURFSIDE QUAD PLEX

ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57396 STATE OF FLORIDA PROFESSIONAL ENGINEER

JODAH B. BITTLE
FL REG. NO. 57396

DocuSigned by: Joodah Bittle A95EF7995C6C46B...

DATE: 4/30/2021

PROJECT NO. 21-008

SHEET 7

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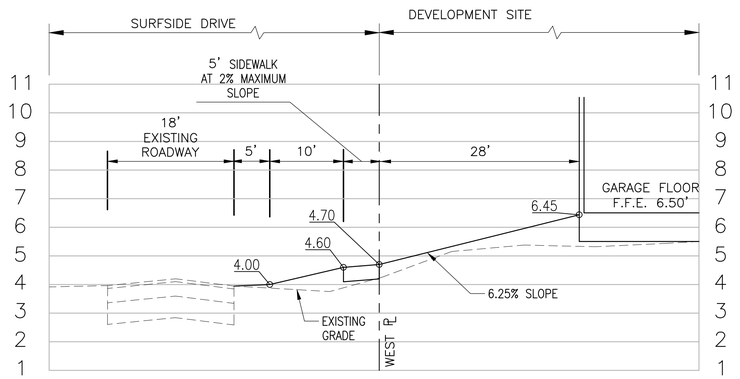
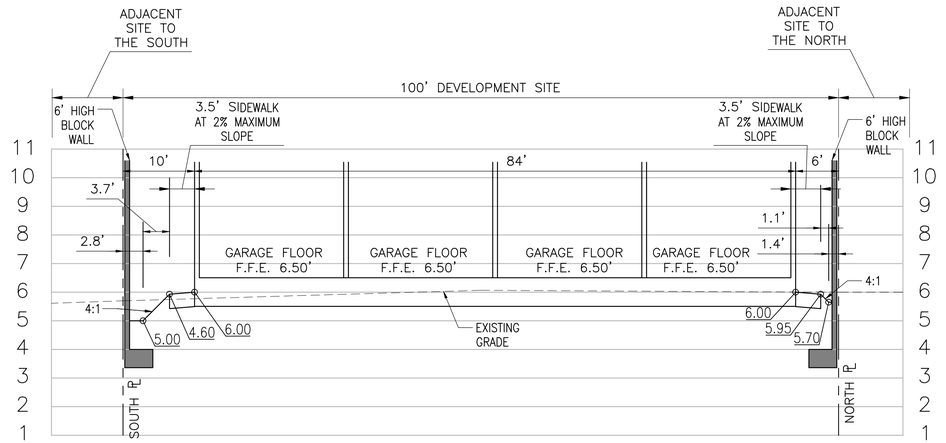


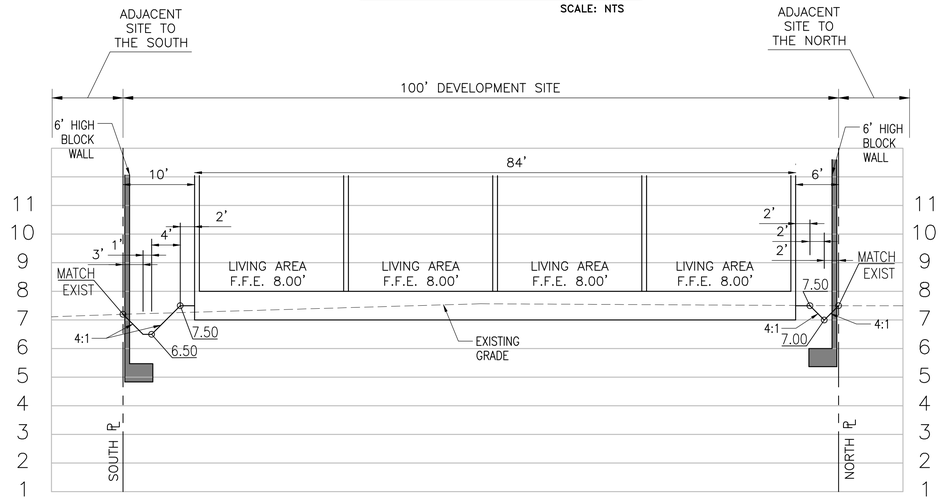
SECTION A

SCALE: NTS



SECTION B

SCALE: NTS



SECTION C

SCALE: NTS

MARK	REVISION	DATE

DRAWING 21-008 CONST

DESIGNED JBB | DRAWN JBB

CHECKED JBB

SCALE 1"=10' | DATE 04/16/21

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CROSS SECTION

SURFSIDE QUAD PLEX

ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57396 STATE OF FLORIDA PROFESSIONAL ENGINEER

JODAH B. BITTLE FL REG. NO. 57396

Digitally signed by: Joan Bittle

DATE: 4/30/2021

PROJECT NO. 21-008

SHEET 8

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SPECIFICATIONS - CLEARING/GRADING/PAVING/DRAINAGE/UTILITY CONSTRUCTION

GENERAL
IT IS INTENDED THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST REVISIONS, BE USED WHERE APPLICABLE FOR VARIOUS WORK, AND THAT WHERE SUCH WORDING THEREIN REFERS TO THE STATE OF FLORIDA AND ITS DEPARTMENT OF TRANSPORTATION AND PERSONNEL, SUCH WORDING IS INTENDED TO BE REPLACED WITH THAT WORDING WHICH WOULD PROVIDE PROPER TERMINOLOGY THEREBY MAKING SUCH "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS THE "STANDARD SPECIFICATIONS" FOR THIS PROJECT. IN ADDITION THE CONTRACTOR SHALL REFER TO THE "FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS" LATEST REVISIONS. IF WITHIN THAT PARTICULAR SECTION ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE A PART OF THE DESIGNATED SPECIFICATIONS.
ALL WORK SHALL BE IN A WORKMANLIKE MANNER AND SHALL CONFORM WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL REGULATIONS AND/OR CODES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED TO BEGIN WORK.
THE CONTRACTOR SHALL GIVE THE ENGINEER 24 HOURS NOTICE PRIOR TO REQUESTING REQUIRED INSPECTIONS AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.
THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF PROJECT ACCEPTANCE, DURING WHICH ALL FAULTY CONSTRUCTION AND/OR MATERIALS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

CLEARING/GRUBBING
THE CONTRACTOR SHALL COMPLETELY REMOVE AND DISPOSE OF ALL BUILDING, TIMBER, BRUSH, STUMPS, ROOTS, RUBBISH, DEBRIS, INCLUDING SEPTIC TANK, BUILDING FOUNDATIONS, PIPES, ETC., WITHIN THE LIMITS OF THE ROADWAY CONSTRUCTION. ALL AREAS WHERE STRUCTURES WILL BE CONSTRUCTED INCLUDING PIPE CULVERTS, AND AS OTHERWISE DEPICTED IN THE PLANS, ALL IN ACCORDANCE WITH SECTION 110 OF THE STANDARD SPECIFICATIONS.

GRADING
THE CONTRACTOR SHALL PERFORM ALL GRADING NECESSARY TO ACHIEVE THE PROPOSED PLAN GRADES. FINAL DRESSING SHALL HAVE A TOLERANCE OF 0.1 FT.+- FROM THE PLAN CROSS SECTIONS. GRADING SHALL INCLUDE ALL SHAPING, ROUGH GRADING, AND FINAL DRESSING REQUIRED FOR THE PROPOSED ROADWAY AND ROAD EMBANKMENTS WITHIN THE LIMITS DEPICTED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE FINISHED GRADES UNTIL COMPLETION OF CONTRACT CLOSE-OUT, AND MUST RE-GRADE AS REQUIRED WHEN EROSION OR OTHER DISTURBANCES OCCUR. SEED/MULCH AND/OR SODDING SHALL BE INCORPORATED TO ASSIST IN THIS REGARD. HOWEVER, ANY LOSS OF SOD OR SEED/MULCH DURING THESE OCCURRENCES SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

SOD:
SOD SHALL BE ST. AUGUSTINE OR ARGENTINE BAHIA - AS NOTED ON THE LANDSCAPE PLANS OR CONTRACT DOCUMENTS. SOD SHALL BE WELL MATTED WITH ROOTS AND SHALL BE SUFFICIENTLY THICK TO SECURE A DENSE STAND OF LIVE GRASS. THE SOD SHALL BE LIVE, FRESH AND UNINJURED AT THE TIME OF PLANTING AND SHALL BE REASONABLY FREE OF WEEDS AND OTHER GRASSES. THE RECEIVING GROUND SURFACE SHALL BE GRADED TO PROPER ELEVATIONS, FREE OF LARGE VOIDS, ROOTS, WEEDS OR PATCHES OF EXISTING GRASS. UPON LAYING, THE ENTIRE AREA SHALL BE ROLLED THOROUGHLY. ALL SODDED AREAS ARE TO BE WATERED TO KEEP SOD ALIVE UNTIL THE CONTRACTOR IS CLOSED OUT, DEAD SOD SHALL BE REPLACED BY CONTRACTOR.

EMBANKMENT CONSTRUCTION
ROADWAY EMBANKMENT CONSTRUCTION SHALL CONSIST OF ALL THE EMBANKMENT CONSTRUCTION REQUIRED FOR THE PROPOSED ROADWAY AND/OR PARKING LOT, BUILDING PADS, DITCHES AND SWALES IN ACCORDANCE WITH SECTION 120 OF THE STANDARD SPECIFICATIONS. EMBANKMENTS SHALL BE CONSTRUCTED FROM MATERIAL CONTAINING NO MUCK, STUMPS, ROOTS,BRUSH,VEGETABLE MATTER, RUBBISH, OR OTHER DELETERIOUS MATERIALS THAT WILL NOT COMPACT TO A SUITABLE ENDURING ROAD BED. EXISTING EARTH SURFACES SHALL BE COMPACTED/PROOF ROLLED PRIOR TO PLACEMENT OF ANY EMBANKMENT MATERIAL.
MATERIAL: UNLESS OTHERWISE SPECIFIED, MATERIAL SHALL BE "TYPE 2 MATERIAL".
COMPACTION: 12" COMPACTED LIFTS, MINIMUM 98% MAXIMUM DRY DENSITY (A.A.S.H.T.O. T-180).
- MIN. 100% MAX DENSITY ADJACENT TO STRUCTURES WITHIN PAVED AREAS
COMPENSATION: COMPACTION FOR THE EMBANKMENT CONSTRUCTION SHALL BE MADE FULLY BY THE BID ITEMS FOR BORROW EXCAVATION (PER C.Y.), GRADING (PER L.F. OF ROADWAY OR PER ACRE OF SITE), AND REGULAR EXCAVATION (PER C.Y.) WHEN APPLICABLE.

EMBANKMENT AND BACKFILL MATERIAL:
TYPE 1: WELL GRADED CRUSHED STONE OR CRUSHED GRAVEL (ASTM C33-71A, GRADATION 67) - 3/4" TO NO. 4 SIEVE.
TYPE 2: SANDY MATERIAL, AND MAY BE UNCLASSIFIED MATERIAL OBTAINED FROM CONTRACTOR'S EXCAVATIONS AND APPROVED BY THE ENGINEER. THIS MATERIAL SHALL BE FREE FROM WOOD, ROOTS, HUMUS, PEAT, MUCK, AND OTHER ORGANIC MATERIALS, AND SHALL NOT CONTAIN CLODS, STONES, MASONRY, RUBBLE OR THE LIKE GREATER THAN ½ INCHES IN DIAMETER.
TYPE 3: SELECT GRANULAR SAND MATERIAL, FREE OF ORGANICS WITH LESS THAN 3% FINES PASSING THE NO. 200 SIEVE.

STAKING
CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

STABILIZING
STABILIZED SUBGRADE SHALL BE CONSTRUCTED TO THE FLORIDA BEARING VALUE OR L.B.R. AS PER PLAN FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, AND IN ACCORDANCE WITH SECTION 160 OF THE STANDARD SPECIFICATIONS, ALL STABILIZED AREAS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. ALL MATERIAL SHALL BE MIXED TO A HOMOGENEOUS MATERIAL.

BASE COURSE
THE BASE SHALL BE CONSTRUCTED OF EITHER LIMEROCK MATERIAL IN ACCORDANCE WITH SECTION 911 OR CEMENTED COQUINA SHELL MATERIAL IN ACCORDANCE WITH SECTION 915 OF THE STANDARD SPECIFICATIONS.
LIMEROCK BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200 AND CEMENTED COQUINA SHELL BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 250 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ROCK FIT CERTIFICATIONS FOR COQUINA SHELL MATERIAL. BASE SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 AND TO AN L.B.R. VALUE WHEN SPECIFIED ON PLANS. BASE SHALL BE APPROVED PRIOR TO PRIME COAT.

PRIME AND TACK COAT
PRIME AND TACK COATS FOR THE BASE COURSE SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

ASPHALT CONCRETE SURFACE COURSE (A.C.S.C.)
TYPE SP 9.5 & TYPE SP 12.5 A.C.S.C. SHALL BE CONSTRUCTED FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, IN ACCORDANCE WITH SECTIONS 320, 330, AND 334 OF THE STANDARD SPECIFICATIONS.

CONCRETE PAVEMENT:
CONSTRUCT PORTLAND CEMENT CONCRETE (TYPE II, CLASS I) PAVEMENT IN ONE COURSE ON A PREPARED STABILIZED SUBGRADE IN ACCORDANCE WITH SECTIONS 346 AND 350. PROVIDE STEEL REINFORCEMENT WHEN SPECIFIED IN THE PLANS.

CURB
ALL CURB CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 520 OF THE STANDARD SPECIFICATIONS, AND IN ACCORDANCE WITH F.D.O.T. INDEX NO. 300. PROVIDE CONTRACTION JOINTS AT 10-FOOT O.C. MAXIMUM. TRANSITION ENDS OF CURB FROM FULL TO ZERO HEIGHTS IN 3-FEET. CURB CUT RAMPS SHALL BE IN ACCORDANCE WITH F.D.O.T. INDEX NO. 304.

TESTING
THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN APPROVED INDEPENDENT TESTING LABORATORY TO CONDUCT ALL REQUIRED TESTS ON EMBANKMENT,SUBGRADE, BASE, PIPE BACKFILL AND SURFACE COURSE MATERIALS. TEST RESULTS MUST BE SUBMITTED PRIOR TO ANY REQUEST FOR PAYMENT ON THE ABOVE ITEMS.

THE SCHEDULE FOR TESTING THE ROAD/PAVEMENT AREAS CONSTRUCTION SHALL BE AS FOLLOWS:
A. EMBANKMENT: DENSITY TESTS SHALL BE TAKEN AT A MAXIMUM OF 5,000 SF. INTERVALS FOR EACH 12" LIFTS CONSTRUCTED, AND AT ALL EXISTING PROOFROLLED EARTH SURFACES.
B. SUBGRADE: (1) F.B.V./ L.B.R. (PER PLAN) TEST SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 5000 SF / 10,000 SF OR CLOSER AS MIGHT BE NECESSARY IN THE EVENT OF VARIATIONS IN SUBSOIL CONDITIONS. (MIN. OF 3 / 1 PER JOB)
(2) DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 5000 SF OR CLOSER AS MIGHT BE NECESSARY.
C. BASE: (1) F.B.V./ L.B.R. (PER PLAN) TEST SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 5000 SF / 10,000 SF OR CLOSER. (MIN. OF 3 / 1 PER JOB)
(2) DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 5000 SF OR CLOSER AS MIGHT BE NECESSARY.
D. PIPE BACKFILL: DENSITY TESTS SHALL BE TAKEN AT A MAXIMUM OF 50 FT. INTERVALS, 1" ABOVE PIPE, 1' BELOW GRADE, MIN., AND AT PIPE DEPTHS GREATER THAN 5 FT, AN ADDITIONAL TEST SHALL BE TAKEN AT MID DEPTH OF BACKFILL
E. STRUCTURES: A MINIMUM OF 1 DENSITY TEST SHALL BE PERFORMED IN THE STABILIZED SUBGRADE, AND WITHIN THE BACKFILL FOR EACH 12" LIFT, ADJACENT TO EACH STRUCTURE INSTALLED.
F. BUILDING PAD: AS SPECIFIED IN ARCHITECTURAL PLANS.
G. CURB PADS - DENSITY TEST SHALL BE TAKEN AT A MAXIMUM OF 500 FT. INTERVALS.

ALL TESTS SHALL BE PAID FOR BY THE CONTRACTOR.

CLEAN-UP
THE CONTRACTOR MUST PROVIDE CLEAN-UP OF EXCESS CONSTRUCTION MATERIAL UPON COMPLETION OF THE PROJECT. THE SITE MUST BE LEFT IN A NEAT, CLEAN, GRADED CONDITION.

DRAINAGE STRUCTURE SPECIFICATIONS
STORM INLETS AND MANHOLES SHALL BE CONSTRUCTED IN GENERAL ACCORDANCE WITH SECTION 425 OF THE STANDARD SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI. ALL REINFORCING STEEL TO BE ASTM A 615-72 GRADE 40, FY = 40,000 PSI, AND SHALL BE HANDLED AND PLACED IN ACCORDANCE WITH ACI 318-71. PRECAST CONCRETE MANHOLES AND STORM INLETS MAY BE USED UPON THE ENGINEER'S APPROVAL OF THE MANUFACTURER'S SHOP DRAWINGS.

PRECAST INLETS/MANHOLES
ALL STORM INLETS SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH APPLICABLE REFERENCES TO FDOT DRAWINGS IN THE "FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS" LATEST EDITION. TYPE II PORTLAND CEMENT SHALL BE USED IN THE CONCRETE MIX. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28-DAYS OF 4000 PSI.

CULVERT PIPES
ALL CULVERT PIPE CULVERTS AND STORM SEWERS SHALL BE COMPLETED IN MAXIMUM 4" LIFTS TO THE TOPING LINE MAXIMUM 8" LIFTS, TO A POINT 12" ABOVE THE PIPE, AND IN 12" LIFTS BEYOND, COMPACTED TO A MINIMUM OF 98% OF MAXIMUM DRY DENSITY. TYPE 2 MATERIAL SHALL BE USED FOR ALL BACKFILL, UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.

FURNISH AND INSTALL FILTER FABRIC JACKET AROUND ALL PIPE JOINTS AND THE JOINT BETWEEN THE PIPE AND THE STRUCTURE IN ACCORDANCE WITH DESIGN STANDARDS INDEX NUMBERS 201 & 280. USE FABRIC MEETING THE PHYSICAL REQUIREMENTS OF TYPE 3 SPECIFIED ON THE DESIGN STANDARDS, INDEX 199. THE FABRIC SHALL EXTEND A MINIMUM OF 12 INCHES (300 MM) BEYOND EACH SIDE OF THE JOINT OR BOTH EDGES OF THE COUPLING BAND. IF A COUPLING BAND IS USED, THE FABRIC SHALL HAVE A MINIMUM WIDTH OF 24 INCHES (600 MM) AND A LENGTH SUFFICIENT TO PROVIDE A MINIMUM OVERLAP OF 24 INCHES (600 MM). SECURE THE FILTER FABRIC JACKET AGAINST THE OUTSIDE OF THE PIPE BY METAL OR PLASTIC STRAPPING OR BY OTHER METHODS APPROVED THE THE ENGINEER.

CONCRETE
UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28-DAYS OF 3000 PSI. ALL WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE AND THE APPLICABLE BUILDING CODES HAVING JURISDICTION IN THE AREA.

RECORD DRAWINGS
CONTRACTOR SHALL KEEP AND MAINTAIN RECORD DRAWINGS ON THE PROJECT SITE AT ALL TIMES WHICH SHALL BE ANNOTATED BY THE CONTRACTOR DEPICTING ANY CHANGES MADE IN THE FIELD WHICH DIFFER FROM THE CONTRACT DRAWINGS. RECORD DRAWINGS SHALL INCLUDE, BUT ARE NOT LIMITED TO, HORIZONTAL LOCATION AND VERTICAL ELEVATION OF INVERT AND TOP OF CULVERTS, SEWER MANHOLES, DRAINAGE STRUCTURES, INLETS, UTILITY MAINS AND AS-BUILTS OF ALL LAKE BANKS, LOTI/BLDG., PADS, SWALES, BERMS, CURBS, PAVEMENT, SIDEWALKS: DEPICTING HORIZONTAL LOCATION AND ELEVATIONS. CONTRACTOR SHALL SUBMIT COMPLETE AND FINAL RECORD DRAWINGS TO ENGINEER UPON COMPLETION OF PROJECT AND PRIOR TO FINAL INSPECTION AND FINAL PAYMENT.

THE CONTRACTOR SHALL BE REQUIRED TO HAVE A SURVEYOR PROVIDE CERTIFIED RECORD DRAWINGS/AS-BUILTS. THESE DRAWINGS SHALL BE PROVIDED IN AN ACAD. ELECTRONIC FILE AS WELL AS ON SIGNED/SEALED HARD COPIES. THE AS-BUILTS MUST MEET I.R.C. UTILITY DEPT. CRITERIA FOR WATER MAIN AND SEWER AS-BUILTS, INCLUDING TIES TO STATE PLANE COORDINATES.

INSPECTION
MINIMUM CONSTRUCTION INSPECTION CHECKPOINTS
THE ENGINEER SHALL BE NOTIFIED 24 HOURS IN ADVANCE:
A. PRIOR TO ANY MAJOR DEVIATION FROM THE APPROVED PLANS.
B. PRIOR TO BACKFILLING ANY PIPE TRENCHES.
C. UPON COMPLETION OF SUBGRADE AND COMPACTION.
D. PRIOR TO POURING CURBS, SIDEWALKS OR OTHER FLATWORK.
E. UPON BEGINNING OF SPREADING OF ROCK BASE MATERIAL.
F. UPON COMPLETION OF GRADING AND COMPACTION OF BASE MATERIAL AND PRIOR TO PRIMING.
G. IMMEDIATELY PRIOR TO AND UPON APPLICATION OF A.C.S.C.
H. UPON COMPLETION OF CONSTRUCTION.

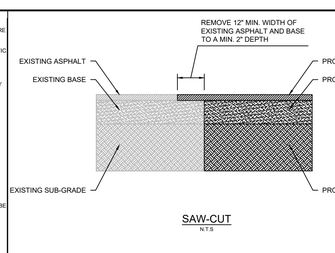
ACCEPTABLE TEST RESULTS MUST BE PROVIDED TO THE ENGINEER PRIOR TO COMMENCING SUCCESSIVE STEPS OF CONSTRUCTION, INCLUDING:
- PIPE BACKFILL AND EMBANKMENT DENSITIES PRIOR TO SUBGRADE PREPARATION.
- SUBGRADE TESTING PRIOR TO BASE PREPARATION, CONCRETE CURB OR SIDEWALK CONSTRUCTION.
- BASE TESTING PRIOR TO APPLICATION OF SURFACE COURSE.

WHERE REFERENCES ARE MADE TO ROADWAY CONSTRUCTION, IT IS INTENDED TO INDICATE CONSTRUCTION FOR ROADWAYS AND/OR PARKING LOTS/DRIVEWAYS.

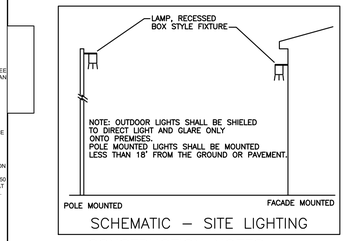
TRAFFIC/PAVEMENT MARKING NOTES:
1. ALL PARKING SPACE MARKINGS AND ROADWAY MARKINGS ON PRIVATE DRIVEWAYS/STREETS WITH THE EXCEPTION TO THE HANDICAPPED PARKING SPACES SHALL BE MARKED IN REFLECTORIZED TRAFFIC PAINT AND BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2019-20.
2. ALL HANDICAPPED PARKING SPACES SHALL BE PROPERLY SIGNED AND MARKED IN ACCORDANCE WITH THE F.D.O.T.'S STANDARD INDEX NO. 711-001.
3. ALL ONE-WAY DRIVING THRU PARKING AREAS ARE FOR DIRECTION AND ARE TO BE PAINTED.
4. STOP BARS SHALL BE 24" WIDE.
5. FDOT STANDARD PLANS FOR ROAD CONSTRUCTION, MUTCD, AND INDIAN RIVER COUNTY DRAWINGS FOR PAVEMENT MARKINGS, SIGNING & GEOMETRICS, ALL LATEST EDITIONS.
6. ALL PAVEMENT MARKINGS FOR THE PROPOSED PUBLIC ROADWAYS AND ALL MARKINGS AT INTERSECTIONS OF PRIVATE ROADS/DRIVEWAYS WITH PUBLIC ROADS SHALL BE EXTRUDED TYPE ALKYD BASE THERMOPLASTIC AND SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
7. SPECIAL MARKINGS (CROSS WALK, STOP BARS, ROADWAY CONTINUOUS STRIPING, THRU ARROWS, PAVEMENT MARKINGS FOR TRAFFIC SEPARATORS, ETC. SHALL BE IN ACCORDANCE WITH THE F.D.O.T. INDEX NO. 711-001.
8. ALL FDOT DESIGN STANDARDS INDICES CORRESPONDING TO THE 2019-20 EDITION.

SIGNS:
1. ALL SIGNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND INDIAN RIVER COUNTY DRAWINGS FOR PAVEMENT MARKINGS, SIGNING & GEOMETRICS, ALL LATEST EDITIONS.
2. ALL SIGNS SHALL BE TYPE 'C' SINGLE COLUMN GROUND SIGNS IN ACCORDANCE WITH F.D.O.T. INDEX NO. 700-010. WIND LOAD SHALL BE ZONE 3 (80 M.P.H.).
3. ALL SIGNS PLACEMENT SHALL BE IN ACCORDANCE WITH F.D.O.T. INDEX NO. 700-101 AND INDIAN RIVER COUNTY DRAWINGS FOR PAVEMENT MARKINGS, SIGNING & GEOMETRICS.

ADDITIONAL SPECIFICATIONS FOR WORK WITHIN A PUBLIC R.O.W.:
1. THE LOCAL MEDIA SHALL BE CONTACTED A WEEK PRIOR TO ANY LANE CLOSURES ON THE STATE ROAD SYSTEM AS IT WILL OCCUR DURING PEAK HOURS OR OVER THE SPAN OF MORE THAN ONE DAY. CONTACT BARBARA KELLEHER, FDOT PUBLIC INFORMATION OFFICE AT 954-777-4066 FOR GUIDANCE ON WHO TO CONTACT. PROVIDE A COPY OF THE PRESS RELEASE TO:
FLORIDA DEPARTMENT OF TRANSPORTATION
PUBLIC INFORMATION OFFICE
2601 WEST COMMERCIAL BOULEVARD
FORT LAUDERDALE, FL 33309
2. ALL MATERIALS AND CONSTRUCTION WITHIN FDOT RIGHT-OF-WAY SHALL CONFORM TO THE FDOTROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION STANDARD SPECIFICATIONS (LATEST EDITION) AND THE SUPPLEMENTS THERETO.
3. THE APPLICANTS ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION SHALL INSURE THAT THE MAINTENANCE OF TRAFFIC PLAN (MOT) FOR THE PROJECT IS IN ACCORDANCE WITH THE APPLICABLE FDOT INDEX NUMBERS (600 SERIES) AND THESE DOCUMENTS: THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (U.S DEPARTMENT OF TRANSPORTATION, FHWA). THE CONTRACTOR SHALL PROVIDE NECESSARY M.O.T. AS SPECIFIED IN THE PLANS AND PERMITS, AND AS DIRECTED IN THE FIELD BY THE ENGINEER OR PUBLIC WORKS/FDOT REPRESENTATIVE.
4. AT THE END OF EACH WORK PERIOD, ANY DROP-OFF IN THE AREA ADJACENT TO THE TRAVEL WAY OF THE STATE ROAD SHALL BE BACKFILLED IN ACCORDANCE WITH STANDARD INDEX 600 OR SHALL BE OTHERWISE PROTECTED WITH TEMPORARY BARRIER WALL AT THE CONTRACTORS EXPENSE.
5. IF THE PERMITTED WORK IS ON A ROADWAY THAT HAS BEEN SELECTED AS A HURRICANE OR DISASTER EVACUATION ROUTE, THE APPLICANT, AT THE PRE-CONSTRUCTION CONFERENCE IS REQUIRED TO PRESENT, AS PART OF THE WORK PLAN, AN EMERGENCY FUNCTIONAL RESTORATION PLAN TO ADDRESS EVENTUALITIES SUCH AS HURRICANES.
6. THE CONTRACTOR MUST CALL THE APPROPRIATE COUNTY TRAFFIC ENGINEERING DIVISION, HAVING JURISDICTION OVER THE PROJECT AT LEAST 48 HOURS, BEFORE ANY EXCAVATION WITHIN THE FDOT RIGHT-OF-WAY TO DETERMINE THE LOCATION OF THE EXISTING TRAFFIC SIGNAL INTERCONNECT CABLE.
7. THE LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. RELOCATION OF UTILITIES SHALL BE COORDINATED WITH UTILITY COMPANIES AFTER IDENTIFICATION OF CONFLICT BY CONTRACTOR. CONTRACTOR WILL NOTIFY ENGINEER IN ADVANCE BEFORE ANY RELOCATION.
8. BEFORE PERMIT APPROVAL AND CONSTRUCTION OF THIS PROJECT, THE APPLICANT MUST CONTACT THE FLORIDA DEPARTMENT OF TRANSPORTATION LOCAL MAINTENANCE OFFICE TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE TELEPHONE NUMBER IS 954-775-5300 OR 1-800-300-8236.
9. THE APPLICANT AT THE EARLIEST CONVENIENT TIME SHALL NOTIFY IN WRITING ALL RIGHT-OF-WAY USERS AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
10. ALL CURB CUT RAMPS MUST FACE IN THE DIRECTION OF PEDESTRIAN TRAVEL.
11. ALL MOT LANE CLOSURE SIGNS SHALL BE COVERED WHEN LANES ARE NOT CLOSED. NO LANES ARE TO BE CLOSED EXCEPT AT TIMES PRESCRIBED BY THE DEPARTMENT.
12. LIMEROCK BASE SHALL BE A MINIMUM OF 12" AND COMPACTED IN 6" LIFTS TO 98% MAXIMUM DENSITY ACCORDING TO AASHTO-180. CONSTRUCTION TO CONFORM TO SECTION 200. BASE TO BE PRIMED AFTER COMPACTION.
13. STABILIZED SUBGRADE SHALL BE A MINIMUM OF 12" THICK AND COMPACTED TO 98% MAXIMUM DENSITY ACCORDING TO AASHTO-180. MATERIAL TO HAVE A MINIMUM L.B.R. OF 40 AND CONFORM TO SECTION 160.
14. REMOVE ALL MUCK, OVERBURDEN, AND ROOT MATERIAL TO THE RIGHT OF WAY LINE, AND BACKFILL TO THE REQUIRED SUBGRADE WITH CLEAN, GRANULAR MATERIAL COMPACTED IN 12" LIFTS COMPACTED TO 100% OF MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T99-C SPECIFICATIONS, AND EACH LIFT TESTED BEFORE PLACING NEXT LIFT.
15. FLAGGERS MUST BE PRESENT DURING THE INGRESS AND EGRESS OF CONSTRUCTION VEHICLES TO AND FROM THE PROJECT SITE. WARNING SIGNS MUST BE ERECTED ADVISING MOTORIST OF TRUCKS ENTERING THE HIGHWAY.



SAW-CUT
N.T.S

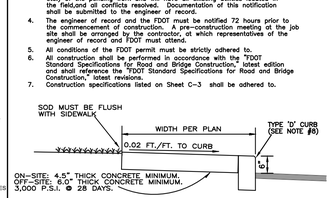


SCHEMATIC – SITE LIGHTING

CONSTRUCTION NOTES

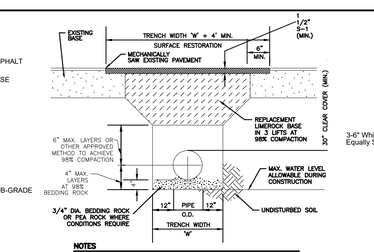
Conditions of Construction
Within F.D.O.T. Right-of-Way

1. The contractor shall provide a security instrument in the form of a performance bond in the estimated dollar amount of the improvements/work within the state road right-of-way. This dollar amount shall be established by an amount equal to 110% of the contractors bid proposal. This amount will be used on the appropriate Florida Department of Transportation (FDOT) form 850-040-20, 04/93 by the engineer. This security instrument may be waived by the FDOT, but is assumed to be required until otherwise indicated, and shall be included in the contractor's proposal.
2. The contractor shall deliver to the engineer of record and to the FDOT, proof of liability insurance, naming themselves as insured, and the FDOT as an additional name insured. The policy shall contain a broad form contractor's endorsement specifically assuming the liabilities arising from the indemnity agreement. The policy shall also provide:
– Public liability insurance, including property damage, in the amount of $1,000,000.00 combined single limit per occurrence.
– A provision requiring the insurance company to notify the FDOT 30 days prior to the effective date of cancellation or material change in policy.
3. The contractor shall notify all users of the right-of-way (utility Co's, etc.) of the pending work and will have all existing utilities located in the field and all conflicts resolved. Documentation of this notification shall be submitted to the engineer of record.
4. The engineer of record and the FDOT must be notified 72 hours prior to the commencement of construction. A pre–construction meeting at the job site shall be arranged by the contractor, at which representatives of the engineer of record and FDOT must attend.
5. All conditions of the FDOT permit must be strictly adhered to.
6. All construction shall be performed in accordance with the "FDOT Standard Specifications for Road and Bridge Construction," latest edition and shall reference the "FDOT Standard Specifications for Road and Bridge Construction," latest revisions.
7. Construction specifications listed on Sheet C–3 shall be adhered to.



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 AND IN ACCORDANCE WITH FDOT INDEX NO. 310.
2. SAWED JOINTS SHALL BE CONSTRUCTED AT A MAXIMUM OF 5–FEET O.C., AND SHALL BE IN ACCORDANCE W/ FDOT INDEX NO. 310.
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 LIGHT BROOM FINISH.
6. SOD ALL DISTURBED AREAS.
7. RECESS SIDEWALK AS REQUIRED IF BRICK PAVERS CALLED FOR IN PLANS
8. SIDEWALK/CURB MAY BE CONSTRUCTED AS ONE INTEGRAL POUR. PROVIDE MIN. 8"x8" THK'N EDGE
9. PROVIDE REINFORCEMENT AS SPECIFIED IN PLAN SHEETS.

DETAIL AND SIDEWALK / BIKEPATH SPECIFICATIONS



TRENCH DETAILS
(PAVED AREAS)

GENERAL SPECIFICATIONS:

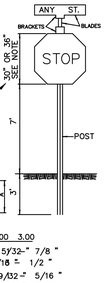
FLAT BLADE: ALCOA #86054.6063–T6 ALLOY, ETCHED, DEGREASED WITH #1200 ALODINE FINISH WITH #2277 GREEN SCOTCHLITE BACKGROUND OR EQUAL DIMENSIONS –– 6" MIN. H, 24" , 30" OR 36" L.

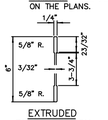
LETTERS: NAME – 4" SERIES 'B' # 2270 SCOTCHLITE (SILVER) OR EQUAL – SUFFIX – 2" SERIES AS ABOVE.

POST: STEEL FLANGED CHANNEL POST WITH BAKED GREEN ALKYD OR GALVANIZED FINISH PER A.S.T.M. –A–123. WITHOUT ANCHOR PLATES.

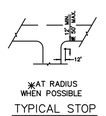
STOP SIGN: R1–1 MUTCD – (ENGINEERING GRADE) 36"X36" AT US 1 DRIVEWAY, 30"X30" EVERYWHERE ELSE ON SITE.

LOCATION: ONE PER INTERSECTION AS INDICATED ON THE PLANS.

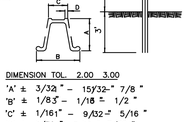




EXTRUDED BLADE SECTION



TYPICAL STOP SIGN PLACEMENT
(UNCOURBED SECTION)



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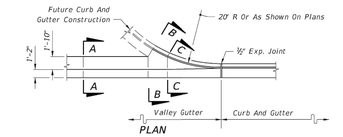
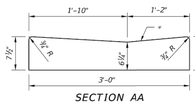
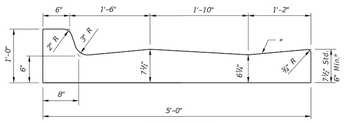


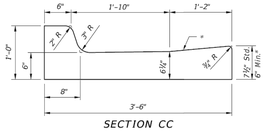
PLAN



SECTION AA



SECTION BB



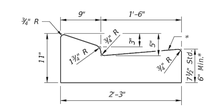
SECTION CC

VALLEY GUTTER

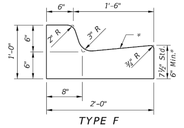
* When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The thickness of the lip shall be 6", unless otherwise shown on plans.

◪ Rotate entire section so that gutter cross slope matches slope of adjacent circulating roadway pavement.

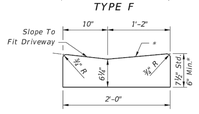
For use adjacent to concrete or flexible pavement. For details depicting usage adjacent to flexible pavement, see Sheet 2. Expansion joint, preformed joint filler and joint seal are required between curb & gutter and concrete pavement only, see Sheet 2.



TYPE E

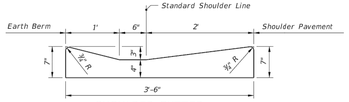


TYPE F

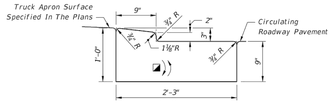


Note: To be paid for as parent curb.

DROP CURB

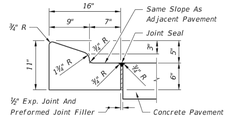


SHOULDER GUTTER



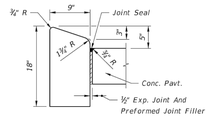
TRAFFIC BEARING SECTION FOR USE IN ROUNDABOUT CENTRAL ISLAND CONSTRUCTION

TYPE RA

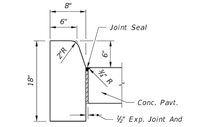


For details depicting usage adjacent to flexible pavement, see Sheet 2.

TYPE A



TYPE B



TYPE D

Note: For use adjacent to concrete or flexible pavement, concrete shown. Expansion joint, preformed joint filler and joint seal are required between curbs and concrete pavement only, see Sheet 2.

CONCRETE CURB

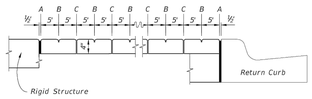
CONCRETE CURB AND GUTTER

LAST REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	CURB AND GUTTER	INDEX	SHEET
11/01/17	REVISION			520-001	1 of 2

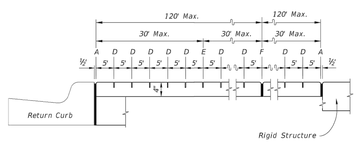
10/14/2019 11:05:46 AM

GENERAL NOTES:

1. Construct sidewalks in accordance with Specification 522. Use 6" concrete for Sidewalks and Curb Ramps Located within Curb Returns (See Plan View). Install all other concrete with thickness as shown, unless otherwise detailed in the Plans.
2. Include detectable warnings on sidewalk curb ramps in accordance with Index 522-002.
3. For Driveways see Index 522-003.
4. Bond breaker material can be any impermeable coated or sheet membrane or preformed material having a thickness of not less than 6 mils and not more than ½".
5. Construct sidewalks with Edge Beam through the limits of any surface mounted Pedestrian/Bicycle Railing or Pipe Guiderail shown in the plans. (See RAILING DETAIL)



OPEN JOINTS



SAWED JOINTS

LONGITUDINAL SECTION

LEGEND:

A- ½" Expansion Joints (Preformed Joint Filler) between the sidewalk and; driveways, sidewalk-intersections, and all other fixed objects (e.g. drainage inlets and utility poles).

B- ⅛" Dummy Joints, Tooled

C- ½" Formed Open Joints

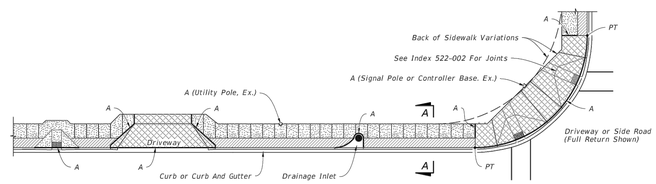
D- 3/16" Saw Cut Joints, 1½" Deep (within 96 hours) Max. 5' Centers

E- 3¼" Saw Cut Joints, 1½" Deep (within 12 hours) Max. 30' Centers Joint(s) Required When Length Exceeds 30'

F- ½" Expansion Joint When Run Of Sidewalk Exceeds 120'. Intermediate locations when called for in the plans or at locations as directed by the Engineer.

G- Cold Joint With Bond Breaker, Tooled

SIDEWALK JOINTS



PLAN

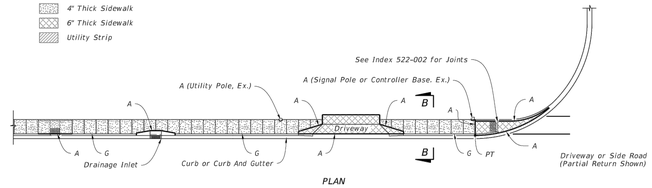
SIDEWALK WITH UTILITY STRIP

LEGEND:

4" Thick Sidewalk

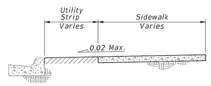
6" Thick Sidewalk

Utility Strip

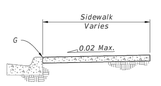


PLAN

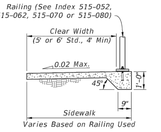
SIDEWALK WITHOUT UTILITY STRIP



SECTION A-A



SECTION B-B



RAILING DETAIL

GENERAL NOTES AND CONCRETE SIDEWALK ON CURBED ROADWAYS

LAST REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	CONCRETE SIDEWALK	INDEX	SHEET
11/01/18	REVISION			522-001	1 of 2

10/14/2019 11:15:51 AM

MARK	REVISION	DATE

DRAWING 21-008 CONST
DESIGNED JBB DRAWN JBB
CHECKED JBB
SCALE NTS DATE 04/16/21

THE DRAWINGS ARE THE PROPERTY OF THE ENGINEER WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. COPY OR USE FOR OTHER PROJECTS IS PERMITTED ONLY BY WRITTEN CONSENT WITH THE ENGINEER. UNAUTHORIZED USE WILL BE PROSECUTED PURSUANT TO THE COPYRIGHT LAWS.

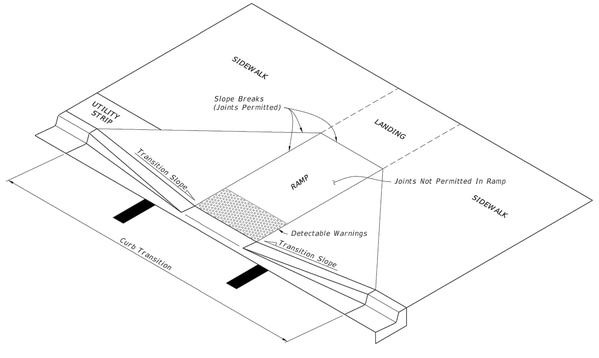
SCHULKE, BITTLE & STODDARD, L.L.C.
CIVIL & STRUCTURAL ENGINEERING . LAND PLANNING . ENVIRONMENTAL PERMITTING
CERTIFICATION OF AUTHORIZATION NO.: 0000668
1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960
TEL 772-770-9622 FAX 772-770-9496 EMAIL jbittle@sbsengineers.com
WEBSITE https://www.sbsengineers.com

MISCELLANEOUS DETAILS

SURFSIDE QUAD PLEX

GENERAL NOTES:

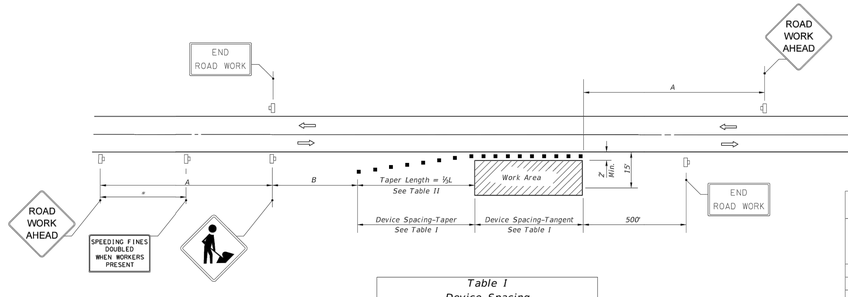
1. Cross Slopes and Grades:
   - A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.
   - B. Landings must have cross-slopes less than or equal to 0.02 in any direction.
   - C. Maintain a single longitudinal slope along each side of the curb ramp. Ramp slopes are not required to exceed 15 feet in length.
   - D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.
2. Curb, Curb and Gutter and/or Sidewalk:
   - A. Refer to Index 522-001 for concrete thickness and sidewalk details.
   - B. Remove any existing curb, curb and gutter, or sidewalk to the nearest joint beyond the curb transition or to the extent that no remaining section is less than 5 feet long.
3. Curb Ramp Alpha-Identification:
   - A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.
   - B. Alpha-identifications CR-I and CR-J are intentionally omitted.
4. Detectable Warnings:
   - A. Install detectable warnings in accordance with Specification 527.
   - B. Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.
   - C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.
5. Detectable Warnings – Acceptance Criteria:
   - A. Color and texture shall be complete and uniform.
   - B. 90% of individual truncated domes shall be in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705.
   - C. There shall be no more than 4 non-compliant domes in any one square foot.
   - D. Non-compliant domes shall not be adjacent to other non-compliant domes.
   - E. Surfaces shall not deviate more than 0.10" from a true plane.



CURB RAMP NOMENCLATURE

7/20/2020 2:09:54 PM

LAST REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX	SHEET
11/01/19	REVISION			522-002	1 of 7



DISTANCE BETWEEN SIGNS		
Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

*Midway between signs.

Table I
Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

Table II
Taper Length - Shoulder

Speed (mph)	½L (ft)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	L= WS²/60
30	40	50	60	
35	55	68	82	
40	72	90	107	
45	120	150	180	L=WS
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width

½L = Length of shoulder taper in feet

W = Width of total shoulder in feet (combined paved and unpaved width)

S = Posted speed limit (mph)

SYMBOLS

Work Area

Channelizing Device (See Index 102-600)

Work Zone Sign

Lane Identification + Direction of Traffic

GENERAL NOTES

1. When four or more work vehicles enter the through traffic lanes in a one hour period or less (excluding establishing and terminating the work area), the advanced FLAGGER sign shall be substituted for the WORKERS sign. For location of flaggers and FLAGGER signs, see Index 102-603.
2. SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign only on the side where the shoulder work is being performed.
3. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
4. For general TCZ requirements and additional information, refer to Index 102-600.

DURATION NOTES

1. Signs and channelizing devices may be omitted if all of the following conditions are met:
   - a. Work operations are 60 minutes or less.
   - b. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

12/30/19 PM 2/26/2020

LAST REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	TWO-LANE, TWO-WAY, WORK ON SHOULDER	INDEX	SHEET
11/01/17	REVISION			102-602	1 of 1

ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57396 STATE OF FLORIDA PROFESSIONAL ENGINEER

JODAH B. BITTLE FL. REG. NO. 57396

Docusigned by: Jodah Bittle A996F7969C0C46B...

DATE: 4/30/2021

PROJECT NO. 21-008 SHEET 10

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FORT PIERCE UTILITIES AUTHORITY
WATER DISTRIBUTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. WATER MAINS WHERE SPECIFIED AS POLYVINYL CHLORIDE (PVC) SHALL CONFORM TO AWWA C-900 OR C-905, PRESSURE CLASS 150, DR (18). WATER MAINS WHERE SPECIFIED AS POLYETHYLENE (PE) SHALL CONFORM TO AWWA C-901 OR C-906, STANDARD CODE DESIGNATION PE3408, PIPE CLASS 200, DIMENSION RATIO (DR) 17 FOR DIRECT BURY, (DR) 11 FOR DIRECTIONAL BORING, AND (DR) 9 FOR 2 INCH AND SMALLER PIPELINES.
3. WATER MAIN, WHERE SPECIFIED AS DUCTILE IRON PIPE , SHALL CONFORM TO ANSI/AWWA C151/A21.51 AND SHALL BE PRESSURE CLASS 250 (MINIMUM).
4. POLYVINYL CHLORIDE WATER MAIN SHALL BE BLUE IN COLOR OR WHITE IN COLOR WITH BLUE STRIPES. THE USE OF IDENTIFICATION TAPE ATTACHED TO THE TOP OF THE PIPE MAY BE USED IN LIEU OF MARKING ON THE PIPE. ALSO DIP PIPE SHALL REQUIRE THE USE OF IDENTIFICATION TAPE AND THIN WIRE.
5. FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C-110/A21.10, CLASS 250 MIN., CEMENT LINED AND FACTORY COATED
6. GATE VALVES SHALL BE MUELLER RESILIENT SEAT, KENNDY KEN-SEAL, AMERICAN OR APPROVED EQUAL. VALVES SHALL CONFORM TO AWWA C-509.
7. WATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY, COUNTY, FDOT, IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
8. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE FPUA ENGINEER AND CITY/COUNTY/FDOT ENGINEER.
9. THE CONTRACTOR SHALL NOTIFY FPUA ENGINEERING AND CITY/COUNTY/FDOT ENGINEERING 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
10. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, FPUA, AND CITY/ COUNTY/FDOT ENGINEER SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. TRAFFIC CONTROL, BARRICADES, ETC., SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND APPROVED BY THE CITY ENGINEER.
12. MINIMUM COVER SHALL BE 36 INCHES EXCEPT AS APPROVED BY THE UTILITIES ENGINEER AND CITY/ COUNTY/FDOT ENGINEER. PIPES WITH COVER LESS THAN 30 INCHES SHALL BE CONSTRUCTED OF DUCTILE IRON OR IN PVC CASING.
13. DISTURBED AREAS SHALL BE RESTORED IN CONFORMANCE WITH THE APPLICABLE GOVERNING AGENCY REQUIREMENTS.
14. EXISTING UTILITIES AND DRAINAGE SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND PROTECTED BY THE CONTRACTOR.
15. WATER MAINS SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH THE APPLICABLE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AWWA C-651 FOR DISINFECTION.

WATER DISTRIBUTION	G-1 NOTES
02-08 DATE: REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE # DETAIL NOTES 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2010	SHEET 1 OF 3

FORT PIERCE UTILITIES AUTHORITY
WATER DISTRIBUTION NOTES
CONTINUED

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING UTILITIES AND DRAINAGE.
17. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER INCLUDING LOCATIONS OF VALVES, FITTINGS, SERVICE CONNECTIONS, BLOWOFFS, AIR RELEASE VALVES, AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT, AS REQUIRED BY THE UTILITIES ENGINEER.
18. THE CONTRACTOR SHALL TAP EXISTING LINES UNDER THE SUPERVISION OF THE FORT PIERCE UTILITIES AUTHORITY ONLY AFTER TESTING AND DISINFECTION HAS BEEN COMPLETED AND APPROVED ON THE TAPPING VALVE AND SLEEVE.
19. WATER MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN MULTI STRANDED WIRE (BLUE IN COLOR) AND IDENTIFICATION TAPE WITH "WATER" MARKED ON TAPE, PERMANENTLY ATTACHED TO THE TOP OF THE WATER MAIN IN ACCORDANCE WITH THE FORT PIERCE UTILITIES AUTHORITY SPECIFICATIONS.
20. SERVICE TAPS SHALL BE PLACED APPROXIMATELY TEN FEET AWAY FROM GATE VALVES, AS SHOWN, FOR TESTING. FOLLOWING TESTING AND STERLIZATION OF WATER LINE. CONTRACTOR SHALL PLACE A BRASS PLUG IN CORPORATION STOPS AND CURB STOPS SHALL BE REMOVED FROM TESTING LOCATIONS.
21. MECHANICAL RESTRAINTS TO BE USED ON ALL FITTINGS AND PLACED IN ACCORDANCE WITH MANUFACTURER'S OR ENGINEER'S RECOMMENDATIONS (WHICHEVER IS MORE STRINGENT) AND FPUA REQUIREMENTS.
22. ALL MAINS SHALL BE TESTED AT A MINIMUM OF 150 PSI. TESTING METHODS SHALL CONFORM TO AWWA C-600. – 2 HR MINIMUM TEST

$$L = \frac{SD(P)\ 1/2}{148{,}000}$$

L= LEAKAGE IN GPH
S= LENGTH OF PIPE IN FEET
D= PIPE DIAMETER IN INCHES
P= TESTING PRESSURE IN PSI

23. PRIOR TO ANY TESTING, ALL MAINS 6" IN DIA. AND LARGER SHALL HAVE A SWAB PASSED THRU THE ENTIRE LENGTH OF THE LINE. NOTE: SWAB SHOULD BE PLACED IN 1st. JOINT OF NEW LINE. END OF MAIN SHOULD BE "TURNED UP" AT 45% AND EXTENDED SO THAT SWABBING AND A FULL BORE FLUSH CAN BE ACCOMPLISHED. BLOW-OFF ASSY CAN THEN BE PLACED WHERE LINES BRANCH, SWABS WILL BE PLACED IN BRANCH LINES AND SEQUENTIALLY SWABBED AND FLUSHED.
24. A MINIMUM SIX FEET AND PREFERABLY TEN FEET HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTEWATER LINES. 6 INCHES MINIMUM VERTICAL SEPARATION IF WATER MAIN IS OVER WASTEWATER AND 12 INCHES IF WATER MAIN IS UNDER SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTWATER LINES. THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE OR STRUCTURE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
25. WHERE A WATER MAIN IS TO BE INSTALLED BELOW A STORM DRAIN PIPE, A MINIMUM OF 6 INCHES OF VERTICAL CLEARANCE BETWEEN PIPES SHALL BE CONSTRUCTED OF DIP AT THE CROSSING, AND SHALL BE MECHANICALLY RESTRAINED WITHIN 20 FEET OF THE CROSSING.
26. CONTRACTOR SHALL COMPLY WITH FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

WATER DISTRIBUTION	G-1 NOTES
02-08 DATE: REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE # DETAIL NOTES 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2010	SHEET 2 OF 3

FORT PIERCE UTILITIES AUTHORITY WASTEWATER CONSTRUCTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. GRAVITY SEWER MAIN SHALL BE POLYVINYL CHLORIDE SDR-26, GREEN OR WHITE IN COLOR, GRAVITY SEWER MAIN SHALL HAVE LOCATOR TAPE WITH "SEWER" MARKED ON TAPE AND SHALL CONFORM TO ASTM D-3034.
3. THE MANHOLE BASE SHALL BE SET ON A FIRM, DRY AND STABLE OR COMPACTED BASE FOUNDATION. IF NECESSARY, THE CONTRACTOR SHALL UTILIZE ROCK TO PROVIDE A FIRM AND SUITABLE MANHOLE BASE FOUNDATION.
4. WASTEWATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY ENGINEERING DEPARTMENT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THEN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
5. A 1% MINIMUM SLOPE SHALL BE MAINTAINED ON ALL SANITARY SERVICE LATERALS.
6. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER CONSISITING OF PIPE SIZES, LOCATION OF SERVICE TEE WYES, DIAMETER OF SERVICES, LOCATION OF ANY FITTINGS, FINAL RIM AND INVERT ELEVATION OF ALL MANHOLES AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT.
7. MAINTAIN SIX FEET AND PREFERABLY 10 FEET HORIZONTAL DISTANCE BETWEEN WATER MAINS AND SEWER MAINS AS A MINIMUM.
8. WASTEWATER FORCE MAINS, WASTEWATER COLLECTION LINES, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. A MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE SHALL BE PROVIDED WHENEVER POSSIBLE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER PIPE JOINTS ARE EQUIDISTANCE FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
9. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, AND FPUA/CITY COUNTY/FDOT SHALL BE MANDATORY PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
10. NO FIELD CHANGES OR DEVIATIONS FORM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FPUA/CITY/COUNTY/FDOT ENGINEER,
11. TRAFFIC CONTROL, BARRICADES, ETC. SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
12. CONTRACTOR SHALL NOTIFY FORT PIERCE UTILITIES AUTHORITY 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
13. WASTEWATER FORCE MAIN SHALL BE POLYVINYL CHLORIDE CONFORMING TO AWWA C-900, AND SHALL BE CLASS 150, DR-18.
14. WASTEWATER FORCE MAIN SHALL BE GREEN IN COLOR.
15. FITTINGS SHALL BE DUCTILE IRON, CONFORMING TO ANSI/AWWA C-110/A21.10 CLASS 250 MIN. AND INTERIOR EPOXY COATED.
16. WASTEWATER FORCE MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN WIRE (GREEN IN COLOR) PERMANENTLY ATTACHED TO THE TOP OF THE FORCE MAIN WITH LOCATOR TAPE MARKED "SEWER" ON TAPE IN ACCORDANCE WITH FPUA SPECIFICATIONS.
17. MINIMUM COVER SHALL BE 36 INCHES, PIPES WITH COVER LESS THAN 30 INCHES SHALL REQUIRE PRIOR APPROVAL OF THE UTILITES ENGINEER AND SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.
18. EACH SERVICE LATERAL WILL BE MARKED WITH A LOCATOR BALL AS MANUFACTURED BY 3M CORPORATION, OR APPROVED EQUAL AS REQUIRED BY FPUA ENGINEER.
19. ALL MANHOLES SHALL HAVE SEWER RAIN GUARDS INSTALLED AS REQUIRED BY FPUA ENGINEER.
20. THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

WASTEWATER CONSTRUCTION NOTES FPUA REQUIREMENTS	G-2 CONSTRUCTION NOTES
02-08 DATE: REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE #	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2010	SHEET 1 OF 1

STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS

1. SANITARY SEWER, FORCE MAINS, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 6 INCHES, PREFERABLY 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHEN ABOVE, AND AT LEAST 12 INCHES OF SEPARATION WHEN THE WATER MAIN IS BELOW.

WHERE SANITARY SEWER, FORCE MAINS, STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 6 INCHES VERTICAL SEPARATION, BOTH THE SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) CENTERED ON THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS.) SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). AT SUCH CROSSINGS PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III of CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 6 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWERS) AND NEW PIPES SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.

2. A MINIMUM 3-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN VACUUM TYPE SANITARY SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN "ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 6-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO 3 FOOT WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER

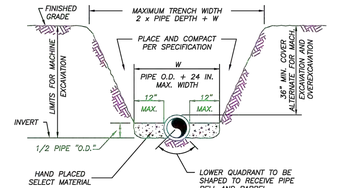
IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON A UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 6 INCHES ABOVE THE TOP OF THE SEWER.

WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 6 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWER) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

3. ALL DIP SHALL BE PRESSURE CLASS 250 MIN.. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.

STANDARD SEPARATION STATEMENT FOR WATER/SEWER CONFLICT	G-3 WATER/SEWER CONFLICT
02-08 DATE: REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE # DETAIL NOTES 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2010	SHEET 1 OF 1

TYPICAL TRENCH DETAIL

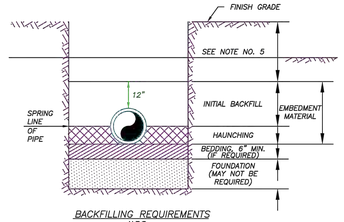


NOTES:

1) THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
2) INITIAL BACKFILL SHALL BE HAND PLACED TO 12" ABOVE THE PIPE. BACKFILL SHALL BE MECHANICALLY TAMPED TO A MINIMUM OF 100% OF MAX. DENSITY AS DETERMINED BY AASHTO METHOD T-99.

TYPICAL TRENCH DETAIL	M-1
03-09 DATE: CONCRETE SLAB REVISIONS: SLL BY: A.C APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2015	SHEET 1 OF 1

BACKFILLING REQUIREMENTS



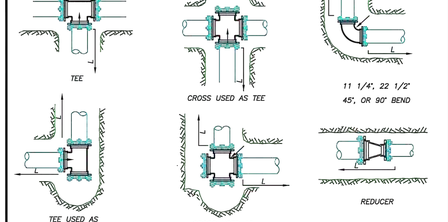
N.T.S.

NOTES:

1) IN CERTAIN SOIL CONDITIONS A FOUNDATION MAY BE REQUIRED.
2) BEDDING IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE.
3) HAUNCHING MATERIAL SHALL BE HAND PLACED TO THE SPRINGLINE OF THE PIPE. MATERIAL SHALL BE CONSOLIDATED UNDER THE PIPE AND HAND TAMPED TO PROVIDE ADEQUATE SIDE SUPPORT.
4) INITIAL BACKFILL MATERIAL SHALL BE HAND PLACED TO 12" ABOVE THE TOP OF PIPE. THE SOIL SHALL BE COMPACTED TO 100% MAX. DENSITY.(AASHTO T-99)
5) BACKFILL SHALL BE COMPACTED TO 100% OF MAX. DENSITY AS PER AASHTO T-99, TO A POINT 30" BELOW PROPOSED PROFILE GRADE OR EXISTING GRADE. THE FINAL 30" OF BACKFILL SHALL BE COMPACTED TO 98% OF MAX. DENSITY AS PER AASHTO T-180.
6) DENSITY TEST SHALL BE PERFORMED AT AREAS DETERMINED BY THE UTILITIES ENGINEER OR PERMIT AGENCY HAVING JURISDICTION, AT THE CONTRACTORS EXPENSE.
7) CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL TRENCH SAFETY REGULATIONS.

BACKFILLING REQUIREMENTS	M-2
03-09 DATE: CONCRETE SLAB REVISIONS: SLL BY: A.C APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2015	SHEET 1 OF 1

MECHANICAL JOINT ANCHORING REQUIREMENTS



N.T.S.

MECHANICAL JOINT ANCHORING REQUIREMENTS	M-3
03-09 DATE: CONCRETE SLAB REVISIONS: SLL BY: A.C APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2015	SHEET 1 OF 1

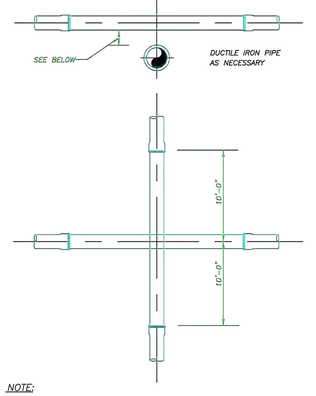
MECHANICAL JOINT RESTRAINT NOTES

NOTES:

1) THE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE REQUIRED LENGTH TO BE RESTRAINED BASED UPON THE PROJECT AREA SOIL TYPE, PROPOSED TRENCH CONDITIONS AND DEPTH, PRESSURE OF 150 PSI, AND A SAFETY FACTOR OF TWO (2). A DRAWING OF EVERY TYPICAL FITTING ASSEMBLY WITHIN THE PROJECT SHALL BE SUBMITTED WHICH REFLECTS THE RESTRAINT DETAIL PROPOSED FOR USE, INCLUDING LENGTH OF PIPE RESTRAINT.
2) REQUIRED RESTRAINED LENGTH CALCULATIONS SHALL ALSO CONSIDER THE CONDITIONS OF OTHER BENDS OR FITTINGS THAT WILL BE LOCATED WITHIN THE CALCULATED RESTRAINED LENGTH (L) OF THE BEND OR FITTING IN QUESTION.
3) EVERY JOINT OR FITTING MUST BE RESTRAINED ON BOTH SIDES OF THE BEND AND FOR TEES ALONG THE BEND ALSO.

MECHANICAL JOINT RESTRAINT NOTES	M-4
03-09 DATE: CONCRETE SLAB REVISIONS: SLL BY: A.C APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2015	SHEET 1 OF 1

UTILITY CROSSING DETAIL



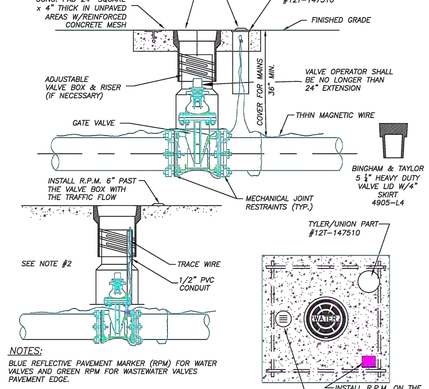
NOTE:

PLEASE REFER TO FORT PIERCE UTILITIES STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS.

N.T.S.

UTILITY CROSSING DETAIL	M-5
03-09 DATE: CONCRETE SLAB REVISIONS: SLL BY: A.C APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2015	SHEET 1 OF 1

TYPICAL GATE VALVE & VALVE BOX DETAIL



NOTES:

1. BLUE REFLECTIVE PAVEMENT MARKER (RPM) FOR WATER VALVES AND GREEN RPM FOR WASTEWATER VALVES PAVEMENT EDGE.
2. FOR WATER AND WASTEWATER VALVES INSTALLED IN PAVED AREAS, ELIMINATE CONCRETE PAD AND ENCASE THE MAGNETIC WIRE IN 1/2" PVC INSIDE THE VALVE BOX SEVEN INCHES BELOW GRADE.
3. DIP MAY BE USED AS RISERS ONLY IF A VALVE BOX IS NOT MANUFACTURED FOR THAT DEPTH. NO PVC RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

N.T.S.

TYPICAL GATE VALVE & VALVE BOX DETAIL	M-6
03-09 DATE: CONCRETE SLAB REVISIONS: SLL BY: A.C APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SCALE: N.T.S.	
APPROVED: DATE: 2015	SHEET 1 OF 1

REVISION	DATE

MARK	DRAWING 21-008 CONST
DESIGNED	JBB DRAWN JBB
CHECKED	JBB SCALE NTS DATE 04/16/21

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SCHULKE, BITTLE & STODDARD, L.L.C.
CIVIL & STRUCTURAL ENGINEERING . ENVIRONMENTAL PERMITTING
CERTIFICATION OF AUTHORIZATION NO.: 00006668
1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960
TEL 772-770-9822 FAX 772-770-9496 EMAIL jbittle@sbsengineers.com
WEBSITE https://www.sbsengineers.com

MISCELLANEOUS DETAILS

SURFSIDE QUAD PLEX

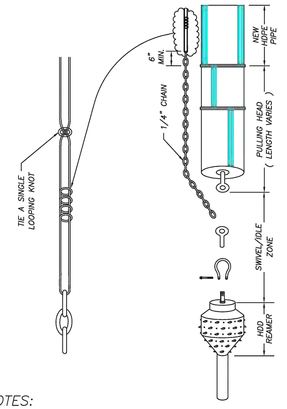
ENGINEER CERTIFICATION

JOAH B. BITTLE LICENSE No 57396 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOAH B. BITTLE
FL REG. NO. 57396
DocuSigned by: Joah Bittle
DATE 4/30/2021

PROJECT NO. 21-008
SHEET 11

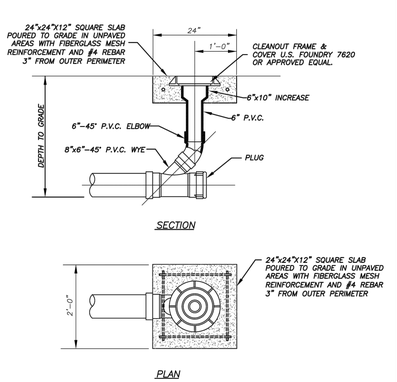
DocuSign Envelope ID: D4A745A1-8C13-42A7-B7A0-838D716D80AB



NOTES:

1. WHERE DIRECTIONAL DRILLING LENGTHS EXCEED 750 LINEAR FEET AND/OR HDPE PIPE DIAMETER EXCEED 12 INCHES, A SECOND LENGTH OF TRACE WIRE SHALL BE INSTALLED.
2. TRACE WIRE SHALL CONFORM TO THE FOLLOWING SPECIFICATION:
   MANUFACTURER – COPPERHEAD INDUSTRIES, LLC
   PART NUMBER – 12459–EHS–500 / 12459–EHS–1000 / 12458–EHS–2500
   PART NUMBER DESCRIPTION – 12 (AWG), 45 (JACKET MIL), B (JACKET COLOR: B=BLUE, G=GREEN, ETC.) – EHS (EXTRA HIGH STRENGTH–HARD DRAWN / 1150# BREAKING LOAD STRENGTH) – 500 (WIRE LENGTH IN FEET)

DIRECTIONAL BORE WIRE ATTACHMENT	M–16
03–09 DESIGN JLL JLC; DATE: CONCRETE SLAB; REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; DRAWN BY: JLL; APPROVED: JLC	COMPUTER FILE # MISC. DETAILS 200602.DWG; SCALE: N.T.S.; DATE: 2015
FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY	SHEET 1 OF 1

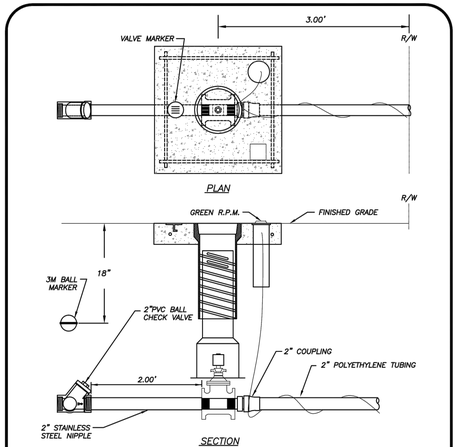


SECTION

PLAN

TERMINAL CLEANOUT DETAIL (COMMERCIAL)
(N.T.S.)

TERMINAL CLEANOUT DETAIL WASTEWATER	S–4B
10–08 DATE: REVISION: RBE BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; DRAWN BY: JLL; APPROVED: JLC	COMPUTER FILE # SEWER DETAIL 200602.DWG; SCALE: N.T.S.; DATE: 2010
FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY	SHEET 2 OF 3



SECTION

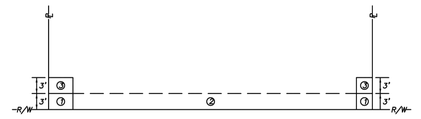
NOTES:

1. FORCE MAIN CONNECTION SHALL CONSIST OF A 2" TAPPING SADDLE, 2" STAINLESS STEEL NIPPLE AND 2" THREADED RESILIENT SEAT GATE VALVE
2. GREEN 10 GAUGE THHN WIRE SHALL BE ATTACHED TO THE SERVICE LINE.
3. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SWALES MIN. COVER SHALL BE 36".

GRINDER STATION CONNECTION	S–16
03–09 DESIGN JLL JLC; DATE: REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; DRAWN BY: JLL; APPROVED: JLC	COMPUTER FILE # COMPUTER#; SCALE: N.T.S.; DATE: 2010
FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY	SHEET 1 OF 1

GENERAL POLICY

WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY; DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.

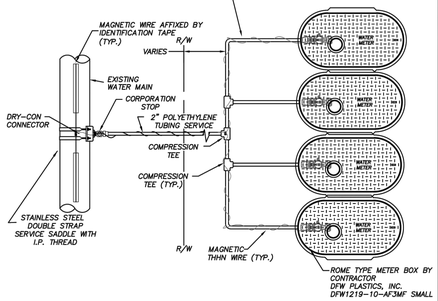


NOTES:

1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. WATER METER, AREA ①, SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE WATER METER. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO WATER SERVICES AND METERS CAN BE CONNECTED.
2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. WATER SERVICE, WITHIN AREA ①, THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA ②, OR ALONG THE PROPERTY LINES MARKED AREA ③.
3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF 6 FEET AND PREFERABLY 10 FEET.
4. ALL METERS SHALL BE INSTALLED IN AN UNRESTRICTED AREA FOLLOWING EASE OF ACCESS AND PROVIDING ADEQUATE PROTECTION.
5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WATER LATERAL WITHIN THE EASEMENT OR RIGHT–OF–WAY, UP TO THE POINT OF CONNECTION.

WATER METER PLACEMENT
(N.T.S.)

WATER METER PLACEMENT POLICY	W–1
03–09 DESIGN JLL JLC; DATE: 02–15 REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; DRAWN BY: JLL; APPROVED: JLC	COMPUTER FILE # WATER DETAILS 200602.DWG; SCALE: N.T.S.; DATE: 2010
FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY	SHEET 1 OF 1

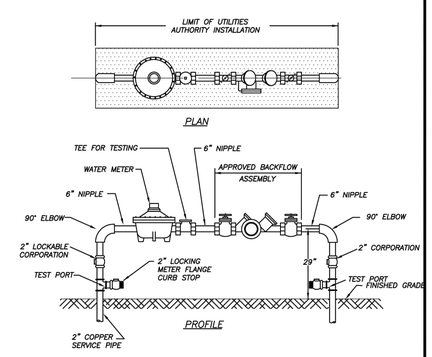


NOTES:

1. BLUE 10 GAUGE THHN WIRE SHALL BE ATTACHED TO THE SERVICE LINE AND RAN TO OUTER METERS ONLY.
2. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
3. ALL METER SIZES SHALL REQUIRE LOCKABLE METER VALVE. (CURB STOP)
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SWALES MIN. COVER SHALL BE 36".
5. POLY SERVICE LINE SHALL VARY IN SIZE PER COMMERCIAL USE.
6. F.P.U.A. SHALL REMOVE METER BOXES AND INSTALL STAND PIPES AT THE TIME OF CONNECTION.

TYPICAL MULTIPLE WATER SERVICE CONNECTION (COMMERCIAL)
(N.T.S.)

TYPICAL MULTIPLE WATER SERVICE CONNECTION (COMMERCIAL)	W–4A
03–09 DESIGN JLL JLC; DATE: REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; DRAWN BY: JLL; APPROVED: JLC	COMPUTER FILE # W–4.DWG; SCALE: N.T.S.; DATE: 2020
FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY	SHEET 1 OF 1



PROFILE

NOTES:

1. LANDSCAPING REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 18" AROUND METER OR BACKFLOW. NO SOLDER JOINTS.
2. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.

WATER METER/BACKFLOW PREVENTER ASSEMBLY
DOMESTIC SERVICE (COMMERCIAL)
(N.T.S.)

WATER METER/BACKFLOW PREVENTER ASSEMBLY–DOMESTIC SERVICES (METER SIZE 2" OR LESS)	W–8
03–09 DESIGN JLL JLC; DATE: REVISION: BY: APPD:	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; DRAWN BY: JLL; APPROVED: JLC	COMPUTER FILE # WATER DETAILS 200602.DWG; SCALE: N.T.S.; DATE: 2010
FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY	SHEET 1 OF 1

MARK	REVISION	DATE

DRAWING 21–008 CONST | DRAWN JBB
DESIGNED JBB
CHECKED JBB
SCALE NTS | DATE 04/16/21

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SCHULKE, BITTLE & STODDARD, L.L.C.
CIVIL & STRUCTURAL ENGINEERING LAND PLANNING ENVIRONMENTAL PERMITTING
CERTIFICATION OF AUTHORIZATION NO.: 00006668
1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960
TEL 772-770-9622 FAX 772-770-9496 EMAIL jbittle@sbsengineers.com
WEBSITE https://www.sbsengineers.com

MISCELLANEOUS DETAILS

SURFSIDE QUAD PLEX

ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57396 ★ STATE OF FLORIDA PROFESSIONAL ENGINEER

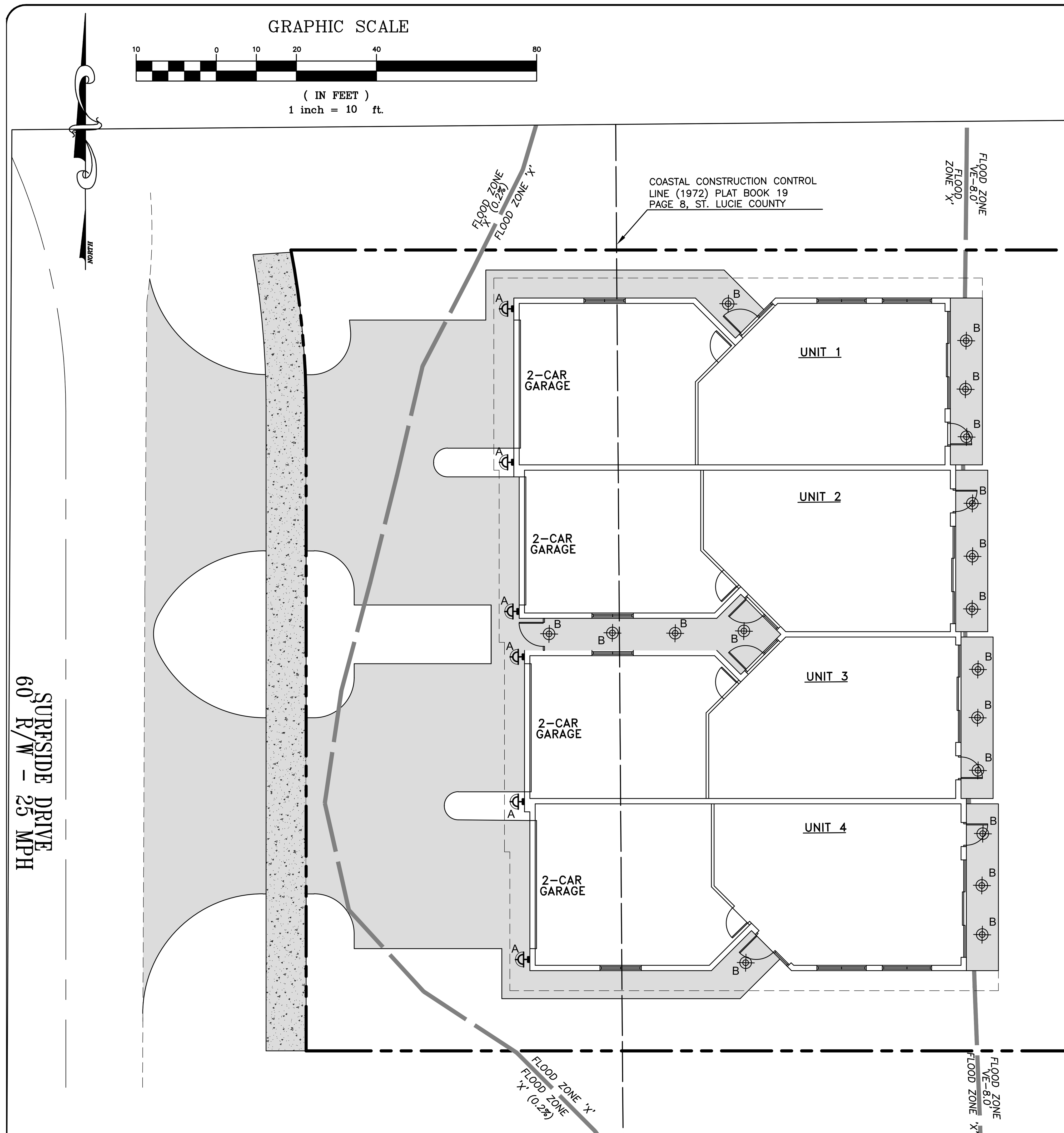
JODAH B. BITTLE
FL. REG. NO. 57396
Digitally signed by Jodah Bittle
DATE: 4/30/2021

PROJECT NO.	SHEET
21–008	12

DocuSign Envelope ID: D4A745A1-8C13-42A7-B7A0-838D716D80AB

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.
NORTH
PROJECT SITE
ATLANTIC OCEAN
MEAN HIGH WATER LINE
MEAN LOW WATER LINE
COASTAL CONSTRUCTION CONTROL LINE (SEPTEMBER 15, 1988) PLAT BOOK 26 PAGE 26, ST. LUCIE COUNTY
COASTAL CONSTRUCTION CONTROL LINE (1972) PLAT BOOK 19 PAGE 8, ST. LUCIE COUNTY
SURFSIDE DRIVE
60' R/W
SR A-1-A
FLORIDA STATE PLANE COORDINATES NAD 83 /90 US SURVEY FT.(TYP.) N 113376.15 E 1553978.57 1" BRASS CAP STAMPED "LB 3147" ON TOP OF 3/4" IRON PIPE
FLORIDA STATE PLANE COORDINATES NAD 83 /90 US SURVEY FT.(TYP.) N 113376.06 E 1554000.04 FOUND 3"x3" CONCRETE MONUMENT
COASTAL CONSTRUCTION CONTROL LINE (1972) PLAT BOOK 19, PAGE 8, ST. LUCIE COUNTY
N04°56'10"E 150'(PLAT) 230'(COUNTY)
POB
POC
FIP
SIRC
100 CCCL
UNIT 1
FIRST FLR.: 623 S.F.
SECOND FLR.: 1156 S.F.
THIRD FLR.: 1156 S.F.
FOURTH FLR.: 1156 S.F.
TOTAL LIVING: 3935 S.F.
GARAGE: 538 S.F.
TOTAL: 4473 S.F.
UNIT 2
FIRST FLR.: 611 S.F.
SECOND FLR.: 1156 S.F.
THIRD FLR.: 1156 S.F.
FOURTH FLR.: 1156 S.F.
TOTAL LIVING: 3813 S.F.
GARAGE: 515 S.F.
TOTAL: 4328 S.F.
UNIT 3
FIRST FLR.: 611 S.F.
SECOND FLR.: 1156 S.F.
THIRD FLR.: 1156 S.F.
FOURTH FLR.: 1156 S.F.
TOTAL LIVING: 3813 S.F.
GARAGE: 515 S.F.
TOTAL: 4328 S.F.
UNIT 4
FIRST FLR.: 623 S.F.
SECOND FLR.: 1156 S.F.
THIRD FLR.: 1156 S.F.
FOURTH FLR.: 1156 S.F.
TOTAL LIVING: 3935 S.F.
GARAGE: 538 S.F.
TOTAL: 4473 S.F.
2-CAR GARAGE
10' BLDG SETBACK
FOUND 2" PIPE
SET 5/8" IRON ROD
FOUND 5/8" IRON ROD
FOUND 3/4" IRON PIPE
FOUND NAIL & DISC
FOUND 2" PIPE
SET 5/8" IRON ROD
FOUND 5/8" IRON ROD
FOUND 3/4" IRON PIPE
FOUND NAIL & DISC
COASTAL STRAND
BEACH DUNE
FOUND CONCRETE MONUMENT
FOUND 3/4" IRON PIPE
FOUND NAIL & DISC
FOUND 2" PIPE
SET 5/8" IRON ROD
FOUND 5/8" IRON ROD

DocuSign Envelope ID: D4A745A1-8C13-42A7-B7A0-838D716D80AB



FIXTURE A

E1

The E1 is an unobtrusive, low-voltage, step/downlight. Its minimalist design brings attention to the lamp's effect, not to the fixture itself.

Construction All brass components. 1/8" [3mm] thick brass housing.

Lens Tempered soda lime glass

Voltage 12 Volts AC/DC with integral driver (9-15V input, dimmable below 9V). Remote transformer required.

Mounting Two (2) hidden stainless steel sheet metal screws secure back plate to the mounting surface. Fixture housing is secured to the back plate by stainless steel set screws.

Custom size canopies available using 0.125" thick brass plate. Consult factory regarding custom canopy size, shape, and thru hole positioning needed to mate with recessed j-box (by others).

Lamps Triac dimmable: MLV >6% typ., ELV >16% typ.

		Beam/Field	Candela	Lumens	Efficacy	
Cree XPE2 LED 2 Watt AMBER (1541K) TURTLE FRIENDLY	__ 2W-A-SP	10° / 20°	1366	65	29	
	__ 2W-A-NFL	14° / 31°	587	64	29	
	__ 2W-A-FL	28° / 60°	108	40	16	
	__ 2W-A-NO	46° / 114°	15	14	6	
Cree XPE2 LED 2 Watt RED-ORANGE (1000K) TURTLE FRIENDLY	__ 2W-RO-SP	10° / 18°	2841	123	54	
	__ 2W-RO-NFL	13° / 28°	1483	119	52	
	__ 2W-RO-FL	32° / 56°	229	81	35	
	__ 2W-RO-NO	49° / 114°	32	32	14	
Cree XPG2 LED 3 Watt Warm White (3020K)*	__ 3W-SP	13° / 24°	2689	202	69	
	__ 3W-NFL	17° / 37°	1214	177	61	
	__ 3W-FL	30° / 62°	391	143	49	CRI 81
	__ 3W-NO	47° / 86°	42	37	13	
Cree XPG2 LED 4 Watt Warm White (3072K)*	__ 4W-SP	13° / 24°	3399	249	64	
	__ 4W-NFL	17° / 38°	1514	230	59	CRI 81
	__ 4W-FL	30° / 62°	492	194	50	
	__ 4W-NO**	71° / 121°	55	81	21	

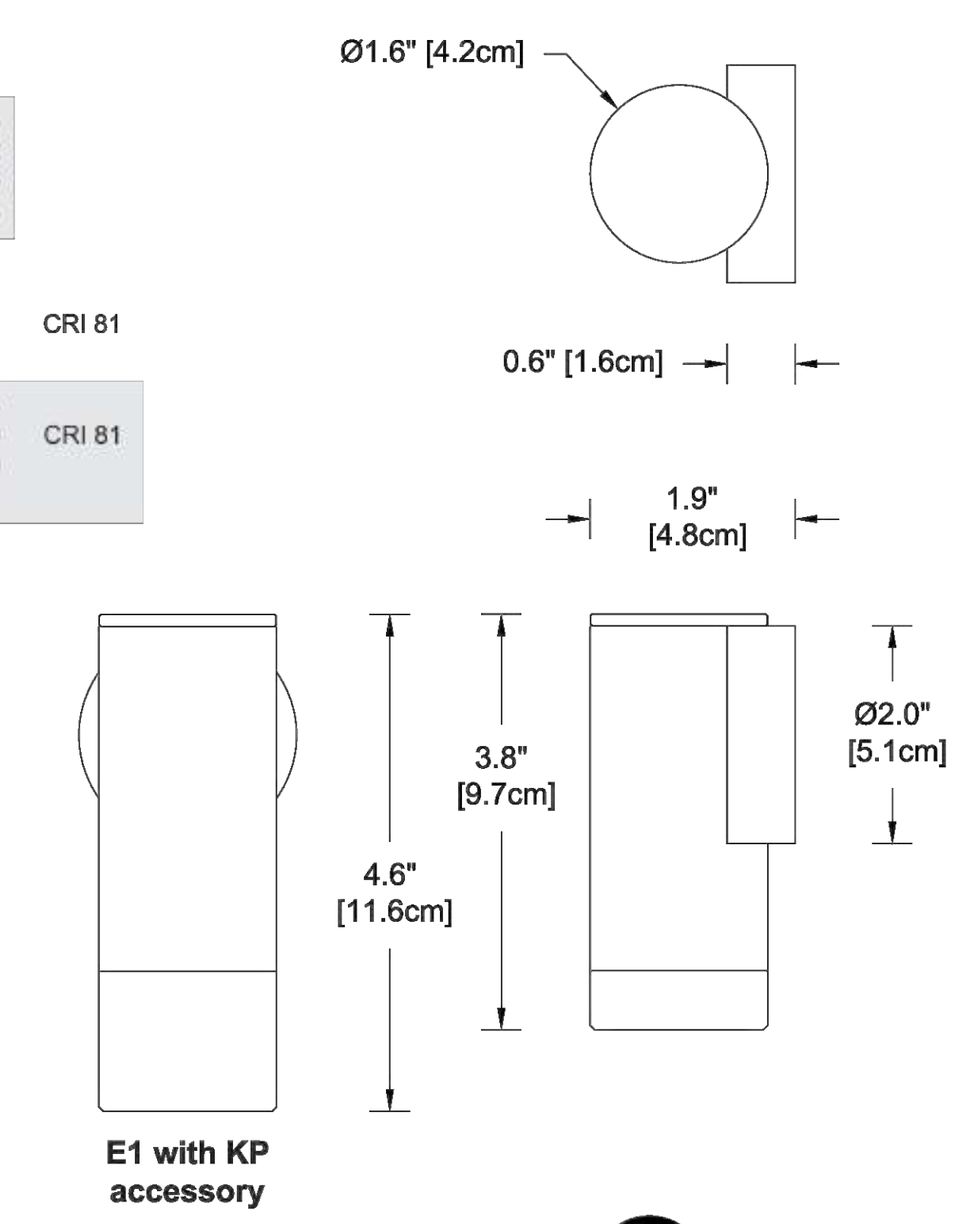
* Also available in 2700K. Add color suffix to lamp specification, e.g. "3W-NFL-2700K"

Optical Accessories Fixture can accommodate up to two 1/8" thick optical accessories or one accessory when used in conjunction with the 'NO' lamp optic option.

__ CTO-1/4-1.36 Color Temperature Orange filter 1/4
__ CTO-1/2-1.36 Color Temperature Orange filter 1/2
__ CTO-3/4-1.36 Color Temperature Orange filter 3/4
__ FR8 Frosted lens
__ HL8 Honeycomb louver, 1/8" [3mm] thick
__ KP Extended snoot
__ PR8 Prismatic spread lens
__ RT8 Rectilinear spread lens

Finish: Unfinished is standard; no specification required. The fixture will weather to a natural patina. The patina process is natural with brass and copper. Rate of patina and eventual color is dependent upon climate and proximity to the ocean. Thus, Beachside does not guarantee any specific appearance.





Weight: 1.3 lbs [0.6 kg]

IP 66
CSA Listed, file #190030
10 year fixture warranty
5 year Cree LED module warranty

SUITABLE FOR INDOOR AND OUTDOOR USE

Project	By	Date
For ordering purposes, please specify (example: **E1—2W-A-FL—FR8**)		
E1 Fixture	Lamp	Accessory(ies)

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FIXTURE B

L-016-F

The L-016-F recessed fixture combines the flexibility of a standard MR16 lamp with the corrosion resistance expected of a Beachside fixture. The gasket on the brass trim securely seals up against the bottom of the recessed, stainless steel can and the frame is powder-coated steel. An internal brass bracket assembly allows 360° rotation and angling up to 28° without an optical accessory (no beam cutoff with 40° flood lamp) or 10° with. The L-016-F is intended for new construction applications and is integrated with magnetic transformers (120V primary, 12V secondary). The "-F" designation denotes the flat trim versus the raised trim of the L-016.

Housing Recessed ceiling fixture for new construction.

Mounting Lamp housing is removable through ceiling aperture for access to junction box. Housing can be lowered and adjusted to ceiling thickness. Dual extension hanger bars span from 15" (38.1 cm) to 25-1/4" (64.1 cm) with reversible placement feature. Bars attach to sides along length or width of mounting frame. Hanger bars may be extended to rest on T-bar grid. For insulated ceilings, maintain a minimum 3" clearance around fixture.

Electrical Magnetic, Class H transformer with Molex disconnect in j-box is fully dimmable with magnetic low voltage dimmers. Transformer has internal thermal protection. J-box has (4) 1/2" K.O.'s and (2) concentric 1/2" x 3/4" K.O.'s with spring latch access plates. Suitable for Wet Location Use.

Lenses Tempered soda lime glass.
__ CL Clear
__ FR Frosted

Lamps MR16 LED • GU5.3

Cree chipset Warm White (3000K)	__ 5W-SP	5 Watt	15° spot	320 lm	
	__ 5W-NFL	5 Watt	25° narrow flood	320 lm	
	__ 5W-FL	5 Watt	40° flood	320 lm	
	__ 5W-FL/60	5 Watt	60° flood	320 lm	
	__ 5W-WFL	5 Watt	100° wide flood	320 lm	
Lumiled chipset Warm White (3000K)	__ 7W-NFL	7 Watt	25° narrow flood	483 lm	
	__ 7W-FL	7 Watt	40° flood	487 lm	
	__ 7W-WFL	7 Watt	60° wide flood	483 lm	
Soraa chipset Warm White (3000K)	__ 8W-SP	8 Watt	10° spot		
	__ 8W-NFL	8 Watt	25° narrow flood		
	__ 8W-FL	8 Watt	36° flood		
Cree chipset AMBER (1500K)	__ 5W-A-NFL TURTLE FRIENDLY	5 Watt	25° narrow flood	83 lm	
Cree XPG3 triple-LED light engines					
AMBER (1459K) TURTLE FRIENDLY	__ 7W-A-FL	7 Watt	66° Beam, 109° Field	61 lm	48 cd
RED-ORANGE (1000K) TURTLE FRIENDLY	__ 10W-RO-NFL	10 Watt	27° Beam, 43° Field	212 lm	884 cd
	__ 10W-RO-FL	10 Watt	51° Beam, 78° Field	192 lm	254 cd
Warm White (3000K)*	__ 11W-NFL	11 Watt	30° Beam, 52° Field	678 lm	2197 cd
	__ 11W-FL	11 Watt	46° Beam, 79° Field	585 lm	864 cd

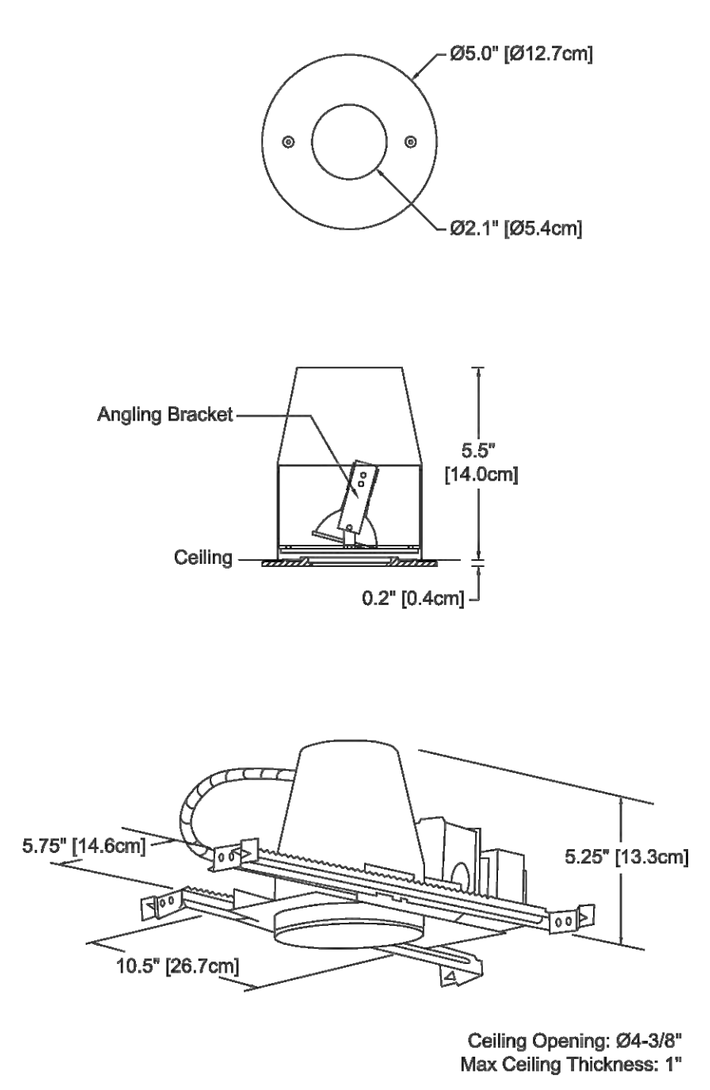
* Also available in 2700K. Add color suffix to lamp specification, e.g. "11W-NFL-2700K"

Accessories (only one available)
__ HL-LBTZ Honeycomb louver, 1/8" (3mm) thick, for 11W light engine
__ HL-MR16 Lamp-attached honeycomb louver, 1/8" (3mm) thick
__ PR-MR16 Lamp-attached prismatic spread lens

Finish
__ FIN-BK Black Acid Finish
__ FIN-DB Dark Bronze Acid Finish
__ FIN-NA Nickel Acid Finish
__ FIN-WH White Powder Coating

Unfinished is standard; no specification required. The fixture will weather to a natural patina. The patina process is natural with brass and copper. Rate of patina and eventual color is dependent upon climate and proximity to the ocean. Thus, Beachside does not guarantee any specific appearance.





Weight: 7 lbs [3.2 kg]

IP 66
CSA Listed, file #190030
10 year fixture warranty
3 year LED module warranty
3 year warranty of MR16 LED lamps

SUITABLE FOR INDOOR USE UP TO 12W LED

Project	By	Date		
For ordering purposes, please specify (example: **L-016-F—CL—5W-FL—HL-MR16—FIN-BK**)				
L-016-F Fixture	Lens	Lamp	Accessory	Finish (if any)

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FIXTURE C

LiGMAN

Outdoor | Underwater luminaires | BORNHOLM

BORNHOLM 2 (BOH-60011)

CE IP68 IK07

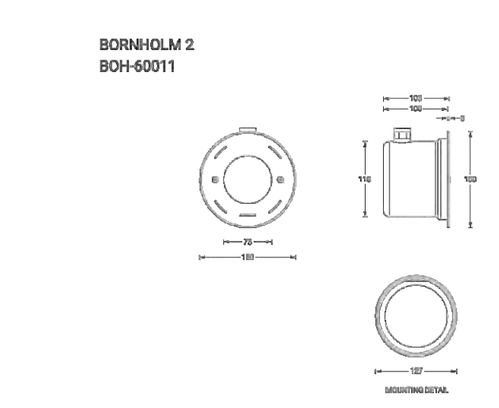


Luminaire structure

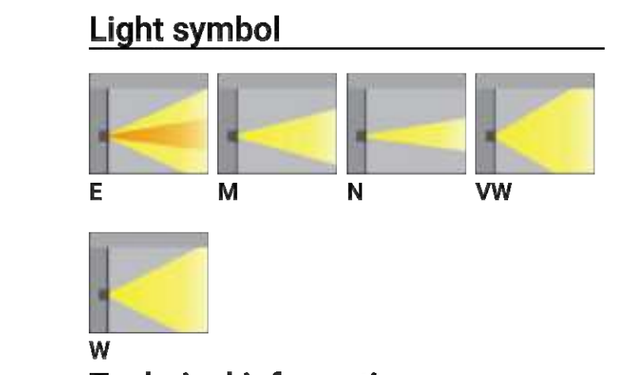
- Stainless steel body in grade 316
- Single cable entry
- One cable gland supplied with 2 m of 2x1.0 sqmm outdoor cable
- Stainless steel fasteners in grade 316
- Durable silicone rubber gasket
- Clear toughened glass
- Remote driver (included)
- Luminaire must be submerged when operational
- Recessing box in stainless steel 316 grade
- Remote box IP-rated is not included
- Maximum depth 2 m
- Outdoor cable needs to be ordered with a specific length

Product description

Without remote box IP-rated - With remote driver - Constant current (CC) 700 mA



Light symbol



Product colour



Technical information

Lamp	4 LED
Lamp type	LED
Dimming type	DALI, 1-10V, On/Off
EEC	A+
Material	Stainless Steel
Weight	1.6 kg
Operating temperature	-20 °C to 40 °C

Luminaire	
Power	11 W
Lumen	798 - 1068 lm
Efficacy	73 - 97 lm/W
CCT / CRI	3000K CRI80, 4000K CRI80
Drive current	700 mA

Optic	E [11°x41°], M [17°], N [11°], VW [71°], W [33°]
Bug	B1-U0-G0, B2-U0-G0
ULR	0%
ULOR	0%
CIE flux code nº3	100
MacAdam Ellipse	3 SDCM
Life time L90B10	90,000 hr
Life time L80B10	100,000 hr
Life time L80B50	140,000 hr

FIXTURE D

L-018

The L-018 is a cast brass, recessed steplight with louvers angled at 30° to eliminate glare. Minimal 0.2" extension from wall. Available for 12 Volt and 120 Volt applications.



Construction Cast brass components

Lenses
__ FR Tempered, frosted glass
__ RT Tempered, rectilinear spread lens

Mounting For masonry (non-combustible) installation only

12V Lamps GU5.3 • MR16 • Remote transformer required

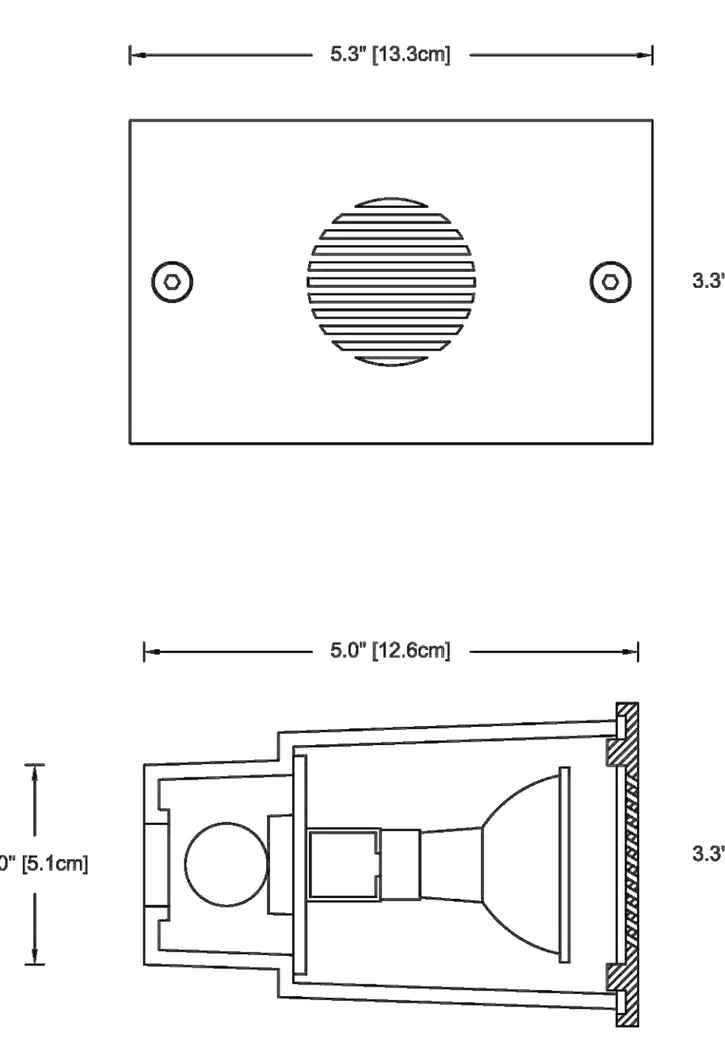
Halogen	__ JR-10/32	10 Watt	32° flood	
	__ ESX	20 Watt	12° spot	
	__ BBF	20 Watt	24° narrow flood	
	__ BAB	20 Watt	36° flood	
	__ FMT	35 Watt	12° spot	
	__ FMV	35 Watt	24° narrow flood	
	__ FMW	35 Watt	36° flood	
	__ EXT	50 Watt	12° spot	
	__ EXZ	50 Watt	24° narrow flood	
	__ EXN	50 Watt	36° flood	
Cree LED chipset AMBER (1500K)	__ 5W-A-NFL	5 Watt TURTLE FRIENDLY	25° narrow flood	
Cree LED chipset Warm White (3000K)	__ 5W-SP	5 Watt	15° spot	320 lm
	__ 5W-NFL	5 Watt	25° narrow flood	320 lm
	__ 5W-FL	5 Watt	40° flood	320 lm
	__ 5W-FL/60	5 Watt	60° flood	320 lm
	__ 5W-WFL	5 Watt	100° wide flood	320 lm
LED Warm White (3000K) Lumiled chipset (7W) Soraa chipset (8W)	__ 7W-NFL	7 Watt	25° narrow flood	483 lm
	__ 7W-FL	7 Watt	40° flood	487 lm
	__ 7W-WFL	7 Watt	60° wide flood	483 lm
	__ 8W-SP	8 Watt	10° spot	500 lm
	__ 8W-NFL	8 Watt	25° narrow flood	525 lm
	__ 8W-FL	8 Watt	36° flood	525 lm

120V Lamps GU10 • MR16 LED

Cree chipset AMBER (1500K)	__ 5W-A-NFL	5 Watt TURTLE FRIENDLY	25° narrow flood
Soraa chipset Warm White (3000K)	__ 8W-SP	8 Watt	10° spot
	__ 8W-NFL	8 Watt	25° narrow flood
	__ 8W-FL	8 Watt	36° flood

Accessory __ HL-MR16 Lamp-attached honeycomb louver, 1/8" [3mm] thick

Finish: Unfinished is standard; no specification required. The fixture will weather to a natural patina. The patina process is natural with brass and copper. Rate of patina and eventual color is dependent upon climate and proximity to the ocean. Thus, Beachside does not guarantee any specific appearance.



IP 67
10 year fixture warranty
3 year warranty on MR16 LED lamps

OUTDOOR USE AND NON-COMBUSTIBLE SURFACES ONLY

Project	By	Date
For ordering purposes, please specify (example: **L-018-120V—8W-NFL—HL-MR16**)		
L-018- Fixture	Lamp	Accessory

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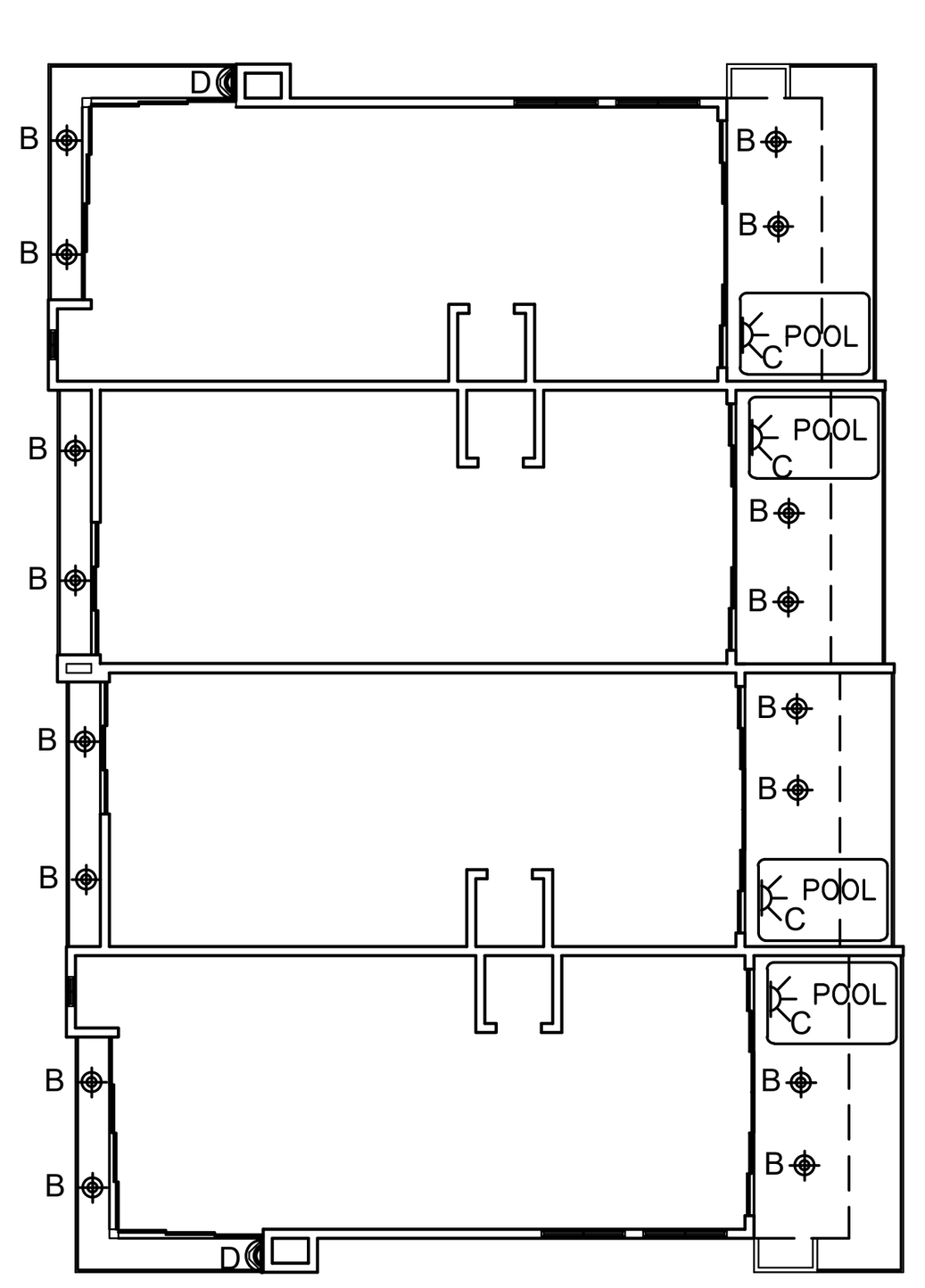
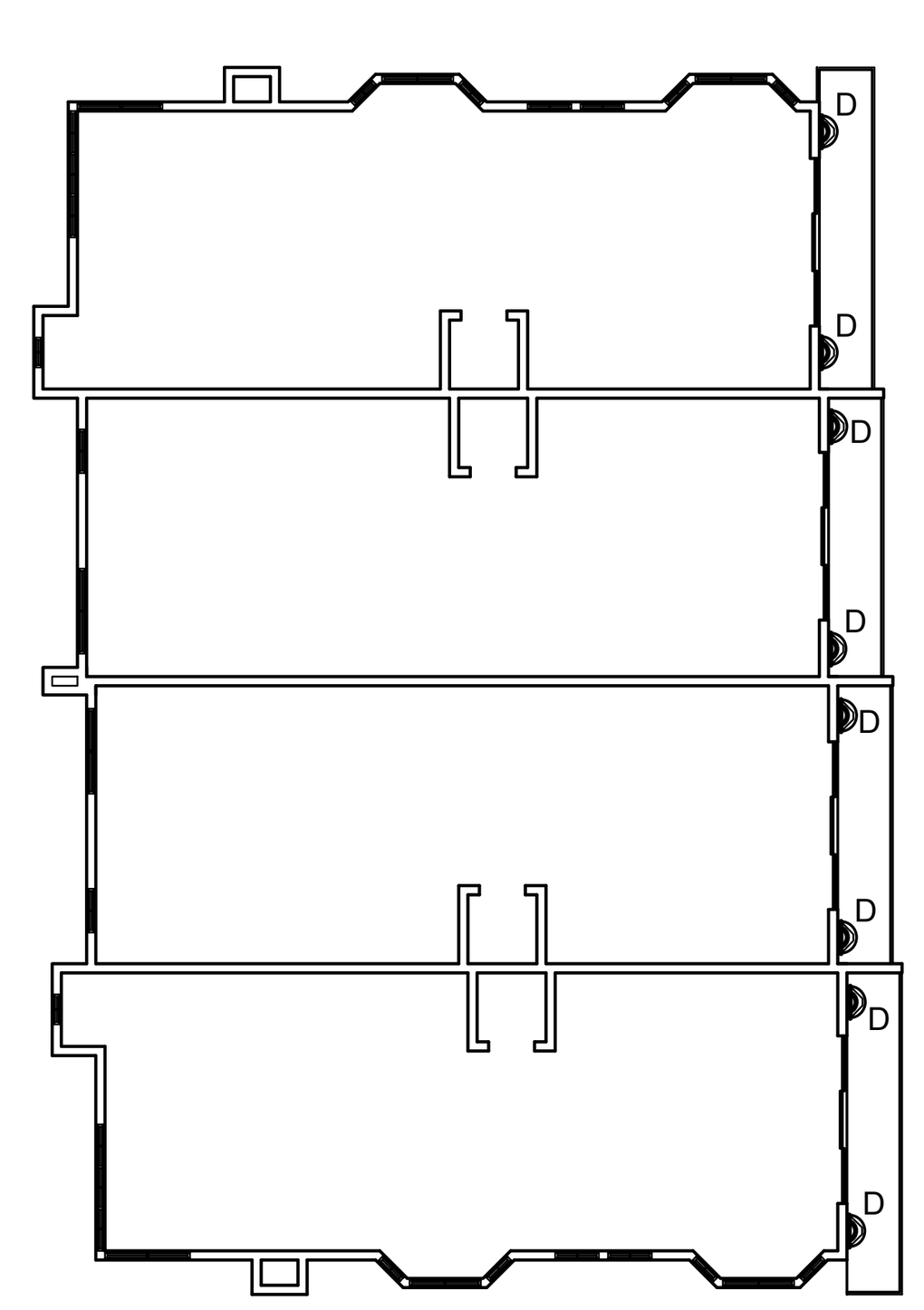
LIGHTING KEY

SYMBOL	FIXTURE	QUANTITY	BULB	MOUNT & HEIGHT	LOCATION	STRUCTURE LEVEL
A	BEACHSIDE LIGHTING E1-2W-A-NO	6	2 WATT LED AMBER	WALL MOUNT MAX 8'-0" AFF	LANDWARD	FIRST FLOOR
B	BEACHSIDE LIGHTING L-016-F-CL-5W-A-NFL	34	5 WATT LED AMBER	RECESSED CEILING ±12.5' ABOVE FINISH GRADE	(2) SHORE PERP (20) BEACHSIDE (12) LANDWARD	(18) FIRST FLOOR (16) SECOND FLOOR
C	LIGMAN BOH-60011	4	11 WATT LED AMBER	UNDERWATER	BELOW WATER	POOL & SPA
D	BEACHSIDE LIGHTING L-018-5W-A-NFL	48	5 WATT LED AMBER	WALL/STEP MOUNT 6" AFF MAX MAY NEED FIELD ADJUST & ADDITIONAL SHIELDING	(32) SHORE PERP (16) BEACHSIDE	(8) THIRD FLOOR (8) FOURTH FLOOR (32) ROOFTOP

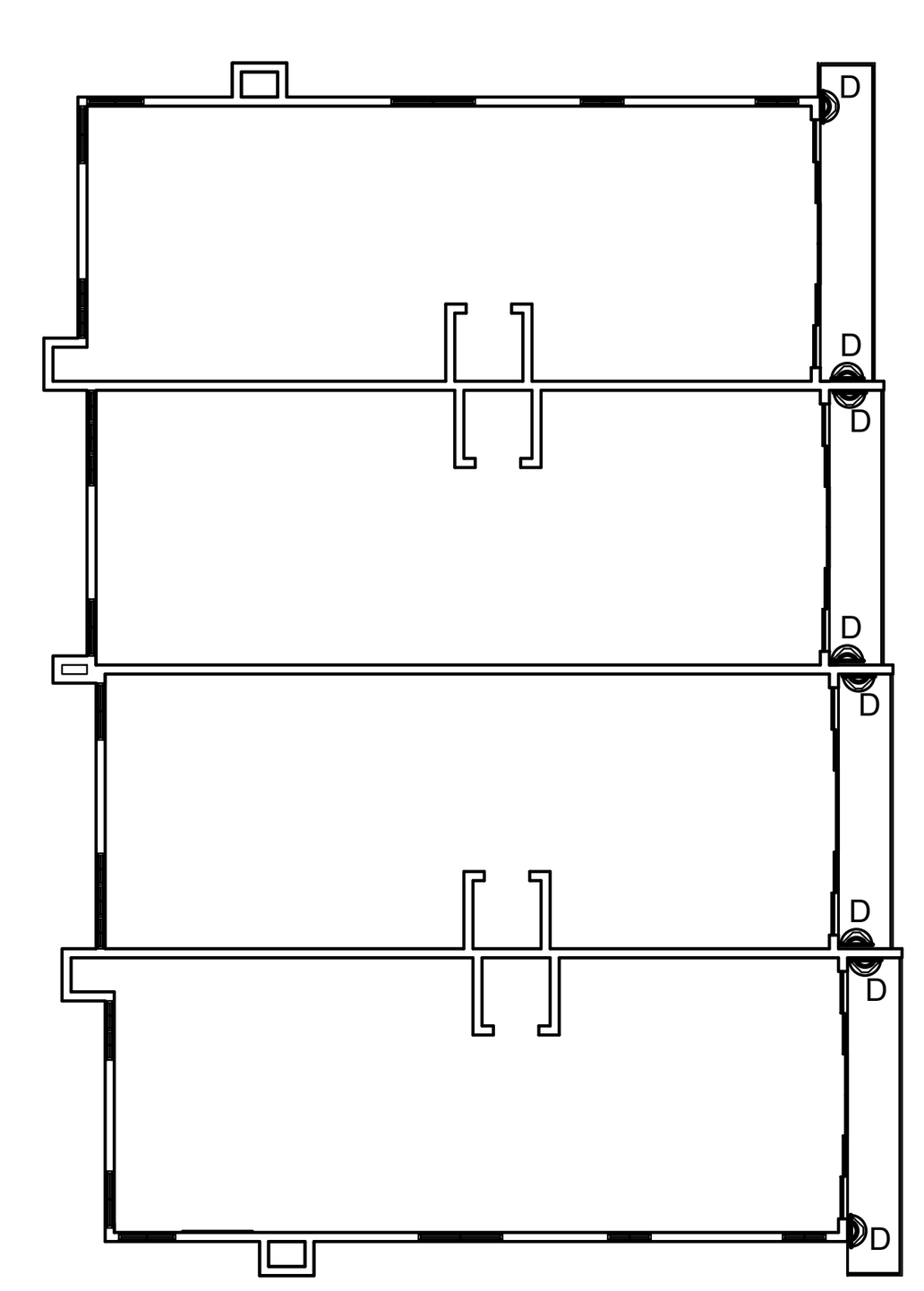
NOTE: ALL WINDOWS, DOORS, AND WALLS ON THE SEAWARD AND SHORE PERPENDICULAR SIDES OF THE BUILDING MUST HAVE TINTED GLASS OR FILM WITH A VISIBLE LIGHT TRANSMITTANCE OF 45% OR LESS (ALTHOUGH A VISIBLE LIGHT TRANSMITTANCE OF 15% OR LESS IS RECOMMENDED).



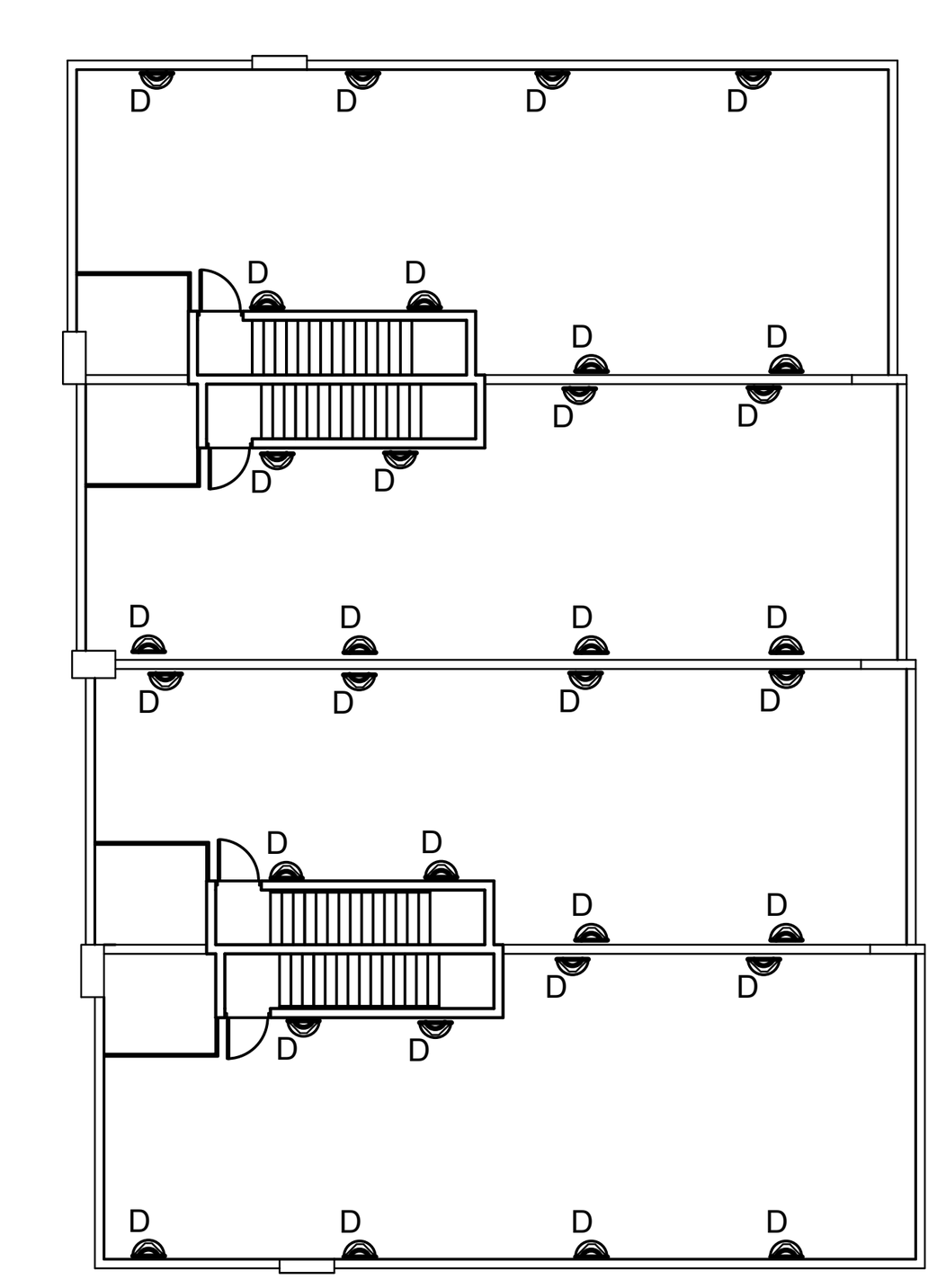
SECOND FLOOR LIGHTING



THIRD FLOOR LIGHTING



FOURTH FLOOR LIGHTING



ROOFTOP LIGHTING

DATE	REVISION	MARK

DRAWING 21-008 CONST
DESIGNED JBB DRAWN JBB
CHECKED JBB
SCALE 1"=10' DATE 04/16/21

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SCHULKE, BITTLE & STODDARD, L.L.C.
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CERTIFICATION OF AUTHORIZATION NO.: 00008668
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TEL 772-770-9622 FAX 772-770-9496 EMAIL jbittle@sbsengineers.com
WEBSITE https://www.sbsengineers.com

LIGHTING PLAN

SURFSIDE QUAD PLEX

ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57396 STATE OF FLORIDA PROFESSIONAL ENGINEER

JODAH B. BITTLE
FL. REG. NO. 57396
DocuSigned by: Jodah Bittle
A99EF7669C6C46B...
DATE: 4/30/2021

PROJECT NO. 21-008
SHEET 13

DocuSign Envelope ID: D4A745A1-8C13-42A7-B7A0-838D716D80AB

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NORTH

PROJECT SITE

COASTAL CONSTRUCTION CONTROL LINE (SEPTEMBER 15, 1988) PLAT BOOK 26 PAGE 26, ST. LUCIE COUNTY

COASTAL CONSTRUCTION CONTROL LINE (1972) PLAT BOOK 19 PAGE 8, ST. LUCIE COUNTY

SR A-1-A

HIGH BRIDGE BLVD

ATLANTIC OCEAN

MEAN HIGH WATER LINE

FLORIDA STATE PLANE COORDINATES NAD 83 /90 US SURVEY FT.(1707) N 1533626.35 E 899609.09 FOUND 3"X4" IRON PIPE

FCM N68°56'10"E 39.39'

FLORIDA STATE PLANE COORDINATES NAD 83 /90 US SURVEY FT.(1707) N 1533626.35 E 899609.09 FOUND 3"X4" CONCRETE MONUMENT

N68°56'10"E 150'(PLAT) 235'(COUNTY)

COASTAL CONSTRUCTION CONTROL LINE (1972) PLAT BOOK 19 PAGE 8, ST. LUCIE COUNTY

UNIT_1	
FIRST FLR.:	622 S.F.
SECOND FLR.:	1194 S.F.
THIRD FLR.:	1194 S.F.
FOURTH FLR.:	1194 S.F.
TOTAL LIVING:	3982 S.F.
GARAGE:	492 S.F.
TOTAL:	4474 S.F.
UNIT_2	
FIRST FLR.:	611 S.F.
SECOND FLR.:	1182 S.F.
THIRD FLR.:	1182 S.F.
FOURTH FLR.:	1182 S.F.
TOTAL LIVING:	3853 S.F.
GARAGE:	475 S.F.
TOTAL:	4328 S.F.
UNIT_3	
FIRST FLR.:	611 S.F.
SECOND FLR.:	1182 S.F.
THIRD FLR.:	1182 S.F.
FOURTH FLR.:	1182 S.F.
TOTAL LIVING:	3853 S.F.
GARAGE:	475 S.F.
TOTAL:	4328 S.F.
UNIT_4	
FIRST FLR.:	622 S.F.
SECOND FLR.:	1194 S.F.
THIRD FLR.:	1194 S.F.
FOURTH FLR.:	1194 S.F.
TOTAL LIVING:	3982 S.F.
GARAGE:	492 S.F.
TOTAL:	4474 S.F.

2-CAR GARAGE

10' BLDG SETBACK

CONSTRUCTION CONTROL LINE (1972) PLAT BOOK 19 PAGE 8, ST. LUCIE COUNTY

CCCL (1988) PLAT BOOK 26 PAGE 26

FLOOD ZONE VE-16'

FLOOD ZONE VE-18'

FLOOD ZONE VE-20'

FLOOD ZONE VE-22'

FLOOD ZONE VE-24'

FLOOD ZONE VE-25'

BEACH DUNE

SCHULKE, BITTLE & STODDARD, L.L.C.
CIVIL & STRUCTURAL ENGINEERING LAND PLANNING . ENVIRONMENTAL PERMITTING
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MARK	REVISION	DATE

DRAWING 21-008 CONST
DESIGNED JBB | DRAWN JBB
CHECKED JBB | DATE 04/16/21
SCALE 1:20

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MISCELLANEOUS DETAILS

SURFSIDE QUAD PLEX

ENGINEER CERTIFICATION

JODAH B. BITTLE LICENSE No 57396 STATE OF FLORIDA PROFESSIONAL ENGINEER

JODAH B. BITTLE
FL REG. NO. 57396
DATE: 4/30/2021

Docusigned by: Joan Bittle

PROJECT NO. 21-008
SHEET 14

Landscape Data

Landscape Strip Adjacent to Public R.O.W

Ten (10) feet wide minimum landscape Strip.
One (1) tree for each three hundred (300) square feet of required landscaped area.

Surfside Drive (West) : 54 LF x 10 = 540 sf

Trees Required: (540 sf / 300) = 2 Trees
Trees Provided: = 3 Trees

Landscape Strip Adjacent to Other Property

Ten (10) feet wide minimum landscape Strip.
One (1) tree for each three hundred (200) square feet of required landscaped area.

North Property Line : 84 LF x 10 = 840 sf

Trees Required: (840 sf / 200) = 4 Trees
Trees Provided: = 6 Trees

South Property Line : 84 LF x 10 = 840 sf

Trees Required: (840 sf / 200) = 4 Trees
Trees Provided: = 12 Trees

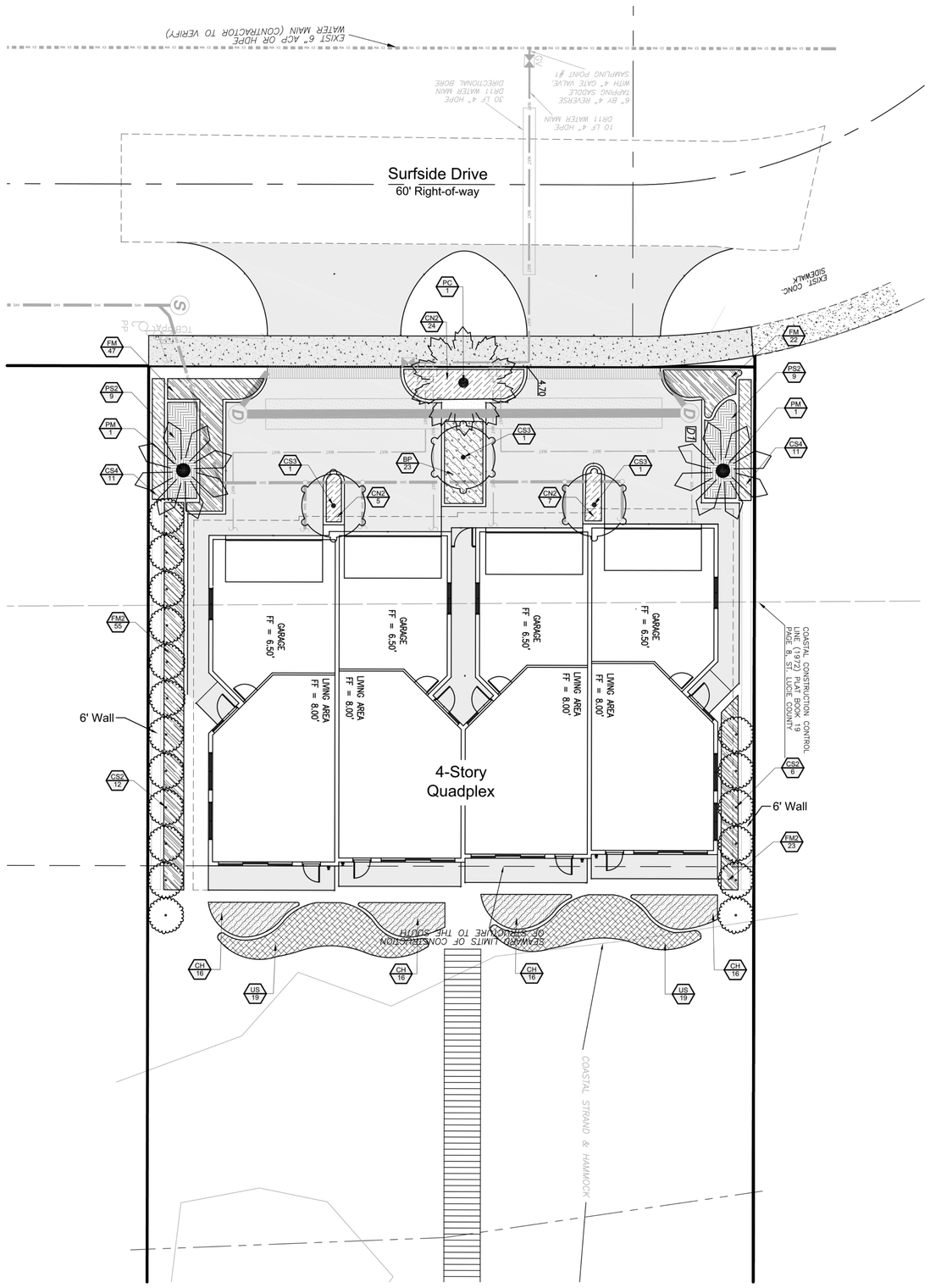
Interior Vehicular Use Areas

Trees Required: = 3 Trees
Trees Provided: = 3 Trees

Fort Pierce Landscape Notes

1. Plant materials shall meet or exceed the standards for Florida No. 1 as set out in the most current edition of "Grades and Standards for Nursery Plants Part 1 and Part 2.", State of Florida, Department of Agriculture, Tallahassee.
2. All trees required by this article (excluding palms that are exempt from the grades and standards) shall have a Florida No. 1 or better "Grades and Standards" certification tag attached at time of delivery through final inspection.
3. Grass sod shall be clean and free of weeds, pests and diseases.
4. Planting soil for all landscaped areas shall consist of existing soil mixed with fifty (50) per cent recycled top soil. Such planting soil shall be generally indigenous to the locale, free of debris, roots, clay, stones, plants or other foreign materials. The planting soil shall extend to an appropriate depth so as to eliminate any hindrance to planting operations or detriment to good plant growth. Compliance with these soil requirements shall be verified as part of the final inspection.
5. Landscaped areas shall be covered in their entirety with shrubs, ground cover, turf, or three (3) inches of bulk organic mulch or other suitable material which permits percolation and is approved by the department.
6. Do not place any soil or mulch over the root ball. If stakes or guide wires are used to support a tree, the wire must be covered with protective material where it is in contact with the tree and the stakes or guide wires must be removed after one year.
7. All landscaping must be protected from vehicular and pedestrian traffic by the installation of curbing, wheel stops or other protective devices along the perimeter of any landscaping which adjoins vehicular use areas or sidewalks. These protected devices shall have a minimum height of six (6) inches above grade.
8. No parking, display of vehicles or outside storage or display of merchandise is permitted in or over any required landscape area, nor are vehicles permitted to overhang any required landscaped area
9. To minimize traffic hazards at street or driveway intersections, all landscaping installations must provide unobstructed views.
10. Any irrigation system placed on city right-of-way will be the responsibility of the property owner who shall relocate, replace or repair the system as appropriate in the event it is damaged due to permitted construction in the right-of-way
11. Prior to issuance of certificate of occupancy, final landscape installation shall be certified as complete and in conformance to the approved landscape plan by submission of a certification letter by a landscape architect.
12. Property owners shall maintain all required landscaping so that it continues to present a healthy, neat and orderly appearance free of refuse and debris.
13. Vegetation required shall be replaced with equivalent vegetation if it is not living. All trees for which credit is awarded and which subsequently die shall be replaced by the same number of living trees.
14. Maintenance shall include sufficient weeding, watering, fertilizing, pruning, mowing, edging, mulching and other horticultural practices so as to assure that the landscaping continues to maintain a healthy, neat and orderly appearance.
15. No person shall, directly or indirectly, cut down, substantially alter, destroy, remove, relocate, damage or authorize any such act involving a protected tree situated on land within the city, without first obtaining a tree removal permit
16. Removal, trimming, pruning or alteration of any tree or vegetation in an existing utility easement or public right-of-way, provided such work is done by or under the control of the operating utility company and said company has received all necessary licenses or permits to provide utility service within the easement
17. This plan has been designed to meet the tree planting requirements contained within the FPL document entitled 'Plant the Right Tree in the Right Place'. For existing or proposed utilities, no tree shall be planted where it could, at a mature height conflict with overhead power lines.

A. Large trees (height at maturity of more than 30') shall be planted no closer than a horizontal distance of 30' from the nearest overhead power line.
B. Medium height trees (height at maturity between 20' and 30') shall be offset at least 20' and small trees (height at maturity of less than 20') require no offset.
C. No tree shrubs, hedges or vines shall be planted within 5' of an existing or proposed utility pole, guy wire or pad-mounted transformer.
D. Palms should be planted at a distance equal to or greater than the average frond length plus two (2) feet from power lines.



Scale: 1" = 10'

0' 5' 10' 20' 30'

North

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Surfside Quadplex

City of Fort Pierce
Florida

Landscape Plan

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REGISTERED LANDSCAPE ARCHITECT
CRAIG MICHAEL HOUSTON
LA0000905
STATE OF FLORIDA

Job No. 2021-12
Drawn By EB
Checked By MH
Approved By MH
Submittal Dates 4-30-21

Revision Dates

LP-1

Landscape Notes / Specifications

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL THE REQUIREMENTS STATED UNDER DIVISION I - GENERAL REQUIREMENTS AND CONDITIONS AS WELL AS THE SPECIFIC CRITERIA OUTLINED HEREIN AND ON THE LANDSCAPE DRAWINGS INCLUDING ADDENDA AS MAY BE ISSUED BY THE OWNER.

2. THE SCOPE OF WORK FOR THE LANDSCAPE CONTRACTOR FOR THIS PROJECT SHALL INCLUDE THE PROVISION OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE ALL TASKS ASSOCIATED WITH THE LANDSCAPE AND IRRIGATION INSTALLATION AS SHOWN ON THE DRAWINGS OR NOTED HEREIN. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE GENERAL CONTRACTOR REASONABLE ACCESS TO POWER AND POTABLE WATER SOURCES AS REQUIRED.

3. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING ALL WORK (INCLUDING DELIVERY, STORAGE AND DISPOSAL OF THEIR MATERIALS) IS PERFORMED IN COMPLIANCE WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THE WORK.

4. THE LANDSCAPE CONTRACTOR SHALL ASSIGN A QUALIFIED PROJECT MANAGER AND FIELD SUPERVISOR TO WORK DIRECTLY WITH THE LANDSCAPE ARCHITECT AND SUPERVISE THE WORK AT ALL TIMES THROUGH FINAL OWNER ACCEPTANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT PROJECT MANAGER HAS A COMPLETE, CURRENT SET OF DOCUMENTS ON-SITE AT ALL TIMES.

5. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH EXISTING SITE CONDITIONS AND NOTIFYING THE OWNER IN WRITING OF ANY CONCERNS PRIOR TO COMMENCEMENT OF WORK. THIS EVALUATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, VERIFICATION OF SURFACE AND SUBSURFACE UTILITIES, GRADES, DIMENSIONS AND SOIL CONDITIONS.

6. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH PROJECT PLANS AND SCOPES OF WORK RELATED TO ASSOCIATED TRADES TO BE PERFORMED BY OTHERS IN ORDER TO IDENTIFY KEY COORDINATION ITEMS INCLUDING, BUT NOT LIMITED TO, SITE ACCESS, MATERIAL STORAGE, SCHEDULING AND SEQUENCING OF WORK. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL SITE ISSUES WITH THE GENERAL CONTRACTOR.

7. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT WORK, MATERIALS AND EQUIPMENT FROM DAMAGE DUE TO THEIR ACTIVITIES. THE LANDSCAPE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY THAT MAY OCCUR AS A RESULT OF THE EXECUTION OF THEIR WORK.

8. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE AREA, MATERIALS AND EQUIPMENT WITHIN THE LIMITS OF WORK IN A SAFE, NEAT AND ORDERLY MANNER. EXCESS MATERIALS AND DEBRIS ARE TO BE REMOVED FROM THE WORK AREA NO LESS THAN WEEKLY OR AS DIRECTED BY THE GENERAL CONTRACTOR.

9. THE LANDSCAPE CONTRACTOR MUST TAKE PRECAUTIONS TO PROTECT ALL EXISTING SITE ROADS PARKING LOTS, CURBS AND UTILITIES FROM DAMAGE. THIS APPLIES NOT ONLY TO THE AREA WITHIN THE LIMITS OF WORK BUT ALSO ALONG ANY LOCAL ACCESS ROADS.

10. THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZE LOCAL PRACTICES.

11. THE LANDSCAPE CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR TO ENSURE THAT TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES (SILT FENCE, ORANGE GEO FENCE AND/OR OTHER MEASURES) ARE INSTALLED PRIOR TO BEGINNING EXCAVATION.

12. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL PLANT MATERIALS AND THE PLANTING AREAS UNTIL FINAL ACCEPTANCE BY THE OWNER.

13. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE AGRONOMIC EVALUATION OF SOIL CHARACTERISTICS. EVALUATION MUST INCLUDE CHEMICAL ANALYSIS BY A QUALIFIED AGRICULTURAL SOILS TESTING LABORATORY (CERTIFIED IN THE STATE OF FLORIDA). SOILS SAMPLE SHOULD BE TAKEN IMMEDIATELY FOLLOWING COMPLETION OF ROUGH GRADING ACTIVITIES AND SHOULD BE COLLECTED AT A RATE ON ONE SAMPLE FOR EACH 5,000 SQUARE FEET OF IMPACTED AREA, OR A TOTAL OF SIX, WHICHEVER IS GREATER. AT A MINIMUM THE CHEMICAL ANALYSIS OF THE SOIL SHOULD CONSIDER THE FOLLOWING:

- A. PERCENTAGE OF ORGANIC MATTER
- B. SALINITY
- C. PH
- D. LIME CONTENT
- E. MINERAL NUTRIENTS INCLUDING CONCENTRATIONS OF NITROGEN, PHOSPHOROUS, POTASSIUM, CALCIUM, MAGNESIUM, IRON, ZINC, MANGANESE, COPPER, SULFUR, AND MOLYBDENUM.
- F. POTENTIAL HAZARDS OR IMPEDIMENTS FOR PLANT GROWTH INCLUDING SALINITY, SODIUM CHLORIDE, BORON, IMPAIRED SOIL STRUCTURE OR DRAINAGE.
- F. SAND FRACTION ANALYSIS AS A PERCENTAGE PASSING THROUGH 1', ¼ , AND NO. 200 SIEVES
- H. PERCOLATION RATE IN INCHES PER HOUR.

THE ANALYSIS SHOULD ALSO INCLUDE SPECIFIC RECOMMENDATIONS TO THE OWNER FOR ANY AMENDMENTS AND BACKFILL MIXES FOR OPTIMAL PLANT GROWTH TO BE MADE TO THE SOILS PRIOR TO PLANTING. THE CONTRACTOR SHOULD INCLUDE THE COST FOR SOIL AMENDMENTS. THE CONTRACTOR IS TO PROVIDE THE OWNER WITH COPIES OF ALL SOIL TESTING RESULTS. SUBMITTAL DOCUMENTATION MUST ALSO CONTAIN A GRAPHIC SITE PLAN DEPICTING LOCATIONS FROM WHICH EACH SAMPLE WAS DRAWN.

14. THE LANDSCAPE CONTRACTORS BASE BID FOR SOIL PREPARATION IS TO INCLUDE THE FOLLOWING WITH THE UNDERSTANDING THAT MIX DESIGN MAY NEED TO BE ADJUSTED BASED ON OUTCOME OF AGRONOMIC TESTING.

- A. TREES: 100% SITE SOIL WITH 5LB. TRIPLE SUPER PHOSPHATE PER CU. YD.
- B. SHRUBS: 100% SITE SOIL WITH OSMOCOTE CONTROLLER RELEASE FERTILIZER (14-14-14) PER MANUFACTURER'S RECOMMENDATION.
- C. THE SOILS TEST RESULTS TAKE PRECEDENCE OVER THE ITEMS NOTED IN A AND B ABOVE.

15. SHOULD OWNER AND LANDSCAPE CONTRACTOR AGREE WITH THE RECOMMENDATION OF THE TESTING AGENCY TO FURTHER AMEND THE SOILS THE CONTRACTOR'S CONTRACT WILL BE ADJUSTED ACCORDINGLY. THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT SAMPLES OF AMENDED SOILS TO BE RE-TESTED TO CONFIRM COMPLIANCE WITH RECOMMENDATIONS FOLLOWING THE SAME PROCEDURES AS THE ORIGINAL TESTS.

16. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE QUANTITIES OF EACH PLANT MATERIAL REQUIRED TO ADEQUATELY COVER THE AREA SHOWN ON THE LANDSCAPE PLANS AT THE PRESCRIBED SPACING AND NOTIFYING THE OWNER IMMEDIATELY OF ANY PERCEIVED DISCREPANCIES FOR RESOLUTION. THE PLANT SPACING CONTROLS BED LAYOUT, NOT THE PLAN QUANTITY FOR THAT PARTICULAR BED.

FINE GRADING NOTES

1. FINISHED GRADE IN PLANTING AREAS SHALL BE HELD 3" BELOW THE FINISHED ELEVATIONS SHOWN FOR ALL ADJACENT HARDSCAPE SURFACES.

2. ALL FILL REQUIRED SHALL BE CLEAN, WELL DRAINING SOIL. FILL SHALL BE CLEAN AND FREE OF ALL MATERIAL HARMFUL TO PLANT GROWTH AND DELETERIOUS MATERIAL SUCH AS ROCKS (LARGER THAN 2" DIA.), COMPACTED CLAY, ROADBED OR SURFACING MATERIAL, MUCK, ROOTS AND BRANCHES. ETC.

3. THE LANDSCAPE CONTRACTOR IS TO ENSURE THAT THEIR WORK DOES NOT ADVERSELY IMPACT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS.

INSTALLATION NOTES

1. PLANT AND LANDSCAPE MATERIALS SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1, AS GIVEN IN THE GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I & II, AS PREPARED BY THE FLORIDA DEPT. OF AGRICULTURE AND CONSUMER SERVICES.
2. A 3" THICK LAYER OF ORGANIC NON-CYPRESS MULCH SHALL BE APPLIED TO ALL LANDSCAPE AND PLANTING AREAS.
3. ALL EXOTIC VEGETATION TO BE REMOVED FROM THE SITE PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
4. THIS PLAN HAS BEEN DESIGNED TO MEET WITH THE TREE PLANTING REQUIREMENTS CONTAINED WITHIN THE FPL DOCUMENT ENTITLED "PLANT THE RIGHT TREE IN THE RIGHT PLACE."
5. FOR EXISTING OR PROPOSED UTILITIES, NO TREE SHALL BE PLANTED WHERE IT COULD, AT MATURE HEIGHT, CONFLICT WITH OVERHEAD POWER LINES. LARGE TREES [HEIGHT AT MATURITY OF MORE THAN THIRTY (30) FEET] SHALL BE PLANTED NO CLOSER THAN A HORIZONTAL DISTANCE OF THIRTY (30) FEET FROM THE NEAREST OVERHEAD POWER LINE. MEDIUM HEIGHT TREE [HEIGHT AT MATURITY BETWEEN TWENTY (20) AND THIRTY (30) FEET] SHALL BE OFFSET AT LEAST TWENTY (20) FEET AND SMALL TREES [HEIGHT AT MATURITY OF LESS THAN (20) FEET] REQUIRE NO OFFSET.
6. NO TREE, SHRUBS, HEDGES OR VINES SHALL BE PLANTED WITHIN FIVE (5) FEET OF ANY EXISTING OR PROPOSED UTILITY POLE, GUY WIRE OR-PAD MOUNTED TRANSFORMER. PALMS SHOULD BE PLANTED AT A DISTANCE E UAL TO OR GREATER THAN THE AVERAGE FRONT LENGTH PLUS TWO (2) FEET FROM POWER LINES.
7. WETLAND BUFFERS, BUFFER PROTECTION AREAS, AND UPLAND PRESERVE AREAS SHALL BE PROTECTED FROM EXCAVATION, CONSTRUCTION, AND OTHER BUILDING MAINTENANCE ACTIVITIES.
8. TREES TO REMAIN DURING CONSTRUCTION SHALL BE PROTECTED AND BARRICADED. SEE TREE PROTECTION NOTE.
9. FERTILIZER SHALL BE COMPLETE WITH APPROXIMATELY THE FOLLOWING RATIO: 3N-1P-3K (+1MG FOR PALMS ONLY)
10. TREES AND PALMS ARE TO BE PLANTED IN ACCORDANCE TO LANDSCAPE PLAN. GOOD HORTICULTURAL PRACTICES MUST BE OBSERVED.
11. TREES AND PALMS ARE TO BE PLANTED IN THE RIGHT-OF-WAY (ROW) AT A MINIMUM OF FOUR (4) FEET FROM BACK OF CURB AT LOCATIONS IDENTIFIED ON THE LANDSCAPE PLAN. AWARDED BIDDER SHALL STAKE AND/OR PAINT PLANTING LOCATIONS IN THE FIELD. UPON APPROVAL BY THE CUSTOMER, THESE AREAS SHALL BE SPRAYED WITH AN APPROVED HERBICIDE AND MAINTAINED WEED-FREE FOR THE DURATION OF THE PROJECT.
12. EXCAVATE PLANTING HOLES WITH VERTICAL SIDES. DO NOT DISTURB SOIL AT BOTTOM OF PLANTING HOLES. MAKE EXCAVATIONS TWICE AS WIDE AS THE ROOT BALL DIAMETER AND SLIGHTLY LESS (TWO INCHES) THAN THE DISTANCE BETWEEN THE TOP-MOST ROOT IN THE ROOT BALL AND THE BOTTOM OF THE ROOT BALL. ALTERNATIVELY, EXCAVATE THE HOLE SLIGHTLY WIDER THAN THE ROOT BALL AND PLACE THE ROOT BALL IN THE HOLE SO THE TOP-MOST ROOT IS EVEN WITH OR SLIGHTLY (2 INCHES) HIGHER THAN THE SURROUNDING LANDSCAPE GRADE. THEN, LOOSEN THE SURROUNDING SOIL OUT TO A DIAMETER EQUAL TO TWICE THE DIAMETER OF THE ROOT BALL. FINALLY, PUSH THE LOOSENED SOIL TOWARD THE ROOT BALL TO FILL THE HOLE.

    IF WATER FILLS THE BOTTOM OF THE PLANTING HOLE, ADD SOIL TO THE BOTTOM OF THE HOLE UNTIL THE WATER IS COVERED. PACK THIS ADDED SOIL FIRMLY. PLACE THE ROOT BALL ON THIS PACKED, SOLID SOIL, NOT IN WATER. NO PART OF THE ROOT BALL SHALL BE PLACED IN WATER. IF NECESSARY, BRING IN SOIL SIMILAR TO SITE SOIL TO COVER THE SIDES OF THE ROOT BALL, CREATING A RAISED MOUND. THE BASE OF THE MOUND (I.E. THE OUTER DIAMETER) CREATED SHALL BE AT LEAST SIX TIMES THE DIAMETER OF THE ROOT BALL.

    WHEN PLANTING ON A SLOPE, THE TOP-MOST MAIN ROOT IN THE ROOT BALL SHALL BE EVEN WITH THE GRADE ON THE UPHILL SIDE OF THE TREE. SITE SOIL WILL NEED TO BE ADDED ON THE DOWNHILL SIDE TO COVER THE SIDES OF THE ROOT BALL AND TO CONSTRUCT THE SOIL BERM TO HOLD WATER. THE AMOUNT OF SOIL ADDED ON THE DOWNHILL SIDE WILL DEPEND ON THE SLOPE AND SIZE OF THE ROOT BALL.
13. REMOVE ALL WOOD, PLASTIC, OR GRO-BAGS FROM THE ROOT BALL. SET PLANTS IN CENTER OF HOLES WITH THE TOP-MOST ROOT IN THE ROOT BALL AT THE SAME HEIGHT OR SLIGHTLY (2 INCHES) HIGHER THAN FINISHED LANDSCAPE GRADES AND PLUMB THE TREE SO THE TRUNK IS VERTICAL. BACKFILL FIELD SOIL AROUND SIDES OF ROOT MASS AND WORK EACH LAYER TO SETTLE AND ELIMINATE VOIDS AND AIR POCKETS. MATERIAL MUST BE WATERED IN AS PLANTED. PROVIDE APPROXIMATELY 5 GALLONS OF WATER PER INCH OF TRUNK CALIPER TO THE ROOT BALL ONCE ALL BACKFILL IS FILLED IN AROUND THE ROOT BALL.
14. PROVIDE A 2-3" HIGH SOIL BERM AROUND THE EDGE OF ROOT BALL TO FORM A SHALLOW SAUCER TO COLLECT WATER. THE WATERING SAUCER, REGARDLESS OF HOLE SIZE, IS TO BE AT EDGE OF ROOT BALL. ALTERNATIVELY, COBRA EDGING IS TO BE INSTALLED AT THE EDGE OF THE ROOT BALL.
15. BROADCAST OVER THE ROOT BALL AND BACKFILL SOIL, AT THE RECOMMENDED RATE, A BROAD-SPECTRUM PRE-EMERGENT HERBICIDE PRIOR TO MULCHING.
16. APPLY A CONTROLLED-RELEASE FERTILIZER TO THE SOIL SURFACE UNDER THE MULCH AT 1LB. NITROGEN PER 1000 FT2, PRIOR TO MULCHING. NO OTHER AMENDMENTS ARE NECESSARY.
17. ON TREES UP TO 4" CALIPER, APPLY A THREE (3) -INCH LAYER OF MULCH TO AN EIGHT (8) -FOOT DIAMETER CIRCULAR AREA AROUND THE TRUNK. ON LARGER CALIPER TREES, APPLY A TWO (2) -FOOT DIAMETER MULCH AREA FOR EACH INCH OF TRUNK CALIPER. NO MULCH SHALL BE APPLIED TO THE INNER HALF OF THE ROOT BALL SURFACE.
18. TREES AND PALMS ARE TO BE SECURED BY AWARDED BIDDER AS SHOWN IN EXHIBITS A-C. (NOTE: STAKING IS OPTIONAL FOR MORE PROTECTED LOCATIONS).
19. A REPRESENTATIVE WILL INSPECT TREES AND PALMS DURING INSTALLATION. MATERIAL THAT IS IN SHOCK OR HAS BEEN DAMAGED DURING INSTALLATION SHALL BE REPLACED BY AWARDED BIDDER WITHIN FIVE (5) WORKING DAYS FROM NOTIFICATION.
20. REMOVE FROM WORK SITE ALL EXCESS MATERIALS (E.G., SOIL, DEBRIS AND EQUIPMENT) DAILY THROUGH DURATION OF PROJECT. DAMAGES RESULTING FROM INSTALLATION SHALL BE REPAIRED BY AWARDED BIDDER.
21. PRUNING: IF THERE IS A DOUBLE LEADER IN THE TOP HALF OF THE TREE, SHORTEN ONE, BY ABOUT ONE-HALF, BACK TO A LIVE BRANCH THAT POINTS AWAY FROM THE TREE AND IS AT LEAST ONE-THIRD THE DIAMETER OF THE CUT LEADER. REMOVE BROKEN PORTIONS OF DAMAGED BRANCHES BACK TO A LIVE LATERAL BRANCH.
22. REMOVE ALL STRING OR WIRE WRAPPED AROUND THE TRUNK. REMOVE ALL STRAPS, ROPE AND STRING USED TO LIFT THE ROOT BALL. REMOVE ALL BURLAP AND WIRE FROM THE TOP OF THE ROOT BALL.

ACCEPTANCE NOTES

1. INSPECTION TO DETERMINE ACCEPTANCE OF PLANTED AREAS WILL BE MADE BY THE CUSTOMER REPRESENTATIVE UPON AWARDED BIDDER'S REQUEST. PROVIDE NOTIFICATION A MINIMUM OF FIVE (5) WORKING DAYS BEFORE REQUESTED INSPECTION DATE.

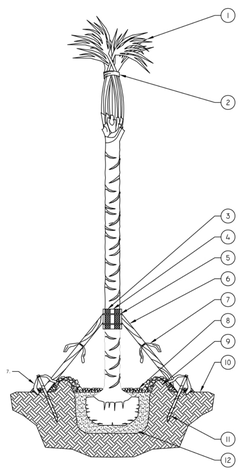
    PLANTED AREAS WILL BE ACCEPTED PROVIDED ALL REQUIREMENTS, INCLUDING MAINTENANCE, HAVE BEEN SATISFIED AND PLANT MATERIALS ARE IN A HEALTHY, VIGOROUS CONDITION.
2. THE CUSTOMER REPRESENTATIVE WILL PREPARE A "PUNCH LIST" OF THOSE ITEMS, WHICH MUST BE CORRECTED BEFORE RE-INSPECTION FOR FINAL ACCEPTANCE. THE REPRESENTATIVE WILL DETERMINE AN APPROPRIATE TIME PERIOD FOR CORRECTIONS. AWARDED BIDDER MUST REQUEST RE-INSPECTION TWO (2) WORKING DAYS IN ADVANCE.

PLANT SCHEDULE

TREES	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE
	CS2	18	Small Leaf Clusia / Clusia guttifera	8` - 10` Ht. x 4` -5` Spr, Std., 4 - 5` ct.	Yes
	CS3	3	Silver Buttonwood / Conocarpus erectus sericeus	2.5" DBH, 12` Ht. x 5` Spr. Min., Std., 5` ct.	Yes
PALMS	**CODE**	**QTY**	**COMMON / BOTANICAL NAME**	**SIZE**	**NATIVE**
	PC	1	Canary Island Date Palm / Phoenix canariensis	7` - 8` CT. Single Specimen	No
	PM	2	Date Palm / Phoenix dactylifera `Medjool`	12` - 13` CT, Single Specimen, Diamond Cut	No

PLANT SCHEDULE

SHRUB AREAS	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE	SPACING
BP	23	Purple Bougainvillea / Bougainvillea spectabilis `Purple`	3 gal., 16" - 18" Ht, Full, Compact Shrub form	No	24" o.c.
CH	64	Horizontal Cocoplum / Chrysobalanus icaco `Horizontalis`	3 gal., 12"-14" HT x 12"-14" Spr., Full	Yes	24" o.c.
CN2	36	Dwarf Pitch Apple / Clusia rosea `Nana`	3 gal., 12 - 14" HT. x 12 - 14" Spr., Full	No	24" o.c.
CS4	22	Silver Buttonwood / Conocarpus erectus sericeus	3 gal., 24" Ht. Min.	Yes	24" o.c.
FM2	78	Green Island Ficus / Ficus microcarpa `Green Island`	3 gal., 12 - 14" HT. x 12 - 14" Spr., Full	No	24" o.c.
FM	69	Green Island Ficus / Ficus microcarpa `Green Island`	3 gal., 12 - 14" HT. x 12 - 14" Spr., Full	No	20" o.c.
PS2	18	White Foutain Grass / Pennisetum setaceum `White`	3 gal, 36" o.c.	Yes	36" o.c.
US	38	Sea Oats / Uniola paniculata	3 gal., 24" Ht. Min.	Yes	36" o.c.



PALM TREE PLANTING

N.T.S.

NOTES:

A. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.

B. REMOVE BURLAP, WIRE AND STRAPS (ANYTHING THAT COULD GIRDLE TREE OR RESTRICT ROOT GROWTH) ON UPPER 1/3 OF ROOTBALL.

C. SEE LANDSCAPE NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.

I. MINIMUM OF NINE (9) GOOD PALM FRONDS

2. PRUNE AND TIE FRONDS WITH HEMP TWINE. CABBAGE PALMS TO BE "HURRICANE CUT"

3. 5 LAYERS OF BURLAP TO PROTECT TRUNK.

4. FIVE 2" X 4" X 18" WOOD BATTENS.

5. SECURE BATTENS WITH 2-3½" CARBON STEEL BANDS TO HOLD BATTENS IN PLACE. NO NAILS SHALL BE DRIVEN INTO PALM. HEIGHT OF BATTENS SHALL BE LOCATED IN RELATION TO THE HEIGHT OF THE PALM FOR ADEQUATE BRACING.

6. ATTACH 3-2" X 4" X 8' (DRILL AND NAIL IF NECESSARY) TO BATTENS AND 2" X 4" STAKES. FLAG AT MIDPOINT AND AT BASE.

7. PROVIDE FLAGGING

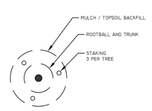
8. 3" MULCH

9. BERM SOIL TO HOLD WATER

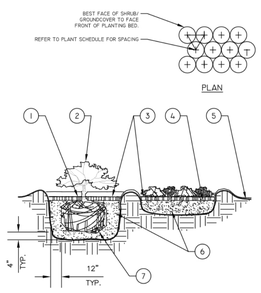
10. FINISH GRADE

II. 2" X 4" X 2½" (MIN.) P.T. WOOD STAKES (TYP.) NAIL TO SUPPORT POLES

I2. PREPARED PLANTING SOIL MIX AS SPECIFIED. COMPACT BENEATH ROOT BALL.



PLAN



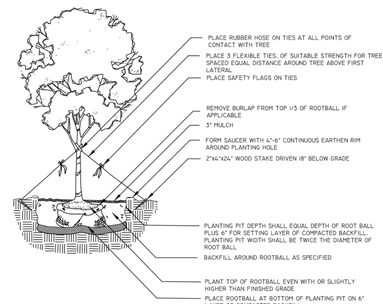
PLAN

SECTION

SHRUB/GROUNDCOVER PLANTING

N.T.S.

1. TOP OF SHRUB ROOTBALLS TO BE PLANTED 1" - 2" HIGH WITH SOIL MOUNDING UP TO THE TOP OF ROOTBALL.
2. WHEN USED IN MASSES- PRUNE ALL SHRUBS TO ACHIEVE A UNIFORM MASS/HEIGHT.
3. 3" MULCH AS SPECIFIED.
4. EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER BED.
5. 4" MINIMUM OF TOPSOIL TO BRING TO FINISHED GRADE (SEE GRADING PLAN).
6. PREPARED PLANTING SOIL AS SPECIFIED. NOTE: WHEN GROUND- COVERS AND SHRUBS USED IN MASSES ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED IN THE PLANTING SPECIFICATION.
7. SCARIFY ROOTBALL SIDES AND BOTTOM.



TREE PLANTING DETAIL

N.T.S.

HJA DESIGN STUDIO
LANDSCAPE ARCHITECTURE

50 E. Ocean Blvd., Suite 101
Stuart, Florida 34994

T 772.678.7200
F 772.678.7201

www.hjadesignstudio.com
LA 0000905

Surfside Quadplex

City of Fort Pierce, Florida

Landscape Specifications

Copyright
The following drawings are instruments of service to the Landscape Architect. They are not products of design. All ideas, designs, arrangements, and plans indicated or represented by this drawing are owned by and the property of the designer, and were created, evolved, and developed for use on and in connection with the specified project. None of such ideas, designs, arrangements or plans shall be used by or disclosed to any person, firm or corporation for any purpose whatsoever without the written permission of the designer.

REGISTERED LANDSCAPE ARCHITECT
CRAIG MICHAEL HOUSTON
LA0000905
STATE OF FLORIDA

Job No. 2021-12
Drawn By EB
Checked By MH
Approved By MH
Submittal Dates 4-30-21

Revision Dates

LP-2

JAMES E.
GILGENBACH
ARCHITECT

ARCHITECTURE
&
PLANNING
FL AR-7457

28 APRIL 2021

Brandon Creagan, Senior Planner
City of Fort Pierce, Planning Department
100 N US Highway #1
Fort Pierce, FL 34954

RE: Traffic Statement for proposed Surfside Quadplex
1700 Surfside Drive, Fort Pierce, FL

Dear Mr. Creagan:

Proposed project is a 4-unit Multi-Family Residential Quadplex. The Facility will feature Modern Architecture, Turtle Friendly Lighting, Space saving onsite Underground Exfiltration storm water collection and storage, Salt Tolerant Attractive Landscaping consistent with the surrounding Streetscape, and potential Sidewalk interconnectivity to the Condominium public Sidewalk to the North.

Existing Traffic Conditions:
Existing Property is vacant. No access is available. Per the 10th Edition of the ITE Trip Generation Manual, we utilized the coefficients associated with proposed Use Type Multi Family Residential, (**Use Type 220**) of 7.78 Trips Per Day, Per Unit, resulting in a calculated Estimated number of Daily Trips of (4) x 7.78 per day of 31.1 **(32) Trips per day**. Surrounding area roads and parking lots do not appear to be at or near capacity.

Traffic Distribution from Proposed Development:
Per Site Access requirements and accepted Best Practices, the North project entry is proposed to be located about 15 feet South of the North West property corner, along city residential street Surfside Drive. Approximately 80% of Trips are expected to arrive from or depart to the North, towards the intersection with SR A1A.

Traffic Statement Summary:
Based on Concurrency Management Chapter 22-217, Average Peak traffic conditions are conducted during weekday hours from 6 a.m. -9 a.m. for AM counts and 4 p.m. -7 p.m. for PM counts.

Based on the attached ITE Manual Hourly breakdown for our specific Use Type 220 Multi Family, and 32 Trips per day for the 4 Units, the Average Hourly Total Entering & Exiting A.M. Trip ITE estimation is 12% of that, or 4 Trips, and the Average Hourly Total Entering & Exiting P.M. Trip ITE estimation is 17 % of that, or 6 Trips.

Accordingly, this facility will generate a change in current trip volume of less than 1%. Number of inbound and outbound trips will remain essentially unchanged. The area arterial and secondary roadway system will remain at its current Level of Service.

The project has de minimis impacts on roadway links within a 1-mile radius and is in compliance with the Concurrency Plan of the City of Fort Pierce.

If you have any questions concerning this matter, please feel free to call me.

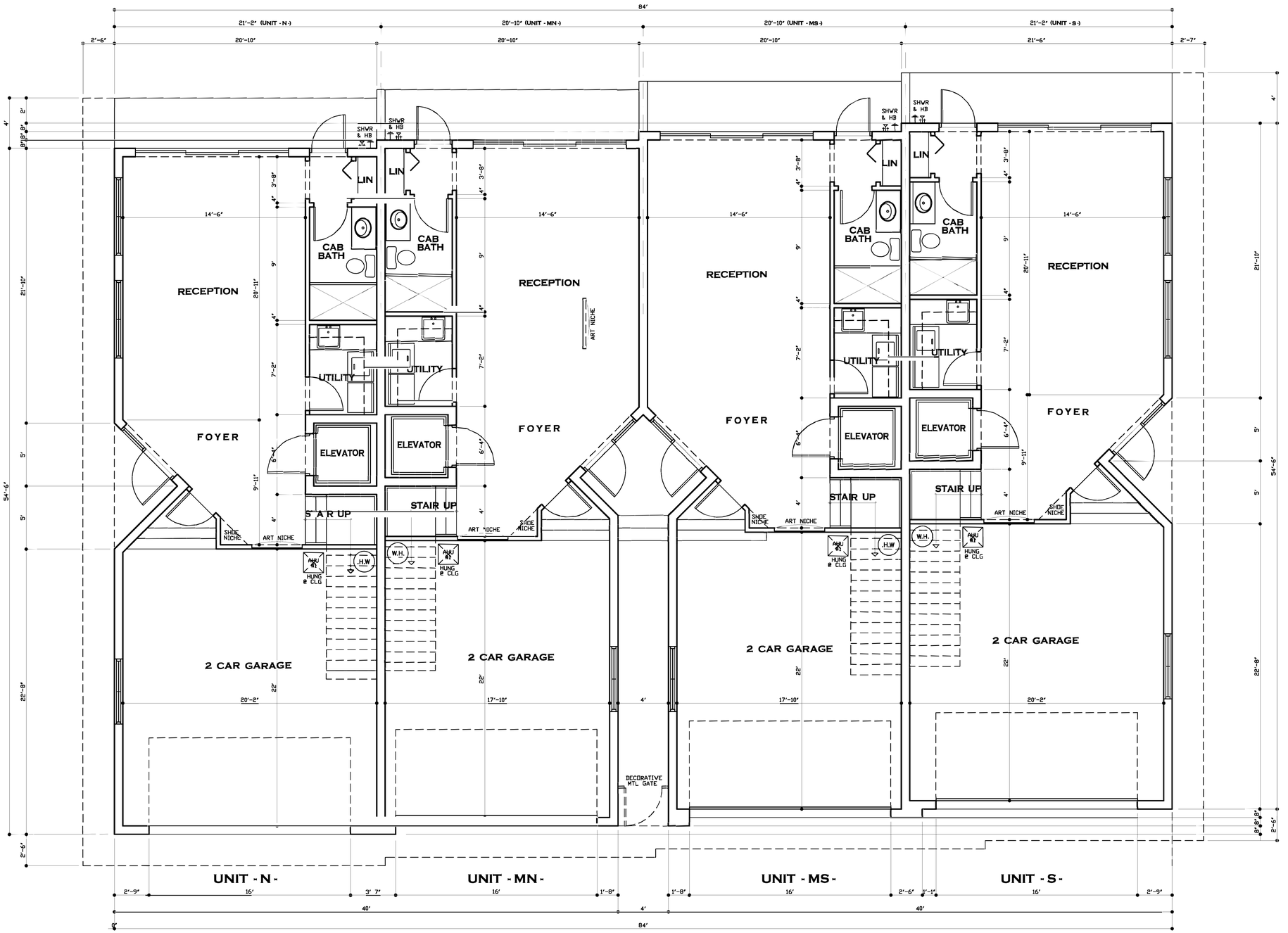
Sincerely yours,

Mr. James E. Gilgenbach
Architect AR7457
9009 One Putt Place
Port St Lucie, FL 34986
(561) 809-8491
jegarch@comcast.net

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE *Trip Generation Manual* , 10th Edition

Land Use Code	**220**		
Land Use	**Multifamily Housing (Low-Rise)**		
Setting	General Urban/Suburban		
Time Period	Weekday		
Trip Type	Vehicle		
# Data Sites	9		
	% of 24-Hour Traffic		
Time	Entering		Exiting
12-1 AM	0.7		0.3
1-2 AM	0.4		0.1
2-3 AM	0.3		0.3
3-4 AM	0.3		0.4
4-5 AM	0.4		1.0
5-6 AM	0.1		2.6
6-7 AM	**1.1**		**5.8**
(12%) 7-8 AM	**2.6**	**AV=2.6 %**	**12.9** **AV=9.3 %**
8-9 AM	**4.0**		**9.1**
9-10 AM	3.9		7.2
10-11 AM	3.9		4.7
11-12 PM	4.9		5.5
12-1 PM	5.6		5.4
1-2 PM	4.8		4.9
2-3 PM	5.9		6.0
3-4 PM	8.3		5.2
4-5 PM	**10.0**		**5.1**
(17%) 5-6 PM	**11.4**	**AV=10%**	**6.7** **AV=6.1%**
6-7 PM	**9.5**		**6.3**
7-8 PM	7.1		4.3
8-9 PM	5.7		3.5
9-10 PM	4.7		1.4
10-11 PM	2.9		1.0
11-12 AM	1.5		0.4



UNIT - N - AREA CALCS:

FIRST FLR.:	622 S.F.
SECOND FLR.:	1006 S.F.
THIRD FLR.:	1186 S.F.
FOURTH FLR.:	1154 S.F.
TOTAL LIVING:	3968 S.F.
GARAGE:	507 S.F.
TOTAL:	4475 S.F.

UNIT - MN - AREA CALCS:

FIRST FLR.:	611 S.F.
SECOND FLR.:	990 S.F.
THIRD FLR.:	1136 S.F.
FOURTH FLR.:	1136 S.F.
TOTAL LIVING:	3873 S.F.
GARAGE:	453 S.F.
TOTAL:	4326 S.F.

UNIT - MS - AREA CALCS:

FIRST FLR.:	611 S.F.
SECOND FLR.:	990 S.F.
THIRD FLR.:	1136 S.F.
FOURTH FLR.:	1136 S.F.
TOTAL LIVING:	3873 S.F.
GARAGE:	453 S.F.
TOTAL:	4326 S.F.

UNIT - S - AREA CALCS:

FIRST FLR.:	622 S.F.
SECOND FLR.:	1006 S.F.
THIRD FLR.:	1186 S.F.
FOURTH FLR.:	1154 S.F.
TOTAL LIVING:	3968 S.F.
GARAGE:	507 S.F.
TOTAL:	4475 S.F.

FIRST FLOOR LEVEL ARCHITECTURAL FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

JAMES E. GILGENBACH
ARCHITECTURE & PLANNING
9009 ONE PUTT PLACE
(561) 809 - 8491
PORT ST LUCIE
FLORIDA 34986

STATE OF FLORIDA
JAMES E. GILGENBACH
AR7457
REGISTERED ARCHITECT

REVISIONS:

1. DRAWINGS ARE NOT TO BE SCALED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER ALL SCALED DIMENSIONS.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS & ADVISE ARCHITECT OF ANY DISCREPANCIES. CONSTRUCTION SHALL NOT PROCEED UNTIL SAID DISCREPANCIES HAVE BEEN RESOLVED BY ARCHITECT.
3. NO MATERIALS OR SYSTEMS ARE TO BE FABRICATED UNTIL:
A. ALL DIMENSIONS HAVE BEEN VERIFIED BY THE CONTRACTOR.
B. SHOP DRAWINGS HAVE BEEN REVIEWED & ACCEPTED BY THE ARCHITECT.

NEW 4 UNIT TOWNHOMES

SURFSIDE TOWNHOMES

SURFSIDE DRIVE, FORT PIERCE,
LOT 13, BLOCK 11, SURFSIDE UNIT ONE
ST LUCIE COUNTY, FLORIDA

DATE: 28 APR '21
PROJECT NO: 21 - A20
SHEET: of 8 A1



SECOND FLOOR LEVEL
ARCHITECTURAL FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

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FLORIDA 34986

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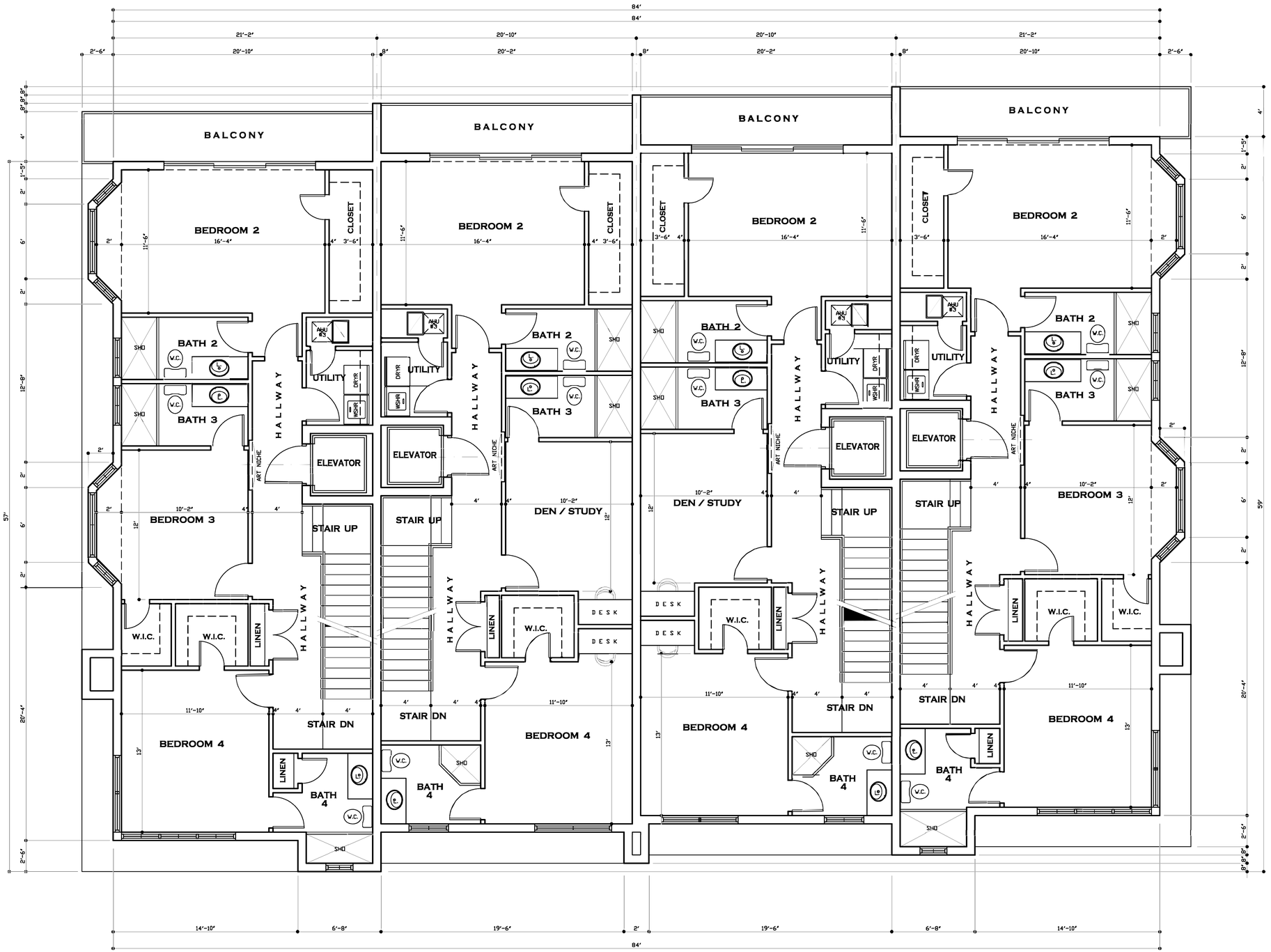
NEW 4 UNIT TOWNHOMES

SURFSIDE TOWNHOMES

SURFSIDE DRIVE,
FORT PIERCE,

LOT 13, BLOCK 11, SURFSIDE UNIT ONE
ST LUCIE COUNTY, FLORIDA

DATE: 28 APR '21
PROJECT NO: 21 - A20
SHEET: of 8 A2



THIRD FLOOR LEVEL
ARCHITECTURAL FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

JAMES E. GILGENBACH
ARCHITECTURE & PLANNING
9009 ONE PUTT PLACE
(561) 809 - 8491
PORT ST LUCIE
FLORIDA 34986

STATE OF FLORIDA
JAMES E. GILGENBACH
AR7457
REGISTERED ARCHITECT

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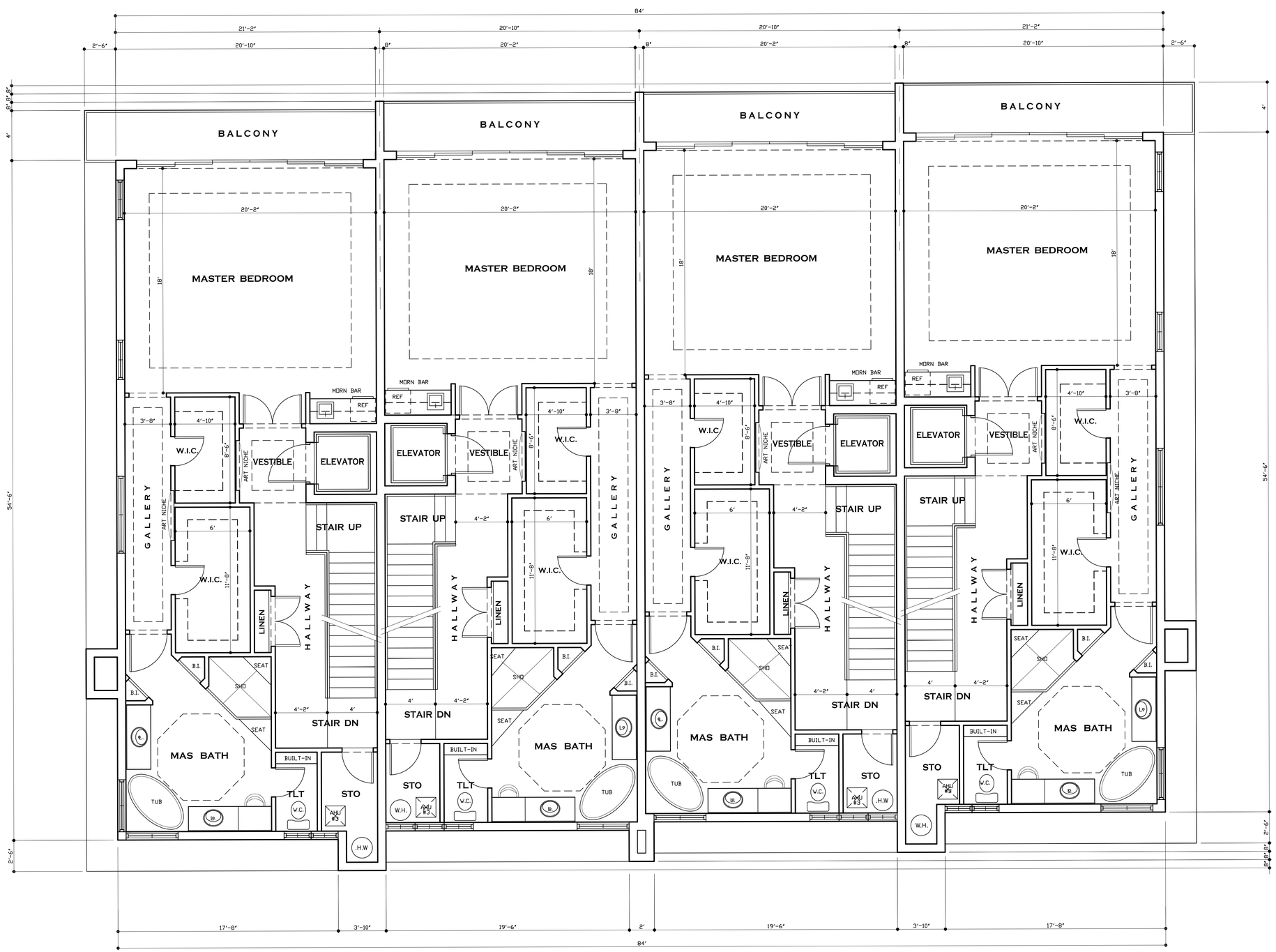
NEW 4 UNIT TOWNHOMES

SURFSIDE TOWNHOMES

SURFSIDE DRIVE,
FORT PIERCE,

LOT 13, BLOCK 11, SURFSIDE UNIT ONE
ST LUCIE COUNTY, FLORIDA

DATE: 28 APR '21
PROJECT NO: 21 - A20
SHEET: of 8 A3



FOURTH FLOOR LEVEL ARCHITECTURAL FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

JAMES E. GILGENBACH ARCHITECTURE & PLANNING
9009 ONE PUTT PLACE
(561) 809 – 8491
PORT ST LUCIE
FLORIDA 34986

STATE OF FLORIDA
JAMES E. GILGENBACH
AR7457
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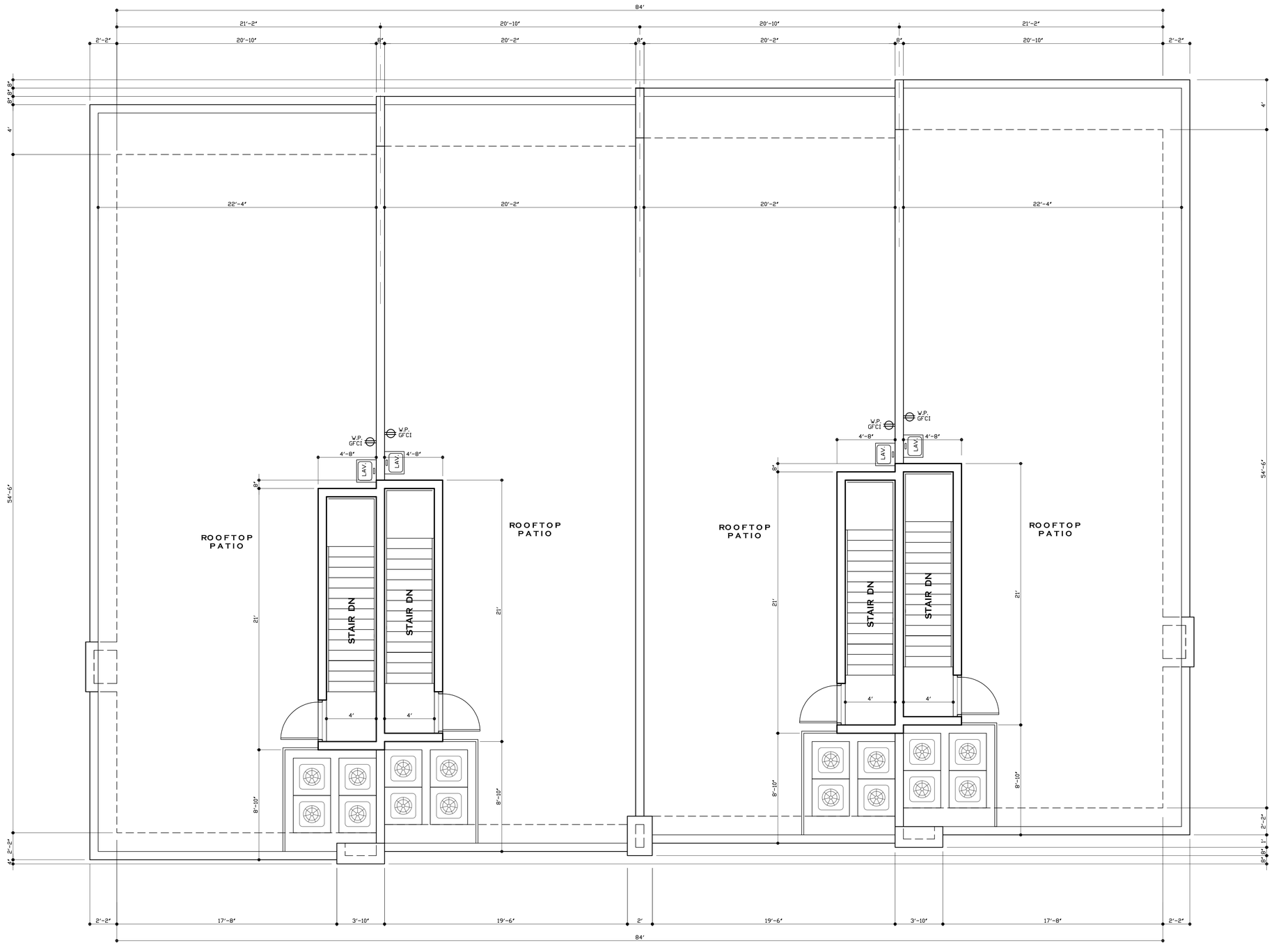
NEW 4 UNIT TOWNHOMES

SURFSIDE TOWNHOMES

SURFSIDE DRIVE, FORT PIERCE, ST LUCIE COUNTY, FLORIDA

LOT 13, BLOCK 11, SURFSIDE UNIT ONE

DATE: 28 APR '21
PROJECT NO: 21 – A20
SHEET: of 8 A4



ROOFTOP LEVEL ARCHITECTURAL FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

JAMES E. GILGENBACH ARCHITECTURE & PLANNING
9009 ONE PUTT PLACE
(561) 809 - 8491
PORT ST LUCIE
FLORIDA 34986

STATE OF FLORIDA
JAMES E. GILGENBACH
AR7457
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NEW 4 UNIT TOWNHOMES

SURFSIDE TOWNHOMES

SURFSIDE DRIVE,
FORT PIERCE,

LOT 13, BLOCK 11, SURFSIDE UNIT ONE
ST LUCIE COUNTY, FLORIDA

DATE: 28 APR '21
PROJECT NO: 21 - A20
SHEET: of 8 A5



FRONT ELEVATION WEST

SCALE: 1/4" = 1'-0"

JAMES E. GILGENBACH
ARCHITECTURE & PLANNING
9009 ONE PUTT PLACE
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FLORIDA 34986

STATE OF FLORIDA
JAMES E. GILGENBACH
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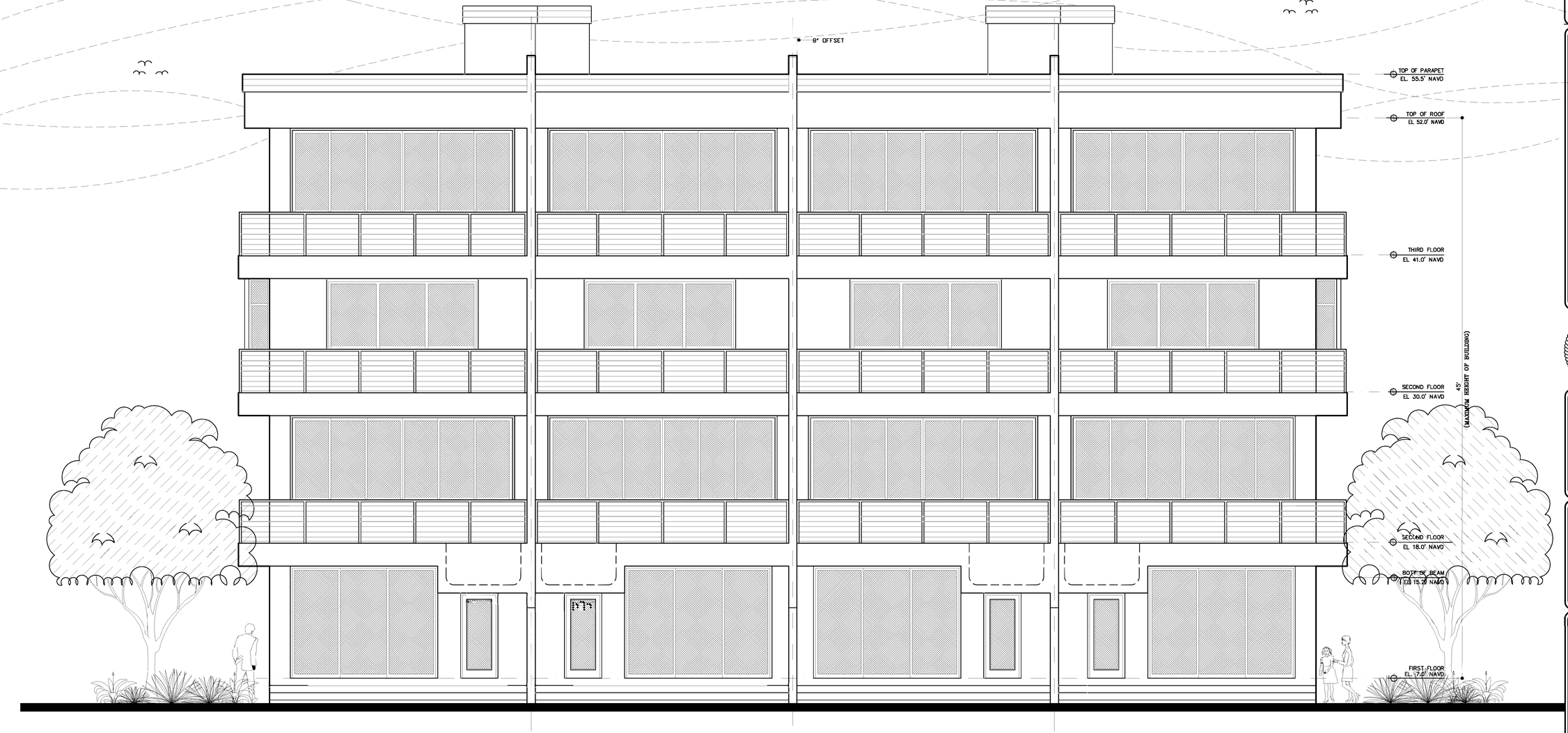
SURFSIDE TOWNHOMES

NEW 4 UNIT TOWNHOMES

802 INDIAN RIVER DRIVE, FORT PIERCE, ST LUCIE COUNTY, FLORIDA

LOT 3, LYING EAST OF STATE RD 707

DATE: 28 APR '21
PROJECT NO: 21 - A20
SHEET: of 8 A6



REAR ELEVATION EAST

SCALE: 1/4" = 1'-0"

JAMES E. GILGENBACH
ARCHITECTURE & PLANNING
9009 ONE PUTT PLACE
(561) 809 - 8491
PORT ST LUCIE
FLORIDA 34986

STATE OF FLORIDA
JAMES E. GILGENBACH
AR7457
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SURFSIDE TOWNHOMES

NEW 4 UNIT TOWNHOMES

802 INDIAN RIVER DRIVE, FORT PIERCE, ST LUCIE COUNTY, FLORIDA

LOT 3, LYING EAST OF STATE RD 707

DATE: 28 APR '21
PROJECT NO: 21 - A20
SHEET: of 8 A7

Technical Review Committee **3. f.**

Meeting Date: 05/20/2021

REQUESTED ACTION

Site Plan – Taylor Creek Development – Parcel ID: 1433-431-0001-000-4

LOCATION

Parcel ID: 1433-431-0001-000-4

RESPONSIBLE STAFF

Brandon C. Creagan, MCRP, LEED Green Associate, Planner

RECOMMENDATION

Review & Provide Comments

Attachments

TRC Packet

Form Review

Form Started By: Brandon Creagan Started On: 04/30/2021 11:32 PM

Final Approval Date: 05/01/2021

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO: JACK ANDREWS, PE, CITY ENGINEER
MIKE REALS, FP PUBLIC WORKS MANAGER
CHIEF HOBLEY-BURNEY, FP POLICE DEPARTMENT
PAUL THOMAS, FP BUILDING OFFICIAL
JAMES CARNES, PE, FPUA ENGINEERING (WATER/WASTEWATER)
PAUL LAGUERRE, PE, FPUA ENGINEERING (ELECTRIC)
ROD REED, PLS, SLC SURVEYING
GRANT CHAMBERS, PE, SLC ENGINEERING
LESLIE OLSON, AICP, SLC PLANNING & DEVELOPMENT DIRECTOR
DIVISION CHIEF PAUL LANGEL, SLC FIRE DISTRICT
PEGGY ARRAIZ, FP CODE ENFORCEMENT
PETER BUCHWALD, AICP, SLC TRANSPORTATION PLANNING ORGANIZATION
MURRIAH DECKLE, AICP, SLC TRANSIT SERVICES

FROM: BRANDON CREAGAN, LEED GREEN ASSOCIATE, PLANNER

RE: TECHNICAL REVIEW PROJECT# 21-07000009

DATE: APRIL30, 2021

Development Review – Taylor Creek Development – Parcel ID: 1433-431-0001-000-4

This is an application for a Development Review & Design Review for a commercial development that will consist of retail and restaurant space that will consist of approximately 33,603 square feet of development. The property size is approximately 5.33 acres. The parcel ID is 1433-431-0001-000-4.

Please review and provide comments on the project. Please send all comments to my email Bcreagan@cityoffortpierce.com or through interoffice mail to the Planning Department. If you have comments, please respond by May 18, 2021.

Please do not hesitate to contact me should you require any additional information at 772-467-3742.

Thank you.

Brandon Creagan

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

DEVELOPMENT REVIEW

Property address or Location N. US Highway 1 Fort Pierce, FL, 34946

Parcel ID #(s) 1433-431-0001-000-4

Project description This is a project proposing to construct a new commercial canter offering 23,600 SF retail 2,103 SF in fast casual/quick service restaurants and a 7, 900 SF fine dining restaurant.

Scavello Management. LLC	MBV Engineering, Inc.
Property Owner(s)	**Applicant/Representative, Title, Company**
101 City Island Avenue	1835 20th Street
Street Address	Street Address
Bronx NY 10464	Vero Beach FL 32960
City State Zip	City State Zip
347-680-3865	772-569-0035
Phone Number	Phone Number
scavellop@aol.com	mbveng@mbveng.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

Paul Scavello

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 30 day of April, 20 21, by Paul Scavello who is personally known to me or has produced _____ as identification.

Signature of Notary

JESSICA HAWKINS
MY COMMISSION # GG 252457
EXPIRES: October 22, 2022
Bonded Thru Notary Public Underwriters

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____

Intake Planner_____

Planner Assigned_____

Approved By_____ Date _____

Comments_____

Fees_____ Control #_____ B. Permit #_____

Intake Date Stamp

☐ DEVELOPMENT REVIEW

General Information

- ☐ Incomplete application packets cannot be accepted.
- ☐ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
■ Site Plan	☐ Conditional Use with New Const.	☐ Major Amendment
☐ Conceptual Development Plan		☐ Minor Amendment

Site Information:

Non-Residential: Proposed Sq. Ft.: 33,603 Residential: Proposed Units:_____

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West
Vacant	General Commercial	General Commercial	Canal/R.O.W

Application Outlook



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ☑ Complete notarized application
- ☑ Warranty Deed
- ☑ SLC Property Record Card
- ☑ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ☑ General location map (see Section 22-58.d.2)
- ☑ Survey (see Section 22-58.d.3)
- ☑ Site Plan (see Section 22-58.d.4)
- ☑ Landscaping Plan (see Section 22-187)
- ☑ Storm Drainage Plan (see Section 22-58.d.6)
- ☐ Environmental Impact Report
- ☐ Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ☑ Lighting Plan (see Section 22-58.d.8)
- ☑ Design Review submittals (see Design Review application)
- ☑ Traffic Impact Report
- ☑ Concurrency Review submittals (see Concurrency Review application)

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Design Review

Property address or Location N. US Highway 1 Fort Pierce, FL, 34946

Parcel ID #(s) 1433-431-0001-000-4

Project Description This is a project proposing to construct a new commercial canter offering 23,600 SF retail 2,103 SF in fast casual/quick service restaurants and a 7, 900 SF fine dining restaurant

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Property Owner(s)	Applicant/Representative, Title, Company
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Street Address	Street Address
Bronx New York 10464	Vero Beach FL 32960
City State Zip	City State Zip
347-680-3865	772-569-0035
Phone Number	Phone Number
scavellop@aol.com	mbveng@mbveng.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Application (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein.*

Paul Scavello

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 30 day of April, 2021, by Paul Scavello who is personally known to me or has produced _____ as identification.

Signature of Notary

JESSICA HAWKINS
MY COMMISSION # GG 252457
EXPIRES: October 22, 2022
Bonded Thru Notary Public Underwriters

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic Districts	Historic Designation

Pre-Application Meeting Date_____ Fees _____ Control #_____ B. Permit _____

Intake Planner_____

Planner Assigned_____

Approved _____ Date_____

Comments _____

Intake Date Stamp

Design Review Application Checklist
(City Code of Ordinances 22-59)

Submittal for Administrative Approval

a. A survey (1" = 30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of section 22-194, location of bordering streets and, if applicable, wetlands and beaches.
b. A site analysis study to include a discussion of specimen trees and other natural vegetation, access, significant topography, wetlands, buffers, setbacks, views, orientation, the surrounding built environment and other site features that may influence design elements.
c. A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis study results.
d. Context photographs of neighboring uses and architectural styles.
e. Photographs and/or drawings of architectural buildings or objects that serve as a precedent for the proposed building design. Models should be taken from local exemplary buildings, either existing or demolished. Documentation of such buildings is available in the city's planning department.
f. Photographs of all existing structures located on the property. If existing structures on the property are more than fifty (50) years of age, documentation of these structures with data from the Florida Master Site File form is also required.
g. Conceptual site plan (to scale) showing proposed location of all buildings, structures, parking areas, signs and landscaping.
h. Landscape plan, at the same scale as the site plan. The planning director or designee may request enlarged plans of detailed planting areas. Planting schedule with sizes of proposed plantings must be included.
i. Accurate color rendering of proposed signs showing dimensions, type of lettering, materials and actual color samples that demonstrates cohesiveness with the project design.
j. Exterior elevations showing architectural character, external architectural features and streetscape of the proposed development, including materials, colors, shadow lines and landscaping. The street elevation shall encompass the entire proposed project and generally identify the major elements of the adjacent two (2) properties on either side of the site. If the adjacent properties are vacant or underutilized, a diagram shall be provided that identifies the mass and form that is allowable under current zoning. If the street elevation must be drawn at such a scale as to render architectural details of the building unreadable, drawings of individual buildings at a larger scale should be provided as well.
k. Design review concurrent with conceptual development plan procedure according to subsection 22-58(e) is also available.

Submittal for Board Approval

a. A written narrative describing how the project conforms to administrative approval and design review guidelines of this section.
b. A final site plan meeting the requirements of section 22-58
c. A final site lighting plan that meets the requirements of subsection 22-58(d)(8).
d. A final landscape plan that meets the requirements of Article XII, Landscaping and Trees.
e. Final floor plans and elevation drawings (1/8" = 1'-0" minimum scale), as detailed under administrative approval, showing exterior building materials and colors with architectural sections and details to adequately describe the project.
f. A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North			
South			
East			
West			

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current					
****Proposed**					N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day
**Proposed Zoning/FLU	Total gallons per day
**Change in Demand	Total gallons per day

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day
**Proposed Zoning/FLU	Total gallons per day
**Change in Demand	Total gallons per day

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people			
Urban District	5 acres per 1,000 people			
Community	2.5 acres per 1,000 people			
Neighborhood	1.36 acres per 1,000 people			

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name		
City		
Distance		
Current Zoning/FLU Enrollment Demand		
****Proposed Zoning/FLU Enrollment Demand**		
****Change in Demand**		

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)	
Demand Analysis	Maximum
Current Zoning/FLU	
****Proposed Zoning/FLU**	
***Change in Demand**	

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity ITE 10th Ed		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU		
****Proposed Zoning/FLU**		
***Change in Demand**	Trips	Trips
Impact to Capacity		

IV. Project Description

PHASING
Is this project (phase) part of a larger project? [ ] Yes [ ] No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: Single Family: Multifamily:
Non-residential (square footage):
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family					
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. [ ] Yes [ ] No

B. 1. Does this application involve demolition or re-use of any structure(s)? [ ] Yes [ ] No
If yes, what is the size of the structure(s) to be demolished or re-used? _____
2. What is the current use of the structure to be demolished or re-used? _____
3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? [ ] Yes [ ] No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

MBV
ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
www.mbveng.com CA #3728

April 30, 2021

Brandon Creagan,
City of Fort Pierce
Planning Department
100 N. US Highway 1
Fort Pierce, FL 34950

Dear Brandon,

MBV Engineering is pleased to present the site plan for the project known as Taylor Creek on behalf of the project owner, Scavello Management, LLC. I have attached the deed and property record card which reflect that they are the owner of record and have control of the development.

The project is intended to bring a new retail and dining options to the City. The design review package speaks to the design intent and architectural style.

We have not submitted an Environmental Impact Report – this site is previously disturbed. Aerial imagery from 1994 shows the site cleared. More recently, as part of a Code Enforcement action the invasive and exotic plant material were removed and the site was grubbed. Before this work occurred, a biologist was hired who reviewed the site for gopher tortoises and received a relocation permit through FWC for removal of gopher tortoises in accordance with state laws.

Also, a Beach/Dune protection plan was not submitted as this site is not located on the barrier island and does not impact any dune system.
I
Should you require further information or clarification, please call.

Sincerely,

Rebecca Grohall

Rebecca Grohall, AICP

1835 20th Street
Vero Beach, FL 32960
772.569.0035
Fax: 772.778.3617

1250 W. Eau Gallie Blvd., Unit H
Melbourne, FL 32935
321.253.1510
Fax: 321.253.0911

806 Delaware Avenue
Ft. Pierce, FL 34950
772.468.9055
Fax: 772.778.3617

DECLARATION OF RESTRICTIONS AND GRANT OF EASEMENTS

This Declaration of Restrictions and Grant of Easements (hereinafter referred to as the "Declaration") is made this 15TH day of OCTOBER, 1990, by TAYLOR CREEK ASSOCIATES, LTD., a Florida Limited Partnership (hereinafter referred to as the "Declarant").

WITNESSETH:

WHEREAS, Declarant is the owner of five (5) adjoining and contiguous parcels of land situated near the intersection of U.S. Highway No. 1 and North A1A, in the City of Fort Pierce, St. Lucie County, Florida, each Parcel being more particularly described on Exhibit "A" attached hereto and by this reference incorporated herein (said Parcels being hereinafter collectively referred to as the "Parcels" and individually as Parcel 1, Parcel 2, Parcel 3, Parcel 4, or Parcel 5, respectively, as more particularly set forth in Exhibit "A," attached hereto); and

WHEREAS, in the future Declarant plans to construct or to permit to be constructed on the Parcels various commercial buildings and improvements, which together in the future will constitute a shopping center; and

WHEREAS, Declarant desires to declare, establish, grant, and provide for the benefit of:

(a) Declarant and any present or subsequent owners of all or any portion of the Parcels and their respective heirs, legal representatives, successors, and assigns, or all of them, and any sucessors entitled to all or any portion of the Parcels (hereinafter collectively referred to as the "Owners");

(b) Food Lion, Inc., a North Carolina corporation, duly qualified to transact business in the State of Florida (hereinafter individually or collectively referred to as "Food Lion");

(c) Rite-Aid of Florida, Inc., a Florida corporation (hereinafter referred to as "Rite-Aid");

(d) The holder or holders of any first mortgage now or in the future constituting a lien against all or any portion of the Parcels (hereinafter referred to as the "Mortgagee"); and

(e) The tenants and occupants from time to time of any of the commercial buildings constructed within the building areas on the Parcels, their employees, successors, and assigns, customers and invitees, which group shall be hereinafter collectively referred to as the "Beneficiaries"

certain restrictions, rights, obligations, easements, and licenses to run with the title to the Parcels which restrictions, rights, obligations, easements, and licenses are designed to create a mutually beneficial building plan, automobile parking plan, plan for the arrangement and design of the improvements to be located upon the Parcels and their permitted uses in the shopping center comprised of the Parcels; and

Rec Fee $ 69.00 DOUGLAS DIXON
Add'l Fees $ Clerk of Circuit Court
Doc Tax $ By
Int Tax $ Deputy Clerk
Total $ 69.00

RETURN TO:
Bruce R. Abernethy, Jr., Esq.
P.O. Box 1270 Cl Box
Fort Pierce, FL 34954

NEILL GRIFFIN JEFFRIES & LLOYD
CHARTERED
P.O. BOX 1270. FORT PIERCE. FLORIDA 34954 - TELEPHONE (407) 464-82

WHEREAS, Declarant has entered into a Lease with Food Lion (hereinafter referred to as the "Food Lion Lease") which demises to Food Lion, as Tenant, certain premises located upon Parcel 1 described on Exhibit "A" attached hereto for an initial term of twenty (20) years commencing upon the completion of certain construction improvements as set forth in the Lease. The initial Lease term is subject to four (4) successive option extensions each for a period of five (5) years. A short form of the Lease will be recorded in the public records of St. Lucie County, Florida; and

WHEREAS, Declarant has entered into a Lease with Rite-Aid (hereinafter referred to as the "Rite-Aid Lease") which demises to Rite-Aid, as Tenant, certain premises located upon Parcel 1 described on Exhibit "A" attached hereto for an initial term of ten (10) years commencing upon the completion of certain construction improvements as set forth in the Lease. The initial Lease term is subject to five (5) successive option extensions, each for a period of five (5) years. A short form of the Lease will be recorded in the public records of St. Lucie County, Florida; and

WHEREAS, the establishment of the restrictions, rights, privileges, and easements created in this Declaration is one of the principal inducements to Food Lion and Rite-Aid having entered into the aforedescribed Lease Agreements.

NOW, THEREFORE, in consideration of the premises and of the mutual benefits to the Declarant, to the Owners, to Food Lion, to Rite-Aid, to Mortgagee, and to the Beneficiaries, the Declarant, for itself, its heirs, personal representatives, successors, grantees, and assigns, hereby grants, declares, and provides as follows:

1. Without the prior written consent of Declarant and, during the term of the Food Lion Lease, Food Lion, no above ground buildings or structures of any kind shall be erected or placed on any of Parcels 3, 4, or 5 which shall exceed one (1) story nor twenty-five (25) feet in height (measured from natural ground level prior to construction).

2. No buildings to be constructed on any of the Parcels shall exceed the maximum lot coverage standards specified by the governmental entity having jurisdiction over the Parcels. The remainder of the land in any of the Parcels which is not used for building construction or for uses accessory to the buildings constructed thereon shall be reserved for use as common facilities (hereinafter referred to as "Common Facilities"), and no buildings or structures of any kind shall be constructed within the areas reserved for Common Facilities, which may be used only as vehicular parking areas, roadways, service areas, drives, entranceways, exits, sidewalks, and landscaped areas, but permitting those necessary appurtenances for such uses including, without limitation, paving, light standards, curbings, directional signs, drainage facilities, and underground facilities, and pylon signs advertising the shopping center and the business or businesses conducted by the occupants of commercial buildings on the respective Parcels. For all purposes herein, "building construction" shall be deemed to include both original building construction and subsequent reconstruction or reconfiguration of improvements located upon the Parcels, provided all building construction shall be approved by the governmental entity having jurisdiction over such activities, it being the intention hereof that only those areas not utilized for building construction, as defined herein, or uses accessory thereto, shall be reserved for use as Common Facilities.

NEILL GRIFFIN JEFFRIES & LLOYD
CHARTERED
P.O. BOX 1270, FORT PIERCE, FLORIDA 34954 - TELEPHONE (407) 464-8200

OR BK 0712 PAGE 0084

3. Declarant establishes and creates for Declarant, Owners, Mortgagee, Food Lion, Rite-Aid, and Beneficiaries, and gives, grants, and conveys to each and every one of the Declarant, Owners, Mortgagee, Food Lion, Rite-Aid, and Beneficiaries, and to their respective employees, servants, agents, suppliers, customers, and invitees, a mutual, reciprocal, and non-exclusive easement, right, license, and privilege of passage and use (without payment of any fee or charge being made therefore), both pedestrian and vehicular, over, across, and upon any and all portions of the Common Facilities for the limited purpose of ingress and egress, and all Common Facilities from time to time existing upon the Parcels are expressly reserved and set apart for such purpose or purposes, respectively. No barriers, fences, or other obstructions shall be erected so as to impede or interfere in any way with the free flow of vehicular and pedestrian traffic between those portions of the Common Facilities from time to time devoted to parking, pedestrian access, or vehicular roadways, or in any manner restrict or interfere with the full and complete use and enjoyment of the rights and easements created by this Section 3. The preceding sentence shall not prohibit the reasonable designation and relocation of traffic and pedestrian lanes. In addition, an Owner may temporarily fence off portions of its Parcel as reasonably required for the purpose of repair, construction, and reconstruction. Nothing set forth herein is intended to be construed to create any rights for cross parking among the Parcels or for the benefit of the general public in any one of the Parcels or in any of the improvements which may be constructed thereon. The easements granted to Food Lion pursuant to this Section 3 shall be effective only for the period of time during which the Food Lion Lease remains in full force and effect. The easements granted to Rite-Aid pursuant to this Section 3 shall be effective only for the period of time during which the Rite-Aid Lease remains in full force and effect.

4. Declarant establishes and creates for the benefit of the Declarant, Owners, Mortgagee, Food Lion, Rite-Aid, and Beneficiaries, and gives, grants, and conveys to each and every one of the Declarant, Owners, Mortgagee, Food Lion, Rite-Aid, and Beneficiaries, a mutual reciprocal and non-exclusive right and easement in, under, over, across, upon, and through any and all portions of the Common Facilities for the installation, use, maintenance, repair, and replacement of all utility lines, wires, pipes, conduits, sewers, drainage lines, and other utilities necessary to serve the Parcels; provided, however, that no pipes, conduits, sewers, drainage lines, or other utility apparatus necessary to serve the Parcels shall be placed above the surface of the Common Facilities without the prior consent of Declarant, Owners, Mortgagee, Food Lion, and Rite-Aid which said consent shall not be unreasonably withheld; and provided further, that any and all damage to the Common Facilities or building areas occasioned by such work shall be promptly repaired and restored at the sole cost and expense of the party causing such work to be performed. To the extent possible, any such utility improvements shall be confined to areas contiguous to the Parcel property lines. In no event shall the installation or servicing of such utility improvements be permitted to unreasonably interfere with ongoing business operations upon the affected Parcel, nor shall the access to the affected Parcel be unreasonably interferred with or restricted. If, pursuant to the terms hereof, any party installs utilities across the Parcel of another party (hereinafter referred to as the "Affected Parcel"), the party installing the utilities shall relocate that utility at its sole cost and expense if such relocation is required as a result of subsequent construction of improvements upon the Affected Parcel. The easements and consent rights granted to Food Lion pursuant to this Section 4 shall be effective only for the period of time during which the Food Lion Lease remains in full force and effect. The easements and consent rights granted to Rite-Aid

pursuant to this Section 4 shall be effective only for the period of time during which the Rite-Aid Lease remains in full force and effect.

5. For and during the term of the Food Lion Lease and any extensions or renewals thereof, Food Lion shall have the exclusive right to operate a supermarket upon Parcel 1, and, subject to certain exceptions set forth hereinbelow, no other portion or portions of any of the Parcels shall be permitted to be occupied or leased or rented, directly or indirectly, for occupancy as a: supermarket, grocery store, convenience food store (except for in conjunction with a gas station not exceeding 1,012 square feet of building area), business selling packaged or fresh seafood, meat, or poultry for off premises consumption, business selling packaged or fresh produce or vegetables for off premises consumption, business selling dairy products (excluding cone ice cream and yogurt) for off premises consumption, or business selling packaged or fresh bakery products for off premises consumption provided, however, that the above restrictions shall not be construed to prohibit a drug store (Rite-Aid) from selling these items, if such sales are normally a part of the drug store business operation and are ancillary to the sale of health and beauty aids and pharmaceuticals, nor shall any owner, tenant, or occupant of any portion of any one of the Parcels be permitted to lease or sublet in any manner, directly or indirectly, all or any part of any of the Parcels to any person, firm, or corporation engaged in such business without the prior written consent of Food Lion.

Notwithstanding the foregoing, delicatessen/bakery business operations with lease terms not to exceed three (3) years may be conducted upon any of the Parcels without Food Lion's consent and, further, if Food Lion has not installed a delicatessen/ bakery within its business operation conducted upon Parcel 1 prior to six (6) months before the end of any such permitted three (3) year lease term, then said permitted delicatessen/ bakery lease may be renewed or new delicatessen/bakery leases may be entered into for one (1) additional three (3) year term, provided, however, that in no event shall this provision be construed to preclude Food Lion from adding and/or opening a delicatessen/bakery operation within its business operation at any time during the Food Lion Lease term, including all extensions thereof.

In addition to the above described use restrictions, for and during the term of the Lease to Food Lion and any extensions or renewals thereof, no Parcel or any portion or portions thereof shall, without the written consent of Food Lion, be permitted to be occupied or leased or rented, directly or indirectly, for occupancy as a: Theater (motion picture or legitimate), health spa, skating rink, bowling alley, restaurant (subject to limitations set forth herein below), or any other health, recreational, or entertainment type activity, or establishment which sells alcoholic beverages for on premises consumption where such restricted uses shall be located within 500 feet of the premises leased to Food Lion pursuant to the aforementioned Food Lion Lease. Notwithstanding the above, a 3,000 square foot portion of the improvements to be located upon Parcel 1 may be utilized as a restaurant, in accordance with the terms and conditions of the Food Lion Lease. Also, notwithstanding the use restrictions set forth hereinabove, those restaurants which are specifically listed immediately herein below, or those restaurants which are typical in operation to those listed immediately herein below, shall be permitted to operate upon Parcels, 2, 3, 4, or 5, provided they: (a) meet the height and building area restrictions set forth in Section 1 of this Declaration, (b) have legally adequate on site parking facilities for the intended operation, (c) are not granted cross or reciprocal parking easements, and (d) do not sell alcoholic

beverages other than beer and wine without Food Lion's written approval. The restaurants referred to immediately hereinabove are:

McDonalds	Wendys
Pizza Hut	Pizza Inn
Roy Rogers	Burger King
Tastee Freeze	BoJangles
Kentucky Fried Chicken	Church's Fried Chicken
Arbys	Dairy Queen
Taco Bell	Hardees

It is further understood and agreed that any one of the restaurants specifically listed immediately herein below or any similar restaurant operation shall be permitted to operate on Parcel 3 only, provided they: (a) meet the height and building area restrictions set forth in Section 1 of this Declaration, (b) have legally adequate on site parking for the intended operation, (c) are not granted cross or reciprocal parking easements, and (d) do not sell alcoholic beverages other than beer and wine without Food Lion's approval. The restaurants referred to immediately hereinabove are:

Golden Corral	Western Steer
Shoneys	Western Sizzlin
Quincys	

The use restrictions set forth in this Section 5 are imposed upon the Parcels for the sole benefit of Food Lion in accordance with the terms and conditions of the Food Lion Lease, and shall be effective only for and during the term of the Food Lion Lease, and any extensions or renewals thereof. The use restrictions set forth in this Section 5 may be waived, in whole or in part, by Food Lion, which waiver shall be evidenced by a recordable instrument executed by Food Lion (or its successors and/or assigns), which instrument shall make specific reference to this Section 5 and shall specifically refer to the use restriction being modified and/or waived by Food Lion.

6. For and during the term of the Lease to Rite-Aid and any extensions or renewals thereof, Rite-Aid shall have the exclusive right to operate a health and/or beauty aids store or pharmacy upon Parcel 1, and no other portion or portions of any of the Parcels shall, without the written consent of Rite-Aid, be permitted to be occupied or leased or rented, directly or indirectly, for occupancy by a business selling health and/or beauty aids or prescription drugs, provided, however, that as to health and beauty aids only, the restrictions set forth herein shall not restrict Food Lion, or the incidential sale of health and beauty aids by a barber shop, beauty parlor, discount department store, or similar type business from carrying and selling health and beauty aids as an incidential item to its main business activity.

The use restrictions set forth in this Section 6 are imposed upon the Parcels for the sole benefit of Rite-Aid in accordance with the terms and conditions of the Rite-Aid Lease, and shall be effective only for and during the term of the Rite-Aid Lease, and any extensions or renewals thereof. The use restrictions set forth in this Section 6 may be waived, in whole or in part, by Rite-Aid, which waiver shall be evidenced by a recordable instrument executed by Rite-Aid (or its successors and/or assigns), which instrument shall make specific reference to this Section 6 and shall specifically refer to the use restriction being modified and/or waived by Rite-Aid.

OR BK 0712 PAGE 0087

7. Prior to the commencement of the construction of any improvements upon any of Parcels 3, 4, or 5, the Owner of the respective Parcel (hereinafter referred to as the "Parcel Owner") shall submit to the Declarant a site plan and plans and specifications for construction (including landscaping and grading) of such improvements on the respective Parcel, including working drawings, landscape plans, and sign designs and locations (collectively the "Plans"). The Plans must demonstrate compliance with all requirements of any Governmental or Quasi-Governmental entity claiming jurisdiction over or regulating the intended construction in any way, specifically including any requirements of the City of Fort Pierce. The Declarant shall have the right of approval or disapproval of such Plans, specifically including, and not by way of limitation, the right of approval of the architecture and materials to be used in the construction, the right of approval of the location of improvements on the Parcel, the right of approval of all floor elevations, the right of approval of the location of any and all signs, provided, however, that in reviewing the Plans, the Declarant may not unreasonably withhold approval if the proposed improvements are architectually and aesthetically compatible with the adjacent shopping center improvements located upon Parcels 1 and 2 and provided the Plans are in compliance with all applicable building regulations. If notice of disapproval is not given by the Declarant within thirty (30) days after the Declarant's receipt of such Plans, they shall be deemed approved. Once such Plans have been approved, all improvements shall be constructed in accordance with such Plans as approved. If any construction is begun, including landscaping or grading, prior to approval of the Plans by the Declarant, or if after the Plans are approved any construction is done which is not in accordance with the Plans, the Owner of the Parcel upon which such unauthorized improvements are being constructed shall pay to the Declarant as liquidated damages FIVE HUNDRED AND NO/100 DOLLARS ($500.00) per day for each day from the date the Declarant notifies the Parcel Owner to discontinue such work until the date the Plans are approved, or in the case of nonconforming construction after approval of the Plans, FIVE HUNDRED AND NO/100 DOLLARS ($500.00) per day for each day from the date the Declarant notifies the Parcel Owner of such nonconformity until the date such nonconformity is corrected to the reasonable satisfaction of the Declarant. The requirements of this Section 7 shall apply with equal force to replacements, additions, or exterior renovations to improvements, as well as to original improvements upon any of Parcels 3, 4, or 5.

8. The Parcels shall at all times be maintained in a clean, first class manner which shall include its appearance, maintenance, and signing and shall not be operated in a manner so as to create any undue noise, liter, or odors.

9. The owner of each respective Parcel shall, at its own expense, operate, manage, and maintain the common facilities located within and upon their respective Parcel(s). In the event that any Parcel Owner fails to so maintain, repair, and operate such common facilities or any portion thereof, Declarant may give the violating Parcel Owner notice thereof and if the Parcel Owner does not, within thirty (30) days after the date of such notice, commence and thereafter use reasonable diligent efforts to cure such failure, Declarant may make such necessary repairs, undertake such necessary maintenance, and supplement the services of the Parcel Owner as are reasonably necessary. In such event, Declarant may recover from the Parcel Owner the cost and expense of doing so (including reasonable attorneys' fees incurred by Declarant; or by its designee(s), successor(s), grantee(s), or assign(s)), in connection therewith, plus reasonable overhead costs, together with interest computed from the date on which such cost shall have been incurred, until the date of payment

thereof in full, at the highest rate permitted by applicable law. Any party performing maintenance or repair work upon the violating Parcel pursuant to the provisions of this Section 9, shall be deemed to have contracted with the Owner of the violating Parcel to perform that work, and shall be entitled to file a mechanics lien against the interest of the Owner of the violating Parcel in its Parcel for the cost of that work (including reasonable overhead costs and interest) and to recover that cost in an action at law against the Owner of the violating Parcel, all in accordance with Florida Statutes, as amended from time to time. Any lien established hereunder shall be inferior to the lien of any first mortgage which may encumber the violating Parcel. In the event of an emergency, the thirty (30) day written notice requirement contained herein shall be waived, and shall not be required.

10. The owner of each respective Parcel shall, at its own expense, maintain the improvements located upon their respective Parcel(s), including but not limited to all parking areas, driveways, walkways, entrances, exits, and landscaped areas located thereon, in good condition and repair at all times. The aforesaid obligations of each Parcel Owner shall, without limiting the generality thereof, include the following:

A. Maintaining the surfaces of the parking areas and spaces, driveways, accessways, sidewalks, and walkways, and entrances and exits located upon their respective Parcel(s) at such grades and levels that same may be used and enjoyed as contiguous and homogeneous with the parking areas and spaces, driveways, accessways, sidewalks, and walkways, common areas, entrances and exits located within and upon adjoining Parcels.

B. Removing, on a regular basis, all paper, debris, fill, and refuse from all parking areas and spaces, driveways, accessways, sidewalks, walkways, entrances and exits, and landscaped areas located within their respective Parcel(s), and thoroughly sweeping said areas to the extent reasonably necessary to keep such areas in a neat, clean, orderly, and aesthetically pleasing condition.

C. Placing, keeping in repair, and replacing any necessary or appropriate directional signs, street markers, and lines located within and about the parking areas and spaces, driveways, accessways, sidewalks, and walkways, entrances and exits, and landscaped areas located within their respective Parcel(s).

D. Operating, keeping in repair, and replacing when necessary all artifical lighting facilities located within their respective Parcel(s).

E. Mowing, cutting, and otherwise maintaining all landscaped areas located within the landscaping materials located within their respective Parcel(s) as shall be necessary in order, at all times, to keep said areas adequately weeded, fertilized, watered, clipped, cut, trimmed, neat, clean, and in an aesthetically pleasing condition.

F. Storing all trash and garbage in adequate containers within their respective Parcel(s), which garbage storage areas shall be maintained in a clean and neat condition, and shall be located so as not to be visible to the public and so as not to create any health or fire hazard. Arrangements shall be made for regular removal thereof at the Parcel Owner's expense.

G. Prohibiting the burning of any papers, trash, or garbage of any kind in or about the Parcel(s).

H. Prohibiting the distribution of hand bills or other advertising matter on or about any part of the Parcel(s).

I. Prohibiting the installation in or about any Parcel(s) of any exterior amplification or similar devices and prohibiting the use in, on, or about any Parcel of any advertising medium which may be heard or experienced outside of its respective Parcel, such as flashing lights, search lights, loud speakers, phonographs, television, or radio broadcast.

J. Subsection J has been intentionally omitted herefrom.

K. Prohibiting the installation of any signs on its Parcel which violate the following prohibitions:

(i) No sign shall be painted on the exterior surface of any building;

(ii) No sign shall be permited which violates the provisions of the St. Lucie County Zoning Ordinance or other applicable governmental regulations;

(iii) No freestanding sign may be erected on any Parcel without the prior written approval of Declarant.

L. Keeping each Parcel clean, orderly, sanitary, and free from objectionable odors and from termites, insects, vermin, and other pests, and agreeing not to keep any live animals of any kind in, upon, or about its Parcel (except for animals held for resale by a pet store operating on any Parcel).

In the event that any Parcel Owner, within thirty (30) days after receipt of written notice from Declarant or any Owner shall fail, refuse, or neglect to perform any of the above described covenants or obligations, then, in such event, Declarant and/or any Owner (and/or its designee(s), successor(s), grantee(s), or assign(s)) shall have and is (are) hereby granted the right (but not the obligation) through its (their) agents and employees, to enter upon the violating Parcel and to cause the required repairs, maintenance, and/or replacements to be performed and to recover from the Owner of the violating Parcel all costs and expenses (including reasonable attorneys' fees) incurred by Declarant and/or any Owner (or by its designee(s), successor(s), grantee(s), or assign(s)) in connection therewith, plus reasonable overhead costs, together with interest computed from the date on which such costs shall have been incurred, until the date of payment thereof in full, at the highest rate permitted by applicable law. Any party performing maintenance or repair work upon the violating Parcel pursuant to the provisions of this Section 10, shall be deemed to have contracted with the Owner of the violating Parcel to perform that work, and shall be entitled to file a mechanics lien against the interest of the Owner of the violating Parcel in its Parcel for the cost of that work (including reasonable overhead costs and interest) and to recover that cost in an action at law against the Owner of the violating Parcel, all in accordance with Florida Statutes, as amended from time to time. Any lien established hereunder shall be inferior to the lien of any first mortgage which may encumber the violating Parcel. In the event of an emergency, the thirty (30) day written notice requirement contained herein shall be waived, and shall not be required.

11. The owner of each respective Parcel shall, at its own expense, be solely responsible for the proper impoundment and disposal of any and all hazardous waste materials which may be present at any time upon their respective Parcel(s). By accepting title to a Parcel which is subject to this Declaration, the owner of said Parcel agrees to indemnify the owner(s) of all adjacent Parcels from and against any loss, claim, damage, or

other harm which may be occasioned as a result of said Parcel Owner's failure to properly impound and/or dispose of hazardous waste materials as required hereunder.

12. If any of the respective Parcels are utilized for a purpose which shall generate waste materials which are potentially damaging to the drainage, sewer, water, or other infrastructure systems serving the respective Parcels, then the owner of the Parcel(s) generating such damaging waste material shall have the sole responsibility to properly impound and dispose of such damaging waste materials, and such Parcel Owner shall be solely responsible for any damage which any improper disposal of such waste materials may cause to the common facilities of the shopping center.

13. In the event all or any portion of the improvements situated on any of Parcels 3, 4, or 5 are damaged or destroyed by a casualty, insured or uninsured, and the Owner thereof does not restore such damaged or destroyed building or portion thereof promptly upon the occurrence thereof, the Owner shall raze the portions thereof which are not restored or rehabilitated, clear away all debris and take all other action (including paving and landscaping) required by good construction practice so that the area which had been occupied by the razed building, or portions thereof, will be an attractive, usable area appearing to be part of the Common Facilities of the shopping center; provided, however, this provision shall not prevent such Owner from subsequently building on the area so cleared, provided that any such subsequent construction shall be in accordance with the provisions of this Agreement.

14. The Parcels shall at all times be maintained in compliance with all applicable Governmental or Quasi-Governmental regulations, specifically including, but not limited to pre-annexation requirements or post-annexation requirements which may be imposed by the City of Fort Pierce, Florida.

15. If the approval or consent of Declarant is required pursuant to the terms of this Declaration, and Declarant no longer owns any portion of the Parcels, the right of approval shall be exercised by the Owner of Parcel 1. Notwithstanding the foregoing, Declarant expressly reserves the right to assign any retained rights under the terms of this Declaration by recording a written instrument in the office of the Clerk of Circuit Court in and for St. Lucie County, Florida.

16. The terms, covenants, conditions, and provisions of this Declaration may be extended, abrogated, modified, rescinded, or amended in whole or part but only with the written consent of Declarant, Owners, Food Lion (but only during the term of the Food Lion Lease), Rite-Aid (but only during the term of the Rite-Aid Lease), and the holder or holders of any first mortgage now or in the future constituting a lien against any of the Parcels; but subject to such consent requirements, Declarant, or its successor or successors in title, expressly reserves the right to extend, abrogate, modify, rescind, or amend this Declaration by an instrument in writing duly executed by the appropriate parties in interest and duly recorded in the public records of St. Lucie County, Florida.

17. This Declaration shall become effective on the date of this document and shall be binding upon all parties or persons claiming under them and shall run with the land for a period of fifty (50) years from such date, or until such date as Food Lion and/or Rite-Aid, or their respective successors and assigns abandon possession of the premises demised to them, whichever shall later occur (which fact shall be exclusively established by the true Affidavit of Declarant or its successors or assigns). The easements, rights, privileges, restrictions, and benefits

NEILL GRIFFIN JEFFRIES & LLOYD
CHARTERED
P.O. BOX 1270. FORT PIERCE. FLORIDA 34954 - TELEPHONE (407) 464-820

OR BK 0712 PAGE 0091

created or granted under this Declaration and each provision hereof shall be enforceable by Declarant, Owners, Food Lion, Rite-Aid, Mortgagee, and Beneficiaries and all or any one of them may enforce this Declaration by injunction or by specific performance and the Covenants, Restrictions, and Easements established hereunder shall be deemed covenants running with the title to the Parcels so long as this Declaration (as the same may be amended from time to time) shall be in effect, as above provided. This Declaration shall be binding upon and shall inure to the benefit of the respective heirs, legal representatives, successors, and assigns of Declarant, Owners, Mortgagee, Food Lion, Rite-Aid, and Beneficiaries as above provided.

18. This Declaration shall be governed by and construed in accordance with the laws of the State of Florida.

19. In the event any portion of this Declaration is declared by a Court of competent jurisdiction to be void, the invalidity of any part shall not invalidate the remainder of this Declaration.

20. In the event that Declarant, Owners, Mortgagee, Food Lion, Rite Aid, and/or Beneficiaries, or any of the their respective successors or assigns so entitled, institutes legal proceedings hereunder to enforce any of the terms hereof, then the party prevailing in said legal proceeding shall be entitled to recover reasonable attorneys' fees (including those incurred on appeal) and Court costs incurred incidential thereto from the other party(ies).

Declarant has executed this Declaration of Restrictions and Grant of Easements of as this 15TH day of OCTOBER, 1990.

TAYLOR CREEK ASSOCIATES, LTD.,
a Florida Limited Partnership
BY: Holland Construction Co., Inc.,
A Texas corporation, its
Sole General Partner

ATTEST

Betty Holland
Betty Holland, Secretary

By: R. Calvin Holland
R. Calvin Holland, President

(Corporate Seal)

STATE OF NORTH CAROLINA
COUNTY OF UNION

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State aforesaid and in the County aforesaid to take acknowledgments, personnally appeard R. CALVIN HOLLAND and BETTY HOLLAND, who are to me well known and known to me to be the President and Secretary of HOLLAND CONSTRUCTION CO., INC., a Texas Corporation, being the sole General Partner of TAYLOR CREEK ASSOCIATES, LTD., a Florida Limited Partnership, and they executed the forgoing instrument and acknowledged to and before me that they executed the same.

WITNESS my hand and official seal in the County and State last aforesaid this 15th day of October, 1990.

Judith M. Hefner
NOTARY PUBLIC

MY COMMISSION EXPIRES: 8/1/92

Fort Pierce, Florida

NEILL GRIFFIN JEFFRIES & LLOYD
CHARTERED
P.O. BOX 1270, FORT PIERCE, FLORIDA 34954 - TELEPHONE (407) 464-8200

EXHIBIT "A"

PARCEL 1

Commence at the Northeast corner of Section 4, Township 35 South, Range 40 East, St. Lucie County, Florida, said point being an 1" iron pipe, thence run S88°21'15"W a distance of 109.28 feet, to the Southeast corner of Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida; thence run S89°11'58"W, along the South line of said Section 33, a distance of 97.22 feet, to the West right of way line of U.S. Highway No. 1 (State Road No. 5, being 200 feet in width), said point being the POINT OF BEGINNING; thence run S28°05'56"E along the said West right of way line, a distance of 539.69 feet to a Point on Curvature of a Curve concave to the north; thence run Southwesterly along the said curve having an interior angle of 08°01'56", a radius of 538.68 feet, and an arc length of 75.52 feet and a long chord of S84°52'01"W, a distance of 75.45 feet to the Point of Tangency of said curve; thence run S88°52'59"W, a distance of 347.24 feet, to the Easterly right of way line of Sandridge Road (formerly Old U.S. Highway No. 1 and State Road No. 4 and being 66 feet wide); thence run N24°52'20"W along the said Easterly right of way line, a distance of 101.66 feet, to the Point of Curvature of a curve concave to the southeast; thence run Northwesterly along the said curve having an interior angle of 68°36'38", a radius of 25.00 feet an an arc length of 29.94 feet, to a Point of Reverse Curvature of a curve concave to the southeast; thence run Northerly, westerly and southerly along the said curve having an interior angle of 248°36'38", a radius of 60.00 feet and an arc length of 260.34 feet to the Point of Tangency of said curve on the Westerly extension of the North line of Hillside Subdivision as recorded in Plat Book 7, page 43, of the Public Records of St. Lucie County, Florida; thence run S88°52'59"W along the said westerly extension of the North line of Hillside Subdivision, a distance of 256.75 feet, to the easterly right of way line of South Florida Water Management District Canal No. C-25 (Belcher Canal) and a Point of Curvature of a curve concave to the southwest; thence run Northwesterly, meandering along the said Easterly right of way line of C-25 and along the said curve having an interior angle of 12°59'00", a radius of 830 feet, an arc length of 188.08 feet an a long chord of N42°34'32"W, a distance of 187.68 feet, to the Point of Tangency of said curve; thence run N49°04'02"W a distance of 261.00 feet; thence run N20°50'01"W a distance of 70.69 feet; thence leaving the said West right of way of Canal No. C-25, run N40°55'58"E, a distance of 251.56 feet to the Point of Curvature of a curve concave to the northwest; thence run northeasterly, along the said curve having an interior angle of 33°35'57", a radius of 251.60 feet and an arc length of 147.54 feet to the Point of Tangency of said curve; thence run N07°20'00"E a distance of 184.22 feet to a Point on Curvature of a curve concave to the north; thence run easterly along the said curve having an interior angle of 50°40'51" a radius of 60.00 feet, an arc length of 53.07 feet and a long chord of N81°25'16"E a distance of 51.36 feet to a Point of Curvature of a curve concave to northeast; thence run Southeasterly, along the said curve having an interior angle of 00°52'57", a radius of 1426.87 feet, an arc length of 21.98 feet and a long chord of S08°41'15"E, a distance of 21.98 feet, to the South line of the North 150 feet of the North 3/4 of the South 1/2 of the SE 1/4 of the SE 1/4 of Section 33, Township 34 South, Range 40 East; thence run N89°07'15"E a distance of 334.03 feet, to the Westerly right of way line of aforesaid U.S. Highway No. 1, thence run S28°05'56E along the said Westerly right of way, a distance of 582.10 feet to the POINT OF BEGINNING; all lying and being in Sections 3 and 4, Township 35 South, Range 40 East, and Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida.

PARCEL 2

COMMENCE at the Northeast corner of Section 4, Township 35 South, Range 40 East, St. Lucie County, Florida, said point being an 1" Iron Pipe; thence run S88°21'15"W, a distance of 109.28 feet, to the southeast corner of Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida; thence run S89°11'58"W, along the South line of said Section 33, a distance of 996.14 feet, to the easterly right-of-way line of South Florida Water Management District Canal No. C-25 (Belcher Canal) and Fort Pierce Farms Water Control District Canal No. 1; thence, meandering along the said Easterly right-of-way lines of Canal No. C-25 and Canal No. 1, run N20°50'01"W, a distance of 31.57 feet, to the POINT OF BEGINNING; thence continue N20°50'01"W, a distance of 75.75 feet; thence run N34°11'17"W, a distance of 349.49 feet; thence run N23°35'16"W, a distance of 248.22 feet; thence run N00°30'17"W, a distance of 44.47 feet; thence, leaving the said east right-of-way line of Canal No. 1, run N89°07'15"E, a distance of 575.97 feet, to a Point on Curvature of a curve concave to the northwest, said point being on the westerly right-of-way line of Sandridge Road (formerly Old U.S. 1 and State Road No. 4, being 66 feet wide); thence run southwesterly, along the said curve having an Interior Angle of 67°04'31", a Radius of 25.00 feet, an Arc Length of 29.27 feet and a Long Chord of S30°30'35"W, a distance of 27.62 feet, to a Point of Reverse Curvature of a curve concave to the east; thence run southwesterly, southerly, and southeasterly, along the said curve having an Interior Angle of 137°17'08", a Radius of 60.00 feet, an Arc Length of 143.77 feet and a Long Chord of S04°35'44"E, a distance of 111.76 feet, to a Point on Curvature; thence run S07°20'00"W, a distance of 184.22 feet, to the Point of Curvature of a curve concave to the northwest; thence run southwesterly, along the said curve having an Interior Angle of 33°35'57", a Radius of 251.60 feet and an Arc Length of 147.54 feet, to the Point of Tangency of said curve; thence run S40°55'58"W, a distance of 251.56 feet, to the POINT OF BEGINNING; all lying and being in Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida.

PARCEL 3

(OUTPARCELS 1 AND 2):

COMMENCE at the Northeast corner of Section 4, Township 35 South, Range 40 East, St. Lucie County, Florida, said point being an 1" Iron Pipe; thence run S88°21'15"W, a distance of 109.28 feet, to the Southeast corner of Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida; thence run S89°11'58"W, along the South line of said Section 33, a distance of 97.22 feet, to the West right-of-way line of U.S. Highway No. 1 (State Road No. 5, being 200 feet in width); thence run S28°05'56"E, along the said West right-of-way line, a distance of 108.93 feet, to the POINT OF BEGINNING; thence continue S28°05'56"E, a distance of 430.76 feet, to a Point on Curvature of a Curve concave to the north; thence run southwesterly, along the said curve having an Interior Angle of 08°01'56", a Radius of 538.68 feet, an Arc Length of 75.52 feet and a Long Chord of S84°52'01W, a distance of 75.45 feet, to the Point of Tangency of said curve, thence run S88°52'59"W, a distance of 347.24 feet, to the Easterly right-of-way line of Sandridge Road (formerly Old U.S. Highway No. 1 and State Road No. 4 and being 66 feet wide); thence run N24°52'20"W, along the said Easterly right-of-way line, a distance of 101.66 feet, to the Point of Curvature of a curve concave to the southeast; thence run northwesterly along the said curve having an Interior Angle of 68°36'38", a Radius of 25.00 feet and an Arc Length of 29.94 feet, to a Point of Reverse Curvature of a curve concave to the southeast; thence run northeasterly, northerly, and northwesterly along the said curve having an Interior Angle of 120°12'12", a Radius of 60.00 feet, an Arc Length of 125.88 feet and a Long Chord of N16°21'49"W, a distance of 104.03 feet, to a Point on Curvature of a curve concave to the southeast; thence run northeasterly, along the said curve having an Interior Angle of 66°34'34", a Radius of 30.00 feet, an Arc Length of 34.86 feet and a Long Chord of N28°36'47"E, a distance of 32.93 feet to the Point of Tangency of the said curve; thence run N61°54'04"E, a distance of 307.34 feet, to the POINT OF BEGINNING; all lying and being in Sections 3 and 4, Township 35 South, Range 40 East, St. Lucie County, Florida.

PARCEL 4

OUTPARCEL 3:

Commence at the Northeast corner of Section 4, Township 35 South, Range 40 East, St. Lucie County, Florida, said point being an 1" Iron Pipe; thence run S88°21'15"W, a distance of 109.28 feet, to the Southeast corner of Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida; thence run S89°11'58"W, along the South line of said Section 33, a distance of 97.22 feet, to the West right-of-way line of U.S. Highway No. 1 (State Road No. 5 being 200 feet in width); thence run N28°05'56"W, along the said West right-of-way line, a distance of 116.19 feet, to the POINT OF BEGINNING; thence run S89°07'15"W, a distance of 189.75 feet to the Point of Curvature of a curve concave to the northeast; thence run northwesterly, along the said curve having an Interior Angle of 62°46'49", an Arc Length of 27.39 feet, and a Radius of 25.00 feet, to the Point of Tangency of said curve; thence run N28°05'56"W, a distance of 167.91 feet, to the Point of Curvature of a curve concave to the southeast; thence run northeasterly, along the said curve having an Interior Angle of 81°07'02", a Radius of 25.00 feet, an Arc Length of 35.94 feet and a Long Chord of N12°27'35"E, a distance of 32.51 feet, to a Point on Curvature of a curve concave to the southeast; thence run easterly, along the said curve having an Interior Angle of 7°07'00", a Radius of 103.96 feet, an Arc Length of 12.91 feet, and a Long Chord of N85°33'45"E, to the Point of Tangency of said curve thence run N89°07'15"E, a distance of 167.94 feet, to the said West right-of-way line of U.S. Highway No 1; thence run S28°05'56"E, a distance of 219.63 feet; to the POINT OF BEGINNING, all lying and being in Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida and containing 39,735 square feet.

PARCEL 5

(OUTPARCEL 4):

COMMENCE at the Northeast corner of Section 4, Township 35 South, Range 40 East, St. Lucie County, Florida, said point being an 1" Iron Pipe; thence run S88°21'15"W, a distance of 109.28 feet, to the Southeast corner of Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida; thence run S89°11'58"W, along the south line of said Section 33, a distance of 97.22 feet, to the West right-of-way line of U.S. Highway No. 1 (State Road No. 5, being 200 feet in width); thence run N28°05'56"W, along the said West right-of-way line, a distance of 582.10 feet, to the POINT OF BEGINNING; thence run S28°05'56"E, along the said West right-of-way line, a distance of 196.79 feet; thence run S89°07'15"W, a distance of 205.00 feet; thence run N28°05'56"W, a distance of 196.79 feet, to the South line of the North 150 feet of the North 3/4 of the South 1/2 of the Southeast 1/4 of the Southeast 1/4 of Section 33, Township 34 South, Range 40 East; thence run N89°07'15"E, a distance of 205.00 feet, to the POINT OF BEGINNING; all lying and being in Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida, and containing 35,875.00 square feet.

and

(OUTPARCEL 5):

COMMENCE at the Northeast corner of Section 4, Township 35 South, Range 40 East, St. Lucie County, Florida, said point being an 1" Iron Pipe; thence run S88°21'15"W, a distance of 109.28 feet, to the Southeast corner of Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida; thence run S89°11'58"W, along the South line of said Section 33, a distance of 97.22 feet, to the West right-of-way line of U.S. Highway No. 1 (State Road No. 5, being 200 feet in width); thence run N28°05'56"W, along the said West right-of-way line, a distance of 385.30 feet; thence run S89°07'15"W, a distance of 205.00 feet, to the POINT OF BEGINNING; thence run S28°05'56"E, a distance of 15.66 feet, to a Point on Curvature of a curve concave to the southeast; thence run southwesterly, along the said curve having an Interior Angle of 17°50'34", a Radius of 143.96 feet, an Arc Length of 44.83 feet and a Long Chord of S58°47'49"W, a distance of 44.65 feet, to the Point of Tangency of the said curve; thence run S49°52'32"W, a distance of 77.63 feet, to the Point of Curvature of a curve concave to the north; thence run northwesterly, along the said curve having an Interior Angle of 90°00'00", a Radius of 25.00 feet and an Arc Length of 39.27 feet, to the Point of Tangency of the said curve; thence run N40°07'28"W, a distance of 107.68 feet, to the Point of Curvature of a curve concave to the southwest; thence run northwesterly, along the said curve having an Interior Angle of 29°10'19", a Radius of 112.50 feet and an Arc Length of 57.28 feet, to the Point of Reverse Curvature of a curve concave to the east; thence run northerly, along the said curve having an Interior Angle of 76°37'47", a Radius of 25.00 feet and an Arc Length of 33.44 feet, to the Point of Tangency of the said curve; thence run N07°20'00"E, a distance of 129.28 feet, to a Point on Curvature of a curve concave to the northwest; thence run easterly, along the said curve having an Interior Angle of 16°26'54", a Radius of 60.00 feet, an Arc Length of 17.22 feet and a Long Chord of N64°18'18"E, a distance of 17.17 feet, to a Point on Curvature of a curve concave to the northeast; thence run southeasterly, along the said curve having an Interior Angle of 00°52'57", a Radius of 1426.87 feet, an Arc Length of 21.98 feet and a Long Chord of S08°41'15"E, a distance of 21.98 feet; thence run N89°07'15"E, a distance of 129.04 feet; thence run S28°05'56"E, a distance of 196.79 feet, to the POINT OF BEGINNING, all lying and being in Section 33, Township 34 South, Range 40 East, St. Lucie County, Florida.

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FILED AND RECORDED
DOUGLAS DIXON
ST. LUCIE COUNTY

PN

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 4743621 OR BOOK 4463 PAGE 1079, Recorded 08/18/2020 01:57:11 PM Doc Tax: $0.70

Prepared by and return to:

Timothy H. Kenney, Esq.
120 BUTLER ST SUITE B
WEST PALM BEACH, FL 33407

(Space above this line reserved for recording office use only)

WARRANTY DEED

1. IDENTIFICATION OF GRANTOR

Grantor's name and address is: 233 CITY ISLAND LLC, a New York limited liability company
101 City Island Avenue
Bronx, NY 10464

The word "I" or "me" as hereafter used means the Grantor.

2. IDENTIFICATION OF GRANTEE

Grantee's name and address is: SCAVELLO MANAGEMENT LLC, a Florida limited liability company
101 City Island Avenue
Bronx, NY 10464

The word "you" as hereafter used means the Grantee.

3. MEANINGS OF TERMS

The terms "I," "me," "you," "grantor," and "grantee," shall be non-gender specific ((i) masculine, (ii) feminine, or (iii) neuter, such as corporations, partnerships or trusts), singular or plural, as the context permits or requires, and include heirs, personal representatives, successors or assigns where applicable and permitted.

4. DESCRIPTION OF REAL PROPERTY CONVEYED

Property hereby conveyed (the "Real Property") is described as follows:

SEE EXHIBIT "A" ATTACHED HERETO.

No documentary stamps are due and owing as there was no consideration. This is a transfer to a wholly-owned LLC.

SUBJECT TO comprehensive land use plans, zoning, restrictions, prohibitions, and other requirements imposed by governmental authority; restrictions and matters appearing on the plat or otherwise common to the subdivision; public utility easements of record; and taxes for the year 2020 and subsequent years.

The Property Appraiser's Parcel Identification Number is 1433-431-0001-000-4.

5. CONSIDERATION

There is no consideration. This is a transfer from a wholly-owned LLC to another wholly-owned LLC.

6. CONVEYANCE OF REAL PROPERTY

For the consideration described in Paragraph 5, I have granted, bargained and sold to you the Real Property to have and to hold in fee simple (estate in property unlimited as to duration, disposition and descendability) forever.

7. WARRANTY

I fully warrant the title to the Real Property and will defend the same against the lawful claims of all persons whomsoever except for covenants, reservations, restrictions and easements of record.

Executed on this 6th day of August, 2020.

233 CITY ISLAND LLC, a New York limited liability company

By: Paul Scavello
PAUL SCAVELLO, Manager

Signed in the presence of:

Mike Scavello
Print Name: Mike Scavello
Witness

Signed in the presence of:

Martha C. Castro
Print Name: MARTHA C. CASTRO
Witness

STATE OF NEW YORK

COUNTY OF Queens

The foregoing instrument was acknowledged before me by means of ☐ physical appearance or ☐ online notarization on this 6th day of August, 2020, by PAUL SCAVELLO, as Manager of 233 CITY ISLAND LLC, a New York limited liability company, who is personally known to me or has produced his Driver's License as identification and did take an oath and state: he is the individual described in and who executed the foregoing for the purposes therein expressed.

Notary Public, State of New York
My Commission Expires:

MARTHA C. CASTRO
NOTARY PUBLIC-STATE OF NEW YORK
No. 01CA6306597
Qualified in Queens County
My Commission Expires June 23, 2022

EXHIBIT "A"

LEGAL DESCRIPTION

COMMENCE AT THE NE CORNER OF SECTION 4, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, SAID POINT BEING A 1 INCH IRON PIPE; THENCE RUN S. 88°21'15" W. A DISTANCE OF 109.28 FEET TO THE SE CORNER OF SECTION 33, TOWNSHIP 34 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA; THENCE RUN S. 89°11'58" W. ALONG THE SOUTH LINE OF SAID SECTION 33, A DISTANCE OF 996.14 FEET TO THE EASTERLY RIGHT OF WAY LINE OF SOUTH FLORIDA WATER MANAGEMENT DISTRICT CANAL NO. C-25 (BELCHER CANAL) AND FORT PIERCE FARMS WATER CONTROL DISTRICT CAL NO. I; THENCE, MEANDERING ALONG SAID EASTERLY RIGHT OF WAY LINES OF CANAL NO. C-25 AND CANAL NO. 1, RUN N. 20°50'01" W. A DISTANCE OF 31.57 FEET TO THE POINT OF BEGINNING;

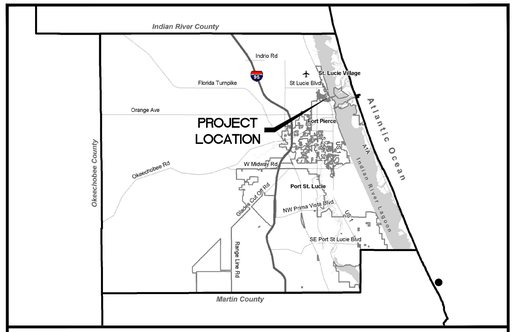
THENCE CONTINUE N. 20°50'01" W. A DISTANCE OF 75.75 FEET THENCE RUN N. 34°11'17" W. A DISTANCE OF 349.49 FEET; THENCE RUN N. 23°35'16" W. A DISTANCE OF 248.22 FEET; THENCE RUN N. 00°30'17" W.A DISTANCE OF 44.47 FEET; THENCE, LEAVING THE SAID EAST RIGHT OF WAY LINE OF CANAL NO. 1, RUN N. 89°07'15" E. A DISTANCE OF 575.97 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NW, SAID POINT BEING ON THE WESTERLY RIGHT OF WAY LINE OF SANDRIDGE ROAD (FORMERLY OLD U.S. I AND STATE ROAD NO. 4, BEING 66 FEET WIDE); THENCE RUN SOUTHWESTERLY ALONG THE SAID CURVE, HAVING AN INTERIOR ANGLE OF 67°04'31", A RADIUS OF 25.00 FEET, AN ARC LENGTH OF 29.27 FEET AND A LONG CHORD OF S. 38°30'35" W. A DISTANCE OF 27.62 FEET TO A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE TO THE EAST; THENCE RUN SOUTHWESTERLY, SOUTHERLY, AND SOUTHEASTERLY, ALONG THE SAID CURVE, HAVING IN INTERIOR ANGLE OF 137°17'08", A RADIUS OF 60.00 FEET, AN ARC LENGTH OF 143.77 FEETAND A LONG CHORD OF S. 04°35'44" E. A DISTANCE OF 11.78 FEET TO A POINT OF CURVATURE; THENCE RUN S. 07°20'00" W. A DISTANCE OF 184.22 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST; THENCE RUN SOUTHWESTERLY, ALONG THE SAID CURVE HAVING AN INTERIOR ANGLE OF 33°35'57", A RADIUS OF 251.60 FEET AND AN ARC LENGTH OF 147.54 FEET TO THE POINT OF TANGENCY OF SAID CURVE; THENCE RUN S. 40°55'58" W. A DISTANCE OF 251.56 FEET TO THE POINT OF BEGINNING; ALL LYING AND BEING IN SECTION 33, TOWNSHIP 34 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

SCAVELLO MANAGEMENT, LLC
TAYLOR CREEK

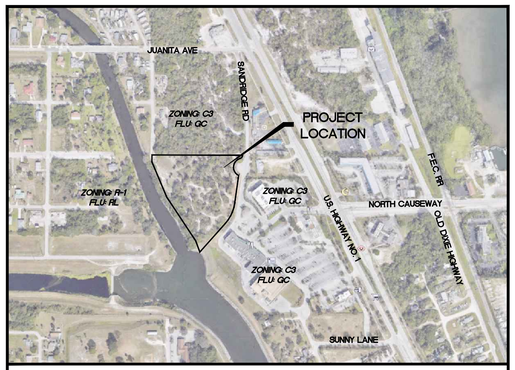
SITE PLAN SUBMITTAL

SECTION 33, TOWNSHIP 34S, RANGE 40E
FORT PIERCE, ST. LUCIE COUNTY,
FLORIDA

MARCH 2021



LOCATION MAP



VICINITY MAP

INDEX OF DRAWINGS

C1	COVER SHEET
C6	SITE PLAN
C7	PAVING, GRADING AND DRAINAGE PLAN
C8	PAVING, GRADING AND DRAINAGE PLAN

OWNER / APPLICANT

SAVELLO MANAGEMENT, LLC
101 CITY ISLAND AVE.
BRONX, NEW YORK 10464

ENGINEER

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CIVIL ▪ STRUCTURAL ▪ SURVEYING ▪ ENVIRONMENTAL
1835 20TH STREET
VERO BEACH, FL 32960
PH: (772) 569-0035
MELBOURNE, FL - PH: (321) 253-1510
FT. PIERCE, FL - PH: (772) 468-9055
PALM CITY, FL - PH: (772) 426-9959

SURVEYOR

BOWMAN CONSULTING
GROUP, LTD., INC.
301 SE OCEAN BLVD, SUITE 301
STUART, FLORIDA 34994
PHONE: (772) 283-1413

ARCHITECT

ARCHITECTONIC, INC.
806 DELAWARE AVE
FORT PIERCE, FLORIDA 34950
PHONE (772) 460-7751OR

LEGAL DESCRIPTION

Parcel 1
COMMENCE AT THE NORTHEAST CORNER OF SECTION 4, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, SAID POINT BEING A 1" IRON PIPE;

THENCE RUN SOUTH 88°21'15" WEST, A DISTANCE OF 109.28 FEET TO THE SOUTHEAST CORNER OF SECTION 33, TOWNSHIP 34 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA;

THENCE RUN SOUTH 89°11'58" WEST, ALONG THE SOUTH LINE OF SAID SECTION 33, A DISTANCE OF 996.14 FEET TO THE EASTERLY RIGHT OF WAY LINE OF SOUTH FLORIDA WATER MANAGEMENT DISTRICT CANAL NO. C-25 (BELCHER CANAL) AND FORT PIERCE FARMS WATER CONTROL DISTRICT CANAL NO. 1;

THENCE, MEANDERING ALONG SAID EASTERLY RIGHT OF WAY LINES OF CANAL NO. C-25 AND CANAL NO. 1, RUN NORTH 20°50'01" WEST, A DISTANCE OF 31.57 FEET TO THE POINT OF BEGINNING;

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THENCE RUN NORTH 23°35'16" WEST, A DISTANCE OF 248.22 FEET; THENCE RUN NORTH 00°30'17" WEST, A DISTANCE OF 44.47 FEET;

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THENCE RUN SOUTH 07°20'00" WEST, A DISTANCE OF 184.22 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST;

THENCE RUN SOUTHWESTERLY, ALONG THE SAID CURVE HAVING AN INTERIOR ANGLE OF 33°35'57" A RADIUS OF 251.60 FEET AND AN ARC LENGTH OF 147.54 FEET TO THE POINT OF TANGENCY OF SAID CURVE;

THENCE RUN SOUTH 40°55'58" WEST, A DISTANCE OF 251.56 FEET TO THE POINT OF BEGINNING;

ALL LYING AND BEING IN SECTION 33, TOWNSHIP 34 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

THE DISTANCE ALONG THE NORTH BOUNDARY LINE APPEARS TO BE INCORRECT. WHEN USING THE DEED DISTANCE THE BOUNDARY DOES NOT CLOSE. THE EAST BOUNDARY WAS ESTABLISHED FROM O.R.B. 4110, PG. 1176.

THIS SURVEYOR BELIEVES THAT THIS IS A SCRIVNER'S ERROR AND SHOULD READ 111.78 FEET.

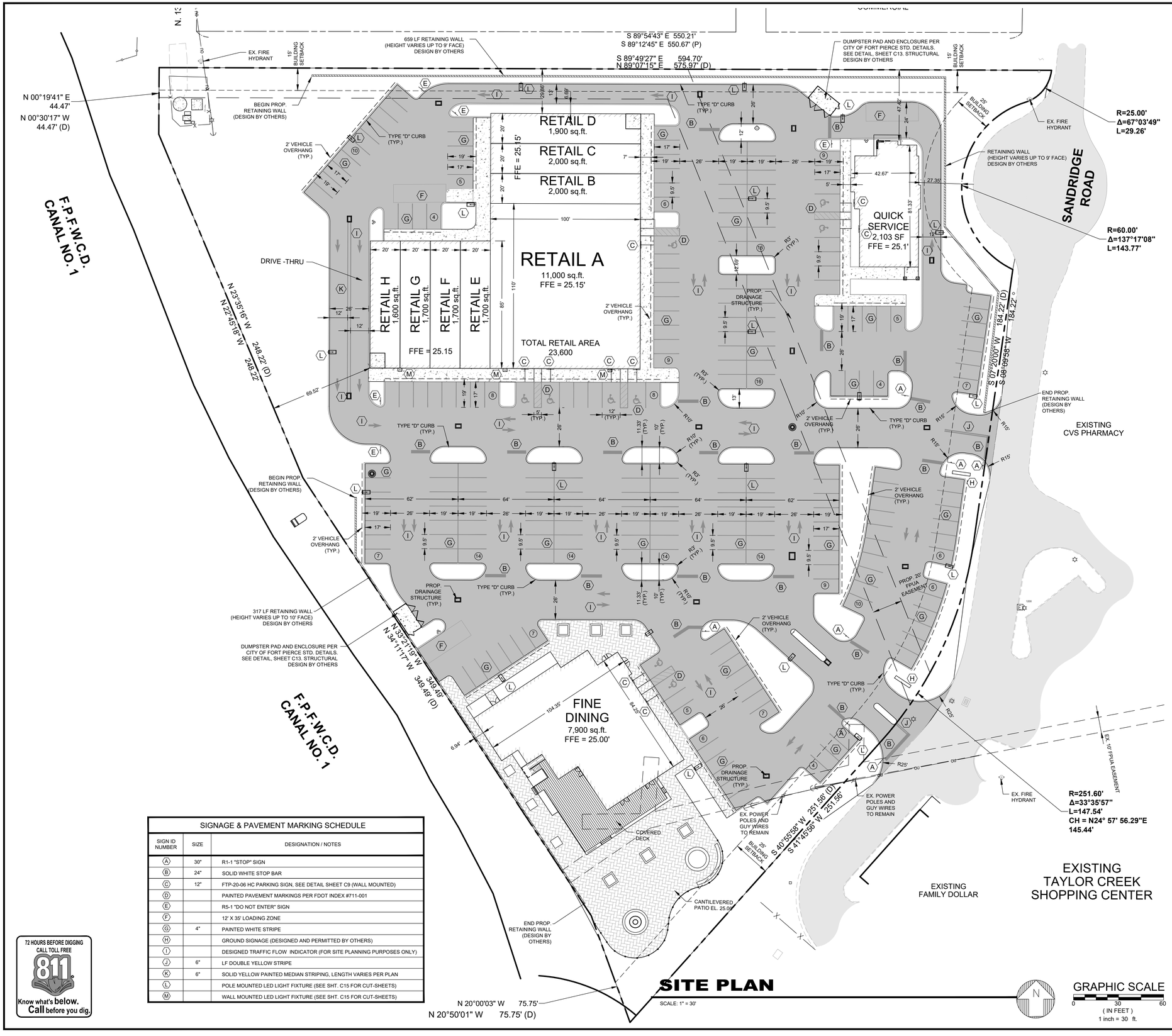
72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's below.
Call before you dig.

JASON A. SYSAK
LICENSE
No. 59519
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DATE: 04/30/2021
PROJECT: 21-0009
SHEET
C1

ALL ELEVATIONS REFERENCE NAVD 88

O:\DRAWINGS\2021\21-0009 Taylor Creek\4. Drawings\21-0009-C1 COVER SETAS.dwg 4/30/2021 11:56 AM JASON.SYSAK



SIGNAGE & PAVEMENT MARKING SCHEDULE

SIGN ID NUMBER	SIZE	DESIGNATION / NOTES
(A)	30"	R1-1 "STOP" SIGN
(B)	24"	SOLID WHITE STOP BAR
(C)	12"	FTP-20-06 HC PARKING SIGN, SEE DETAIL SHEET C9 (WALL MOUNTED)
(D)		PAINTED PAVEMENT MARKINGS PER FDOT INDEX #711-001
(E)		R5-1 "DO NOT ENTER" SIGN
(F)		12' X 35' LOADING ZONE
(G)	4"	PAINTED WHITE STRIPE
(H)		GROUND SIGNAGE (DESIGNED AND PERMITTED BY OTHERS)
(I)		DESIGNED TRAFFIC FLOW INDICATOR (FOR SITE PLANNING PURPOSES ONLY)
(J)	6"	LF DOUBLE YELLOW STRIPE
(K)	6"	SOLID YELLOW PAINTED MEDIAN STRIPING, LENGTH VARIES PER PLAN
(L)		POLE MOUNTED LED LIGHT FIXTURE (SEE SHT. C15 FOR CUT-SHEETS)
(M)		WALL MOUNTED LED LIGHT FIXTURE (SEE SHT. C15 FOR CUT-SHEETS)

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.

PROJECT INFORMATION

PROJECT DESCRIPTION

THIS IS A PROPOSED PROJECT TO CONSTRUCT A NEW COMMERCIAL CENTER OFFERING 23,600 SF RETAIL, 2,103 SF IN FAST CASUAL/QUICK SERVICE RESTAURANTS, AND A 7,900 SF FINE DINING RESTAURANT

OWNER/APPLICANT

SCAVELLO MANAGEMENT, LLC
101 CITY ISLAND AVE.
BRONX, NEW YORK. 10464
PHONE (347) 680-3865

ARCHITECT

ARCHITECTONIC, INC.
806 DELAWARE AVE
FORT PIERCE, FLORIDA 34950
PHONE (772) 460-7751

ENGINEER

MBV ENGINEERING, INC.
1835 20TH STREET
VERO BEACH, FLORIDA 32960
PHONE (772) 569-0035

SURVEYOR

BOWMAN CONSULTING GROUP, LTD., INC.
301 S.E. OCEAN BLVD., SUITE 301
STUART, FLORIDA 34994
PHONE (772) 283-1413

SITE ADDRESS

N.US HIGHWAY 1
FORT PIERCE, FLORIDA 34946

TAX PARCEL I.D. NUMBER

1433-431-0001-000-4

ZONING

C-3

LAND USE

GC

LATITUDE

27°28'11.57" N

LONGITUDE

80°209.19" W

SITE DATA

	SF	AC	%
SITE AREA	230,100 SF	5.28 AC	100.00%
EXISTING LAND IS VACANT			
PROPOSED SITE DATA			
SITE AREA	230,100 SF	5.28 AC	100.00%
IMPERVIOUS AREA	172,592 SF	3.96 AC	75.00%
PROPOSED BUILDINGS	33,603 SF	0.77 AC	14.60%
PROPOSED PAVEMENT	138,989 SF	3.19 AC	60.40%
PERVIOUS AREA	57,508 SF	1.32 AC	25.00%

ZONING DATA

C-3 CRITERIA	REQUIRED	EXISTING	PROPOSED
LOT SIZE	10,000 SF	230,100 SF	230,100 SF
LOT WIDTH	70' MIN.	756.35'	756.35'
LOT DEPTH	90' MIN.	594.70'	594.70'
BUILDING SETBACKS:			
FRONT (EAST)	25'	0'	27.35'
SIDE (NORTH)	15'	0'	29.86'
REAR (CANAL)	0'	0'	6.94'
BUILDING COVERAGE	60% MAX.	0%	14.60%
OPEN SPACE	20% MIN.	100%	25.00%
BUILDING HEIGHT	65' MAX.	NA	65' MAX.

PARKING DATA

	SF	RATIO	SPACES
RETAIL A - H	23,600	1 / 200	118
QUICK SERVICE RESTAURANT	2,103	1 /75	29
* FINE DINING RESTAURANT	7,900		
	(6,700)	1 / 100	67
TOTAL BUILDING	33,603		214
		PROVIDED (INCL. 9 H.C)	230

* 1,200 SF Exemption per The Code of Ordinances of The City of Fort Pierce, Sec. 125-315.(a)(4)a.

STORMWATER DESCRIPTION

ON-SITE STORMWATER RUNOFF FROM THE PROPOSED NEW IMPERVIOUS AREA INCLUDING BUILDINGS AND ROOFTOPS WILL BE COLLECTED BY STORM INLETS AND ROUTED TO AN UNDERGROUND STORMWATER CHAMBER SYSTEM FOR WATER QUANTITY ATTENUATION AND WATER QUALITY TREATMENT UTILIZING ON-LINE DRY RETENTION IN ACCORDANCE WITH SFWMD AND CITY OF FT. PIERCE REQUIREMENTS. STORMWATER OUTFALL IS PROPOSED TO THE FT. PIERCE FARMS WATER CONTROL DISTRICT CANAL NO. 1 DIRECTLY WEST OF THE PROJECT AREA.

FLOOD ZONE

THE LANDS BOUND BY THIS SURVEY ARE LOCATED WITHIN AN AREA HAVING A FLOOD ZONE DESIGNATION "X" (AREA OF MINIMAL FLOOD HAZARD) BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ON FLOOD INSURANCE RATE MAP NUMBER 12111C0177K, DATED FEBRUARY 19, 2020, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY THIS PARCEL IS SITUATED IN.

LEGAL DESCRIPTION

SEE COVER SHEET

WASTEWATER SOURCE

FORT PIERCE UTILITY AUTHORITY

POTABLE WATER SOURCE

FORT PIERCE UTILITY AUTHORITY

PERMITS REQUIRED

CITY OF FORT PIERCE (CoFP) DEVELOPMENT REVIEW
CoFP VEGETATION REMOVAL
CoFP CONCURRENCY REVIEW
CoFP EROSION AND SEDIMENT CONTROL AFFIDAVIT
CoFP DESIGN REVIEW
FORT PIERCE UTILITY AUTHORITY
FORT PIERCE FARMS WATER CONTROL DISTRICT
SFWMD PERMIT
FDEP WATER
FDEP WASTEWATER
FDEP NPDES NOTICE OF INTENT
FDOT PRE-APP
FDOT DRAINAGE

CONSTRUCTION SCHEDULE

CONSTRUCTION START: OCTOBER 2021
CONSTRUCTION END: APRIL 2023

TRAFFIC STATEMENT

1/ PER ITE, 10TH EDITION;
AND BOWMAN ENGINEERING TRAFFIC IMPACT STATEMENT DATED 8/06/2020
1. FINE DINING RESTAURANT
   662 ADT (331 ENTRY, 331 EXIT)
2. RETAIL SHOPPING CENTER
   891 ADT (445 ENTRY, 446 EXIT)
3. QUICK SERVICE RESTAURANT
   236 ADT (118 ENTRY, 118 EXIT)

TOTAL 1789 ADT (894 ENTRY, 895 EXIT)

LEGEND

- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED STAMPED CONCRETE

ALL ELEVATIONS NAVD 1988

DATE	REVISIONS
1	
2	
3	
4	
5	
6	
7	
8	

JOB NO.	21-0009
DESIGNED	RG
DRAWN	SS
DATE	APRIL 2021
CHECKED	JAS
DATE ISSUED	04-30-2021

MBV ENGINEERING, INC.
CIVIL, SITE & TRAFFIC ENGINEERING
MOAL, BOWLES, VILLAMIZAR & ASSOCIATES
CA #3728
MELBOURNE, FL. PH (321) 233-1510
FT. PIERCE, FL., PH (772) 408-9005
1835 - 20TH STREET
VERO BEACH, FL. 32960
PH (772) 569-0035
FX. (772) 778-3417

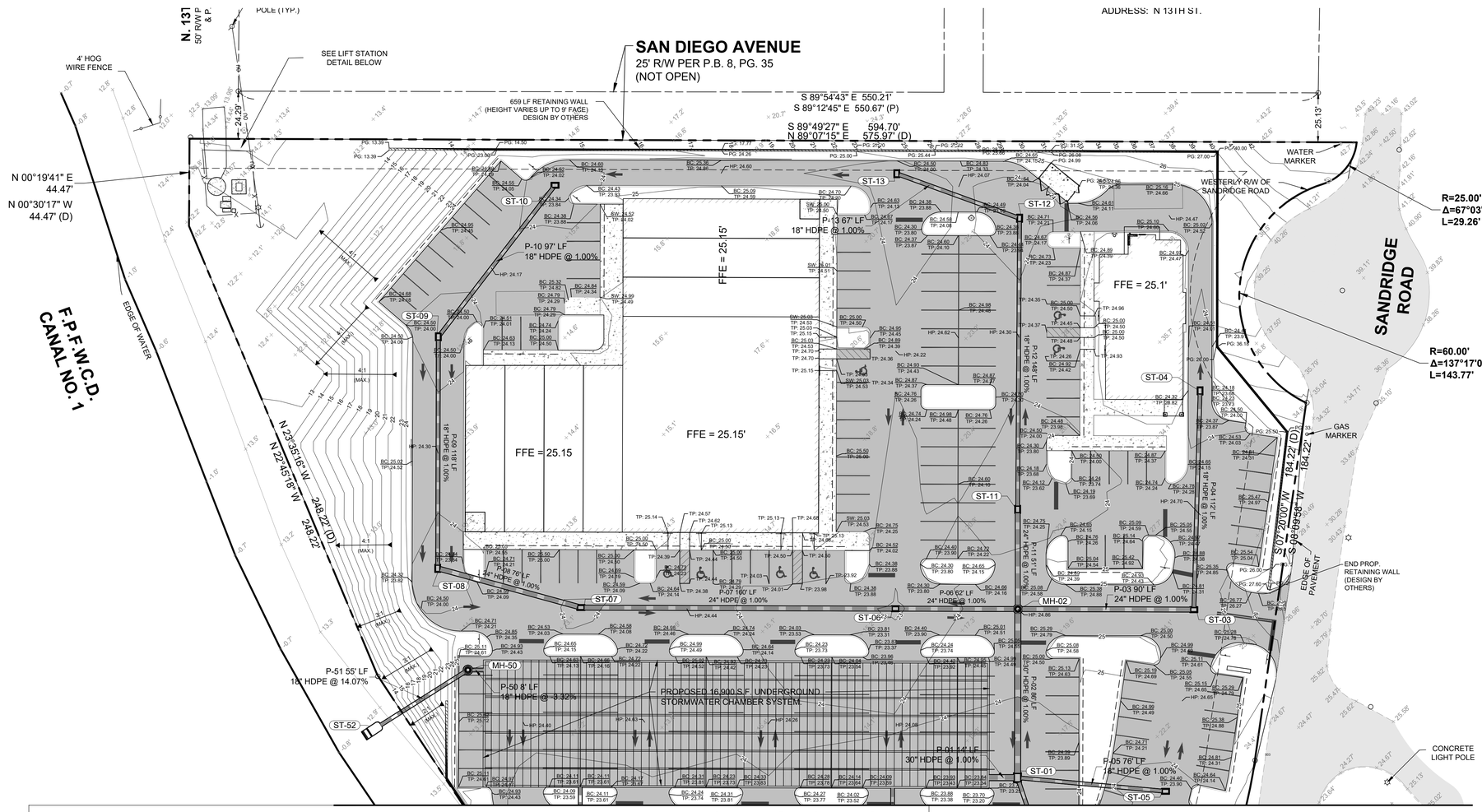
SITE PLAN

SCAVELLO MANAGEMENT, LLC
TAYLOR CREEK
FLORIDA
CITY OF FORT PIERCE

JASON A. SYSAK LICENSE No. 59519 STATE OF FLORIDA PROFESSIONAL ENGINEER

SHEET
C6

21-0009



MATCH LINE SEE SHEET C8

STORM STRUCTURE TABLE		
STRUCTURE I.D.	DESCRIPTION	DATA
MH-02	Index No. 201 - Type 7 Manhole (1 or 2-Piece Cover (Center), Round Bottom)	RIM: 24.86 [P-03] E INV: 15.20 (24") [P-11] N INV: 15.20 (24") [P-06] W INV: 15.20 (24") [P-02] S INV: 15.10 (30")
MH-50	Index No. 201 - Type 7 Manhole (1 or 2-Piece Cover (Center), Round Bottom)	RIM: 24.64 [P-50] E INV: 14.00 (18") [P-51] SW INV: 13.70 (18")
ST-01	Index No. 232 - Ditch Bottom Inlet - Type D	RIM: 23.21 [P-02] N INV: 14.24 (30") [P-05] E INV: 14.25 (18") [P-14] S INV: 14.00 (18") [P-01] W INV: 14.14 (30")
ST-03	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 24.50 [P-04] N INV: 16.20 (18") [P-03] W INV: 16.10 (24")
ST-04	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.50 [P-04] S INV: 17.32 (18")
ST-05	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.73 [P-05] W INV: 15.01 (18")
ST-06	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 22.91 [P-07] W INV: 15.92 (24") [P-06] E INV: 15.82 (24")
ST-07	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.91 [P-08] W INV: 17.62 (24") [P-07] E INV: 17.52 (24")
ST-08	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.74 [P-09] N INV: 18.50 (18") [P-08] E INV: 18.38 (24")
ST-09	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.74 [P-10] NE INV: 19.78 (18") [P-09] S INV: 19.68 (18")
ST-10	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.75 [P-10] SW INV: 20.75 (18")
ST-11	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.37 [P-12] N INV: 15.80 (18") [P-11] S INV: 15.71 (24")
ST-12	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.70 [P-13] W INV: 17.40 (18") [P-12] S INV: 17.28 (18")
ST-13	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.35 [P-13] E INV: 18.07 (18")
ST-14	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.57 [P-14] N INV: 14.80 (18")
ST-20	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.08 [P-21] S INV: 14.35 (18") [P-20] N INV: 14.25 (18")
ST-21	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 22.95
ST-30	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 22.95 [P-30] N INV: 13.56 (18")
ST-52	Index No. 273 - Side Drain MES - Single Round Conc. Pipe	RIM: 7.71 [P-51] NE INV: 6.00 (18")

PIPE TABLE				
PIPE NAME	SIZE	LENGTH	SLOPE	MATERIAL
P-01	30 "	14'	1.00%	HDPE
P-02	30 "	86'	1.00%	HDPE
P-03	24 "	90'	1.00%	HDPE
P-04	18 "	112'	1.00%	HDPE
P-05	18 "	76'	1.00%	HDPE
P-06	24 "	62'	1.00%	HDPE
P-07	24 "	180'	1.00%	HDPE
P-08	24 "	76'	1.00%	HDPE
P-09	18 "	118'	1.00%	HDPE
P-10	18 "	97'	1.00%	HDPE
P-11	24 "	51'	1.00%	HDPE
P-12	18 "	148'	1.00%	HDPE
P-13	18 "	67'	1.00%	HDPE
P-14	18 "	75'	1.07%	RCP
P-20	18 "	25'	1.00%	HDPE
P-21	18 "	124'	1.00%	HDPE
P-30	18 "	24'	1.81%	HDPE
P-50	18 "	8'	3.32%	HDPE
P-51	18 "	55'	14.07%	HDPE

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.

PAVING, GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

N

GRAPHIC SCALE
0 30 60
(IN FEET)
1 inch = 30 ft.

LEGEND

- EXISTING ASPHALT PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE
- PROPOSED STAMPED CONCRETE
- STORMWATER FLOW DIRECTION
- ST-06 DRAINAGE STRUCTURE NAME I.D.
- FDOT D.B.I. AS NOTED
- FDOT TYPE 7 MANHOLE
- PROPOSED DRAINAGE PIPE

BC: BACK OF CURB ELEVATION
EG: EXISTING GROUND ELEVATION
EP: EDGE OF PAVEMENT ELEVATION
FL: FLOWLINE OF SWALE
PG: PROPOSED GRADE ELEVATION
SW: SIDEWALK GRADE ELEVATION
TB: TOP OF BANK ELEVATION
TS: TOE OF SLOPE

ALL ELEVATIONS NAVD 1988

REVISIONS	DATE
8	
7	
6	
5	
4	
3	
2	
1	

JOB NO.	21-0009
DESIGNED	RG
DRAWN	SS
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MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1800 SEBASTIAN BLVD
VERO BEACH, FL 32960
PH: (772) 778-3417
FX: (772) 778-3417
PELICAN BAY, FL - PH:(772) 383-5510
PALMDALE, FL - PH:(772) 469-5505

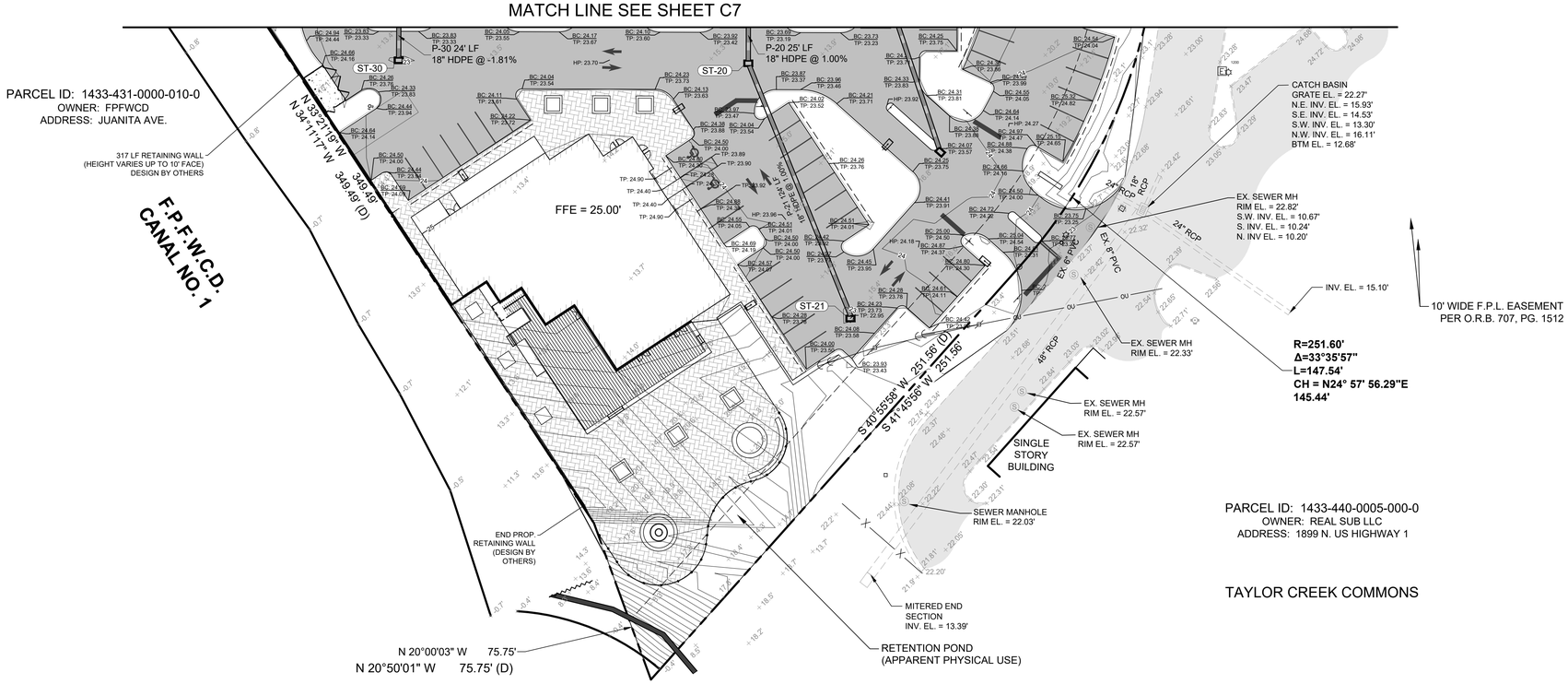
PAVING, GRADING AND DRAINAGE PLAN

SCAVELLO MANAGEMENT, LLC
TAYLOR CREEK
CITY OF FORT PIERCE FLORIDA

JASON A. SYSAK
LICENSE
No. 59519
STATE OF FLORIDA
PROFESSIONAL ENGINEER

SHEET
C7

21-0009



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ST-01	Index No. 232 - Ditch Bottom Inlet - Type D	RIM: 23.21 [P-02] N INV: 14.24 (30") [P-05] E INV: 14.25 (18") [P-14] S INV: 14.00 (18") [P-01] W INV: 14.14 (30")
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ST-08	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.74 [P-09] N INV: 18.50 (18") [P-08] E INV: 18.38 (24")
ST-09	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.74 [P-10] NE INV: 19.78 (18") [P-09] S INV: 19.68 (18")
ST-10	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.75 [P-10] SW INV: 20.75 (18")
ST-11	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.37 [P-12] N INV: 15.80 (18") [P-11] S INV: 15.71 (24")
ST-12	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.70 [P-13] W INV: 17.40 (18") [P-12] S INV: 17.28 (18")
ST-13	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.35 [P-13] E INV: 18.07 (18")
ST-14	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.57 [P-14] N INV: 14.80 (18")
ST-20	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 23.08 [P-21] S INV: 14.35 (18") [P-20] N INV: 14.25 (18")
ST-21	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 22.95
ST-30	Index No. 232 - Ditch Bottom Inlet - Type C	RIM: 22.95 [P-30] N INV: 13.56 (18")
ST-52	Index No. 273 - Side Drain MES - Single Round Conc. Pipe	RIM: 7.71 [P-51] NE INV: 6.00 (18")

PIPE TABLE				
PIPE NAME	SIZE	LENGTH	SLOPE	MATERIAL
P-01	30 "	14'	1.00%	HDPE
P-02	30 "	86'	1.00%	HDPE
P-03	24 "	90'	1.00%	HDPE
P-04	18 "	112'	1.00%	HDPE
P-05	18 "	76'	1.00%	HDPE
P-06	24 "	62'	1.00%	HDPE
P-07	24 "	160'	1.00%	HDPE
P-08	24 "	76'	1.00%	HDPE
P-09	18 "	118'	1.00%	HDPE
P-10	18 "	97'	1.00%	HDPE
P-11	24 "	51'	1.00%	HDPE
P-12	18 "	148'	1.00%	HDPE
P-13	18 "	67'	1.00%	HDPE
P-14	18 "	75'	1.07%	RCP
P-20	18 "	25'	1.00%	HDPE
P-21	18 "	124'	1.00%	HDPE
P-30	18 "	24'	1.81%	HDPE
P-50	18 "	8'	3.32%	HDPE
P-51	18 "	55'	14.07%	HDPE

72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's below.
Call before you dig.

PAVING, GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

GRAPHIC SCALE
0 30 60
(IN FEET)
1 inch = 30 ft.

LEGEND

- EXISTING ASPHALT PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE
- PROPOSED STAMPED CONCRETE
- STORMWATER FLOW DIRECTION
- ST-06 DRAINAGE STRUCTURE NAME I.D.
- FDOT D.B.I. AS NOTED
- FDOT TYPE 7 MANHOLE
- PROPOSED DRAINAGE PIPE

BC: BACK OF CURB ELEVATION
EG: EXISTING GROUND ELEVATION
EP: EDGE OF PAVEMENT ELEVATION
FL: FLOWLINE OF SWALE
PG: PROPOSED GRADE ELEVATION
SW: SIDEWALK GRADE ELEVATION
TB: TOP OF BANK ELEVATION
TS: TOE OF SLOPE

ALL ELEVATIONS NAVD 1988

	DATE	REVISIONS
8		
7		
6		
5		
4		
3		
2		
1		

JOB NO.	21-0009
DESIGNED	RG
DRAWN	SS
DATE	APRIL 2021
CHECKED	JAS
DATE ISSUED	04-30-2021

MBV ENGINEERING, INC.
MOIA, BOWLES, VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1833 - 20TH STREET
VERO BEACH, FL 32960
PH. (772) 778-5778
FX. (772) 778-7477
MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9005

PAVING, GRADING AND DRAINAGE PLAN

SCAVELLO MANAGEMENT, LLC
TAYLOR CREEK
CITY OF FORT PIERCE FLORIDA

JASON A. SMYK LICENSE No. 59519 STATE OF FLORIDA PROFESSIONAL ENGINEER

SHEET
C8

21-0009

ALTA / NSPS LAND TITLE SURVEY
BOUNDARY AND TOPOGRAPHIC SURVEY
SCAVELLO MANAGEMENT, LLC
SECTIONS 33, TOWNSHIP 34 SOUTH, RANGE 40 EAST
FORT PIERCE, ST. LUCIE COUNTY, FLORIDA

LEGAL DESCRIPTION (PER TITLE COMMITMENT)

COMMENCE AT THE NORTHEAST CORNER OF SECTION 4, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, SAID POINT BEING A 1" IRON PIPE;

THENCE RUN SOUTH 88°21'15" WEST, A DISTANCE OF 109.28 FEET TO THE SOUTHEAST CORNER OF SECTION 33, TOWNSHIP 34 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA;

THENCE RUN SOUTH 89°11'58" WEST, ALONG THE SOUTH LINE OF SAID SECTION 33, A DISTANCE OF 996.14 FEET TO THE EASTERLY RIGHT OF WAY LINE OF SOUTH FLORIDA WATER MANAGEMENT DISTRICT CANAL NO. C-25 (BELCHER CANAL) AND FORT PIERCE FARMS WATER CONTROL DISTRICT CANAL NO. 1;

THENCE, MEANDERING ALONG SAID EASTERLY RIGHT OF WAY LINES OF CANAL NO. C-25 AND CANAL NO. 1, RUN NORTH 20°50'01" WEST, A DISTANCE OF 31.57 FEET TO THE **POINT OF BEGINNING**;

THENCE CONTINUE NORTH 20°50'01" WEST, A DISTANCE OF 75.75 FEET; THENCE RUN NORTH 34°11'17" WEST, A DISTANCE OF 349.49 FEET;

THENCE RUN NORTH 23°35'16" WEST, A DISTANCE OF 248.22 FEET; THENCE RUN NORTH 00°30'17" WEST, A DISTANCE OF 44.47 FEET;

THENCE, LEAVING THE SAID EAST RIGHT OF WAY LINE OF CANAL NO. 1, RUN NORTH 89°07'15" EAST, A DISTANCE OF **575.97 FEET*** TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NW, SAID POINT BEING ON THE WESTERLY RIGHT OF WAY LINE OF SANDRIDGE ROAD (FORMERLY OLD U.S.1 AND STATE ROAD NO. 4, BEING 66 FEET WIDE);

THENCE RUN SOUTHWESTERLY ALONG THE SAID CURVE, HAVING AN INTERIOR ANGLE OF 67°04'31", A RADIUS OF 25.00 FEET, AN ARC LENGTH OF 29.27 FEET AND A LONG CHORD OF SOUTH 38°30'35" WEST, A DISTANCE OF 27.62 FEET TO A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE TO THE EAST;

THENCE RUN SOUTHWESTERLY, SOUTHERLY, AND SOUTHEASTERLY, ALONG THE SAID CURVE, HAVING AN INTERIOR ANGLE OF 137°17'08" A RADIUS OF 60.00 FEET, AN ARC LENGTH OF 143.77 FEET AND A LONG CHORD OF SOUTH 04°35'44" EAST, A DISTANCE OF **11.78**** **FEET** TO A POINT OF CURVATURE;

THENCE RUN SOUTH 07°20'00" WEST, A DISTANCE OF 184.22 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST;

THENCE RUN SOUTHWESTERLY, ALONG THE SAID CURVE HAVING AN INTERIOR ANGLE OF 33°35'57" A RADIUS OF 251.60 FEET AND AN ARC LENGTH OF 147.54 FEET TO THE POINT OF TANGENCY OF SAID CURVE;

THENCE RUN SOUTH 40°55'58" WEST, A DISTANCE OF 251.56 FEET TO THE **POINT OF BEGINNING**;

ALL LYING AND BEING IN SECTION 33, TOWNSHIP 34 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

* THE DISTANCE ALONG THE NORTH BOUNDARY LINE APPEARS TO BE INCORRECT. WHEN USING THE DEED DISTANCE THE BOUNDARY DOES NOT CLOSE. THE EAST BOUNDARY WAS ESTABLISHED FROM O.R.B. 4110, PG. 1176.

** THIS SURVEYOR BELIEVES THAT THIS IS A SCRIVNER'S ERROR AND SHOULD READ 111.78 FEET.

TITLE COMMITMENT:

STEWART TITLE GUARANTY COMPANY
COMMITMENT NUMBER: C-2283-17517
COMMITMENT DATE: MARCH 10, 2020 @ 8:00 A.M.

SCHEDULE B - PART II:

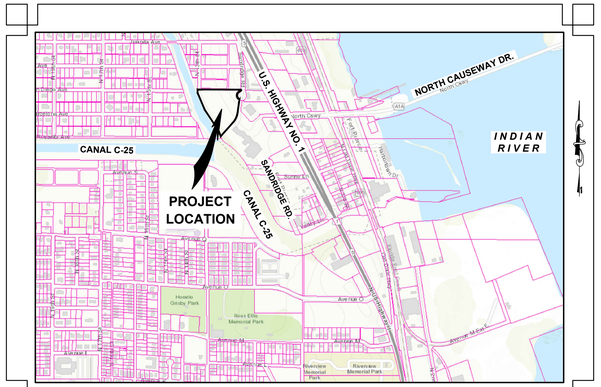
1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE 8, PART I - REQUIREMENTS ARE MET.
   NO COMMENT
2. STANDARD EXCEPTIONS
   A. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.
      NO COMMENT
   B. EASEMENTS, OR CLAIMS OF EASEMENTS, NOT SHOWN IN THE PUBLIC RECORDS.
      NO COMMENT
   C. ENCROACHMENTS, OVERLAPS, BOUNDARY LINE DISPUTES, OR OTHER MATTERS WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AN INSPECTION OF THE PREMISES.
      APPARENT PHYSICAL USES ARE SHOWN ON SURVEY
   D. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETO OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
      NO COMMENT
   E ANY ADVERSE OWNERSHIP CLAIM BY THE STATE OF FLORIDA BY RIGHT OF SOVEREIGNTY TO ANY PORTION OF THE LANDS INSURED HEREUNDER, INCLUDING SUBMERGED, FILLED, AND ARTIFICIALLY EXPOSED LANDS AND LANDS ACCRETED TO SUCH LANDS.
      NO COMMENT

SPECIAL EXCEPTIONS:

3. TAXES AND ASSESSMENTS FOR THE YEAR 2020 AND SUBSEQUENT YEARS WHICH ARE NOT YET DUE AND PAYABLE.
   NO COMMENT
4. ANY LIEN ARISING UNDER CHAPTER 159, FLORIDA STATUTES, IN FAVOR OF ANY CITY, TOWN, VILLAGE OR PORT AUTHORITY FOR UNPAID SERVICE CHARGES FOR SERVICE BY ANY WATER SYSTEM, SEWER SYSTEM OR GAS SYSTEM SERVICING THE LANDS DESCRIBED HEREIN.
   NO COMMENT
5. RIGHTS OF TENANTS UNDER ANY UNRECORDED LEASES.
   NO COMMENT

DOCUMENT PROVIDED BY CLIENT: (NOT SHOWN IN TITLE COMMITMENT)

1. DECLARATION OF RESTRICTIONS AND GRANT OF EASEMENTS RECORDED IN OFFICIAL RECORDS BOOK 712, PAGE 83, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA
   AFFECTS SUBJECT PARCEL - BLANKET IN NATURE - NOTHING TO PLOT



LOCATION MAP
NOT TO SCALE

SURVEYOR'S NOTES:

1. THIS IS A BOUNDARY AND TOPOGRAPHIC SURVEY IN ACCORDANCE WITH CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE. SAID SURVEY MEETS THE "STANDARDS OF PRACTICE" FOR SURVEYING AND MAPPING, AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE (F.A.C.), PURSUANT TO SECTION 472.027, FLORIDA STATUTES. NO SEARCH OF THE PUBIC RECORDS WAS PERFORMED BY THIS OFFICE.
2. THE BEARINGS, DISTANCES AND COORDINATES SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN DATUM 1983, 2011 ADJUSTMENT, FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE. THIS REFERENCE WAS ESTABLISHED BY USING TRIMBLE R8/TSC3 RECEIVERS WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION NETWORK AND VERIFIED BY MULTIPLE MEASUREMENTS ON THE FOLLOWING PUBLISHED NATIONAL GEODETIC SURVEY CONTROL POINT:

   PID: AF3261 - FOUND 3.5" UNITED STATES COAST AND GEODETIC SURVEY BRASS DISK SET IN BRIDGE ABUTMENT STAMPED "C 231 1965",
   N: 1139124.09 E: 873464.81

   THE BEARING BASIS SHOWN HEREON REFERS TO THE OBSERVED BEARING OF NORTH 89°58'04" WEST FOR THE SOUTH LINE OF SECTION 33, TOWNSHIP 34 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.
3. THE ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED UPON THE FOLLOWING PUBLISHED NATIONAL GEODETIC SURVEY CONTROL POINT:

   PID: AF3261 - FOUND 3.5" UNITED STATES COAST AND GEODETIC SURVEY BRASS DISK SET IN BRIDGE ABUTMENT STAMPED "C 231 1965",
   ELEVATION = 6.19 FEET (NAVD 88)
4. THIS SURVEY WAS PERFORMED UTILIZING G.P.S.-R.T.K. PROCEDURES WITH MULTIPLE MEASUREMENTS ON PROJECT CONTROL POINTS AND HAS A STATISTICAL HORIZONTAL AND VERTICAL POSITIONAL PRECISION OF LESS THAN 0.10.
5. ALL DISTANCES SHOWN HEREON ARE IN U.S. SURVEY FEET AND DECIMALS THEREOF.
6. ADDITIONS AND DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.
7. THIS SURVEY IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OR ELECTRONIC SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
8. TABLE "A" ITEM 3: THE LANDS BOUND BY THIS SURVEY ARE LOCATED WITHIN AN AREA HAVING A FLOOD ZONE DESIGNATION "X" (AREA OF MINIMAL FLOOD HAZARD) BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ON FLOOD INSURANCE RATE MAP NUMBER 12111C0177K, DATED FEBRUARY 19, 2020, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY THIS PARCEL IS SITUATED IN.
9. TABLE "A" ITEM 4: THE GROSS LAND AREA OF THE SUBJECT PARCEL IS ±5.28 ACRES.
10. TABLE "A" ITEM 5: THE TOPOGRAPHIC INFORMATION IS BASED UPON A GROUND SURVEY PERFORMED IN MARCH 2020. THE CONTOUR INTERVAL IS ONE FOOT.
11. TABLE "A" ITEM 6: THE SUBJECT PARCEL IS ZONED C-3, GENERAL COMMERCIAL, AS PROVIDED BY THE CLIENT.
12. TABLE "A" ITEM 7: THERE ARE NO BUILDINGS ON THE SITE.
13. TABLE "A" ITEM 8: THERE ARE NO DESIGNATED PARKING SPACES ON THE SITE.
14. TABLE "A" ITEM 11: NO UNDERGROUND UTILITIES WERE LOCATED OTHER THAN SHOWN.
15. TABLE "A" ITEM 16: THERE IS NO OBSERVABLE EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
16. TABLE "A" ITEM 17: THERE IS NO OBSERVABLE EVIDENCE OF CHANGES IN STREET RIGHT OF WAY LINES. THERE IS NO OBSERVABLE EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

INDEX OF SHEETS:

SHEET 1 OF 2 LEGAL DESCRIPTION; TITLE EXCEPTIONS; SURVEYOR'S NOTES; LEGEND; LOCATION MAP

SHEET 2 OF 2 BOUNDARY AND TOPOGRAPHIC SURVEY

NOT VALID WITHOUT ALL SHEETS LISTED IN INDEX

LEGEND

BTM = BOTTOM	PVC = POLYVINYL CHLORIDE PIPE	= ASPHALT PAVEMENT	= GUY WIRE & ANCHOR
CH = CHORD BEARING AND DISTANCE	R = RADIUS	= BACKFLOW PREVENTER	= HOG WIRE FENCE
(D) = DEED DATA	RCP = REINFORCED CONCRETE PIPE	= BENCHMARK	= LIGHT POLE
EL. = ELEVATION	R.T.K. = REAL TIME KINEMATIC	= CATCH BASIN	— OU — = OVERHEAD UTILITY LINE
F.P.L. = FLORIDA POWER & LIGHT COMPANY	R/W = RIGHT-OF-WAY	= CENTRAL ANGLE	= WATER VALVE
F.P.F.W.C.D. = FORT PIERCE FARMS WATER CONTROL DISTRICT	S.F.W.M.D. = SOUTH FLORIDA WATER MANAGEMENT DISTRICT	— X — = CHAIN LINK FENCE	= OAK TREE WITH DIAMETER
G.P.S. = GLOBAL POSITIONING SYSTEM	TYP. = TYPICAL	= CONCRETE	= PALM TREE WITH DIAMETER
I.D. = IDENTIFICATION	x14.52 = EXISTING ELEVATION	= CONTOUR ELEVATION	= 1/4 SECTION CORNER - FOUND
INV. = INVERT	4-35-40 = SECTION-TOWNSHIP-RANGE	= FIRE HYDRANT	= SECTION CORNER - NOT FOUND
LB = LICENSED BUSINESS	● = SET 5/8" IRON ROD AND CAP STAMPED "BOWMAN CG LB 8030"		= SECTION CORNER - FOUND
LS = LICENSED SURVEYOR			
LTD. = LIMITED	○ = FOUND IRON ROD		
N.A.V.D. = NORTH AMERICAN VERTICAL DATUM			
(P) = PLAT DATA			
PID = POINT IDENTIFICATION			
P.O.B. = POINT OF BEGINNING			
P.O.C. = POINT OF COMMENCEMENT			

SURVEYOR'S CERTIFICATION:

TO: **233 CITY ISLAND LLC, A NEW YORK LIMITED LIABILITY COMPANY**
TIMOTHY H. KENNEY, ESQ., TIMOTHY H. KENNEY, P.A.
STEWART TITLE GUARANTY COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(a)(b), 7(a), 8, 9, 11, 13, 16, 17 AND 19 OF TABLE A THEREOF.

PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT PROPER FIELD PROCEDURES, INSTRUMENTATION AND ADEQUATE SURVEY PERSONNEL WERE EMPLOYED IN ORDER TO ACHIEVE RESULTS COMPARABLE TO THOSE OUTLINED IN THE "MINIMUM ANGLE, DISTANCE AND CLOSURE REQUIREMENTS FOR SURVEY MEASUREMENTS WHICH CONTROL LAND BOUNDARIES FOR ALTA/NSPS LAND TITLE SURVEYS."

ALSO

I FURTHER CERTIFY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE BOUNDARY AND TOPOGRAPHIC SURVEY SHOWN HEREON WAS PREPARED IN ACCORDANCE WITH THE "STANDARDS OF PRACTICE" FOR SURVEYING AND MAPPING IN THE STATE OF FLORIDA AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

MARCH 16, 2020
DATE OF LAST FIELDWORK

RICHARD E. BARNES, JR.
FLORIDA SURVEYOR AND MAPPER
REGISTRATION No. 5173

BOWMAN CONSULTING GROUP, LTD., INC.
FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 8030
(LB 8030 = LICENSED BUSINESS NUMBER 8030)

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING GROUP, LTD., INC. SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING GROUP, LTD.

Cad file name: E:\030340-01-001 (SUR) - Ft Pierce ALTA\Survey\Topo Boundary\030340 BND-TOP0.dwg 1/20/2021

Bowman CONSULTING
PROFESSIONAL SURVEYORS AND MAPPERS, CERTIFICATE NO. LB. 8030
BOARD OF PROFESSIONAL ENGINEERS, CERTIFICATE OF AUTHORIZATION NO. 30462

Bowman Consulting Group, Ltd., Inc.
301 S.E. Ocean Blvd., Suite 301
Stuart, FL 34994
Phone: (772) 283-1413
Fax: (772) 220-7881
www.bowmanconsulting.com
© Bowman Consulting Group, Ltd.

COVER SHEET
SCAVELLO MANAGEMENT, LLC
FORT PIERCE
ST. LUCIE COUNTY FLORIDA

PROJECT NO
030340-01-001

PLAN STATUS	
1/20/21	ORB 712, PG. 83
DATE	DESCRIPTION

FIELD BOOK 19-188 PAGE 44, 47-52
FIELD CREW: CS, JT, JW
D.A.L. DRAWN R.E.B. CHKD
SCALE H: N/A V: N/A
JOB No.: 0340-01-001
DATE: MARCH 24, 2020
FILE No.: 030340 BND-TOP0
SHEET 1 OF 2

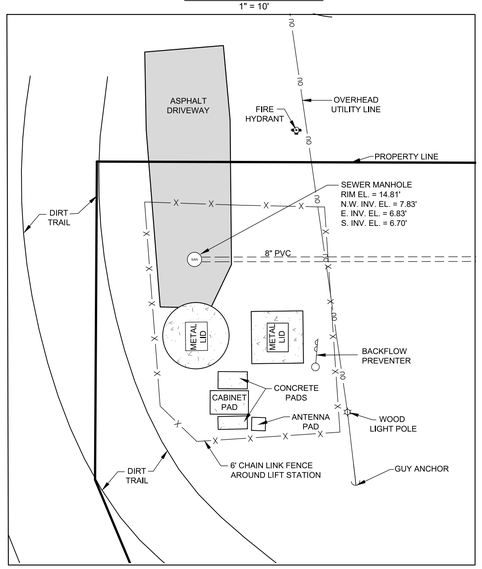
0 40 80 Feet

THIS MAP IS INTENDED TO BE DISPLAYED AT A SCALE OF 1" = 40'



LIFT STATION DETAIL

1" = 10'



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Bowman
CONSULTING
PROFESSIONAL SURVEYORS AND MAPPERS, CERTIFICATE NO. LB. 8030
BOARD OF PROFESSIONAL ENGINEERS, CERTIFICATE OF AUTHORIZATION NO. 30462

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www.bowmanconsulting.com
© Bowman Consulting Group, Ltd.

BOUNDARY AND TOPOGRAPHIC SURVEY
SCAVELLO MANAGEMENT, LLC
FORT PIERCE
FLORIDA
ST. LUCIE COUNTY

PROJECT NO
030340-01-001

PLAN STATUS	
XX/XX/XX	XXXXX

DATE	DESCRIPTION

FIELD BOOK 19-188 PAGE 44, 47-52
FIELD CREW: CS, JT, JW
D.A.L. DRAWN | R.E.B. CHKD
SCALE H: N/A V: N/A
JOB No.: 0340-01-001
DATE: MARCH 24, 2020
FILE No.: 030340 BND-TOPO
SHEET 2 OF 2

PROJECT INFORMATION

OWNER/APPLICANT
SCAVELLO MANAGEMENT, LLC
101 CITY ISLAND AVE.
BRONX, NEW YORK. 10464
PHONE (XXX)-XXX-XXXX

ARCHITECT
CPZ ARCHITECTS, INC.
4316 WEST BROWARD BLVD
PLANTATION, FLORIDA 33317
PHONE (954) 792-8525

ENGINEER
MBV ENGINEERING, INC.
1835 20TH STREET
VERO BEACH, FLORIDA 32960
PHONE (772) 569-0035

SURVEYOR
WILLIAM B. ZENTZ & ASSOCIATES, INC.
684 OLD DIXIE HIGHWAY
VERO BEACH, FLORIDA 32962
PHONE (772) 567-7552

SITE ADDRESS
N.US HIGHWAY 1
FORT PIERCE, FLORIDA 34946

TAX PARCEL I.D. NUMBER
1433-431-0001-000-4

ZONING C-3
LAND USE GC
LATITUDE 27°28'11.57" N
LONGITUDE 80°20'9.19" W

SITE DATA

	SF	AC	%
SITE AREA	230,100 SF	5.28 AC	100.00%
EXISTING LAND IS VACANT			
PROPOSED SITE DATA			
SITE AREA	230,100 SF	5.28 AC	100.00%
IMPERVIOUS AREA	170,276 SF	3.91 AC	74.00%
PROPOSED BUILDINGS	33,603 SF	0.77 AC	14.60%
PROPOSED PAVEMENT	136,673 SF	3.14 AC	59.40%
PERVIOUS AREA	59,824 SF	1.370 AC	25.99%

ZONING DATA

C-3 CRITERIA	REQUIRED	EXISTING	PROPOSED
LOT SIZE	10,000 SF	230,100 SF	230,100 SF
LOT WIDTH	70' MIN.	756.35'	756.35'
LOT DEPTH	90' MIN.	594.70'	594.70'
BUILDING SETBACKS:			
FRONT (EAST)	25'	0'	29.30'
SIDE (NORTH)	15'	0'	29.86'
REAR (CANAL)	0'	0'	6.94'
BUILDING COVERAGE	60% MAX.	0%	14.60%
OPEN SPACE	20% MIN.	20.30%	21.89%
BUILDING HEIGHT	65' MAX.	NA	65' MAX.

PARKING DATA

	SF	RATIO	SPACES
RETAIL A	11,000	1 / 200	55
RETAIL B	2,000	1 / 200	10
RETAIL C	2,000	1 / 200	10
RETAIL D	1,900	1 / 200	10
RETAIL E	1,700	1 / 200	9
RETAIL F	1,700	1 / 200	9
RETAIL G	1,700	1 / 200	9
RETAIL H	1,600	1 / 200	8
QUICK SERVICE RESTAURANT	2,103	1 /75	29
FINE DINING RESTAURANT	7,900	1 / 100	79
TOTAL BUILDING	33,603		228
		PROVIDED	229

TREE REQUIREMENTS

INTERIOR VEHICULAR USE AREAS = 119,522 S.F.
119,522/15 = 7,968 S.F. REQUIRED PLANTING AREA
80 INTERIOR VUA TREES REQUIRED

PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 1,165 LF x 10' WIDE
11,650 S.F. DIV. BY 300 = 39 TREES REQUIRED

PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 835 LF x 10' WIDE
8,350 DIV. BY 200 = 42 TREES

TOTAL TREES REQUIRED: 161 TREES

SHRUB REQUIREMENTS

PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 1,165 LF
CONTINUOUS HEDGE @ 36" OC = 389 SHRUBS REQUIRED

TOTAL SHRUBS REQUIRED: 389 SHRUBS

PROVIDED LANDSCAPE AREA & TREES:

INTERIOR VEHICULAR USE LANDSCAPE AREAS = 14,824 S.F.
80 INTERIOR VUA TREES PROVIDED

PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 1,165 LF x 10' WIDE
39 TREES PROVIDED

PERIMETER LANDSCAPE STRIP (ABUTTING OTHER PROPERTIES)= 835 LF x 10' WIDE
42 TREES PROVIDED

TOTAL TREES PROVIDED: 161 TREES

SHRUB PROVIDED

PERIMETER LANDSCAPE STRIP (ABUTTING ROW)= 1,165 LF
389 SHRUBS PROVIDED

TOTAL SHRUBS PROVIDED: 389 SHRUBS

DRAWING INDEX:

LA-1: OVERALL PLAN, LANDSCAPE DATA, & PLANT SCHEDULE
LA-2: DETAIL LANDSCAPE PLAN
LA-3: DETAIL LANDSCAPE PLAN
LA-4: TREE MITIGATION PLAN
LA-5: LANDSCAPE DETAILS & SPECIFICATIONS

PLANT SCHEDULE:

	TREES	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	CALIPER
	ACE	3	Acer rubrum	Red Maple	FG	12` HT	6`W	SP	Native	2.5" Caliper
	CT	34	Conocarpus erectus	Buttonwood	45G	12` HT	6`W	6`CT, SP	Native	2.5" Caliper
*	CUP	8	Cupressus sempervirens	Italian Cypress	25G	12` HT	4` W	FTB, SP	Non-native	2.5" Caliper
	DP	1	Delonix regia	Royal Poinciana	45G	12` HT	6`W	SP	Non-native	2.5" Caliper
	LMC	16	Lagerstroemia indica `Muskogee`	Muskogee Crape Myrtle	FG	12` HT	6`W	STD, 5 `CT, SP	Non-native	2.5" Caliper
**	QO	53	Quercus virginiana	Southern Live Oak	100G	16` HT	10` W	6`CT, SP	Native	4" Caliper
	QV	17	Quercus virginiana	Southern Live Oak	45G	12` HT	6`W	SP	Native	2.5" Caliper
***	PALM TREES	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	CALIPER
	PY	5	Ptychosperma elegans	Alexander Palm	FG	10`CT		Single, Specimen, Full Head	Non-native	
	RO	11	Roystonea regia	Florida/Cuban Royal Palm	FG	10`GW		FH, SP, MATCHING	Native	
	CP	31	Sabal palmetto	Sabal Palm	FG	12` CT		SLK, HC, SP	Native	
	SPC	65	Sabal palmetto	Sabal Palm	FG	12`-20` CT		SLK, CU, SP	Native	
	WO	9	Wodyetia bifurcata	Foxtail Palm	FG	10` CT, 16` OA		Single, Specimen, Full Head	Non-native	
	SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	
*	AA	13	Agave americana	Century Plant	7G	3` HT	3`W	F	Non-native	
	CHR	416	Chrysobalanus icaco `Redtip`	Red Tip Cocoplum	3G	24" HT	18"W	F	Native	
	CLA	44	Clusia guttifera	Small-Leaf Clusia	7G	48" HT	36" W	F	Non-native	
	CEP	50	Conocarpus erectus	Buttonwood	3G	24" HT	24"W	F	Native	
*	CRS	6	Crinum asiaticum	Green Crinum Lily	7G	30" OA		F	Non-native	
*	POM	27	Podocarpus macrophyllus	Podocarpus	7G	4` OA	2` W	F	Non-native	
	VINE/ESPALIER	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	
*	FIP	88	Ficus pumila	Creeping Fig	3G	36" HT		Trl, Full	Non-native	
	GRASSES	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	SPACING
*	SPS	345	Spartina bakeri	Sand Cordgrass	1G	24"HT	12" W	F	Native	36" o.c.
	GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	SPACING
*	FIG	487	Ficus microcarpa `Green Island`	Green Island Ficus	3G	18"HT	15" SPR	F	Non-native	24" o.c.
	SOD/SEED	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	SPACING
*****	SOD	TBD	Paspalum notatum	Bahia Grass	SOD			Free of Weeds and Pests		

*NOT PART OF CODE REQUIREMENTS & MAY BE SUBSTITUTED WITH SOD AT OWNER'S DISCRETION.
**4" CALIPER OAKS USED TO MITIGATE 80" OF TREES REMOVED (SEE SHEET LA-4 FOR DETAILS)
***PALMS ARE 23% OF TOTAL TREE CREDITS
****(8)ADDITIONAL SABAL PALMS USED TO MITIGATE 8 PALMS REMOVED (SEE SHEET LA-4 FOR DETAILS)
*****MAY BE SUBSTITUTED WITH ST. AUGUSTINE SPECIES.



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.

General Landscape Notes Cont'd:

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.

Know what's below. Call before you dig.

Project Team
Landscape Architect:
LANDSCAPE ARCHITECTURAL SERVICES, LLC
Paul Goulas
1708 SE Joy Haven Street
Port St. Lucie, Fl. 34983
(772) 631-8400 | Paul@las-fl.com

SCAVELLO MANAGEMENT. LLC
TAYLOR CREEK
Landscape Plan

Revisions		
Date	Init.	Description
4.23..21	PG	1st Submittal

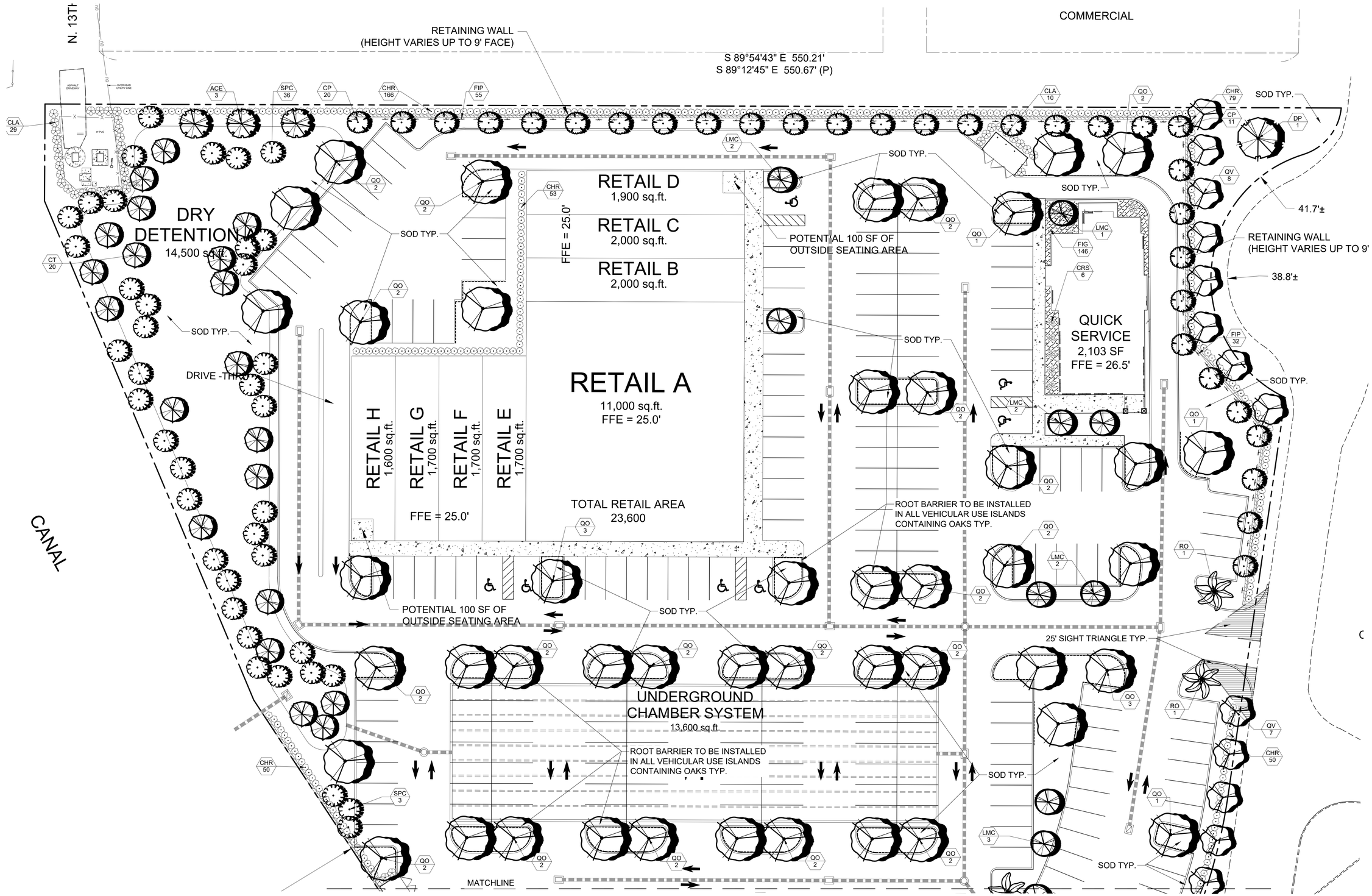
REGISTERED LANDSCAPE ARCHITECT PAUL A. GOULAS LA 6666807 STATE OF FLORIDA

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

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

NORTH
SCALE: 1" = 50'
0 25' 50' 100'

LA-1



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Revisions

Date	Init.	Description
4.23..21	PG	1st Submittal

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

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

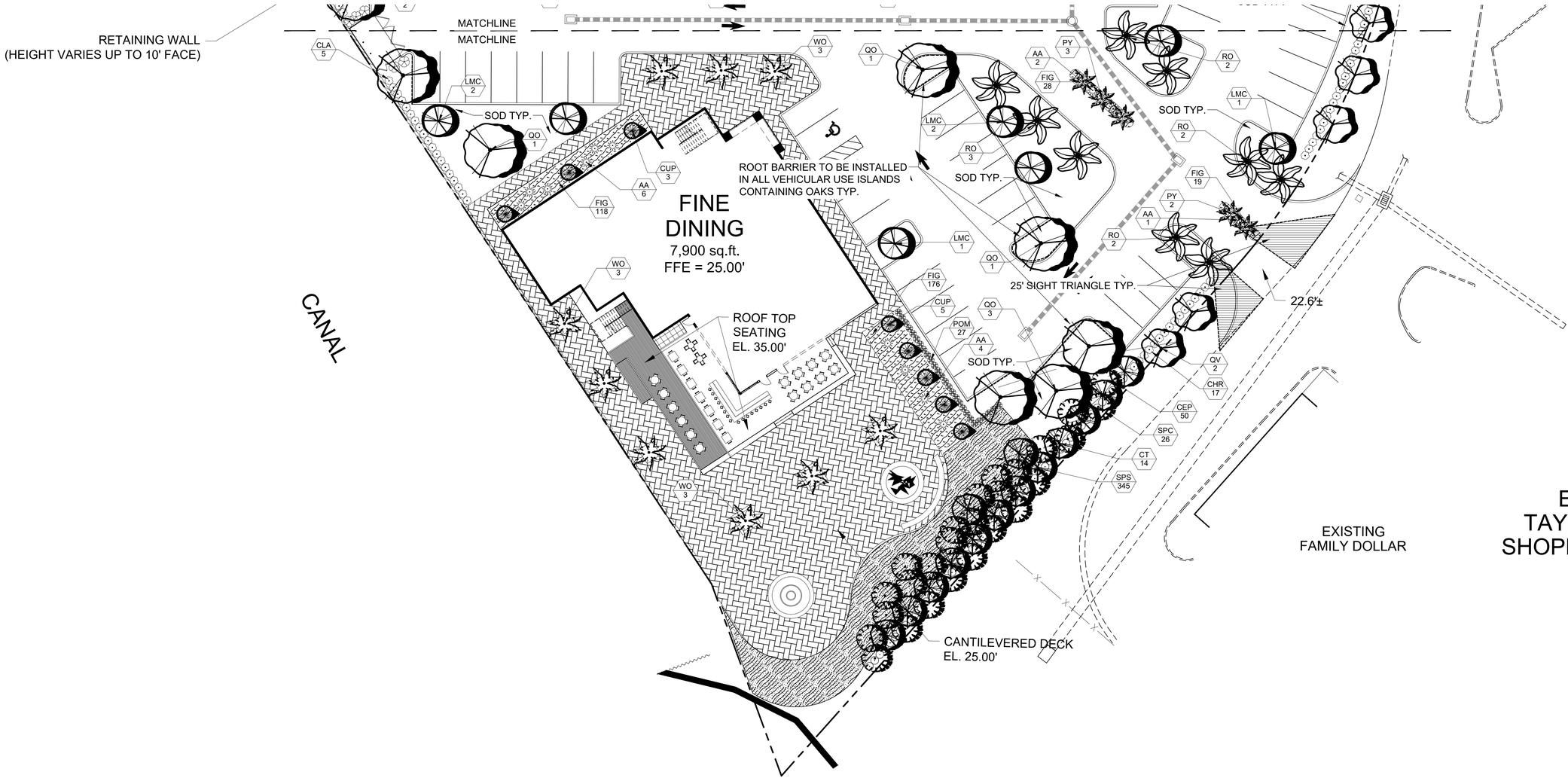
Drawn By: PG
Checked By: PG
Municipal Project:
Scale:

NORTH

SCALE: 1" = 20'
0 10' 20' 40'

LA-2

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



Project Team

Landscape Architect:

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SCAVELLO MANAGEMENT. LLC
TAYLOR CREEK
Landscape Plan

Revisions

Date	Init.	Description
4.23..21	PG	1st 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:	

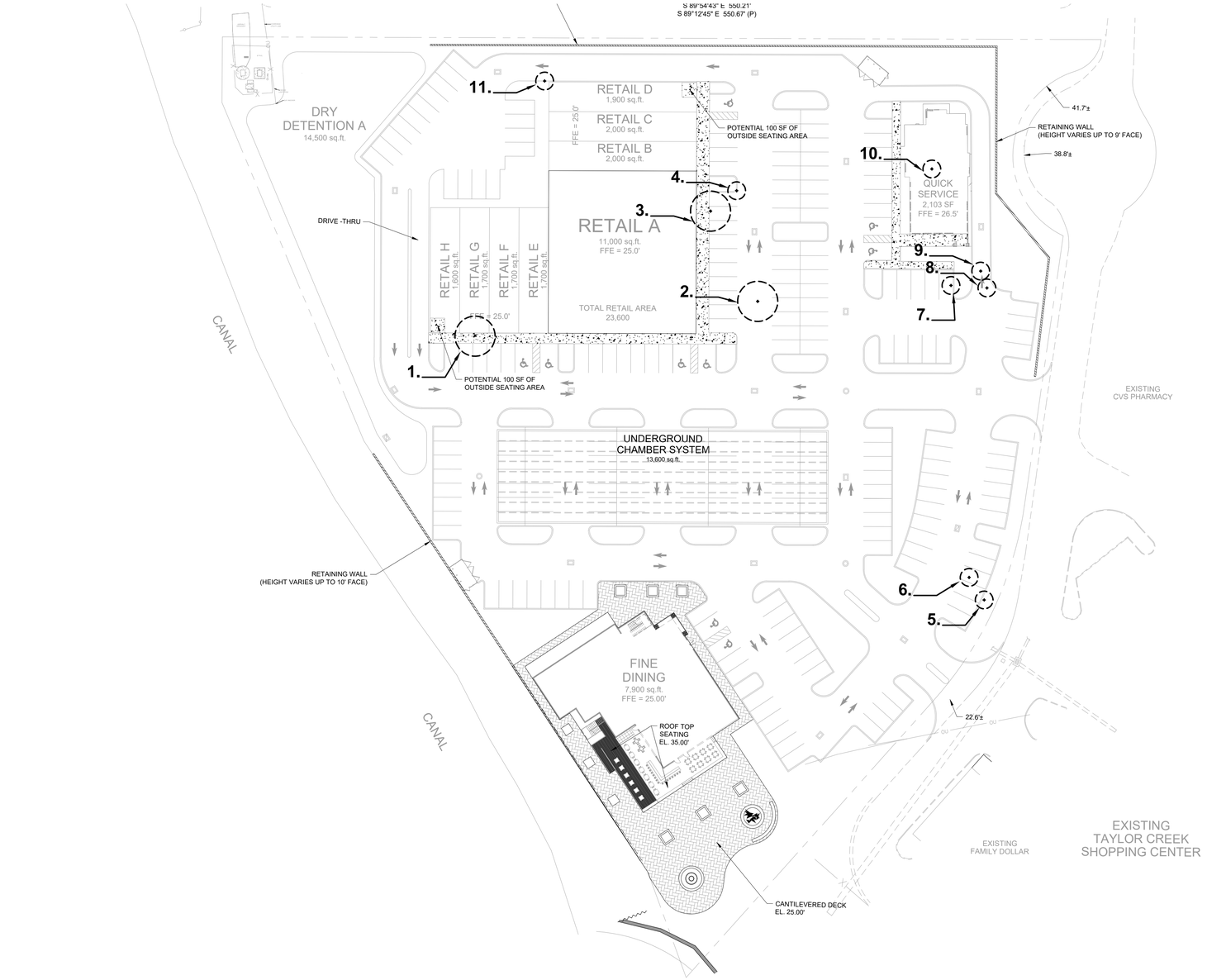
NORTH

SCALE: 1" = 20'

0 10' 20' 40'

Know what's below. Call before you dig.

LA-3



MITIGATION DATA

Existing Trees to be Removed Requiring Mitigation:		Replacement Required
1. Quercus spp, 24" DBH	*	24"
2. Quercus spp, 36" DBH	*	36"
3. Quercus spp, 20" DBH	*	20"
4. *Sabal Palmetto, Sabal Palm*, , 10' CT Min	* *	One Sabal Palm
5. *Sabal Palmetto, Sabal Palm*, 10' CT Min	* *	One Sabal Palm
6. Sabal Palmetto, Sabal Palm, 10' CT Min	* *	One Sabal Palm
7. *Sabal Palmetto, Sabal Palm*, 10' CT Min	* *	One Sabal Palm
8. Sabal Palmetto, Sabal Palm, 10' CT Min	* *	One Sabal Palm
9. Sabal Palmetto, Sabal Palm, 10' CT Min	* *	One Sabal Palm
10.Sabal Palmetto, Sabal Palm, 10' CT Min	* *	One Sabal Palm
11.Sabal Palmetto, Sabal Palm, 10' CT Min	* *	One Sabal Palm

* Replacement Trees will be part of the minimum code site quantity requirements, but are beyond minimum size requirements.
** Replacement Trees will be in addition to the minimum code site quantity requirements.

Project Team

Landscape Architect:

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SCAVELLO MANAGEMENT, LLC
TAYLOR CREEK
Tree Mitigation Plan

Revisions		
Date	Init.	Description
4.23.21	PG	1st 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:	

NORTH

SCALE: 1" = 40'

0 20' 30' 80'

LA-4

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.

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

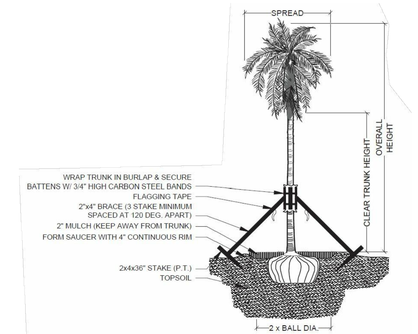
A. DIG EACH PLANTING PIT TO THE MINIMUM SPECIFIED SIZE.

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.

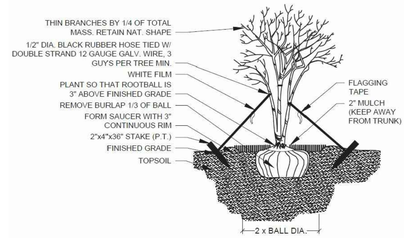
C. WHERE REQUIRED, THE DRAINAGE CHANNEL MUST EXTEND DOWN THROUGH THE NON POROUS SOIL AND INTO POROUS SOIL. (SEE DETAIL)

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

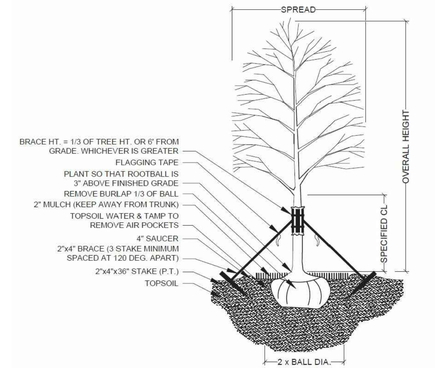
E. WHEN BACKFILLING PLANTING PITS WITH PLANTING MIXTURE, CARE MUST BE TAKEN TO KEEP THE CONSISTENCY OF THE SOIL MIX THE SAME THROUGHOUT THE PLANTING PIT AND DRAINAGE CHANNEL.



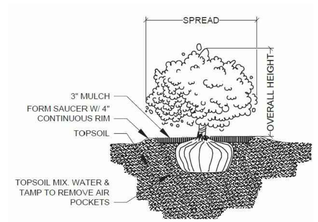
PALM PLANTING - ANGLE STAKE
NOT TO SCALE



MULTI-TRUNK PLANTING & GUYING
NOT TO SCALE

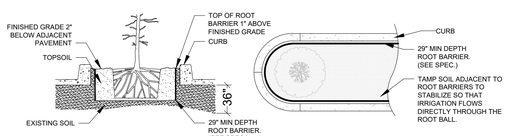


TREE PLANTING & STAKING
NOT TO SCALE

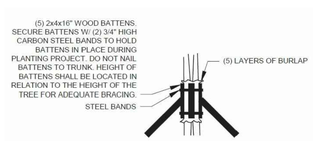


TREE PROTECTION DETAIL
NOT TO SCALE

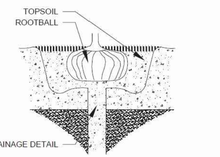
SHRUB PLANTING
NOT TO SCALE



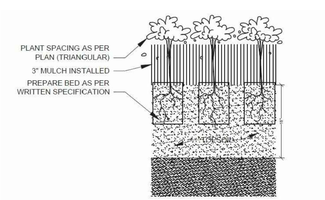
SPECIAL APPLICATIONS ROOT BARRIER DETAIL
NOTES:
1- ROOT BARRIER SHALL BE "BIO-BARRIER 29" DEPTH OR APPROVED EQUAL.
2- ROOT BARRIER SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
NOT TO SCALE



BRACING DETAIL
NOT TO SCALE



DRAINAGE TESTING DETAIL
NOT TO SCALE



GROUNDCOVER PLANTING DETAIL
NOT TO SCALE

Project Team
Landscape Architect:
LANDSCAPE ARCHITECTURAL SERVICES, LLC
Paul Goulas
1708 SE Joy Haven Street
Port St. Lucie, Fl. 34983
(772) 631-8400 | Paul@las-fl.com

SCAVELLO MANAGEMENT, LLC
TAYLOR CREEK

Landscape Details & Specifications

Revisions		
Date	Init.	Description
1.06.21	PG	Revised Per Comments

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

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

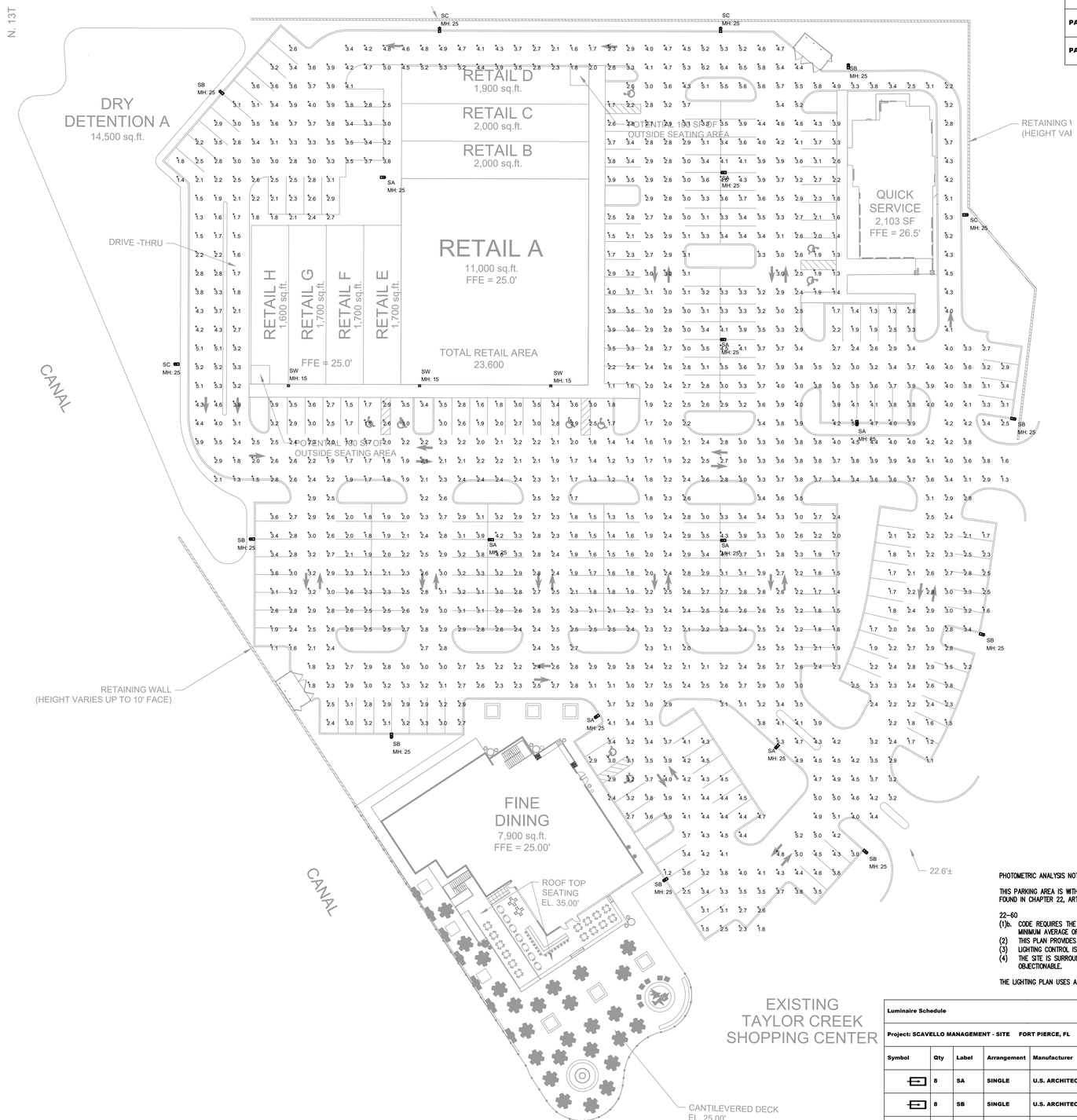
Drawn By:	PG
Checked By:	PG
Municipal Project:	
Scale:	

NORTH

SCALE: 1" = N.T.S.

0 0 0 0

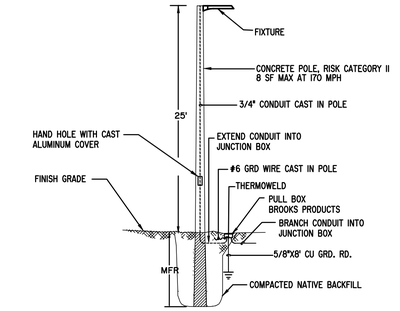
LA-5



SITE PHOTOMETRIC ANALYSIS

SCALE 1" = 30'-0"

Calculation Summary							
Project: SCAVELLO MANAGEMENT - SITE FORT PIERCE, FL 04/05/2021							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING LOT FINE DINING	Illuminance	Fc	3.34	5.2	1.2	2.78	4.33
PARKING LOT RETAIL AREA & QUICK	Illuminance	Fc	2.95	6.5	1.1	2.68	5.91



NOTE:
1. USE EPOXY SPLICES OR WET LOCATION WIRE NUTS FOR SPLICING CONDUCTORS IN JUNCTION BOX.

DIRECT BURIAL CONCRETE POLE DETAIL

SCALE:NONE

SOLID STATE AREA LIGHTING

VALULUME SERIES-PLED

S P E C I F I C A T I O N S

PROJECT NAME:

FIXTURE TYPE:

OPTICAL HOUSING
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance <± .003" over 12") to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

ELECTRICAL HOUSING w/ INTEGRATED ARM
Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The electrical housing and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

PLED® OPTICS
Emitters (LEDs) are arrayed on a metal core PCB panel and mounted to emitter located on a copper thermal transfer slug and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and secured to the housing by a full perimeter frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments.

LED DRIVER(S)
One constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347-480V, 50/60Hz. (0 -10V dimming). Driver is standard. Driver has a minimum of 3kV internal surge protection. Luminaire is supplied with 20kV surge protector for field accessible installation.)

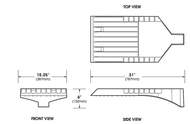
LED EMITTERS
High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

FINISH
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.



VLL PLED

PATENT PENDING



U.S. Architectural Lighting

U.S. ARCHITECTURAL LIGHTING

2021091

PHOTOMETRIC ANALYSIS NOTES:

THIS PARKING AREA IS WITHIN THE CITY OF FORT PIERCE, AND IS SUBJECT TO LIGHTING REGULATIONS FOUND IN CHAPTER 22, ARTICLE IV, SECTION 22-60 OF THE FORT PIERCE MUNICIPAL CODE.

22-60
(1)b. CODE REQUIRES THE OFF-STREET PARKING IN THIS CASE SHALL BE PROVIDED WITH A MINIMUM AVERAGE OF TWO FOOT-CANDLES ON THE PAVEMENT. THIS PLAN PROVIDES A MINIMUM AVERAGE OF 2.95 FOOT-CANDLES IN THE PARKING AREA.
(2) THIS PLAN PROVIDES A MAXIMUM UNIFORMITY RATIO OF 2.78 TO 1, WHICH COMPLIES WITH CODE.
(3) LIGHTING CONTROL IS BY ASTRONOMIC TIME CLOCK. THIS COMPLIES WITH CODE.
(4) THE SITE IS SURROUNDED BY COMMERCIAL PROPERTY AND THE CANAL. IT IS PROPOSED THAT ANY SPILL ONTO THESE AREAS IMPROVES THEIR SECURITY AND SAFETY AND IS NOT OBJECTIONABLE.

THE LIGHTING PLAN USES A SINGLE LED FULL CUTOFF FIXTURE ON EACH POLE MOUNTED AT 25 FEET. WALL PACK LED FIXTURES ARE MOUNTED AT 15 FEET.

Luminaire Schedule									
Project: SCAVELLO MANAGEMENT - SITE FORT PIERCE, FL 04/05/2021									
Symbol	Qty	Label	Arrangement	Manufacturer	Description	Luminaire Lumens	LLF	Luminaire Watts	Assembly Watts
	8	SA	SINGLE	U.S. ARCHITECTURAL LIGHTING	VLL-LED/PLED-VSQ-M/80LED-1050mA/1/NW MH: POLE MOUNT A.F.G.	32170	0.855	256.4	256.4
	8	SB	SINGLE	U.S. ARCHITECTURAL LIGHTING	VLL-LED/PLED-IV-FT/80LED-1050mA/1/NW/HS-PLED MH: POLE MOUNT A.F.G.	22451	0.855	256.4	256.4
	4	SC	SINGLE	U.S. ARCHITECTURAL LIGHTING	VLL-LED/PLED-II/80LED-1050mA/1/NW/HS-PLED MH: POLE MOUNT A.F.G.	22733	0.855	256.4	256.4
	5	SW	SINGLE	U.S. ARCHITECTURAL LIGHTING	RZR-WM2/PLED-IV-20LED-1050mA/NW MH: WALL MOUNT A.F.F. (bottom of fixture)	7847	0.855	64.1	64.1

APP
CK
DR
REVISIONS
DATE
NO.

Fort Pierce Engineering, Inc.
Dependable Mechanical, Electrical & Plumbing Design
Reg. No. 28173
315 South 7th Street
Fort Pierce, FL. 34950
Phone: 772 672-4636
Fax: 772 672-4637

PROJECT NAME:
SCAVELLO MANAGEMENT LLC TAYLOR CREEK

PROJECT LOCATION:
TAYLOR CREEK
FORT PIERCE, FLORIDA

CLIENT:
ARCHITECTONIC INC.
806 DELAWARE AVE.
FORT PIERCE, FLORIDA
34950

ENGINEER SEAL

TIMOTHY C. TREWYN
LICENSED
No. 61580
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy C. Trewyn, PE
P.E. No. 61580

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SHEET TITLE

SITE PHOTOMETRIC ANALYSIS

ISSUE DATE: 04-20-2021

DRAWN: TEC

APPROVED: TCT

DRAWING NUMBER

E-1.2

SHEET 1 OF 1

21001-04

Design Intent:

Careful consideration and thought have been given to the design presented herein, regarding orientation, access, landscaping, building design and budget.

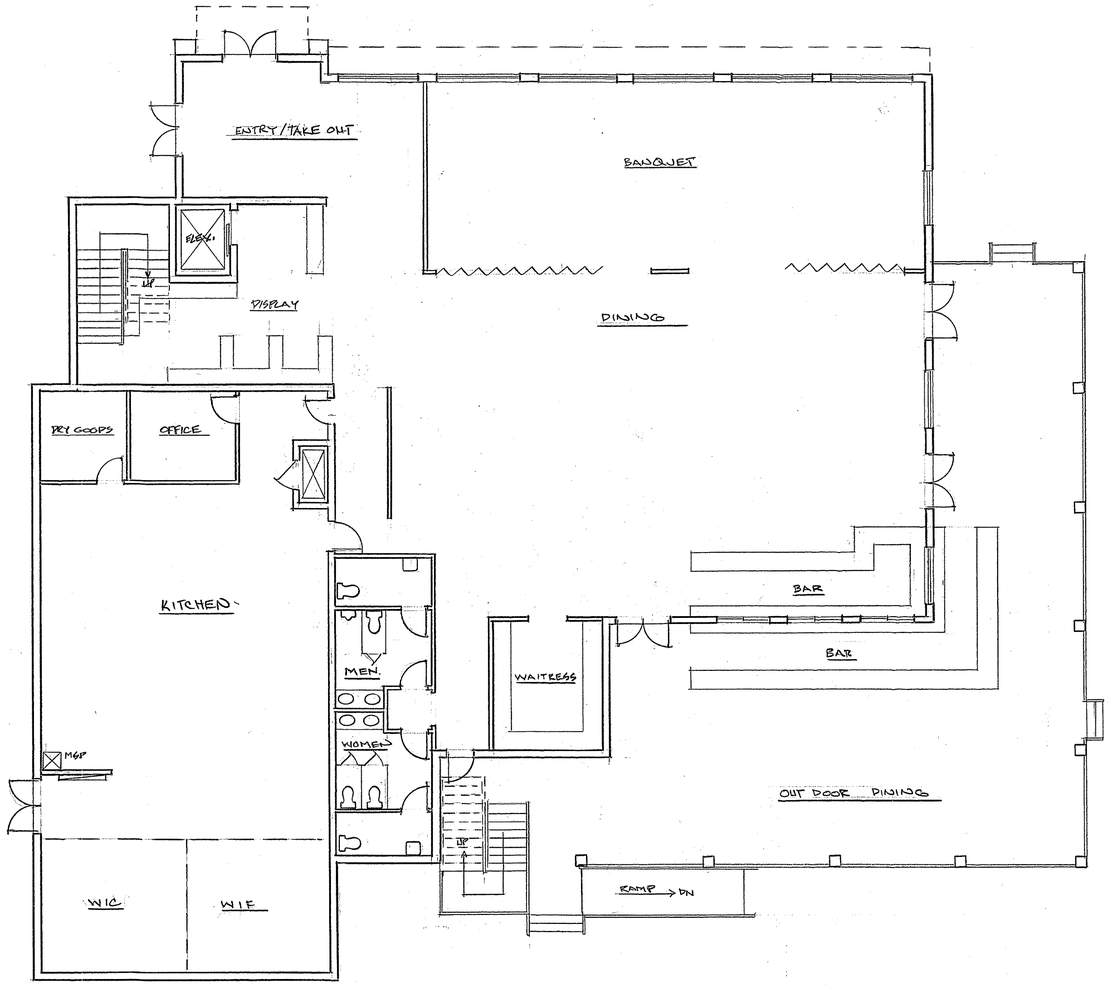
Criteria as follows:

Auto access to the property is proposed to be from Taylor Creek Plaza private easement with two entrances, thus allowing safer entry and departure and better disbursement of traffic following services. Parking therefore will be to in the middle of the three buildings. Sandridge road is zoned for commercial use and in the vicinity of this property there is a combination of freestanding buildings along with the Publix Shopping Plaza. There is no consistent architectural style or theme along the North US Highway 1 corridor.

The majority of the architectural details selected exist on the nearby buildings. Articulation of the building façade is achieved by the use of three dimensional raised stucco banding, crown molding, frieze bands detailed in such a way as to promote vertical proportions. Other design elements include a towers, cupola, covered walks, covered entries, store fronts, and metal roofing. The exterior colors will complement the façade articulation with accent colors distinguishing the stucco banding from the body colors of the building.

The building, though tall, is a single story design with a variety of architectural story design with a variety of architectural details along with a combination of flat roofs with parapets, mansard roofs, and hip roofs with metal roofing, making it compatible with the existing, nearby structures.

806 Delaware Avenue Tel: 772 460 7751 www.architectonicinc.com
Fort Pierce, Florida 34950 Fax: 772 460 4244 FL Reg #AA26003348



FIRST FLOOR PLAN
(FINE DINING)

1/8"

SQUARE FOOTAGE

FIRST FLOOR	7,083 S.F.
SECOND FLOOR	1,308 S.F.
FIRST FLOOR PORCH	2,542 S.F.
ROOF TOP LOUNGE	6,476 S.F.
TOTAL	17,410 S.F.

ARCHITECT

Architectonic Inc

806 DELAWARE AVENUE
FORT PIERCE, FLORIDA 34950
T: 772 460 7751
F: 772 460 4244

WWW.ARCHITECTONICINC.COM

STATE REG # AA26003348

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PROJECT

SCAVELLO MANAGEMENT, LLC

TAYLOR CREEK

CITY OF FT. PIERCE, FLORIDA

CLIENT

CONSULTANTS

REGISTRATION

MICHAEL J. SEAL, AIA
AR98898

REVISIONS

NO.	DATE	REVISION

KEY PLAN

SHEET TITLE / SHEET NUMBER

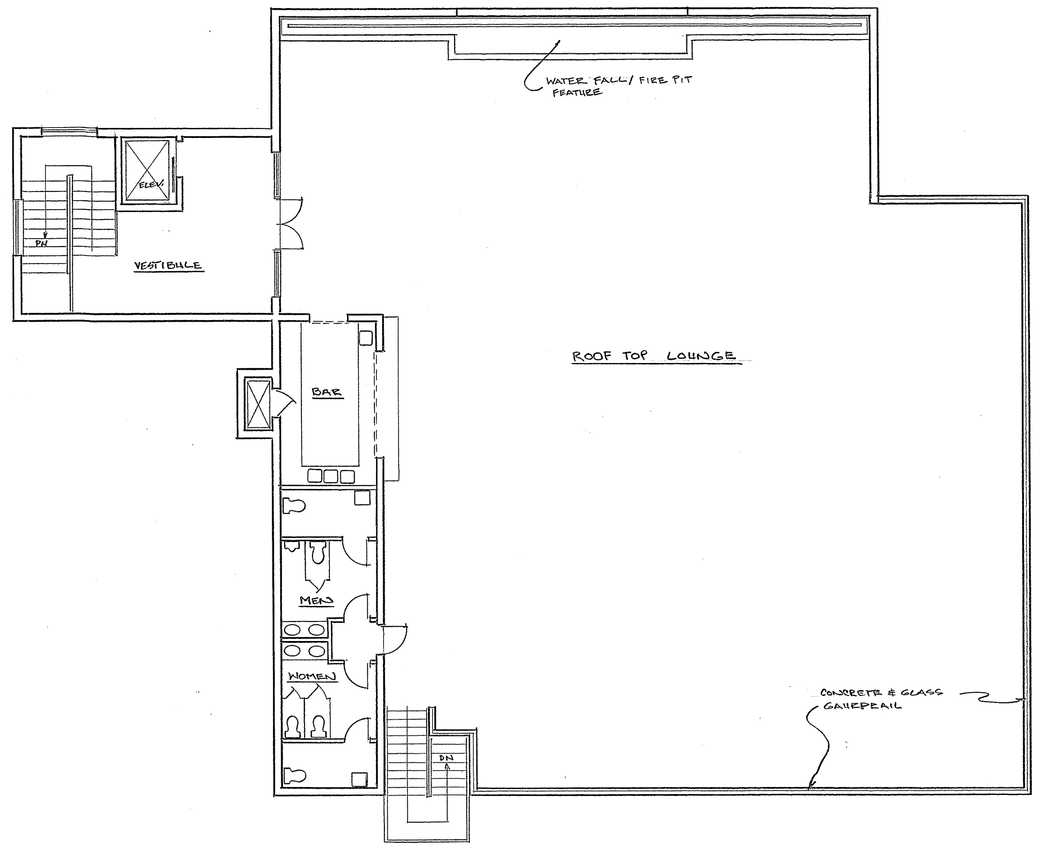
A-1 OF

FINE DINING

PROJECT NUMBER 0 21010

DATE

SCAVELLO



SECOND FLOOR PLAN
(FINE DINING)

1/8"

ARCHITECT

Architectonic Inc

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SCAVELLO MANAGEMENT, LLC

TAYLOR CREEK

CITY OF FT. PIERCE, FLORIDA

CLIENT

CONSULTANTS

REGISTRATION

MICHAEL J. SEAL, AIA
AR96898

REVISIONS

NO.	DATE	REVISION

KEY PLAN

SHEET TITLE / SHEET NUMBER

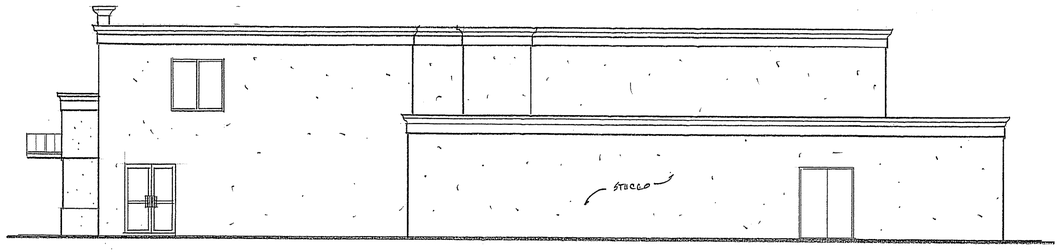
A-2 OF

FINE DINING

PROJECT NUMBER C21010

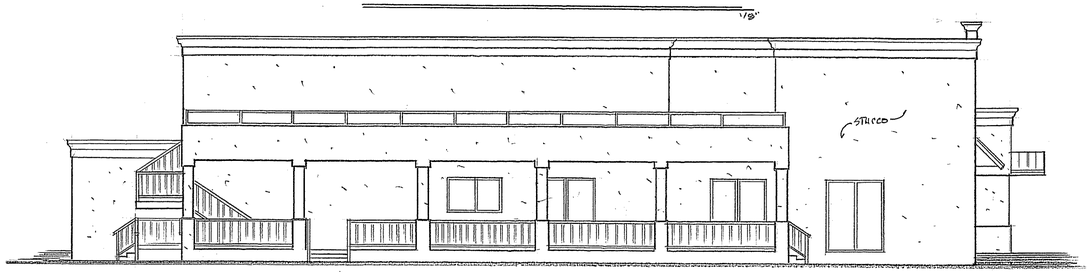
DATE

Scavello



RIGHT SIDE ELEVATION

1/8"



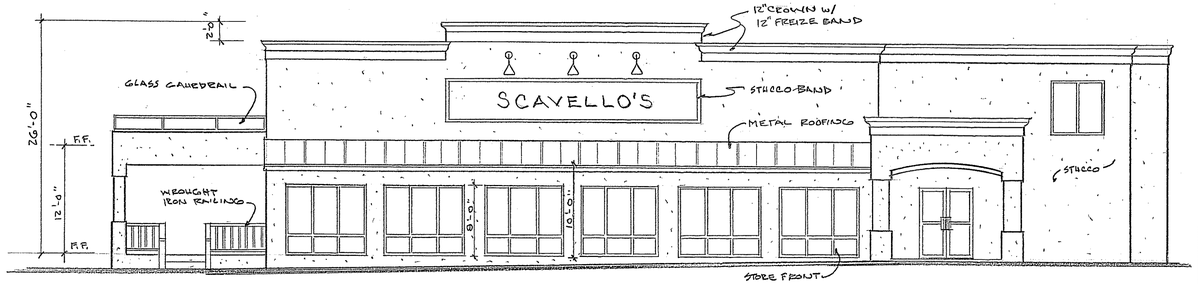
LEFT SIDE ELEVATION

1/8"



REAR ELEVATION

1/8"



FRONT ELEVATION

1/8"

ARCHITECT

Architectonic Inc

806 DELAWARE AVENUE
FORT PIERCE, FLORIDA 34950
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STATE REG # AA26003348

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PROJECT

SCAVELLO MANAGEMENT, LLC

TAYLOR CREEK

CITY OF FT. PIERCE, FLORIDA

CLIENT

CONSULTANTS

REGISTRATION

MICHAEL J. SEAL, AIA
AR96898

REVISIONS

NO.	DATE	REVISION

KEY PLAN

SHEET TITLE / SHEET NUMBER

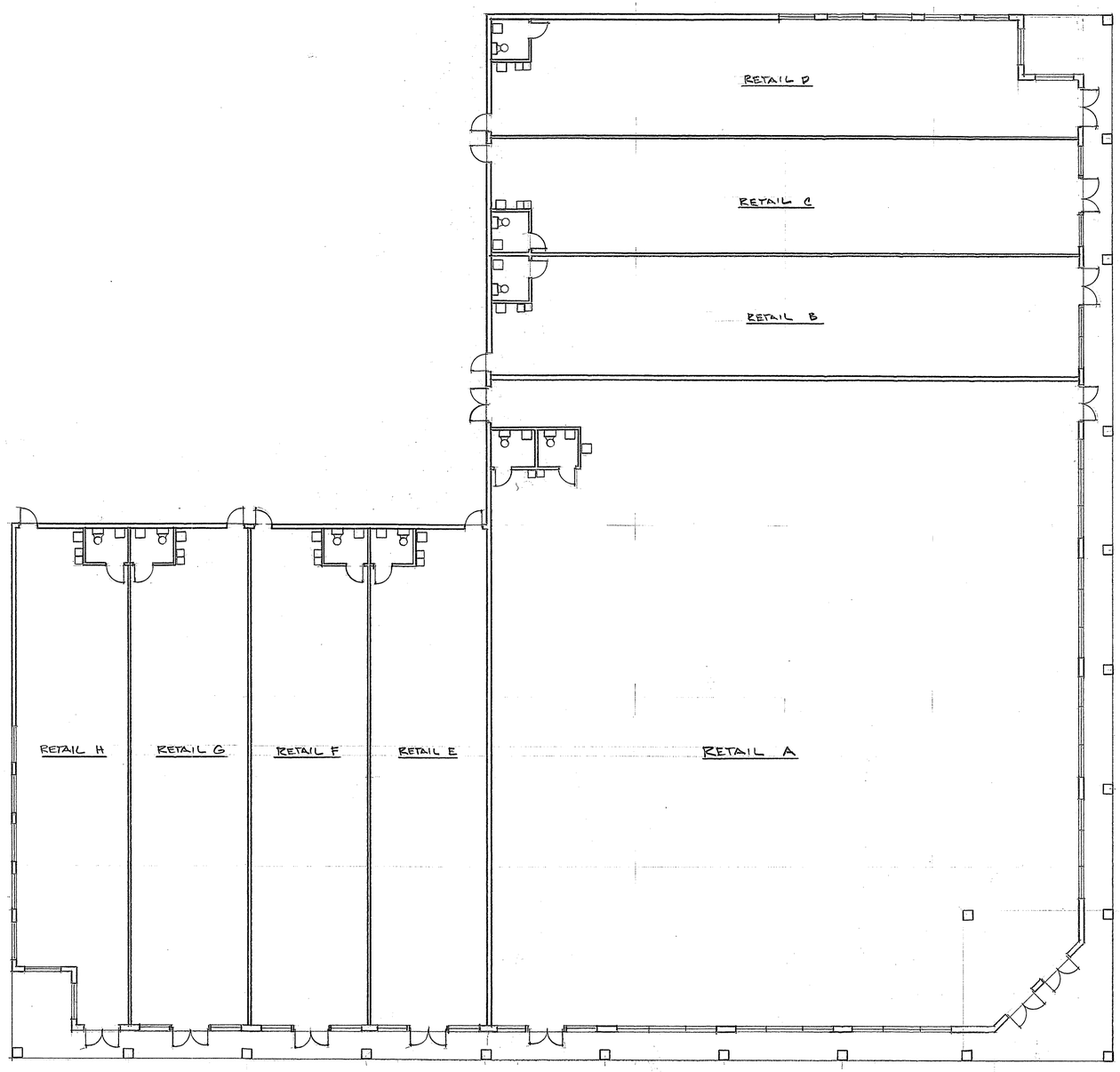
A-3 GF

FINE DINING

PROJECT NUMBER C 21010

DATE

SCAVELLO



FLOOR PLAN
(RETAIL BUILDING)
3/32"

SQUARE FOOTAGE

RETAIL SPACE	23,488 S.F.
COVERED WALK	2,062 S.F.
TOTAL	25,550 S.F.

ARCHITECT

Architectonic Inc

808 DELAWARE AVENUE
FORT PIERCE, FLORIDA 34950
T: 772 460 7751
F: 772 460 4244

WWW.ARCHITECTONICINC.COM

STATE REG # AA26003348

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PROJECT

SCAVELLO MANAGEMENT, LLC
TAYLOR CREEK
CITY OF FT. PIERCE, FLORIDA

CLIENT

CONSULTANTS

REGISTRATION

MICHAEL J. SEAL, AIA
AR96898

REVISIONS

NO.	DATE	REVISION

KEY PLAN

SHEET TITLE / SHEET NUMBER

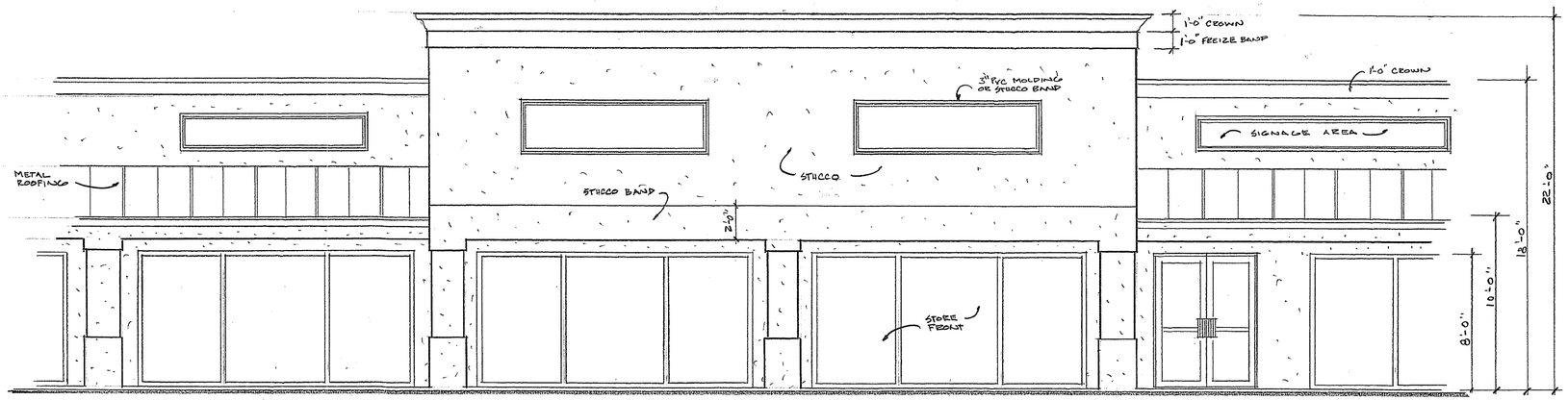
A-1 OF

RETAIL

PROJECT NUMBER C21010

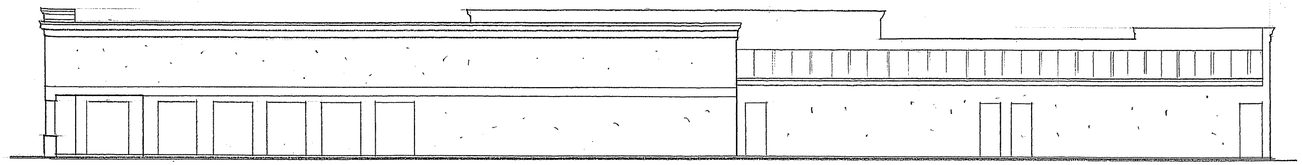
DATE

SCAVELLO



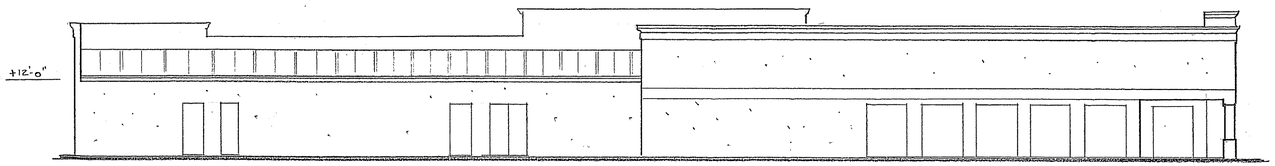
ENLARGED PARTIAL RIGHT SIDE ELEVATION

1/4"



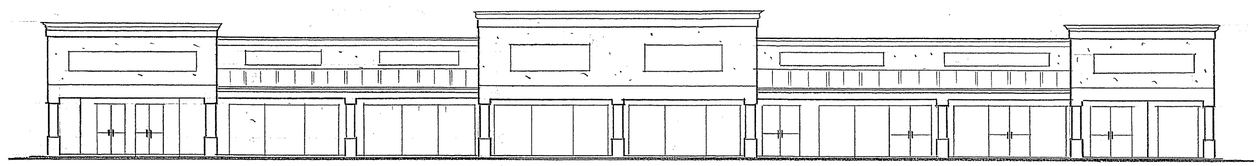
REAR ELEVATION

3/32"



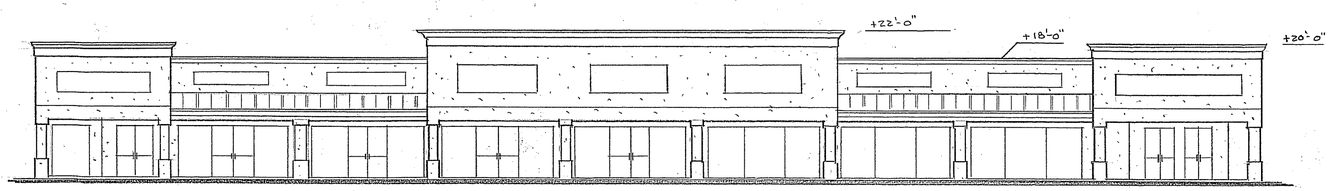
LEFT SIDE ELEVATION

3/32"



RIGHT SIDE ELEVATION

3/32"



FRONT ELEVATION

3/32"

ARCHITECT

Architectonic Inc

806 DELAWARE AVENUE
FORT PIERCE, FLORIDA 34950
T: 772 460 7751
F: 772 460 4244

WWW.ARCHITECTONICINC.COM

STATE REG # AA26003348

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PROJECT

SCAVELLO MANAGEMENT, LLC

TAYLOR CREEK

CITY OF FT. PIERCE, FLORIDA

CLIENT

CONSULTANTS

REGISTRATION

MICHAEL J. SEAL, AIA
AR96898

REVISIONS

NO.	DATE	REVISION

KEY PLAN

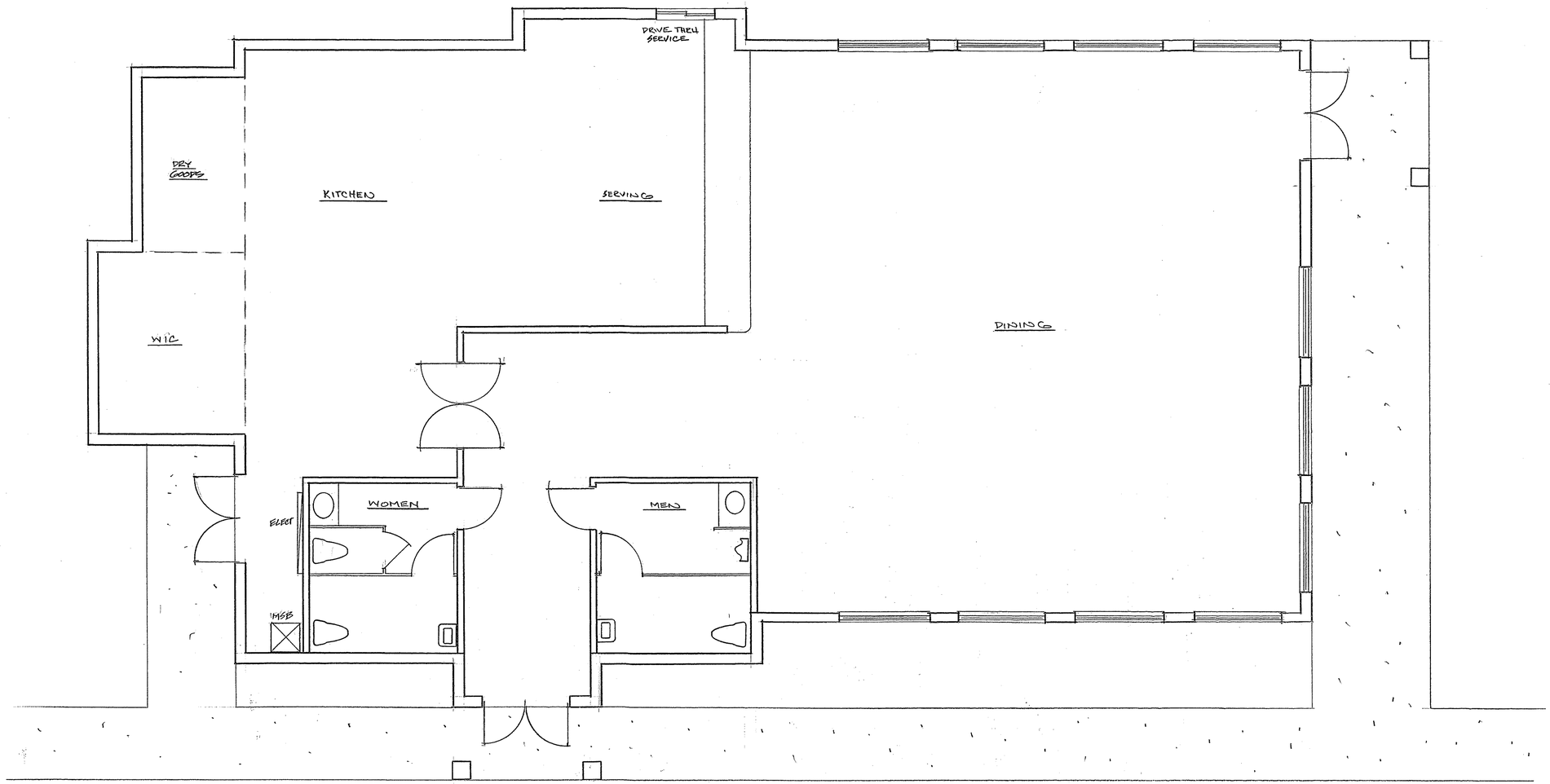
SHEET TITLE / SHEET NUMBER

A-2 OF

RETAIL

PROJECT NUMBER C21010

DATE



FLOOR PLAN
(QUICK SERVICE)

1/4"

SQUARE FOOTAGE

AIR CONDITIONED	3,315 S.F.
COVERED ENTRIES	130 S.F.
TOTAL	3,445 S.F.

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CITY OF FT. PIERCE, FLORIDA

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AR96898

REVISIONS

NO.	DATE	REVISION

KEY PLAN

SHEET TITLE / SHEET NUMBER

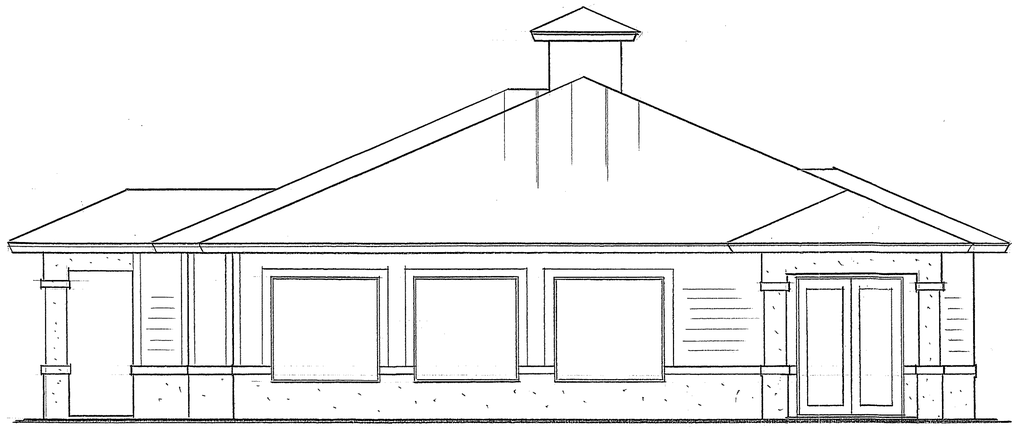
A-1 OF 2

QUICK SERVICE

PROJECT NUMBER C 21010

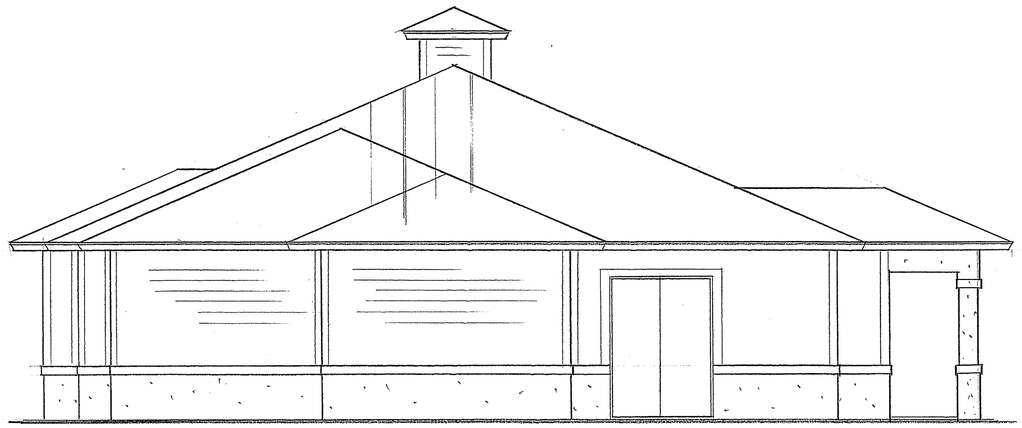
DATE

SCAVELLO



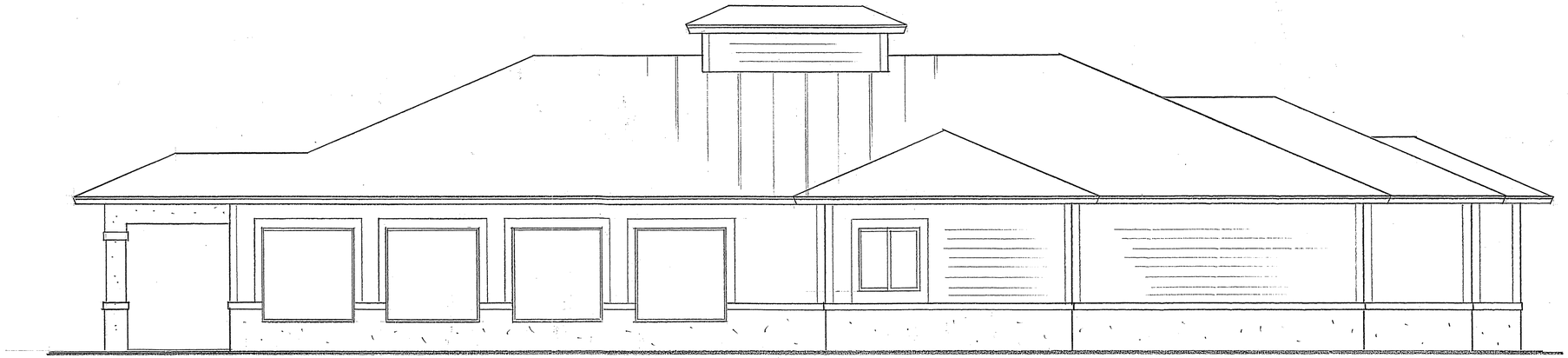
RIGHT SIDE ELEVATION

1/4"



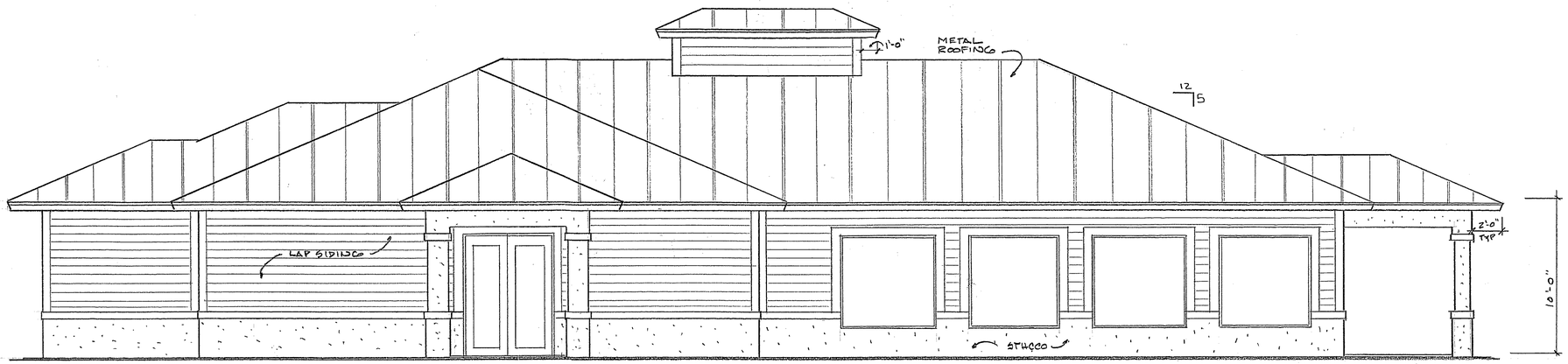
LEFT SIDE ELEVATION

1/4"



REAR ELEVATION

1/4"



FRONT ELEVATION

1/4"

ARCHITECT

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TAYLOR CREEK

CITY OF FT. PIERCE, FLORIDA

CLIENT

CONSULTANTS

REGISTRATION

MICHAEL J. SEAL, AIA
AR96898

REVISIONS

NO.	DATE	REVISION

KEY PLAN

SHEET TITLE / SHEET NUMBER

A-2 OF 2

QHICK SERVICE

PROJECT NUMBER C21010

DATE



FRONT ELEVATION - QUICK SERVICE



FRONT ELEVATION - RETAIL CENTER



FRONT ELEVATION - FINE DINING

QUICK SERVICE FINISHES:

- METAL ROOFING
  GALVALUME MILL FINISH
- SHERWIN WILLIAMS
  WHITE
- SHERWIN WILLIAMS
  SW 6150 - UNIVERSAL KHAKI
- SHERWIN WILLIAMS
  SW6148 - WOOL SKEIN

RETAIL CENTER FINISHES:

- METAL ROOFING
  WHITE FINISH
- SHERWIN WILLIAMS
  WHITE
- SHERWIN WILLIAMS
  SW 6144 - DAPPER TAN
- SHERWIN WILLIAMS
  SW 6142 - MACADAMIA

FINE DINING FINISHES:

- METAL ROOFING
  BRONZE FINISH
- SHERWIN WILLIAMS
  BRONZE TO MATCH ROOF
- SHERWIN WILLIAMS
  SW 6140 - MODERATE WHITE
- SHERWIN WILLIAMS
  SW 6143 - BASKET BEIGE

ARCHITECT

Architectonic Inc

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STATE REG # AA26003348

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PROJECT

SCAVELLO MANAGEMENT, LLC

TAYLOR CREEK

CITY OF FT. PIERCE, FLORIDA

CLIENT

CONSULTANTS

REGISTRATION

MICHAEL J. SEAL, AIA
AR98898

REVISIONS

NO.	DATE	REVISION

KEY PLAN

SHEET TITLE / SHEET NUMBER

PROJECT NUMBER C 21010

DATE

SCAVELLO

Bowman

Memorandum

To: Mr. Paul Scavello
Scavello Management, LLC

From: Michael Young, P.E.
Carlos G. Garcia, P.E.
Bowman Consulting Group, Ltd.

Date: 8/6/2020

Re: Scavello Restaurant and Retail Development Traffic Impact Statement

This memorandum documents the Traffic Impact Statement for the proposed Scavello Restaurant and Retail Development located near the intersection of US 1 and Florida State Road A1A in the City of Fort Pierce, Florida.

Introduction

The proposed development is to be located to the west of the existing Taylor Creek Commons development, nearby the intersection of US 1 and SR A1A in the City of Fort Pierce, Florida. **Figure 1** depicts the site location of the proposed development.



Figure 1. Site Location

The applicant is proposing to develop the 5.28-acre site with 23,600 square feet of retail, 7,900 square feet of fine dining, and 2,103 square feet of quick service restaurant. The conceptual plan for the proposed site is depicted in **Figure 2.**

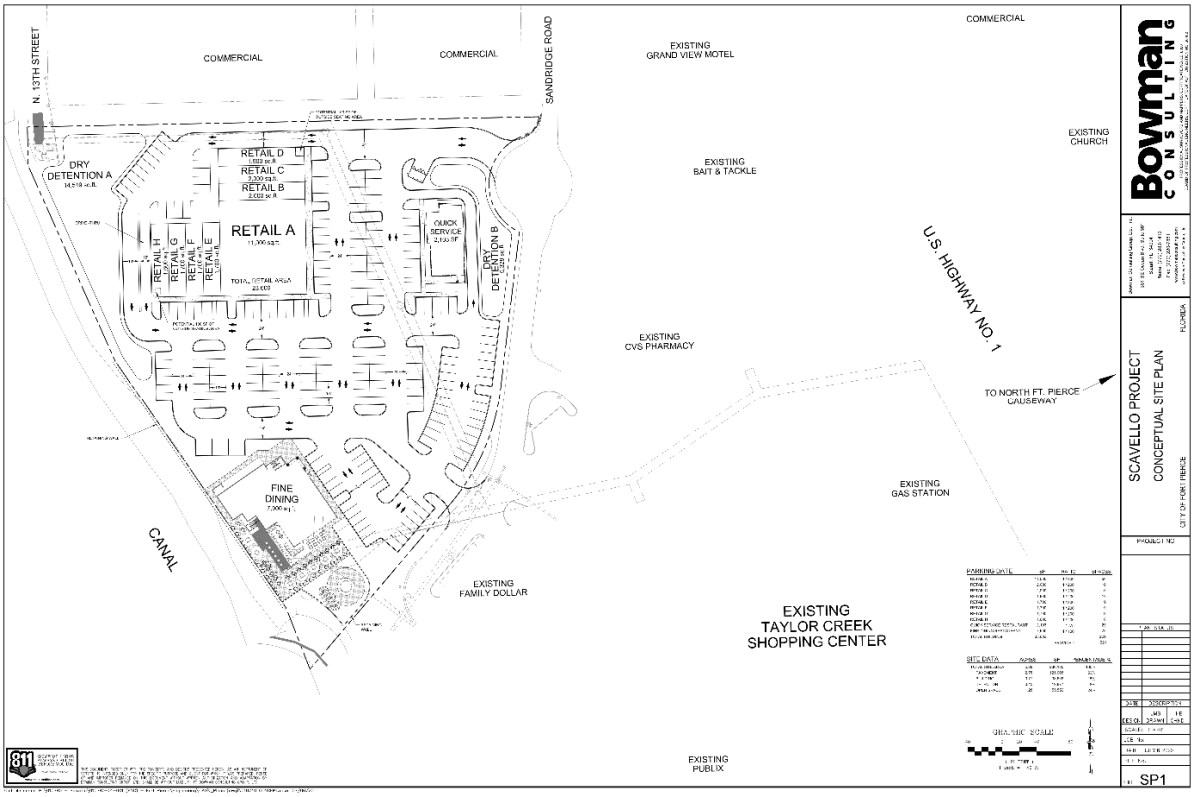


Figure 2. Conceptual Plan

Existing Roadway Network

Sandridge Road within the site frontage is a two-lane undivided roadway with a north-south alignment, and currently classified as a Local Road with a posted speed limit of 20 miles per hour.

Two access points to Sandridge Road will need to be evaluated as part of this study. First is the study intersection of Juanita Avenue and Sandridge Road. This intersection provides an access point for vehicles traveling south on US Route 1 and west on Juanita Avenue, as well as potentially providing access to northbound traffic on US Route 1. Vehicles using this access point to exit the site and utilize US Route 1 must turn right to go southbound, as the intersection of US Route 1 and Juanita Avenue has limited access.

Second is the intersection of US Route 1 and Florida Route A1A located directly to the west of the proposed site. It is currently a four-legged signalized intersection, where US Route 1 has a north-south alignment and Florida Route A1A has an east-west alignment. The western leg of the intersection consists of a site driveway at the existing Taylor Creek Commons. The eastbound approach has one (1) exclusive left turn lane and one (1) shared through/right turn lane. The westbound approach has two (2) exclusive left turn lanes, one (1) through lane, and

one (1) exclusive right turn lane. The northbound approach has one (1) exclusive left turn lane, two (2) through lanes, and one (1) exclusive right turn lane. The southbound approach has one (1) exclusive left turn lane, two (2) through lanes, and one (1) exclusive right turn lane. The existing western leg of the intersection serves as a direct connection to Sandridge Road. Most likely, vehicles exiting the proposed development will utilize this existing segment to travel northbound on US Route 1. This segment will also likely be used as an entry point for site trips originating from the south and Florida Route A1A.

The major roadways within the vicinity of the proposed site are US Route 1, Florida Route A1A, and Juanita Avenue. These roadways will provide access to the proposed site, and are described below.

- US 1 within the study area is a four-lane divided highway with a north-south alignment and is currently classified as an Other Principal Arterial (OPA) with a posted speed limit of 45 miles per hour. According to the Florida Department of Transportation's (FDOT) online AADT database, US Route 1 currently has an AADT of 20,500 vehicles to the north of SR A1A and 30,000 vehicles to the south of SR A1A.

- SR A1A within the study area is a two-lane divided roadway which expands to a four-lane divided roadway as it approaches the intersection with US 1. It has an east-west alignment and is currently classified as a Minor Arterial with a posted speed limit of 40 miles per hour. According to FDOT's online AADT database, SR A1A currently has an AADT of 10,600 vehicles.

- Juanita Avenue within the study area is a two-lane undivided roadway with an east-west alignment and is currently classified as a Major Collector with a posted speed limit of 25 miles per hour. According to FDOT's online AADT database, Juanita Avenue currently has an AADT of 3,400 vehicles.

Proposed Development

As previously discussed, the proposed Scavello Restaurant and Retail Development will occupy 5.28 acres west of the intersection of US Route 1 and Florida State Road A1A. The development will contain 23,600 square feet of retail, a 7,900 square foot fine dining restaurant, and a 2,103 square foot quick service restaurant.

Site Access

Access to the proposed development will be provided via two (2) driveways located along Sandridge Road.

The two (2) access points to the site are expected to be provided via Sandridge Road (Old US Hwy 1) south of the intersection of Juanita Avenue and Sandridge Road. The first driveway is located approximately 700 feet from the intersection and the second driveway is located approximately 1,125 feet from the intersection. The two driveways are located about 425 feet from each other.

The northern site driveway forms a three-legged intersection with Sandridge Road and will have one (1) 17-foot ingress lane with one (1) 17-foot egress lane.

The southern site driveway forms a four-legged intersection with Sandridge Road and the existing Taylor Creek Commons development. This proposed driveway will have one (1) 12-foot ingress lane with one (1) 12-foot egress lane.

Additionally, the existing Taylor Creek Commons development currently has access to the eastern side of Sandridge Road at two (2) locations in front of the proposed development. As previously mentioned, the southern site driveway for the Scavello Restaurant and Retail Development will make up the fourth leg of one of these intersections. The Taylor Creek Commons development also provides access to US Route 1 at multiple points, with the majority of vehicles utilizing the previously mentioned signalized intersection.

Figure 3 depicts the proposed configuration and location of the Scavello Restaurant and Retail Development site driveways.

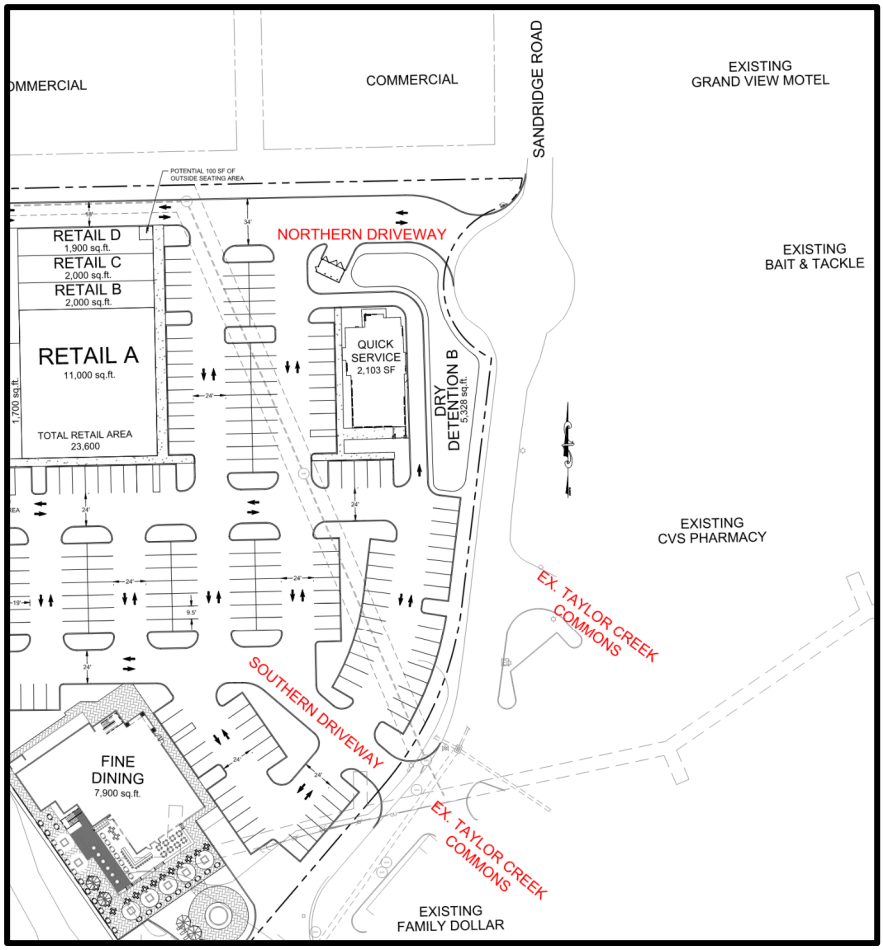


Figure 3. Site Driveway Configuration and Location

Trip Generation and Trip Distribution

The Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* was used to determine the number of trips generated by the proposed development. The projected trips are summarized in **Table 1** below.

Table 1. Trip Generation

Development	Land Use	Size	Units	Total Trips [1]			Internal Trips[2]			Pass-By Trips [3]			Primary Trips		
				In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM Peak Hour															
Fine Dining Restaurant	931	7,900	S.F.	3	3	6	2	1	3	0	0	0	1	2	3
Retail Shopping Center	820	23,600	S.F.	101	63	164	1	3	4	24	14	38	76	46	122
Quick Service Restaurant	930	2,103	S.F.	3	1	4	1	0	1	0	0	0	2	1	3
Total, AM Peak Hour	--	--	--	**107**	**67**	**174**	**4**	**4**	**8**	**24**	**14**	**38**	**79**	**49**	**128**
PM Peak Hour															
Fine Dining Restaurant	931	7,900	S.F.	41	21	62	12	8	20	13	6	19	16	7	23
Retail Shopping Center	820	23,600	S.F.	90	97	187	14	17	31	26	27	53	50	53	103
Quick Service Restaurant	930	2,103	S.F.	16	14	30	5	6	11	0	0	0	11	8	19
Total, PM Peak Hour	--	--	--	**147**	**132**	**279**	**31**	**31**	**62**	**39**	**33**	**72**	**77**	**68**	**145**
Average Weekday															
Fine Dining Restaurant	931	7,900	S.F.	331	331	662	50	49	99	96	96	192	185	186	371
Retail Shopping Center	820	23,600	S.F.	445	446	891	67	67	134	110	110	220	268	269	537
Quick Service Restaurant	932[4]	2,103	S.F.	118	118	236	18	17	35	0	0	0	100	101	201
Total, Average Weekday	--	--	--	**894**	**895**	**1789**	**135**	**133**	**268**	**206**	**206**	**412**	**553**	**556**	**1109**

(1) Based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition

(2) Internal trips calculated in accordance with ITE methodology. No ITE data is avaialble for daily internal trips, so the average of the AM and PM peak hour internal capture percentage (17%, rounded down to 15% as a conservative approach) was utilized to develop these trips

(3) Based on the Institute of Transportation Engineers Trip Generation Handbook, 3rd Edition. No data was available for Land Use 820 AM peak hour, and therefore this rate was assumed to be 10% less than the PM peak hour rate.

(4) Average weekday trip data for Land Use 930 is very limited (only one study). Therefore the closest related use, Land Us 932, was used to develop the average weekday trip data for the quick service restaurant.

As shown in **Table 1** the proposed development is anticipated to generate 174 total trips (107 in and 67 out) during the morning peak hour, 279 total trips (147 in and 132 out) during the evening peak hour, and 1,789 total trips (894 in and 895 out) during an average weekday.

During the morning peak hour, 8 trips are expected to be internal trips (trips within the same development and not seen on the surrounding roadway network), and 38 trips are expected to be pass-by trips (trips that are currently on the roadway network and temporarily diverted into the proposed site). The 128 remaining trips during the morning peak hour are expected to be primary trips, or trips new to the roadway network.

During the evening peak hour, 62 trips are expected to be internal trips and 72 trips are expected to be pass-by trips. The 145 remaining trips during the evening peak hour are expected to be primary trips.

During an average weekday, 268 trips are expected to be internal trips and 412 trips are expected to be pass-by trips. The 1,109 remaining trips during an average weekday are expected to be primary trips.

The projected trip distribution for the proposed site was developed utilizing published AADT data from the Florida Department of Transportation's online AADT database. The trip distribution calculations are summarized in **Table 2** below.

Table 2. Trip Distribution Development Calculations

Road Segment	AADT	Total AADT	Percentage	Rounded Percentage
Juanita Ave	3400	64500	5%	5%
US Rte 1 - Northern Leg	20500		32%	30%
US Rte 1 - Southern Leg	30000		47%	50%
North Cswy	10600		16%	15%

The projected trip distribution for the proposed development is depicted graphically in **Figure 4** below.

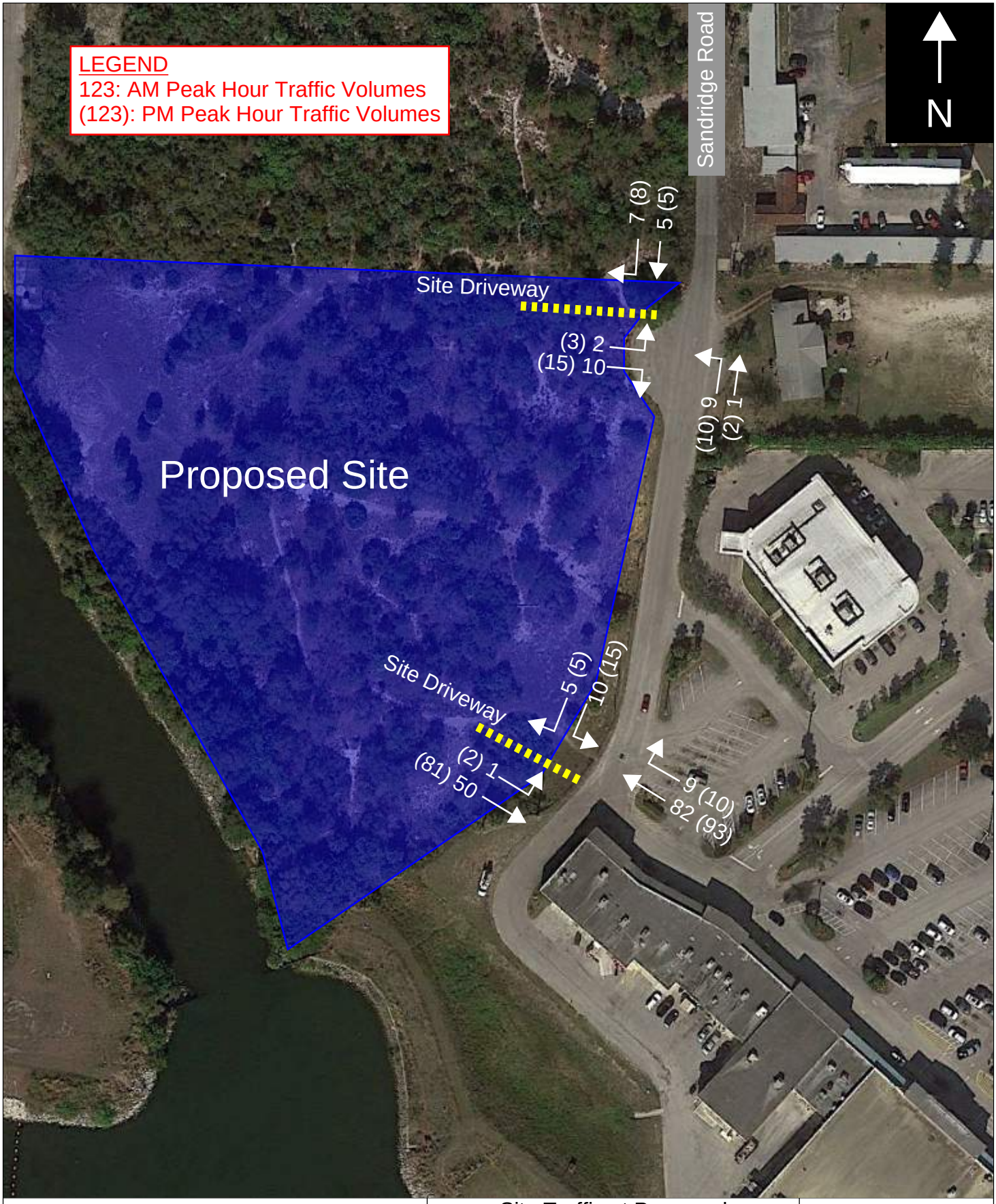
The peak hour trip generation for the proposed development was applied to the trip distribution to develop the projected site trips at the proposed site driveways. The site trips expected at the proposed site driveways are depicted graphically in **Figure 5** below.



Bowman CONSULTING

Trip Distribution
Scavello Restaurant and Retail Development
City of Fort Pierce, Florida

Figure 4



Bowman CONSULTING

Site Traffic at Proposed Site Driveways
Scavello Restaurant and Retail Development
City of Fort Pierce, Florida

Figure 5

Additional Information

Based on the proposed land uses in the Scavello Restaurant and Retail Development, it is typically anticipated that approximately 2.0% of site traffic associated with the site will consist of heavy vehicles.

To facilitate deliveries for both the retail and restaurant portions of the overall development, the proposed site should be designed to accommodate the traffic and turning movements associated with a WB-50 vehicle, which are usually associated with developments of this kind.

Traffic Impact Analysis Determination

The St. Lucie Transportation Planning Organizations, *Standardized Traffic Impact Studies (TIS) Methodology and Procedures* was used to determine the study area and analysis criteria for the preparation of a traffic study for the proposed development.

Based on the information contained in the document and the information contained in this traffic impact statement, the traffic study for the proposed Scavello Restaurant and Retail Development will be required to analyze the following roadway segments:

- US 1 from Avenue O to SR A1A
- US 1 from SR A1A to Juanita Avenue
- SR A1A from US 1 to Old Dixie Highway

Additionally, the traffic study will be required to analyze the following four (4) intersections:

- US 1 and SR A1A
- Juanita Avenue and Sandridge Road
- Sandridge Road and Northern Site Driveway
- Sandridge Road and Southern Site Driveway

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

Property Identification

Site Address: N US HIGHWAY 1
Sec/Town/Range: 33/34S/40E
Parcel ID: 1433-431-0001-000-4
Jurisdiction: Fort Pierce

Use Type: 1000
Account #: 139631
Map ID: 14/33S
Zoning: General Co

Ownership

Scavello Management LLC

101 City Island AVE
Bronx, NY 10464



Legal Description

33 34 40 COM AT NE COR SECTION 4-35-40 RUN S 88 DEG 21 MIN 15 SEC W 109.28 FT, TH S 89 DEG 11 MIN 58 SEC W ALG S LI OF SEC 33-34-40 996.14 FT TO ELY R/W LIOF SFWMD CANAL C-25 AND FPFWCD CANAL C-1, TH N 20 DEG 50 MIN 01 SEC W 31.57 FT TO POB, TH CONT N 20 DEG 50 MIN 01 SEC W 75.75 FT, TH N 34 DEG 11 MIN 17 SEC W 349.49 FT, TH N 23 DEG 35 MIN 16 SEC W 248.22 FT, TH N 00 DEG 30 MIN 17 SEC W 44.47 FT, TH N 89 DEG 07 MIN 15 SEC E 575.97 FT TOPT ON CURVE CONCAVE TO NW ON WLYR/W LI OF SANDRIDGE RD, TH SWLY ALG SD CURVE, R OF 25 FT, CA OF 67DEG 04 MIN 31 SEC, ARC 29.27 FT TO PT OF REVERSE CURVE CONCAVE TO E, TH ALG SD CURVE, R OF 60 FT, CA 137 DEG 17 MIN 08 SEC, ARC 143.77 FT, TH S 07 DEG 20 MIN 00 SEC W 184.22 FT TO PT CURVE CONCAVE TO NW, TH SWLY ON SD CURVE, R OF 251.50 FT, CA OF 33 DEG 35 MIN 57 SEC, ARC 147.54 FT, TH S 40 DEG 55 MIN 58 SEC W 251.56 FT TO POB (5.33 AC)

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	5.33
Land Size (SF):	232,175

Current Values

Just/Market Value:	$232,200
Assessed Value:	$232,200
Exemptions:	$0
Taxable Value:	$232,200

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	160	160

Sources/links:

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
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Technical Review Committee **3. g.**

Meeting Date: 05/20/2021

REQUESTED ACTION

Site Plan – Kings Highway Commerce Park – 2496 S. Kings Highway

LOCATION

2496 S. Kings Highway
Parcel IDs:

1. 2324-210-0000-000-6
2. 2324-211-0002-000-3
3. 2324-232-0000-000-4
4. 2324-211-0001-000-6
5. 2324-214-0001-000-5
6. 2324-214-0002-000-2
7. 2324-241-0004-000-0
8. 2324-241-0002-000-6
9. 2324-241-0003-000-3

RESPONSIBLE STAFF

Brandon C. Creagan, MCRP, LEED Green Associate, Planner

RECOMMENDATION

Review & Provide Comments

Attachments

TRC Packet

Form Review

Form Started By: Brandon Creagan Started On: 04/30/2021 10:26 PM
Final Approval Date: 05/01/2021

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO: JACK ANDREWS, PE, CITY ENGINEER
MIKE REALS, FP PUBLIC WORKS MANAGER
CHIEF HOBLEY-BURNEY, FP POLICE DEPARTMENT
PAUL THOMAS, FP BUILDING OFFICIAL
JAMES CARNES, PE, FPUA ENGINEERING (WATER/WASTEWATER)
PAUL LAGUERRE, PE, FPUA ENGINEERING (ELECTRIC)
ROD REED, PLS, SLC SURVEYING
GRANT CHAMBERS, PE, SLC ENGINEERING
LESLIE OLSON, AICP, SLC PLANNING & DEVELOPMENT DIRECTOR
DIVISION CHIEF PAUL LANGEL, SLC FIRE DISTRICT
PEGGY ARRAIZ, FP CODE ENFORCEMENT
PETER BUCHWALD, AICP, SLC TRANSPORTATION PLANNING ORGANIZATION
MURRIAH DECKLE, AICP, SLC TRANSIT SERVICES

FROM: BRANDON CREAGAN, LEED GREEN ASSOCIATE, PLANNER

RE: TECHNICAL REVIEW PROJECT# 21-07000008

DATE: APRIL30, 2021

Development Review – Kings Highway Commercial Park – 2496 South Kings Highway

This is an application for a Development Review & Design Review for nine (9) properties that will eventually be combined into one large property. The project is for a warehouse, office, and flex space development with 485,000 square feet in phase 1. There are future planned phases that could see the development grow to at least 1.9 million square feet of overall building space. The combined property size is approximately 103 acres. There is Zoning Atlas Map Amendment currently going through the process that would change the zoning on all properties to Commercial Parkway Zone (CP-1). The parcel IDs are 2324-210-0000-000-6, 2324-211-0002-000-3, 2324-232-0000-000-4, 2324-211-0001-000-6, 2324-214-0001-000-5, 2324-214-0002-000-2, 2324-241-0004-000-0, 2324-241-0002-000-6, & 2324-241-0003-000-3.

Please review and provide comments on the project. Please send all comments to my email Bcreagan@cityoffortpierce.com or through interoffice mail to the Planning Department. If you have comments, please respond by May 18, 2021.

Please do not hesitate to contact me should you require any additional information at 772-467-3742.

Thank you.

Brandon Creagan

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

DEVELOPMENT REVIEW

Property address or Location 2496 South Kings Highway, Fort Pierce

Parcel ID #(s) See attached

Project description Kings Highway Commerce Park 109.46 Acre, office warehouse and distribution development See attached location map

See attached	Kings Highway Development Partners.LLC Jeff H. Iravani- Authoized Agent
Property Owner(s)	**Applicant/Representative, Title, Company**
	1934 Commerce Lane Suite 5
Street Address	Street Address
City State Zip	Jupiter FL 33458
	City State Zip
Phone Number	561-575-6030
	Phone Number
Email Address	jhi@bellsouth.net
	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

Jeff H. Iravani - Authorized Agent

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY

The foregoing instrument was acknowledged before me this 30 day of April, 2021, by Jeff H. Iravani who is personally known to me or has produced _____ as identification.

Signature of Notary

(seal)

Jenna L. Jenkins
COMMISSION # GG270322
EXPIRES: October 23, 2022
Bonded Thru Aaron Notary

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____

Intake Planner_____

Planner Assigned_____

Approved By_____ Date _____

Comments_____

Fees_____ Control #_____ B. Permit #_____

Intake Date Stamp

❑ DEVELOPMENT REVIEW

General Information

- ❑ Incomplete application packets cannot be accepted.
- ❑ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
■ Site Plan	❑ Conditional Use with New Const.	❑ Major Amendment
❑ Conceptual Development Plan		❑ Minor Amendment

Site Information:

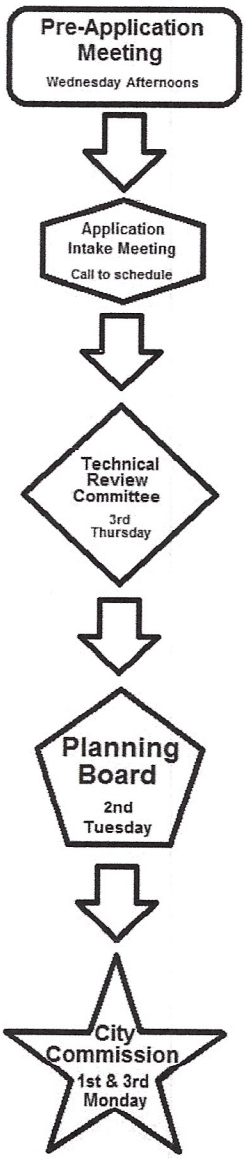
Non-Residential: Proposed Sq. Ft.: 485,000SF

Residential: Proposed Units:_____

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West
Vacant	Vacant/RV Park	Vacant	Vacant

Application Outlook



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ☒ Complete notarized application
- ☒ Warranty Deed
- ☒ SLC Property Record Card
- ☒ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ☒ General location map (see Section 22-58.d.2)
- ☒ Survey (see Section 22-58.d.3)
- ☒ Site Plan (see Section 22-58.d.4)
- ☒ Landscaping Plan (see Section 22-187)
- ☒ Storm Drainage Plan (see Section 22-58.d.6)
- ☒ Environmental Impact Report
- ❑ Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ☒ Lighting Plan (see Section 22-58.d.8)
- ☒ Design Review submittals (see Design Review application)
- ☒ Traffic Impact Report
- ☒ Concurrency Review submittals (see Concurrency Review application)

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Design Review

Property address or Location 2496 South Kings Highway, Fort Pierce

Parcel ID #(s) Please see attached

Project Description Kings Highway Commerce Park 109.46 Acre, office warehouse and distribution development. See attached location map

See attached	Kings Highway Development Partners, LLC - Jeff H. Iravani, Inc Authorized Agent
Property Owner(s)	Applicant/Representative, Title, Company
	1934 Commerce Lane Suite 5
Street Address	Street Address
	Jupiter Florida 33457
City State Zip	City State Zip
	561-575-6030
Phone Number	Phone Number
	jhi@bellsouth.net
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Application (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY Palm Beach

The foregoing instrument was acknowledged before me this 29 day of April, 2021, by Jeff H. Iravani who is personally known to me or has produced _____ as identification.

Signature of Notary

Jenna L. Jenkins
COMMISSION # GG270322
EXPIRES: October 23, 2022
Bonded Thru Aaron Notary

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic Districts	Historic Designation

Pre-Application Meeting Date _____ Fees _____ Control # _____ B. Permit _____

Intake Planner _____

Planner Assigned _____

Approved _____ Date _____

Comments _____

Intake Date Stamp

Design Review Application Checklist
(City Code of Ordinances 22-59)

Submittal for Administrative Approval

a. A survey (1" = 30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of section 22-194, location of bordering streets and, if applicable, wetlands and beaches.
b. A site analysis study to include a discussion of specimen trees and other natural vegetation, access, significant topography, wetlands, buffers, setbacks, views, orientation, the surrounding built environment and other site features that may influence design elements.
c. A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis study results.
d. Context photographs of neighboring uses and architectural styles.
e. Photographs and/or drawings of architectural buildings or objects that serve as a precedent for the proposed building design. Models should be taken from local exemplary buildings, either existing or demolished. Documentation of such buildings is available in the city's planning department.
f. Photographs of all existing structures located on the property. If existing structures on the property are more than fifty (50) years of age, documentation of these structures with data from the Florida Master Site File form is also required.
g. Conceptual site plan (to scale) showing proposed location of all buildings, structures, parking areas, signs and landscaping.
h. Landscape plan, at the same scale as the site plan. The planning director or designee may request enlarged plans of detailed planting areas. Planting schedule with sizes of proposed plantings must be included.
i. Accurate color rendering of proposed signs showing dimensions, type of lettering, materials and actual color samples that demonstrates cohesiveness with the project design.
j. Exterior elevations showing architectural character, external architectural features and streetscape of the proposed development, including materials, colors, shadow lines and landscaping. The street elevation shall encompass the entire proposed project and generally identify the major elements of the adjacent two (2) properties on either side of the site. If the adjacent properties are vacant or underutilized, a diagram shall be provided that identifies the mass and form that is allowable under current zoning. If the street elevation must be drawn at such a scale as to render architectural details of the building unreadable, drawings of individual buildings at a larger scale should be provided as well.
k. Design review concurrent with conceptual development plan procedure according to subsection 22-58(e) is also available.

Submittal for Board Approval

a. A written narrative describing how the project conforms to administrative approval and design review guidelines of this section.
b. A final site plan meeting the requirements of section 22-58
c. A final site lighting plan that meets the requirements of subsection 22-58(d)(8).
d. A final landscape plan that meets the requirements of Article XII, Landscaping and Trees.
e. Final floor plans and elevation drawings (1/8" = 1'-0" minimum scale), as detailed under administrative approval, showing exterior building materials and colors with architectural sections and details to adequately describe the project.
f. A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	VACANT / AG	COM / RL / RU	AG-1 / RL / AR-1
South	VACANT / RV PARK	MXD / GC / MXD	RS-1 / C-3 / RS-2
East	VACANT / RESIDENTIAL	MXD / GC	RS-2 / C-3
West	VACANT	RM	R4

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	CG	C-3 / RS-2	1,736 ksf comm 85 residentail DU	109.46	
****Proposed**	CG	CP-1	1,900 ksf office/whse	108.12	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day 239,215
**Proposed Zoning/FLU	Total gallons per day 90,300
**Change in Demand	Total gallons per day (-)148,915

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day 195,809
**Proposed Zoning/FLU	Total gallons per day 90,300
**Change in Demand	Total gallons per day 105,509

C. Parks and Recreation (Residential Classifications Only):
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people			
Urban District	5 acres per 1,000 people			
Community	2.5 acres per 1,000 people			
Neighborhood	1.36 acres per 1,000 people			

D. Public Schools (Residential Classifications Only):
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name		
City		
Distance		
Current Zoning/FLU Enrollment Demand		
****Proposed Zoning/FLU Enrollment Demand**		
****Change in Demand**		

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)	
Demand Analysis	Maximum
Current Zoning/FLU	43,436
****Proposed Zoning/FLU**	47,524
***Change in Demand**	4,088

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	Per NSLRWCD, maximum discharge is based on the acreage and not proposed use or zoning. Therefore, tehr is no impact on the the receiving canal.

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	3,361	334/373
****Proposed Zoning/FLU**	4,108	452/486
***Change in Demand**	Trips +747	Trips +118/+113
Impact to Capacity		

IV. Project Description

PHASING
Is this project (phase) part of a larger project? [X] Yes [ ] No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: Single Family: Multifamily:
Non-residential (square footage):
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family					
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**
Office/Whse	I	485 K	53	Sept 2021	Sept 2022
Office / Whse	future	1,415 K	55,12	TBD	TBD

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. ☐ Yes ☒ No

B. 1. Does this application involve demolition or re-use of any structure(s)? ☒ Yes ☐ No
If yes, what is the size of the structure(s) to be demolished or re-used? 4-signlr family homes

2. What is the current use of the structure to be demolished or re-used? residential

3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? ☐ Yes ☒ No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

Grady Sapp
2421 Peters Road
Fort Pierce, FL 34945

February 16, 2021

RE: Parcel ID # 2324-241-0002-000-6

Kings Highway Commerce Park
Southeast corner of Kings Highway and White Road
Fort Pierce, Florida

To Whom It May Concern:

Grady Sapp, the owner of the above referenced parcel, hereby authorizes Jeff H. Iravani, Inc to be the applicant to obtain all the required site and subdivision plans approvals and civil permits for the above referenced project.

Sincerely,

Signature: _____

Name: Grady Sapp

Title: Owner

STATE OF FLORIDA
COUNTY OF ~~PALM BEACH~~ St Lucie

The foregoing instrument was acknowledged before me this 26th day of February, 2021, by Grady Sapp who is personally known to me (or) produced a drivers' license as identification and who did (did not) take an oath.

Cheryl A Howe
Notary Public

Seal

CHERYL A HOWE
Notary Public - State of Florida
Commission # GG 260038
My Comm. Expires Nov 30, 2022

Great American RV Prop, LLC
547 Wash Roberts LN
McMinnville, TN 37110

February 16, 2021

Parcel ID # 2324-241-0004-000-0
Kings Highway Commerce Park
Southeast corner of Kings Highway and White Road
Fort Pierce, Florida

To Whom It May Concern:

Great American RV Prop, LLC, the owner of the above referenced parcels, hereby authorizes Jeff H. Iravani, Inc to be the applicant to obtain all the required site and subdivision plans approvals and civil permits for the above referenced project.

Sincerely,

Signature: _____

Name: JAMES A WYNNE III

Title: MANAGING PARTNER

STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this 19th day of February, 2021, by James A. Wynne II who is personally known to me (or) produced a drivers' license as identification and who did (did not) take an oath.

_____
Notary Public

Seal

DEANNA GIVENS
Notary Public - State of Florida
Commission # HH 086359
My Comm. Expires Jan 28, 2025
Bonded through National Notary Assn.

Kings Highway Commercial South, LLC
18860 Loxahatchee River Road
Jupiter, FL 33458

February 17, 2021

RE: Parcel ID # 2324-232-0000-000-4

Kings Highway Commerce Park
Southeast corner of Kings Highway and White Road
Fort Pierce, Florida

To Whom It May Concern:

Kings Highway Commercial South, LLC, the owner of the above referenced parcels, hereby authorizes Jeff H. Iravani, Inc to be the applicant to obtain all the required site and subdivision plans approvals and civil permits for the above referenced project.

Sincerely,

Signature: _____

Name: Edward A. Sasso

Title: Mgr

STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this 18th day of February, 2021, by Edward Sasso who is personally known to me (or) produced a drivers' license as identification and who did (did not) take an oath.

_____
Notary Public

Seal

Jenna L. Jenkins
COMMISSION # GG270322
EXPIRES: October 23, 2022
Bonded Thru Aaron Notary

Kings Highway Development Partners, LLC
4923 W. Cypress Street
Tampa, FL 33607

March 4, 2021

RE: Kings Highway Commerce Park
Southeast corner of Kings Highway and White Road
Fort Pierce, Florida

To Whom It May Concern:

Kings Highway Development Partners, LLC, the applicant for the above referenced project, hereby authorizes Jeff H. Iravani, Inc to be our authorized agent to obtain all the required re-zoning, site plan approvals & civil related permits and to sign on our behalf on all applicable applications for the above referenced project.

Sincerely,

Signature: _____

Name: KENNETH I. MORIN

Title: MANAGER

STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this 4th day of March, 2021, by Kenneth Morin who is personally known to me (or) produced a drivers' license as identification and who did (did not) take an oath.

_____
Notary Public

Seal

Jenna L. Jenkins
COMMISSION # GG270322
EXPIRES: October 23, 2022
Bonded Thru Aaron Notary

Australian Properties, LLC
P.O. Box 14049
Fort Pierce, FL 34979

February 17, 2021

RE: Parcel ID # 2324-211-0002-000-3
Kings Highway Commerce Park
Southeast corner of Kings Highway and White Road
Fort Pierce, Florida

To Whom It May Concern:

Australian Properties, LLC, the owner of the above referenced parcels, hereby authorizes Jeff H. Iravani, Inc to be the applicant to obtain all the required site and subdivision plans approvals and civil permits for the above referenced project.

Sincerely,

Signature: _____

Name: George Tantuso

Title: MGR

STATE OF FLORIDA
COUNTY OF ~~PALM BEACH~~ St. Lucie

The foregoing instrument was acknowledged before me this 18th day of February, 2021, by George Tantuso who is personally known to me (or) produced a drivers' license as identification and who did (did not) take an oath.

Rhonda J. Vincent
Notary Public #GG 348412

Seal

RHONDA J. VINCENT
Notary Public - State of Florida
Commission # GG 348412
My Comm. Expires Aug 28, 2023
Bonded through National Notary Assn.

RV Development, LLC
547 Wash Roberts LN
McMinnville, TN 37110

February 16, 2021

RE: Parcel ID #'s
2324-211-0001-000-6
2324-214-0001-000-5
2324-214-0002-000-2
2324-241-0003-000-3
Kings Highway Commerce Park
Southeast corner of Kings Highway and White Road
Fort Pierce, Florida

To Whom It May Concern:

RV Development, LLC, the owner of the above referenced parcels, hereby authorizes Jeff H. Iravani, Inc to be our authorized agent to obtain all the required annexation, re-zoning, site plan approvals & civil related permits and to sign on our behalf on all applicable applications for the above referenced project.

Sincerely,

Signature: _____

Name: JAMES A WYNNE III

Title: MANAGING PARTNER

STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this 19th day of February, 2021, by James A Wynne II who is personally known to me (or) produced a drivers' license as identification and who did (did not) take an oath.

_____
Notary Public

Seal

DEANNA GIVENS
Notary Public - State of Florida
Commission # HH 086359
My Comm. Expires Jan 28, 2025
Bonded through National Notary Assn.

Jeff H. Iravani, Inc.
Consulting Engineers
1934 Commerce Lane, Suite 5 Jupiter, Fl 33458
Tel: (561) 575-6030 Fax: (561) 575-6088
JHI@bellsouth.net

Ownership and Control Statement
For
Kings Highway Commerce Park

I. Ownership

The site is located at the southeast corner of Kings Hwy and White Road approximately 1/2 mile north of Okeechobee Rd (SR-70) and consist of 109.46 ac of land. See Exhibit-A

There are 6 separate owners controlling 9 separate lots per below:

2324-211-0001-000-6 RV Development, LLC
2324-214-0002-000-2 "
2324-241-0003-000-3 "
2324-211-0001-000-5 "
2324-241-0004-000-0 Great American RV Prop LLC
2324-241-0002-000-6 Sapp (LF EST) Grady
2324-210-0000-000-6 Kings Highway Commerce Park, LLC
2324-232-0000-000-4 Kings highway Commercial South, LLC
2324-211-0002-000-3 Australian Properties, LLC

Kings Highway Partners Development LLC, the applicant is the contract purchaser of all the above properties.

II. Intended Use

A commercial & industrial development is proposed with 1.9 msf of building area and required infrastructure. The proposed area will include offices, warehouses, and distribution centers.

Exhibit A
Aerial



Jeff H. Iravani, Inc.
Consulting Engineers
1934 Commerce Lane, Suite 5 Jupiter, Fl 33458
Tel: (561) 575-6030 Fax: (561) 575-6088
JHI@bellsouth.net

Project Narrative
For
Kings Highway Commerce Park

The site is located at the southeast corner of Kings Hwy and White Road approximately 1/2 mile north of Okeechobee Rd (SR-70) and consist of 109.46 ac of land. See Exhibit-A

A commercial and industrial development is proposed with 1.9 msf of building area at buildout and the required infrastructure. Zoning shall be CP-1.

The intent of this project is to provide an industrial/commercial development as outlined under CP-1 zoning section 125-207a. The goal is to build a trend setting development considering the proximity to I-95 and Florida turnpike.

Phase-I of the project consists of 485ksf of office warehouse. See Exhibit-B.
Future phases shall be developed based on market needs similar to what is proposed in Phase-I. Other uses as allowed under CP-1 zoning, may also be incorporated in future phases.

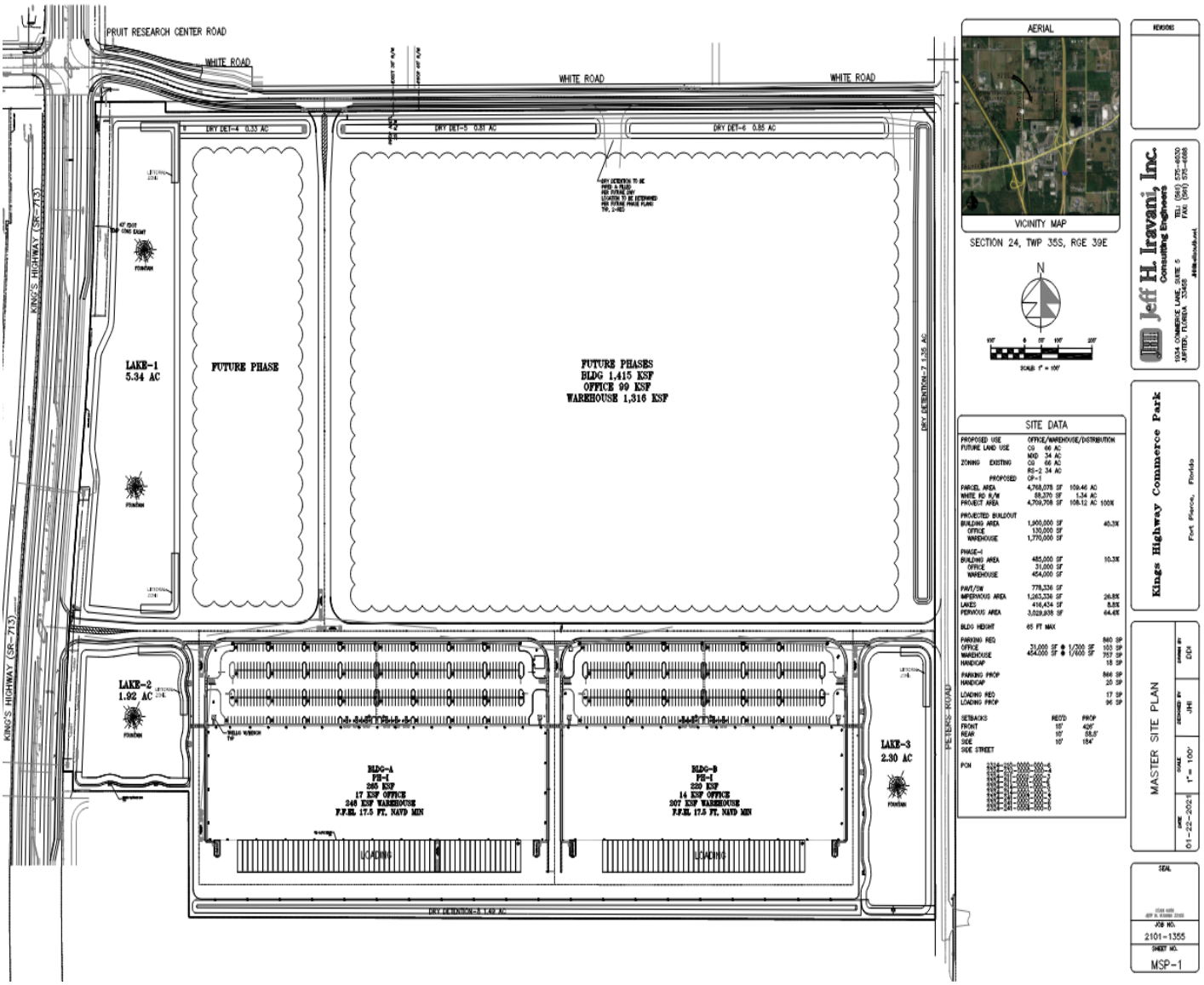
The intersection of Kings Hwy & White Road shall be improved to full access with signals to be installed in the future as warranted.

We believe this project will be a model for future developments along King's Highway in this area considering the enormous growth of on-line commerce and the similar need for processing, storage and distribution facilities that are required to meet the broad variety of products that consumers demand.

Exhibit A
Aerial



Exhibit B
Master Site Plan



Jeff H. Iravani, Inc.
Consulting Engineers
1934 Commerce Lane, Suite 5 Jupiter, Fl 33458
Tel: (561) 575-6030 Fax: (561) 575-6088
JHI@bellsouth.net

Site Analysis
For
Kings Highway Commerce Park

I. Introduction

The site is located at the southeast corner of Kings Hwy and White Road approximately 1/2 mile north of Okeechobee Rd (SR-70) and consist of 109.46 ac of land. See Exhibit-A

II. Property Description.

The attached Environmental Impact report describes in detail the existing land coverage including specimen trees and natural vegetation.

There are five single family residences along Peters Road on the eastern portion of the site.
There was a 6-ac industrial development along Kings Hwy which is now demolished.
The remainder and vast majority of the site was previously utilized for citrus groves and now being used as unimproved pasture for cattle.
The topography is typical of abandoned citrus groves with ditches for drainage purposes.

There are no wetlands on the site.

The surrounding land are generally vacant with previous use being citrus groves or agricultural use. There is a RV park along the south property line and a motel at the south east corner across Peters Road.

III. Proposed Development

A commercial & industrial development is proposed with 1.9 MSF of building area and required infrastructure. The proposed area will include offices, warehouses, and distribution centers.
Zoning shall be CP-1.
The proposed setbacks are per CP-1 zoning requirement.
Landscape buffers shall be per CP-1 zoning. A minimum of 10' landscape buffer is proposed along the entire site property lines. There are also 3-lakes with water features along the west, east and south property lines. See Exhibit-B for site plan.

Intersection of Kings Hwy & White Road shall be improved to provide full access with signal in the future as warranted.

Thursday, April 15, 2021

Mary Lindgren, Environmental Project Manager
EW Consultants, Inc.
2581 Metrocentre Blvd, Suite 1
West Palm Beach, Florida 33407
561-29107950
561-762-5774
mlindgren@ewconsultants.com

Re: Kings 65 Property Interim Report - Phase I Cultural Resources Assessment Survey (CRAS) (Township 35S, Range 39E, Section 24), Fort Pierce, St. Lucie County, Florida.

Mary Lindgren,

Between Thursday, April 1st and Monday, April 5th Coastal Archaeology & History Research, Inc. (CAHR) conducted field investigations for a Phase I Cultural Resource Assessment Survey (CRAS) of the Kings 65 property. The subject property includes 108+/- acres across nine (9) individual parcels consisting of largely vacant agricultural land (cow pasture) and multiple residential structures. Individual parcels are identified as:

Address	Parcel Number	Description
1. 7001 White Rd	2324-210-0000-000-6	Agricultural
2. 2261 Peter Rd	2324-211-0001-000-6	Residential (abandoned)
3. 2315 Peters Rd	2324-214-0001-000-5	Residential (abandoned)
4. 2371 Peters Rd	2324-214-0002-000-2	Residential (occupied)
5. 2421 Peters Rd	2324-241-0002-000-6	Residential (occupied)
6. 2449 Peters Rd	2324-241-0003-000-3	Residential (unoccupied)
7. n/a S Kings Hwy	2324-241-0004-000-0	Agricultural
8. 2306 S Kings Hwy	2324-211-0002-000-3	Commercial (const. staging)
9. 2496 S Kings Hwy	2324-232-0000-000-4	Agricultural

Purpose

The CRAS fieldwork included architectural and archaeological investigation to locate, delineate, identify, and evaluate all cultural resources occurring within the subject property and to assess their significance and potential eligibility for inclusion in the *National Register of Historic Places* (36 CFR 60.4) and for local historical designation in accordance with Sec. 111 of the Land Development Code of the City of Fort Pierce, St. Lucie County, Florida.

Fieldwork was conducted in anticipation of compliance requirements with local, state and federal permitting entities. The survey was performed by professional staff in accordance with the standards set forth in Chapter 1A-46 *Florida Administrative Code* and will be conducted by professional staff (archaeologists, architectural historians, and historians) who meet the Secretary of the Interior's professional standards (36 CFR Part 61 *as amended*).

Preliminary Findings

a. **Structure Survey:** An architectural inventory of the Kings 65 property identified five (5) standing structures and associated outbuildings. Three (3) structures were identified to be at least fifty (50) years old and warranted recording with the Florida Master Site File (FMSF). It is our opinion however that these three (3) structures do not meet the criteria for eligibility for inclusion on the National Register of Historic Places (NRHP) or the criteria for local municipal historic designation. Each of these structures will be recorded on a FMSF historic structure form and assigned a FMSF structure number (issued by request from the state FMSF); a request for historic structure numbers is pending. The properties are identified as:

Address	Parcel Number	Description
1. 2261 Peter Rd	2324-211-0001-000-6	Residential (abandoned)
2. 2315 Peters Rd	2324-214-0001-000-5	Residential (abandoned)
3. 2371 Peters Rd	2324-214-0002-000-2	Residential (occupied)

Two (2) structures were identified to be less than fifty (50) years old and do not meet the criteria for recording on the FMSF nor do they meet the criteria for either NRHP or local historical designation. These properties will be identified and documented in the CRAS report however no additional documentation will be performed. These properties are identified as:

Address	Parcel Number	Description
1. 2421 Peters Rd	2324-241-0002-000-6	Residential (occupied)
2. 2449 Peters Rd	2324-241-0003-000-3	Residential (unoccupied)

** see attached map **

b. **Archaeological Survey:** An archaeological survey of the Kings 65 property included forty-four (44) of the proposed forty-seven (47) proposed shovel test pits (STP). Three (3) shovel tests were not performed because two (2) were located within the boundaries of currently occupied residential property (2421 Peters Rd) and one was inaccessible (2261 Peters Rd). It was not possible to relocate these three STP to a nearby location as they were already very isolated owing to the 100m STP interval.

No archaeological features or artifacts and no unanticipated discoveries (i.e.: unmarked burials) were encountered during the survey. It is our opinion that the property does not contain any significant archaeological resources.

**** see attached map **

Pending Deliverables

We are compiling a draft CRAS report for your review and will have it you in the next 10 – 12 days. Provided that you and your client find that the report is acceptable, we anticipate that we will submit a final report, complete with FMSF records and documentation, on or about May 5th.

It is my pleasure to provide this work for you and your client. If you have any questions or if you would like to discuss the survey in detail, please contact me via cell-phone at (732) 996-0954 or email at mdefelice@cahresearch.com.

Sincerely,

Matthew A. DeFelice, M.A.
President, Coastal Archaeology & History Research, Inc.

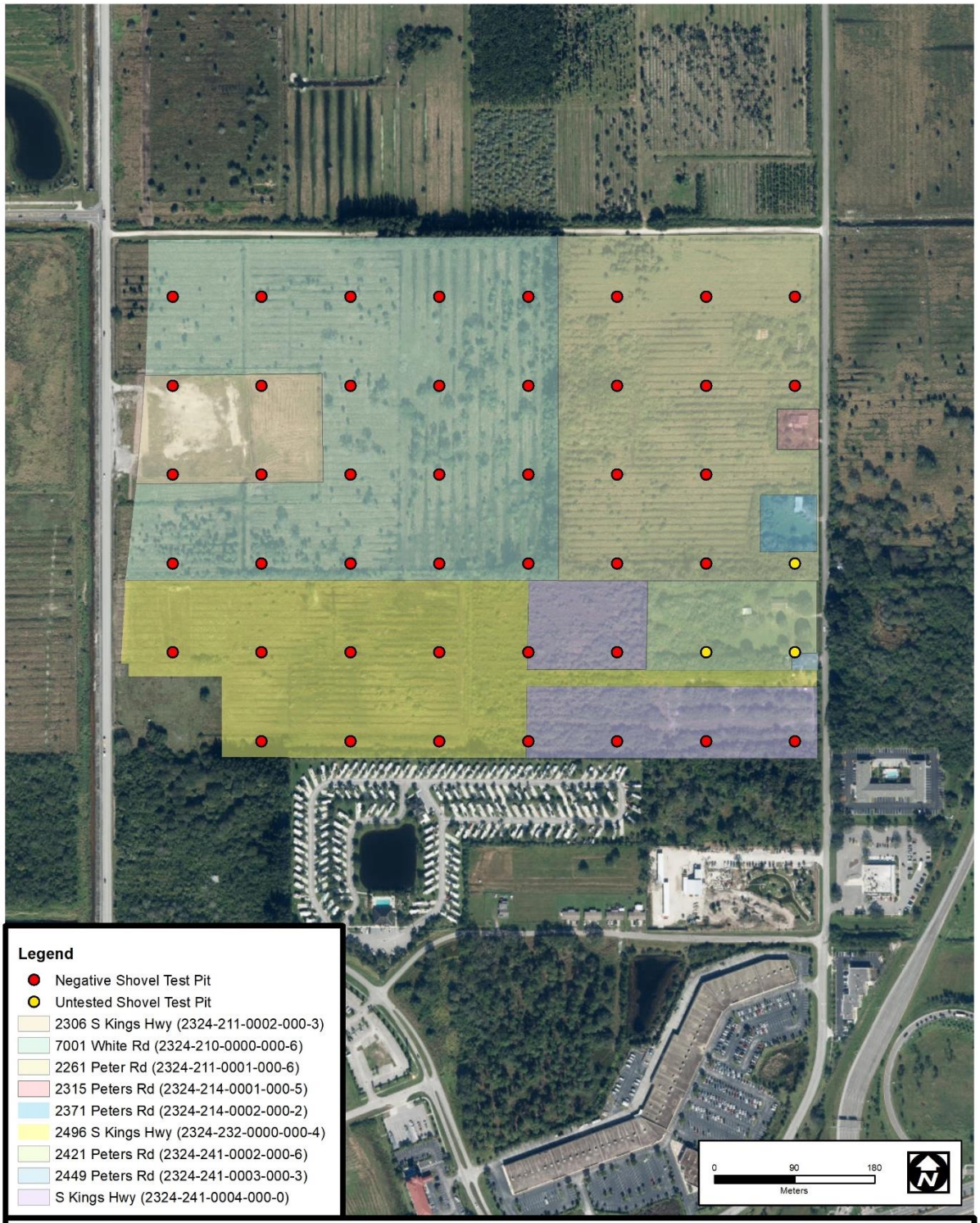
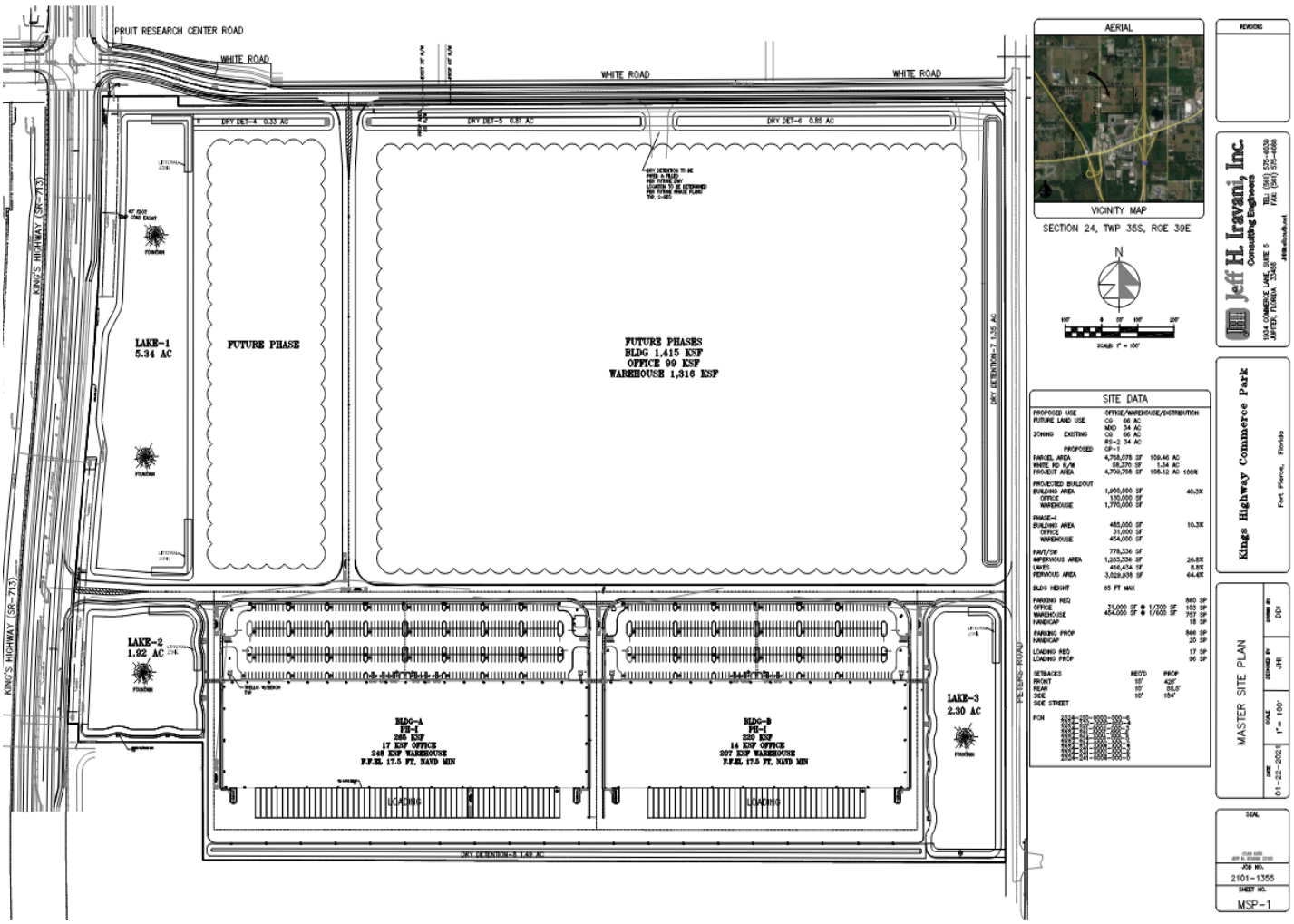
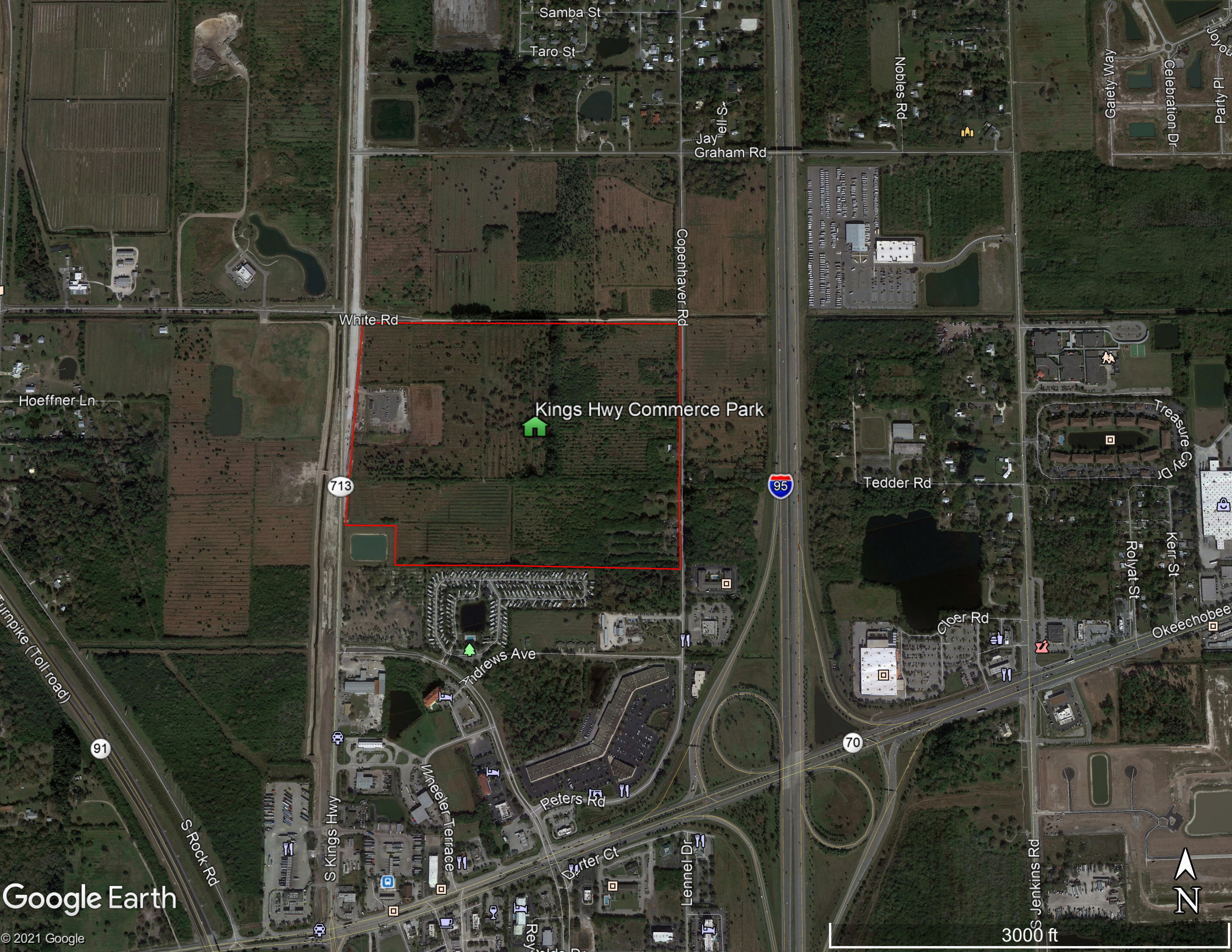

Legend
Negative Shovel Test Pit
Untested Shovel Test Pit
2306 S Kings Hwy (2324-211-0002-000-3)
7001 White Rd (2324-210-0000-000-6)
2261 Peter Rd (2324-211-0001-000-6)
2315 Peters Rd (2324-214-0001-000-5)
2371 Peters Rd (2324-214-0002-000-2)
2496 S Kings Hwy (2324-232-0000-000-4)
2421 Peters Rd (2324-241-0002-000-6)
2449 Peters Rd (2324-241-0003-000-3)
S Kings Hwy (2324-241-0004-000-0)
0
90
180
Meters
CAHR
Interim Findings - Kings 65 Property CRAS
City of Fort Pierce, St. Lucie County, Florida
Proj. 21.001
Date: April 15, 2021
Auth: Matthew A. DeFelice
Client: EW Consultants, Inc.
This map is for conceptual purposes and should not be used for boundary or legal determinations.

Exhibit A
Aerial



Exhibit B
Master Site Plan




Samba St
Taro St
Jay
Graham Rd
Nobles Rd
Gaiety Way
Celebration Dr
Party Pl
Copenhaver Rd
White Rd
Hoeffner Ln
Kings Hwy Commerce Park
713
95
Tedder Rd
Treasure Cay Dr
Rolyat St
Kerr St
Cloer Rd
Okeechobee
Andrews Ave
Turnpike (Toll road)
91
70
Wheeler Terrace
Peters Rd
S Kings Hwy
S Rock Rd
Lennel Dr
S Jenkins Rd
N
3000 ft
Google Earth
© 2021 Google

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 4011532 OR BOOK 3688 PAGE 925, Recorded 11/06/2014 at 03:13 PM
Doc Tax: $0.70

WARRANTY DEED
INDIVID. TO INDIVID.

RAMCO FORM 01

Return to: (enclose self-addressed stamped envelope)

Name: Grady Sapp

Address: 2421 PETERS Rd.
Ft. PIERCE, FL 34945

This Instrument Prepared by:

Name: JOYCE SMITH

Address: 1828 Copenhaver Rd.
Ft. Pierce, FL 34945

Property Appraisers Parcel Identification 2324-241-0002-000/6

Folio Number(s):

Grantee[s] S.S. # (s)

SPACE ABOVE THIS LINE FOR PROCESSING DATA

SPACE ABOVE THIS LINE FOR RECORDING DATA

This Warranty Deed, *Made the* 6th *day of* NOV 6, 2014, *by* Sapp, Grady, *hereinafter called the Grantor, to* Joyce K. Smith *whose post office address is* 2421 Peters Rd. Ft. Pierce, Fl 34945, *hereinafter called the Grantee.*

(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, wherever the context so admits or requires.)

Witnesseth, *That the Grantor, for and in consideration of the sum of $* 10.00 *and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee all that certain land, situate in* _____ *County, State of* Florida, *viz:*

24 35 39 N½ OF NE ¼ OF SE ¼ OF NW ¼ - LESS S60 FT OF E 125 FT AND LESS E 30 FT - (4.64 AC) (OR 718-2723: 2981-2561)

Grady Sapp RESERVES UNTO HIMSELF A LIFE ESTATE IN THE ABOVE DESCRIBED PROPERTY

Together, *with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.* **To Have and to Hold,** *the same in fee simple forever.*

And *the Grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land, and hereby warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31,*

In Witness Whereof, *the said Grantor has signed and sealed these presents the day and year first above written.*

Signed, sealed and delivered in the presence of:

Witness Signature (as to first Grantor)

PETE WELLS
Printed Name

Witness Signature (as to first Grantor)

Pam Cawyer
Printed Name

Witness Signature (as to Co-Grantor, if any)

Printed Name

Witness Signature (as to Co-Grantor, if any)

Printed Name

Grady Sapp
Grantor Signature L.S.

Grady Sapp
Printed Name

2421 Peters Rd Ft. Pierce, Fl
Post Office Address

Co-Grantor Signature, (if any) L.S.

Printed Name

Post Office Address

STATE OF Florida)
COUNTY OF St. Lucie)

I hereby Certify that on this day, before me, an officer duly authorized to administer oaths and take acknowledgments, personally appeared _____ known to me to be the person ✓ described in and who executed the foregoing instrument, who acknowledged before me that she executed the same, and an oath was not taken. (Check one:) ☒ Said person(s) is/are personally known to me. ☐ Said person(s) provided the following type of identification: _____.

NOTARY RUBBER STAMP SEAL

MARY E. BENDER
Commission # EE 157135
Expires April 11, 2016
Bonded Thru Troy Fain Insurance 800-385-7019

Witness my hand and official seal in the County and State last aforesaid this 6th day of November, A.D. 2014

Mary E Bender
Notary Signature

Mary E Bender
Printed Name

©Form Design, Seminole Paper & Printing Co., Inc., 1994

07 23 99

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 3802970 OR BOOK 3487 PAGE 76, Recorded 02/20/2013 at 08:35 AM
Doc Tax: $2544.50

Warranty Deed

This Indenture, made , February 19, 2013 A.D.

Between

Southern Specialty Properties, LLC, a Georgia limited liability company whose post office address is:3611 Braselton Hwy., Ste 203, Dacula, GA 30019, Grantor and **Kings Highway Commercial South, LLC, a Florida limited liability company** whose post office address is: 340 S. US Highway 1, Apt 607, Jupiter, Florida 33477, Grantee,

Witnesseth, that the said Grantor, for and in consideration of the sum of Ten and No/100 Dollars ($10.00), to it in hand paid by the said Grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said Grantee forever, the following described land, situate, lying and being in the County of St. Lucie, State of Florida, to wit:

The North half of the South half of the Northwest quarter of Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida, Less the East 1118.54 feet and the West 25 feet thereof;

And

The North 60 feet of the West 1088.54 feet of the East 1118.54 feet of the South half of the North half of the South half of the Northwest quarter of Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida.

Subject to taxes for the current year, covenants, restrictions and easements of record, if any.

Parcel Identification Number: **2324-232-0000-000/4**

And the said Grantor does hereby fully warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

In Witness Whereof, the said Grantor has caused this instrument to be executed in its name by its duly authorized officer and caused its corporate seal to be affixed the day and year first above written.

Signed and Sealed in Our Presence:

Southern Specialty Properties, LLC, a Georgia limited liability company

By: _____ /manager.
John Moore Cole
Its: Managing Member

_____
Witness Print Name: Daniel Steven.

_____
Witness Print Name: Joel Williams.

State of Georgia.
County of Gwinnett.

The foregoing instrument was acknowledged before me this 19th day of February, 2013, by John Moore Cole, the Managing Member of Southern Specialty Properties, LLC, a Georgia limited liability company who is personally known to me or has produced drivers license as identification.

_____ (Seal)
Notary Public
Notary Printed Name: Steven Webreich

My Commission Expires::
12/27/15

Prepared by and Return to:
Cindy Lou Wilhoite, an employee of
Down Home Title Services, Inc.,
439 SE Port St. Lucie Blvd, Suite 107
Port St. Lucie, Florida 34984

File Number: DH1301-005

PURCHASE PRICE: $363,440.00

NOTARY ACKNOWLEDGMENT

State of: Georgia.

County of: Gwinnett.

I am a notary public of the State of Georgia and my commission expires: 12/27/15.

The foregoing instrument was acknowledged before me this 12 day of February, 2013 by John Moore Cole, Managing Member of Southern Specialty Properties, LLC, a Georgia limited liability company who is/are personally known to me or who has produced drivers license, as identification.

Notary Public
Print notary name: Steven Webreck.
Notary seal



EDWIN M. FRY, Jr., CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 2923462 OR BOOK 2650 PAGE 1994, Recorded 09/06/2006 at 04:31 PM
Doc Tax: $8750.00

This Instrument Prepared by:
R. N. Koblegard, III, Esquire
200 S. Indian River Drive, Suite 201
Fort Pierce, Florida 34950

Return to:
R. N. Koblegard, III, Esq.
Courthouse Box 145

Parcel I.D. No.: 2324-211-0002-000/3

18.50
8750.00
8768.50
Clerk
Doc STS

WARRANTY DEED

THIS WARRANTY DEED, executed this 29th day of August, 2006, by

MBK MASTERS, INC., a Florida corporation
2306 S. Kings Highway
Fort Pierce, FL 34945-2642

hereinafter called the Grantor, to

AUSTRALIAN PROPERTIES, LLC, a Florida
Limited Liability Company
Post Office Box 14049
Fort Pierce, FL 34979

hereinafter called the Grantee:

(Wherever used herein, the terms "Grantor" and "Grantee" shall include singular and plural, heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, wherever the context so admits or requires."

WITNESSETH, That the Grantor, for and in consideration of the sum of $10.00 in hand paid by the said second party, the receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee forever, all that certain land situate, lying and being in the County of St. Lucie, State of Florida, to-wit:

A parcel of land lying in Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida, more particularly described as follows:

The South 400 feet of the North 903.20 feet of the East 750 feet of the West 775 feet, LESS road and canal right of way;

TOGETHER WITH the South 35.30 feet of the North 938.50 feet of the East 750 feet of the West 775 feet;

LESS the South 35.30 feet of the North 538.50 feet of the East 750 feet of the West 775 feet.

SUBJECT TO an easement from the Southern Bell Telephone and Telegraph, as recorded in Deed Book 220, page 436 of the Public Records of St. Lucie County, Florida.

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD the same in fee simple forever.

AND the Grantor hereby covenants with the Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land; that the Grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2006.

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed the day and year first above written.

Signed, Sealed and Delivered in the Presence of:

Print Name: Richard V. Neill, Jr.

Print Name: Susan M. Burban

MBK MASTERS, INC., a Florida corp.

By _____
Akio Mizuno, President

STATE OF FLORIDA
COUNTY OF ST. LUCIE

I HEREBY CERTIFY that the foregoing instrument was acknowledged before me this 30th day of August, 2006, by **Akio Mizuno**, known to me to be the President of **MBK MASTERS, INC.,** the corporation in whose name the foregoing instrument was executed, and that he acknowledged executing the same for such corporation, freely and voluntarily, under authority duly vested in him by said corporation, and that the seal affixed thereto is the true corporate seal of said corporation, and that I relied upon the following form of identification of the above-named person: Personal Knowledge, that an oath was not taken.

Print Name: Susan M. Burban, Notary Public, State of Florida at Large

Susan M. Burban
MY COMMISSION # DD269844 EXPIRES
December 12, 2007
BONDED THRU TROY FAIN INSURANCE, INC.

JOANNE HOLMAN, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
File Number: 2271016 OR BOOK 1798 PAGE 2252
Recorded:09/15/03 15:31

* Doc Assump: $ 0.00
* Doc Tax : $ 2,625.00
* Int Tax : $ 0.00

Prepared by
Roberta Carter, an employee of
First American Title Insurance Company
109 North Second St.
Fort Pierce, Florida 34950
(772) 464-7837

Return to: Grantee

File No.: 1083-226013

WARRANTY DEED

This indenture made on **September 12, 2003** A.D., by

Glenn M. Blake and Frances P. Blake, husband and wife

whose address is: **1575 48th Avenue, Vero Beach, FL 32966**
hereinafter called the "grantor", to

Great American RV Properties LLC

whose address is: **2560 SE 12th Street, Pompano Beach, FL 33062**
hereinafter called the "grantee":

(Which terms "Grantor" and "Grantee" shall include singular or plural, corporation or individual, and either sex, and shall include heirs, legal representatives, successors and assigns of the same)

Witnesseth, that the grantor, for and in consideration of the sum of Ten Dollars, ($10.00) and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in **St. Lucie** County, **Florida**, to-wit:

Parcel I:

The West 455.58 feet of the East 1118.54 feet of the North Half of the North Half of the South Half of the Northwest Quarter of Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida.

AND PARCEL II:

The West 1088.54 feet of the East 1118.54 feet of the South 264.18 feet of the South Half of the North Half of the South Half of the Northwest Quarter of Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida.

Parcel Identification Number: **2324-232-0000-000/4**

For the consideration hereinbefore set forth, Grantors do additionally grant and convey unto Grantee and easement and right-of-way for the purpose of ingress and egress across the following described tract of land:

The North 60 feet of the West 1088.54 feet of the East 1118.54 feet of the South ½ of the North ½ of the South ½ of the Northwest ¼ of Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida.

The easement herein granted shall be deemed appurtenant to and run with the ownership of Parcel I and Parcel II and their respective heirs, successors and assigns in title to all or part of Parcel I and Parcel II. Grantors reserve and retain the right to convey similar rights and easements to such other persons as Grantors may deem proper.

Grantors also retain, reserve, and shall continue to enjoy use of the surface of such property for any and all purposes which do not interfere with and prevent the use by Grantee of the within easement, including the right to build and use the surface of the herein granted easement for drainage ditches and private streets, roads, driveways, alleys, walks, gardens, lawns, planting or parking areas, and other like uses and/or to dedicate all or any part of the property affected by this easement to any city for use as a public street, road, or alley. If the Grantors, or any of Grantors' successors or assigns, shall dedicate all or any part of the property affected by this easement, the Grantee, and its successors and assigns shall execute all instruments that may be necessary or appropriate to effectuate such dedication, without, however, extinguishing the easement rights herein granted.

Subject to all reservations, covenants, conditions, restrictions and easements of record and to all applicable zoning ordinances and/or restrictions imposed by governmental authorities, if any.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in any way appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances except taxes accruing subsequent to December 31st of 2002.

In Witness Whereof, the grantor has hereunto set their hand(s) and seal(s) the day and year first above written.

Glenn M. Blake
Glenn M. Blake

Frances P. Blake
Frances P. Blake

Signed, sealed and delivered in our presence:

Witness Signature

Print Name: Roberta Carter

Witness Signature

Print Name: Terry T. Torres

State of **Florida**

County of **St. Lucie**

The Foregoing Instrument Was Acknowledged before me on **September 12, 2003**, by **Glenn M. Blake and Frances P. Blake, husband and wife** who is/are personally known to me or who has/have produced a valid driver's license as identification.

NOTARY PUBLIC

Notary Print Name
My Commission Expires: _____

ROBERTA A CARTER

(6)

EDWIN M. FRY, Jr., CLERK OF THE CIRCUIT COURT
SAINT LUCIE COUNTY
FILE # 2722143 10/05/2005 at 01:02 PM
OR BOOK 2382 PAGE 1143 - 1146 Doc Type: DEED
RECORDING: $35.50
D DOC STAMP COLLECTION: $32200.00

Return to:
Howard E. Googe, Esq.
401 E. Osceola Street
Stuart, FL 34994

Prepared by:
Landmark Title of Florida, Inc.
2701 Okeechobee Blvd., Suite 200
West Palm Beach, FL 33409
Our File No.: W05-4007

Property Appraisers Parcel No.: 2324-210-000-000/6

Grantee SS#:

_____ (Space Above This Line for Recording Data) _____

WARRANTY DEED

THIS WARRANTY DEED made and executed the **14th** day of **September, 2005**, by **STEVEN L. CRAIG, AS TRUSTEE UNDER TRUST AGREEMENT DATED MAY 17, 1986, AS TO AN UNDIVIDED 1/2 INTEREST and CHRISTOPHER H. COOK AS TRUSTEE UNDER TRUST AGREEMENT DATED MAY 17, 1986, AS TO AN UNDIVIDED 1/2 INTEREST,** hereinafter called the grantors, to **KINGS HIGHWAY COMMERCE PARK, LLC, a Florida limited liability company,** whose post office address is

903 S.E. Central Parkway, Stuart, FL 34994

hereinafter called the grantee:

(Wherever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

WITNESSETH: That the grantor, for and in consideration of the sum of $10.00 and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys, and confirms unto the grantee, all that certain land situate in **St. Lucie** County, Florida, viz:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF FOR ALL PURPOSES.

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

SUBJECT TO restrictions, reservations, covenants, and easements of record, if applicable.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND the grantor hereby covenants with said grantee that she is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except those of record and taxes accruing subsequent to **December 31, 2004**.

IN WITNESS WHEREOF, the said grantor has signed and sealed these presents the day and year first above written.

Signed, sealed, and delivered in our presence:

First Witness Signature

Christa J. Simmons
Printed Name

Second Witness Signature

Printed Name

STEVEN L. CRAIG, AS TRUSTEE UNDER TRUST AGREEMENT DATED MAY 17, 1986
Address: 2761 Okeechobee Blvd #200
West Palm Beach FL 33409

First Witness Signature

Cindy A. Collins
Printed Name

Second Witness Signature

Linda R. Koch
Printed Name

CHRISTOPHER H. COOK AS TRUSTEE UNDER TRUST AGREEMENT DATED MAY 17, 1986
Address: 205 Datura St.
West Palm Beach FL 33401

THE STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was executed this 16th day of September, **2005**, by **STEVEN L. CRAIG, AS TRUSTEE UNDER TRUST AGREEMENT DATED MAY 17, 1986,** who is personally known to me, or who has produced _____ as identification.

(Seal)

CHRISTA J. SIMMONS
MY COMMISSION # DD 175921
EXPIRES: May 5, 2007
Bonded Thru Notary Public Underwriters

Notary Public
Printed Name:_____
My Commission Expires:_____

* * * * *

THE STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was executed this 14th day of September, 2005, by **CHRISTOPHER H. COOK AS TRUSTEE UNDER TRUST AGREEMENT DATED MAY 17, 1986,** who is personally known to me, or who has produced _____ as identification.

(Seal)



Notary Public
Printed Name: Cindy A. Collins
My Commission Expires: 7-25-08

LEGAL DESCRIPTION

7001 WHITE ROAD
THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER AND THE WEST HALF OF THE WEST HALF OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; LESS AND EXCEPTING THERE FROM THE SOUTH 400 FEET OF THE NORTH 903.20 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET OF SAID SECTION 24; LESS RIGHT-OF-WAY FOR KINGS HIGHWAY AND WHITE ROAD.

TOGETHER WITH THE FOLLOWING DESCRIBED
PARCEL "A"
A PARCEL OF LAND LYING IN SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE SOUTH 35.30 FEET OF THE NORTH 538.50 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.
CONTAINING 26477 SQUARE FEET MORE OR LESS.

LESS THE FOLLOWING DESCRIBED
PARCEL "B"
A PARCEL OF LAND LYING IN SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE SOUTH 35.30 FEET OF THE NORTH 938.50 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.
CONTAINING 26477 SQUARE FEET MORE OR LESS.

ALL TOGETHER CONTAINING 40.595 ACRES MORE OR LESS.

CERTIFIED TO:
ATTORNEYS' TITLE INSURANCE FUND, INC.
KINGS HIGHWAY COMMERCE PARK, L.L.C.,
McCARTHY, SUMMERS, BOBKO, WOOD, SAWYER & PERRY, P.A.
FIRST PEOPLES BANK, ISAOA
LANDMARK TITLE OF FLORIDA, INC.
CORNETT, GOOGE & ASSOCIATES, P.A.

JOANNE HOLMAN, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
File Number: 2326041 OR BOOK 1868 PAGE 2876
Recorded:12/26/03 08:23

(E)
Box 34

THIS INSTRUMENT PREPARED BY AND RETURN TO:
Douglas E. Gonano, Esq.
GONANO & HARRELL
1600 S. FEDERAL HIGHWAY, #200
FT. PIERCE, FLORIDA 34950-5194
Property Appraisers Parcel Identification (Folio) Numbers: **2324-211-0001-000/6**

_____ Space Above This Line For Recording Data _____

THIS WARRANTY DEED, made the **22nd** day of **December, 2003** by **Melanie Fuller, a married woman,** herein called the Grantor, to **R.V. Development, LLC, a Florida limited liability company** whose post office address is **2560 SE 12th Street, Pompano Beach, Florida 33062,** hereinafter called the Grantee:
(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

W I T N E S S E T H: That the Grantor, for and in consideration of the sum of TEN AND 00/100'S ($10.00) Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee Grantor's undivided one-fourth interest in certain land situate in ST. LUCIE County, State of Florida, viz.:

The East Three Quarters (3/4) of the Northeast Quarter (NE 1/4) of the Northwest Quarter (NW 1/4) of Section Twenty-four (24) Township Thirty-five(35) South Range Thirty-nine (39) East, containing approximately 26.9 acres.

Grantor hereby certifies that the above property does not constitute the homestead of Grantor nor is it contiguous thereto.

TOGETHER, with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND, the Grantor hereby covenant with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land, and hereby fully warrant the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2003.

IN WITNESS WHEREOF, the said Grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in the presence of:

Witness #1 Signature
JULIA S. PRICE
Witness #1 Printed Name

Brenda L Sharpton
Witness #2 Signature
BRENDA L. SHARPTON
Witness #2 Printed Name

Melanie Fuller
Melanie Fuller
1465 Cherokee Trail, Conley, GA 30288

STATE OF GEORGIA
COUNTY OF DEKALB

The foregoing instrument was acknowledged before me this 19 day of December, 2003, by **Melanie Fuller, a married woman,** who is personally known to me or has produced GA DL 049000545 as identification.

SEAL

NOTARY PUBLIC E.P. Mar. 06 2005

Brenda L Sharpton
Notary Public
BRENDA L. SHARPTON
Printed Notary Name

* Doc Tax : $ 0.00
* Int Tax : $ 1,177.40
* : $ 0.00

JOANNE HOLMAN, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
File Number: 2294955 OR BOOK 1828 PAGE 2808
Recorded:10/24/03 16:00

* Doc Assump:	$	0.00
* Doc Tax :	$	630.00
* Int Tax :	$	0.00

THIS INSTRUMENT PREPARED BY AND RETURN TO:
Douglas E. Gonano, Esq.
GONANO & HARRELL
34 1600 S. FEDERAL HIGHWAY, #200
FT. PIERCE, FLORIDA 34950-5194
Property Appraisers Parcel Identification (Folio) Numbers: **2324-214-0001-000/5**

_____ Space Above This Line For Recording Data _____

THIS WARRANTY DEED, made the **26th** day of **September, 2003** by **Frances A. Swiatocha,** a single woman, herein called the Grantor, to **R.V. Development, L.L.C., a Florida limited liability company** whose post office address is **2650 SE 12th Street, Pompano Beach, Florida 33062,** hereinafter called the Grantee:
(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

W I T N E S S E T H: That the Grantor, for and in consideration of the sum of TEN AND 00/100'S ($10.00) Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee all that certain land situate in ST. LUCIE County, State of Florida, viz.:

From the Interior Quarter Section Corner of Section 24, Township 35 South, Range 39 East, run North along the East line of the Northwest 1/4 of said Section 1790.5 feet; thence West 25 feet to the Point of Beginning: from said Point of Beginning run West 155 feet: thence North 150 feet; thence East 155 feet; thence South 150 feet to the Point of Beginning; being a part of the Northeast 1/4 of the Northwest 1/4 of Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida.

Subject to restrictions, reservations, easements and rights of way of record, if any.

TOGETHER, with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND, the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land, and hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2002.

IN WITNESS WHEREOF, the said Grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in the presence of:

Stacy Ewing Consalvo
Witness #1 Signature
Stacy Ewing Consalvo
Witness #1 Printed Name

Valerie M Canant
Witness #2 Signature
VALERIE M CANANT
Witness #2 Printed Name

Frances A. Swiatocha
Frances A. Swiatocha
2315 Peters Road, Fort Pierce, Florida

STATE OF FLORIDA
COUNTY OF ST. LUCIE

The foregoing instrument was acknowledged before me this 26th day of September, 2003 by Frances A. Swiatocha who is personally known to me or has produced Florida drivers license as identification.

SEAL

Stacy Ewing Consalvo
Notary Public

_____
Printed Notary Name

Stacy Ewing Consalvo
MY COMMISSION # DD121441 EXPIRES
May 28, 2006
BONDED THRU TROY FAIN INSURANCE, INC.

Stacy Ewing Consalvo
DD121441 EXPIRES
INSURANCE, INC.

File No: 1600-003

EDWIN M. FRY, Jr., CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 2733028 OR BOOK 2398 PAGE 108, Recorded 10/27/2005 at 02:34 PM
Doc Tax: $1435.00

Prepared By
& Return to:

W.R. Leonard, 230200
Litigation Building, Suite 402
633 S. Andrews Avenue
Ft. Lauderdale, FL 33301

Tax Folio: 2324-241-0003-000/3

Warranty Deed (§689.02, Fla. Stat.)

THIS Indenture made the 17th day of October, 2005 by and between Paul Browning and Bertie Lou Browning, husband and wife, hereafter Grantor, and R. V. Development, L.L.C., a Florida limited liability company, hereafter Grantee whose post office address is 2560 SE 12th Street, Pompano Beach FL 33062.

WITNESSETH: That the said Grantor, for and in consideration of the sum of $10.00 in hand paid by the second party, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said Grantee, and Grantee's heirs and assigns forever the following described land, lying, situate and being in the County of St. Lucie, State of Florida, to-wit:

SEE EXHIBIT A ATTACHED HERETO AND MADE A PART HEREOF.

Subject to: restrictions, reservations and easements of record, taxes for the year of conveyance and all subsequent years, and all valid zoning ordinances.

Property address: 2449 Peters Road, Fort Pierce, FL 34945

And said Grantor does hereby fully warrant the title to said land, and will defend same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said Grantors have hereunto set their hands and seals the day and year first above written.

Paul Browning

Bertie Lou Browning

7007 Paso Robles Blvd.
Fort Pierce, FL 34951-1223

Signed, sealed and delivered in the presence of:

WILLIAM ROBERT LEONARD

(Printed Name)

Regina Orms

(Printed Name)

STATE OF FLORIDA
COUNTY OF BROWARD

I HEREBY CERTIFY that on this day, before me, an officer duly authorized to administer oaths and take acknowledgments personally appeared Paul Browning and Bertie Lou Browning [ ] known to me to be the persons described in and who executed the foregoing instrument, who acknowledged before me that (s/he) executed the same, or [✓] relied upon the following form of identification: FLDL and that an oath (was) ~~(was not)~~ taken.

WITNESS my hand and official seal in the County and State last aforesaid this 17 day of October, 2005.

Notaries Signature:
Printed Name: Regina Orms
Notary Public State of Florida
Commission Expires:

NOTARY PUBLIC * STATE OF FLORIDA *
Regina Orms
Commission # DD323205
Expires June 24, 2008
Bonded Troy Fain - Insurance, Inc. 800-385-7019

C:\files\Transactions\Wynne\Browning.RV\WD.wpd

EXHIBIT A

The South 60 feet of the East 125 feet of the following described property:

The North 1/2 of NE¼ of SE¼ of Section 24, Township 35 South, Range 39 East, containing 5 acres, more or less, the same being the North 1/2 of Lot 9, of the NW¼, according to the Boston and Florida Atlantic Coast Land Company's Subdivision as per plat thereof on file in Plat Book 3, at page 32, of the Public Records of Saint Lucie County, Florida.

Less and excepting therefrom the East 25 feet for road right-of-way.

* Doc Assump:	$	0.00
* Doc Tax :	$	1,645.00
* Int Tax :	$	0.00

THIS INSTRUMENT PREPARED BY AND RETURN TO: Box 34
Douglas E. Gonano, Esq.
GONANO & HARRELL
1600 S. FEDERAL HIGHWAY, #200
FT. PIERCE, FLORIDA 34950-5194
Property Appraisers Parcel Identification (Folio) Numbers: **2324-214-0002-000/2**

_____ Space Above This Line For Recording Data _____

THIS WARRANTY DEED, made the **30th** day of **April, 2004** by **John W. Norvell and Deborah H. Norvell, his wife**, herein called the Grantor, to **R.V. Development, LLC, a Florida limited liability company** whose post office address is **2560 SE 12th Street, Pompano Beach, Florida 33062**, hereinafter called the Grantee:
(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

W I T N E S S E T H: That the Grantor, for and in consideration of the sum of TEN AND 00/100'S ($10.00) Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee all that certain land situate in ST. LUCIE COUNTY, State of Florida, viz.:

From the Southeast corner of the Northeast quarter of the Northwest quarter of Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida; thence run North 100 feet; thence run West 25 feet to the Point of Beginning; continue West 213.71 feet; thence North 208.71 feet; thence East 213.71 feet; thence South 208.71 feet to the Point of Beginning.

Subject to the right of way for Peters Road and reservations, restrictions, easements and rights of way of record, if any, provided this reference shall not operate to reimpose the same.

TOGETHER, with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND, the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land, and hereby fully warrant the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2003.

IN WITNESS WHEREOF, the said Grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in the presence of:

Witness #1 Signature
Elizabeth K Jorgensen
Witness #1 Printed Name

Witness #2 Signature
Richard McClure
Witness #2 Printed Name

John W. Norvell
John W. Norvell
2371 Peters Road, Fort Pierce, Florida 34945

Deborah H Norvell
Deborah H. Norvell
2371 Peters Road, Fort Pierce, Florida 34945

STATE OF FLORIDA
COUNTY OF ST. LUCIE

The foregoing instrument was acknowledged before me this 30th day of April, 2004 by John W. Norvell and Deborah H. Norvell, his wife, who are personally known to me or have produced their drivers licenses as identification.

SEAL

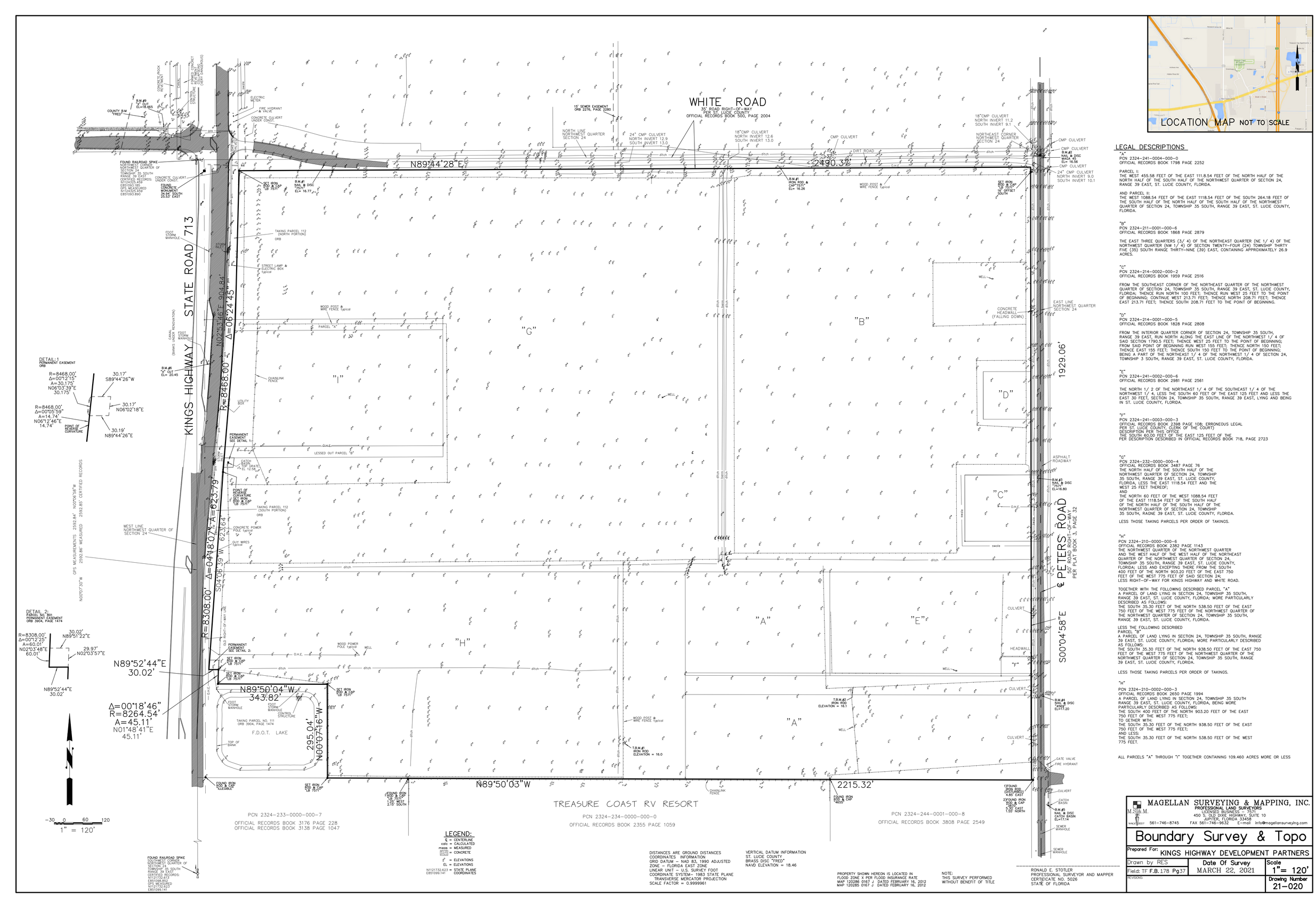
Elizabeth K Jorgensen
Notary Public

Printed Notary Name

Elizabeth K. Jorgensen
MY COMMISSION # DD079507 EXPIRES
January 25, 2006
BONDED THRU TROY FAIN INSURANCE, INC.

JOANNE HOLMAN, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
File Number: 2397518 OR BOOK 1959 PAGE 2516
Recorded:05/06/04 12:49

File No: **1600-005**



LEGAL DESCRIPTIONS

"A"
PCN 2324-241-0004-000-0
OFFICIAL RECORDS BOOK 1798 PAGE 2252

PARCEL II:
THE WEST 455.58 FEET OF THE EAST 111.8.54 FEET OF THE NORTH HALF OF THE NORTH HALF OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 24, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

AND PARCEL III:
THE WEST 1088.54 FEET OF THE EAST 1118.54 FEET OF THE SOUTH 264.18 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

"B"
PCN 2324-211-0001-000-6
OFFICIAL RECORDS BOOK 1868 PAGE 2879

THE EAST THREE QUARTERS (3/ 4) OF THE NORTHEAST QUARTER (NE 1/ 4) OF THE NORTHWEST QUARTER (NW 1/ 4) OF SECTION TWENTY-FOUR (24) TOWNSHIP THIRTY FIVE (35) SOUTH RANGE THIRTY-NINE (39) EAST, CONTAINING APPROXIMATELY 26.9 ACRES.

"C"
PCN 2324-214-0002-000-2
OFFICIAL RECORDS BOOK 1959 PAGE 2516

FROM THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; THENCE RUN NORTH 100 FEET; THENCE RUN WEST 25 FEET TO THE POINT OF BEGINNING; CONTINUE WEST 213.71 FEET; THENCE NORTH 208.71 FEET; THENCE EAST 213.71 FEET; THENCE SOUTH 208.71 FEET TO THE POINT OF BEGINNING.

"D"
PCN 2324-214-0001-000-5
OFFICIAL RECORDS BOOK 1828 PAGE 2808

FROM THE INTERIOR QUARTER CORNER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, RUN NORTH ALONG THE EAST LINE OF THE NORTHWEST 1/ 4 OF SAID SECTION 1790.5 FEET; THENCE WEST 25 FEET TO THE POINT OF BEGINNING; FROM SAID POINT OF BEGINNING RUN WEST 155 FEET; THENCE NORTH 150 FEET; THENCE EAST 155 FEET; THENCE SOUTH 150 FEET TO THE POINT OF BEGINNING; BEING A PART OF THE NORTHEAST 1/ 4 OF THE NORTHWEST 1/ 4 OF SECTION 24, TOWNSHIP 3 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

"E"
PCN 2324-241-0002-000-6
OFFICIAL RECORDS BOOK 2981 PAGE 2561

THE NORTH 1/ 2 OF THE NORTHEAST 1/ 4 OF THE SOUTHEAST 1/ 4 OF THE NORTHWEST 1/ 4, LESS THE SOUTH 60 FEET OF THE EAST 125 FEET AND LESS THE EAST 30 FEET, SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA.

"F"
PCN 2324-241-0003-000-3
OFFICIAL RECORDS BOOK 2398 PAGE 108; ERRONEOUS LEGAL
PER ST. LUCIE COUNTY, CLERK OF THE COURT)
DESCRIPTION PER THIS OFFICE
THE SOUTH 60.00 FEET OF THE EAST 125 FEET OF THE
PER DESCRIPTION DESCRIBED IN OFFICIAL RECORDS BOOK 718, PAGE 2723

"G"
PCN 2324-232-0000-000-4
OFFICIAL RECORDS BOOK 3487 PAGE 76
THE NORTH HALF OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, LESS THE EAST 1118.54 FEET AND THE WEST 25 FEET THEREOF;
AND
THE NORTH 60 FEET OF THE WEST 1088.54 FEET OF THE EAST 1118.54 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RAGNE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS THOSE TAKING PARCELS PER ORDER OF TAKINGS.

"H"
PCN 2324-210-0000-000-6
OFFICIAL RECORDS BOOK 2382 PAGE 1143
THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER AND THE WEST HALF OF THE WEST HALF OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; LESS AND EXCEPTING THERE FROM THE SOUTH 400 FEET OF THE NORTH 903.20 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET OF SAID SECTION 24; LESS RIGHT-OF-WAY FOR KINGS HIGHWAY AND WHITE ROAD.

TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL "A"
A PARCEL OF LAND LYING IN SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS FOLLOWS:
THE SOUTH 35.30 FEET OF THE NORTH 538.50 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS THE FOLLOWING DESCRIBED
PARCEL "B"
A PARCEL OF LAND LYING IN SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS FOLLOWS:
THE SOUTH 35.30 FEET OF THE NORTH 938.50 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS THOSE TAKING PARCELS PER ORDER OF TAKINGS.

"I"
PCN 2324-210-0002-000-3
OFFICIAL RECORDS BOOK 2650 PAGE 1994
A PARCEL OF LAND LYING IN SECTION 24, TOWNSHIP 35 SOUTH RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
THE SOUTH 400 FEET OF THE NORTH 903.20 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET;
TO GETHER WITH:
THE SOUTH 35.30 FEET OF THE NORTH 938.50 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET;
AND LESS:
THE SOUTH 35.30 FEET OF THE NORTH 538.50 FEET OF THE WEST 775 FEET.

ALL PARCELS "A" THROUGH "I" TOGETHER CONTAINING 109.460 ACRES MORE OR LESS

LEGEND:
℄ = CENTERLINE
calc = CALCULATED
meas = MEASURED
CONC = CONCRETE
℄ = ELEVATIONS
EL = ELEVATIONS
N1121732.623 = STATE PLANE
E851099.141 = COORDINATES

DISTANCES ARE GROUND DISTANCES
COORDINATES INFORMATION
GRID DATUM – NAD 83, 1990 ADJUSTED
ZONE – FLORIDA EAST ZONE
LINEAR UNIT – U.S. SURVEY FOOT
COORDINATE SYSTEM– 1983 STATE PLANE TRANSVERSE MERCATOR PROJECTION
SCALE FACTOR = 0.9999961

VERTICAL DATUM INFORMATION
ST. LUCIE COUNTY
BRASS DISC "FRED"
NAVD ELEVATION = 18.46

PROPERTY SHOWN HEREON IS LOCATED IN
FLOOD ZONE X PER FLOOD INSURANCE RATE
MAP 120286 0167 J DATED FEBRUARY 16, 2012
MAP 120285 0167 J DATED FEBRUARY 16, 2012

NOTE:
THIS SURVEY PERFORMED
WITHOUT BENEFIT OF TITLE

RONALD E. STOTLER
PROFESSIONAL SURVEYOR AND MAPPER
CERTIFICATE NO. 5026
STATE OF FLORIDA

MAGELLAN SURVEYING & MAPPING, INC.
PROFESSIONAL LAND SURVEYORS
LICENSED BUSINESS – 7571
450 S. OLD DIXIE HIGHWAY, SUITE 10
JUPITER, FLORIDA 33458
561-746-8745 FAX 561-746-9632 E-mail info@magellansurveying.com

Boundary Survey & Topo

Prepared For: KINGS HIGHWAY DEVELOPMENT PARTNERS

Drawn by RES | Date Of Survey MARCH 22, 2021 | Scale 1"= 120'

Field: TF F.B. 178 Pg 37 | Drawing Number 21-020

REVISIONS

Site Plan
For
Kings Highway Commerce Park

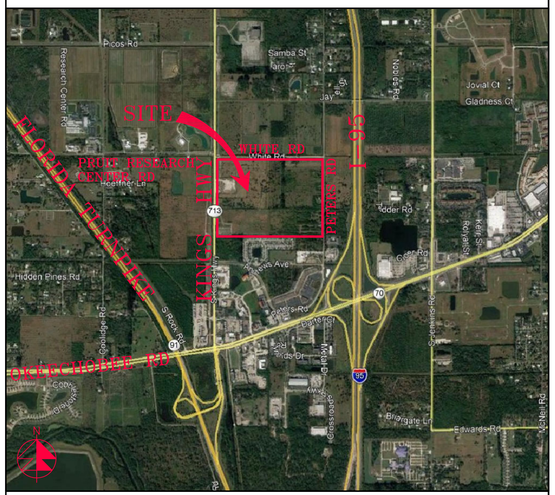
Section 24 Township 35S Range 39E

Fort Pierce, Florida

Developer

Kings Highway Developement Partners, LLC
4923 W. Cypress Street
Tampa, Florida 33607

Aerial



Vicinity Map

Drawing Index

C-1	Cover Sheet
MSP-1	Master Site Plan
SP1-SP9	Site Plan
TSP-1	Truck Circulation Plan
TSP-2	Truck Circulation Plan
TSP-3	Truck Circulation Plan

REVISIONS

Jeff H. Iravani, Inc.
Consulting Engineers
1934 COMMERCE LANE SUITE 5
JUPITER, FLORIDA 33458
TEL: (561) 575-6030
FAX: (561) 575-6088
JHI@bellsouth.net
www.JHIinc.com

Kings Highway Commerce Park
Fort Pierce, Florida

Cover Sheet

DATE	SCALE	DESIGNED BY	DRAWN BY	JOB NO.
01/22/21	NA	JHI	CLJ	2101-1355

SEAL

FR # 6986

SHEET NO.
C-1

PRUIT RESEARCH CENTER ROAD

WHITE ROAD

WHITE ROAD

WHITE ROAD

EXIST 35' R/W

PROP 60' R/W

PROP ADDL 25' R/W

DRY DET-4 0.33 AC

DRY DET-5 0.81 AC

DRY DET-6 0.85 AC

DRY DETENTION TO BE PIPED & FILLED PER FUTURE DWY LOCATION TO BE DETERMINED PER FUTURE PHASE PLANS TYP, 2-REQ

KING'S HIGHWAY (SR-713)

LITTORAL ZONE

43' FDOT TEMP CONS EASMT

FOUNTAIN

LAKE-1
5.34 AC

FUTURE PHASE

FUTURE PHASES
BLDG 1,415 KSF
OFFICE 99 KSF
WAREHOUSE 1,316 KSF

DRY DETENTION-7 1.35 AC

FOUNTAIN

LITTORAL ZONE

LAKE-2
1.92 AC

LITTORAL ZONE

FOUNTAIN

TRELLIS W/BENCH TYP

1,000'

818'

BLDG-A
PH-I
265 KSF
17 KSF OFFICE
248 KSF WAREHOUSE
F.F.EL 17.5 FT, NAVD MIN

BLDG-B
PH-I
220 KSF
14 KSF OFFICE
207 KSF WAREHOUSE
F.F.EL 17.5 FT, NAVD MIN

265'

265'

LOADING

LOADING

BENCH W/TRASH BIN TYP

LITTORAL ZONE

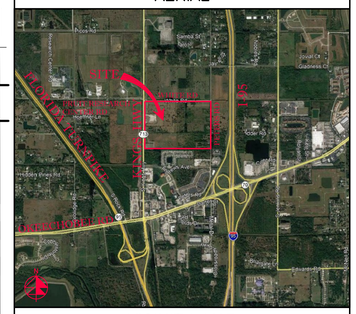
LAKE-3
2.30 AC

FOUNTAIN

PETERS ROAD

DRY DETENTION-8 1.49 AC

AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

100' 0 50' 100' 200'

SCALE: 1" = 100'

SITE DATA

PROPOSED USE	OFFICE/WAREHOUSE/DISTRIBUTION		
FUTURE LAND USE	CG 66 AC		
	MXD 34 AC		
ZONING EXISTING	CG 66 AC		
	RS-2 34 AC		
PROPOSED	CP-1		
PARCEL AREA	4,768,078 SF	109.46 AC	
WHITE RD R/W	58,370 SF	1.34 AC	
PROJECT AREA	4,709,708 SF	108.12 AC	100%
PROJECTED BUILDOUT			
BUILDING AREA	1,900,000 SF		40.3%
OFFICE	130,000 SF		
WAREHOUSE	1,770,000 SF		
PHASE-I			
BUILDING AREA	485,000 SF		10.3%
OFFICE	31,000 SF		
WAREHOUSE	454,000 SF		
PAVT/SW	778,336 SF		
IMPERVIOUS AREA	1,263,336 SF		26.8%
LAKES	416,434 SF		8.8%
PERVIOUS AREA	3,029,938 SF		64.4%
BLDG HEIGHT	65 FT MAX		
PARKING REQ			860 SP
OFFICE	31,000 SF @ 1/300 SF		103 SP
WAREHOUSE	454,000 SF @ 1/600 SF		757 SP
HANDICAP			18 SP
PARKING PROP			866 SP
HANDICAP			20 SP
LOADING REQ			17 SP
LOADING PROP			96 SP

SETBACKS	REQ'D	PROP
FRONT	15'	426'
REAR	10'	58.5'
SIDE	10'	184'
SIDE STREET		

PCN
2324-210-0000-000-6
2324-232-0000-000-4
2324-211-0002-000-3
2324-211-0001-000-6
2324-214-0001-000-5
2324-214-0002-000-2
2324-241-0003-000-1
2324-241-0002-000-6
2324-241-0004-000-0

REVISIONS

Jeff H. Iravani, Inc.
Consulting Engineers
1934 COMMERCE LANE, SUITE 5
JUPITER, FLORIDA 33458
TEL: (561) 575-6030
FAX: (561) 575-6088
JHI@bellsouth.net

Kings Highway Commerce Park

Fort Pierce, Florida

MASTER SITE PLAN

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 100'	01-22-2021

SEAL

CGAN 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
MSP-1

SEE SHT SP-4

KING'S HIGHWAY (SR-713)

CANAL R/W LINE

CANAL NO.40

LITTORAL ZONE

SIGN

STOP SIGN & BAR, TYP
RT TURN ONLY SIGN

STOP SIGN & BAR TYP

LAKE-2
1.92 AC

LITTORAL ZONE

FOUNTAIN

TRELLIS W/BENCH TYP

BENCH W/TRASH BIN TYP

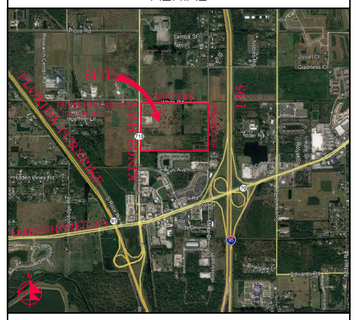
248
F.F.EL

OHD @ DOCK HEIGHT TYP

COMPACT

SEE SHT SP-2

AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

40' 0 20' 40' 80'

SCALE: 1" = 40'

Jeff H. Iravani, Inc.
Consulting Engineers
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Kings Highway Commerce Park

Fort Pierce, Florida

SITE PLAN

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
SP-1

SEE SHT SP-6

SEE SHT SP-1

SEE SHT SP-3

1,000'

265'

BLDG-A
PH-I
265 KSF
17 KSF OFFICE
248 KSF WAREHOUSE
F.F.EL 17.5 FT, NAVD MIN

LOADING

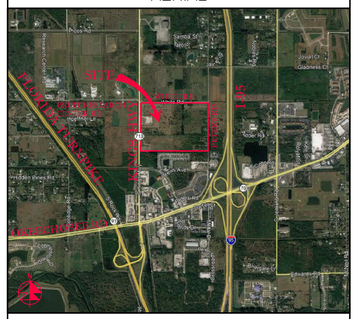
OHD @ DOCK HEIGHT TYP

COMPACT

COMPACT

DRY DETENTION-8 1.49 AC

AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

40' 0 20' 40' 80'

SCALE: 1" = 40'

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FAX: (561) 575-6088
JHI@bellsouth.net

Kings Highway Commerce Park

Fort Pierce, Florida

SITE PLAN

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

SEAL

COA: 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
SP-2

SEE SHT SP-8

SEE SHT SP-2

818'

265'

BLDG-B
PH-I
220 KSF
14 KSF OFFICE
207 KSF WAREHOUSE
F.F.EL 17.5 FT, NAVD MIN

LOADING

LITTORAL ZONE

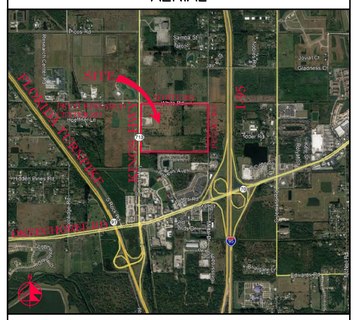
LAKE-3
2.30 AC

FOUNTAIN

60' R/W

PETERS ROAD

AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

40' 0 20' 40' 80'

SCALE: 1" = 40'

Jeff H. Iravani, Inc.
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Kings Highway Commerce Park

Fort Pierce, Florida

SITE PLAN

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
SP-3

SEE SHT SP-5

LAKE-1
5.34 AC

FUTURE PHASE

FOUNTAIN

LITTORAL ZONE

SIGN

STOP SIGN & BAR, TYP
RT TURN ONLY SIGN

STOP SIGN & BAR TYP

LAKE-2

HIGHWAY (SR-713)

CANAL NO.40

CANAL BOTTOM

CANAL R/W LINE

E. DITCH 5

E. CONST. EASEMENT

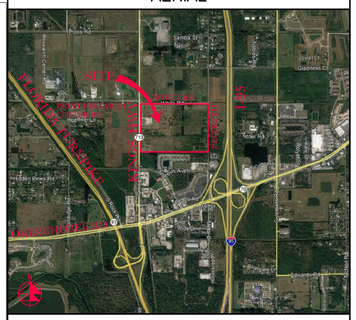
PROP. R/W LINE

PERMANENT EASEMENT

SEE SHT SP-6

SEE SHT SP-1

AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

40' 0 20' 40' 80'

SCALE: 1" = 40'

Jeff H. Iravani, Inc.
Consulting Engineers
1934 COMMERCE LANE, SUITE 5
JUPITER, FLORIDA 33458
TEL: (561) 575-6030
FAX: (561) 575-6088
JHI@bellsouth.net

Kings Highway Commerce Park

Fort Pierce, Florida

SITE PLAN

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

SEAL

COA# 6986
JEFF H. IRAVANI 53155

JOB NO.
2101-1355

SHEET NO.
SP-4

PRUIT RESEARCH CENTER ROAD

WHITE ROAD

KING'S HIGHWAY (SR-713)

DRY DET-4 0.33 AC

LITTORAL ZONE

43' FDOT TEMP CONS EASMT

FOUNTAIN

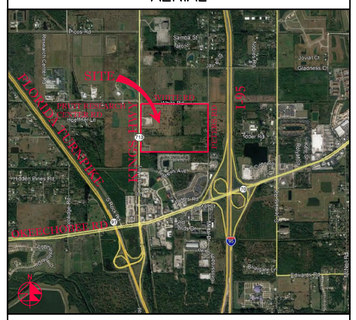
LAKE-1
5.34 AC

FUTURE PHASE

SEE SHT SP-4

SEE SHT SP-7

AERIAL



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Fort Pierce, Florida

SITE PLAN

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DDI	JHI	1" = 40'	01-22-2021

SEAL

COA: 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

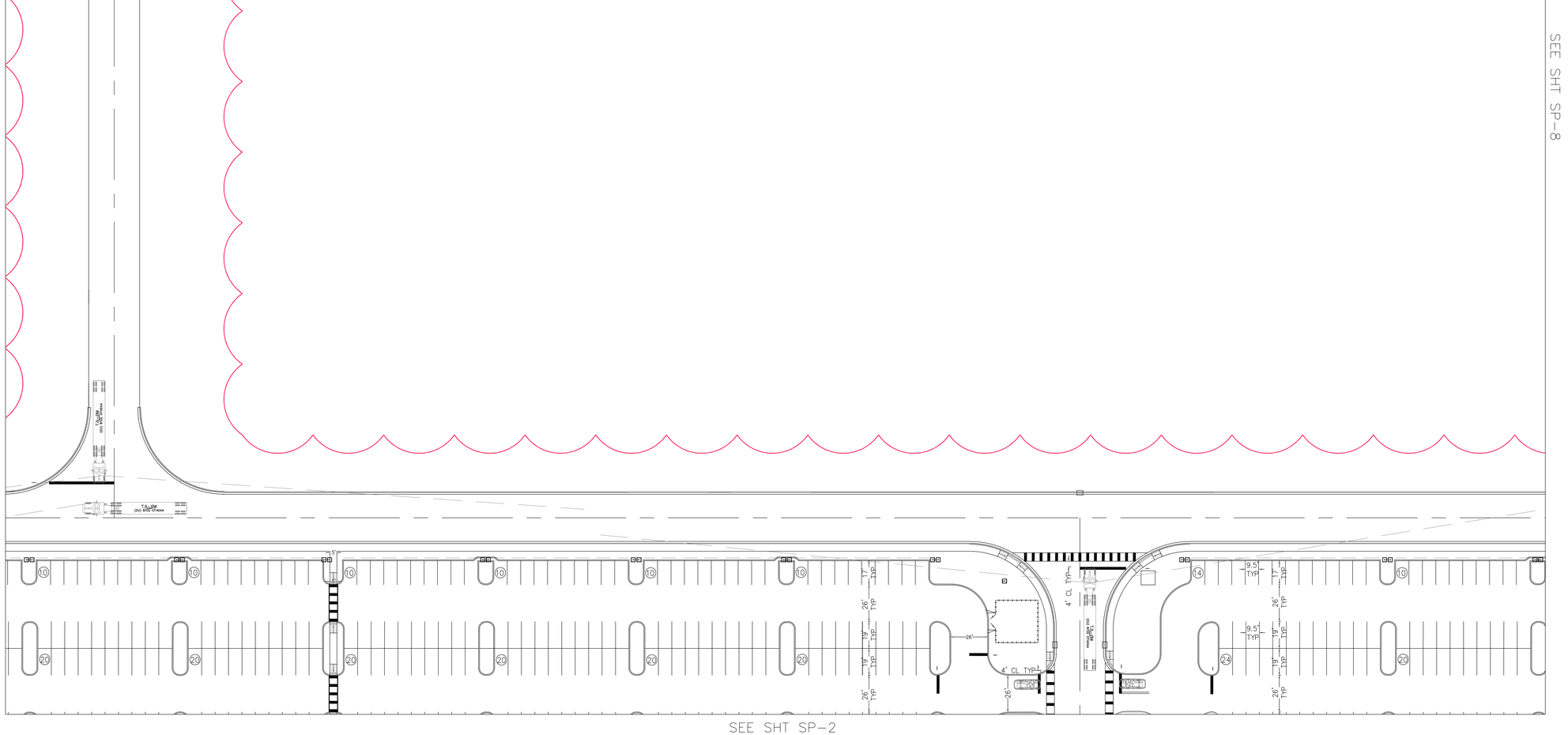
SHEET NO.
SP-5

SEE SHT SP-7

SEE SHT SP-4

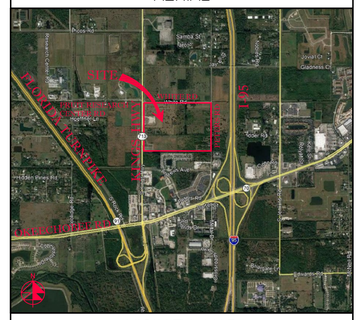
FUTURE PHASES
BLDG 1,415 KSF
OFFICE 99 KSF
WAREHOUSE 1,316 KSF

SEE SHT SP-8



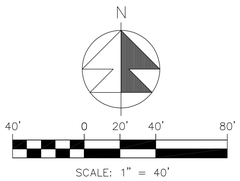
SEE SHT SP-2

AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E



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Kings Highway Commerce Park

Fort Pierce, Florida

SITE PLAN

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
SP-6

WHITE ROAD

EXIST 3

PROP 6

PROP 25' ADD'L R/W

10' TYP

10' UE

SIGN

DRY DET-5 0.81 AC

DRY DETENTION TO BE
PIPED & FILLED
PER FUTURE DWY
LOCATION TO BE DETERMINED
PER FUTURE PHASE PLANS
TYP, 2-REQ

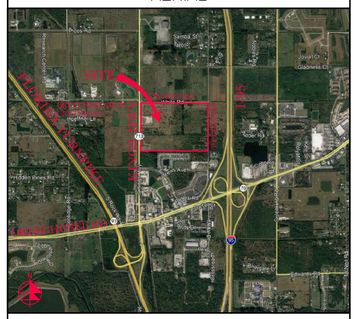
FUTURE PHASES
BLDG 1,415 KSF
OFFICE 99 KSF
WAREHOUSE 1,316 KSF

SEE SHT SP-5

SEE SHT SP-19

SEE SHT SP-6

AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

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Kings Highway Commerce Park

Fort Pierce, Florida

SITE PLAN

DRAWN BY: DDI

DESIGNED BY: JHI

SCALE: 1" = 40'

DATE: 01-22-2021

SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

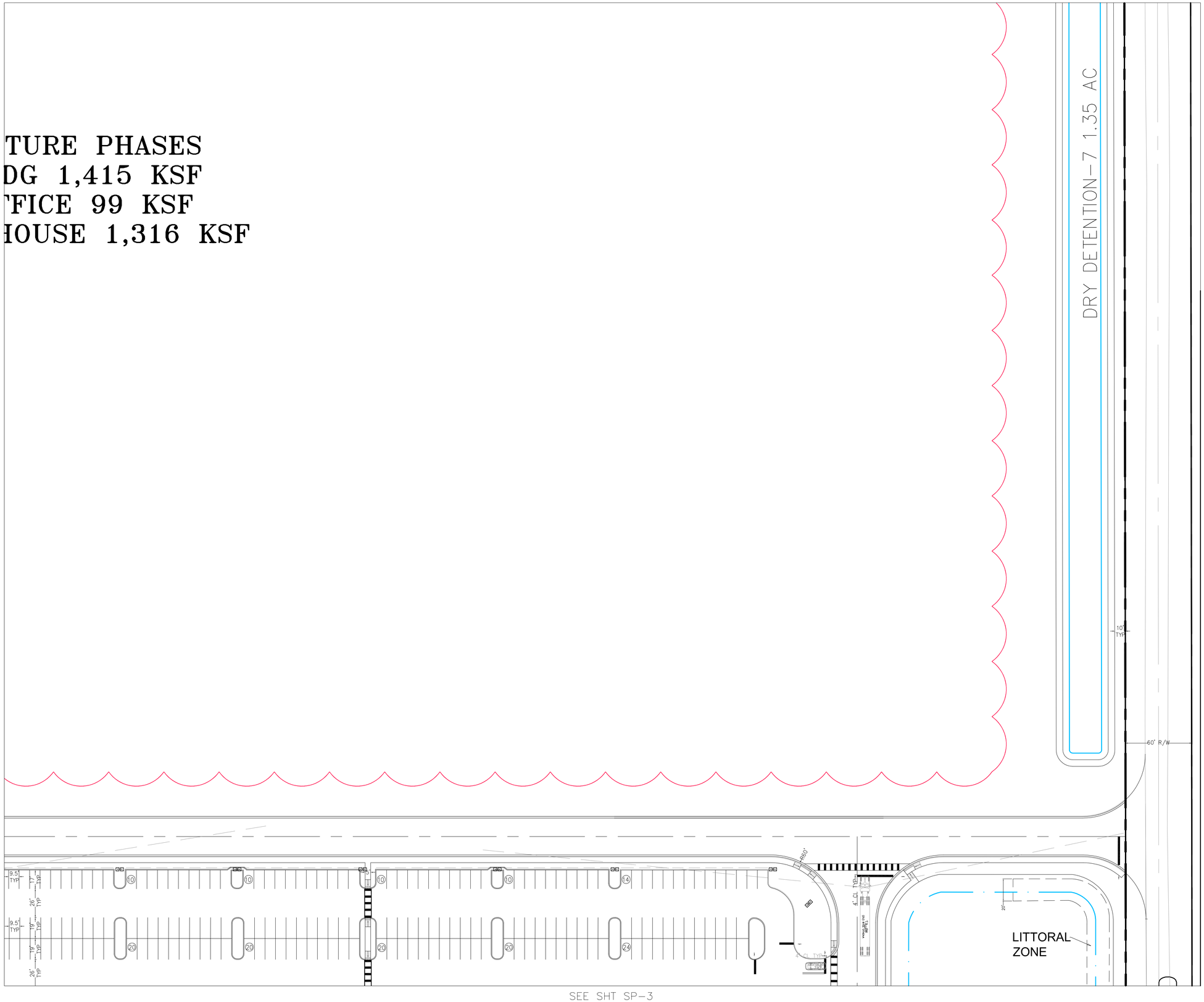
SHEET NO.
SP-7

SEE SHT SP-9

TURE PHASES
DG 1,415 KSF
FICE 99 KSF
HOUSE 1,316 KSF

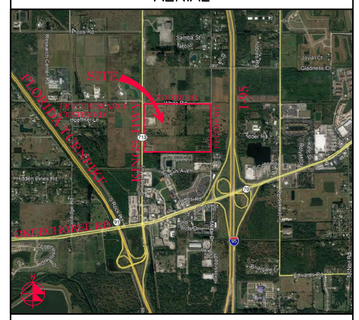
DRY DETENTION-7 1.35 AC

SEE SHT SP-6



SEE SHT SP-3

AERIAL



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SECTION 24, TWP 35S, RGE 39E

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Kings Highway Commerce Park

Fort Pierce, Florida

SITE PLAN

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

SEAL

COA: 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
SP-8

AD

WHITE ROAD

DIRT ROAD

35'x35' SAFE CORNER

R25'

60' R/W

DRY DET-6 0.85 AC

DRY DETENTION TO BE
PIPED & FILLED
PER FUTURE DWY
LOCATION TO BE DETERMINED
PER FUTURE PHASE PLANS
TYP, 2-REQ

10' TYP

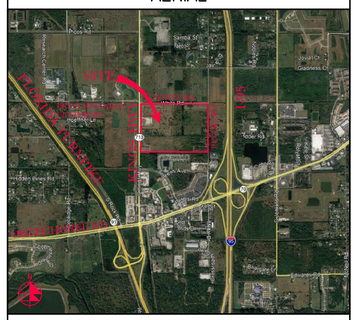
DRY DETENTION-7 1.35 AC

SEE SHT SP-7

TURE PHASES
G 1,415 KSF
FICE 99 KSF
OUSE 1,316 KSF

SEE SHT SP-8

AERIAL



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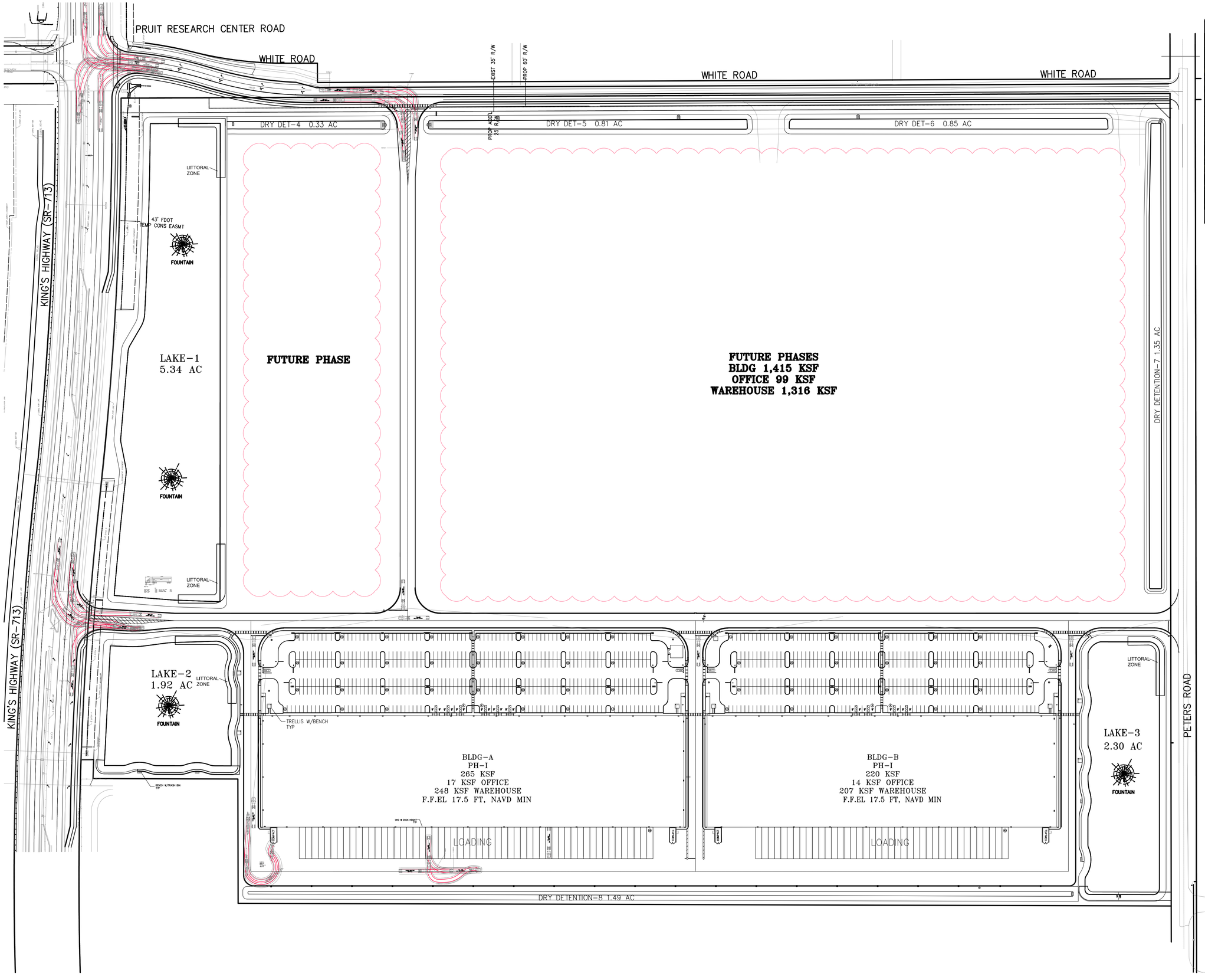
SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
SP-9



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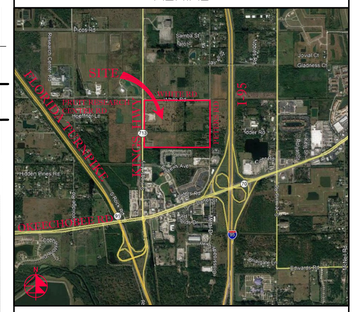
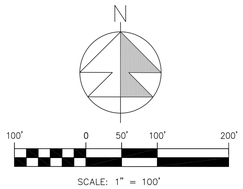


VICINITY MAP

SECTION 24, TWP 35S, RGE 39E



REVISIONS

Jeff H. Iravani, Inc.
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Kings Highway Commerce Park

Fort Pierce, Florida

TRUCK CIRCULATION PLAN

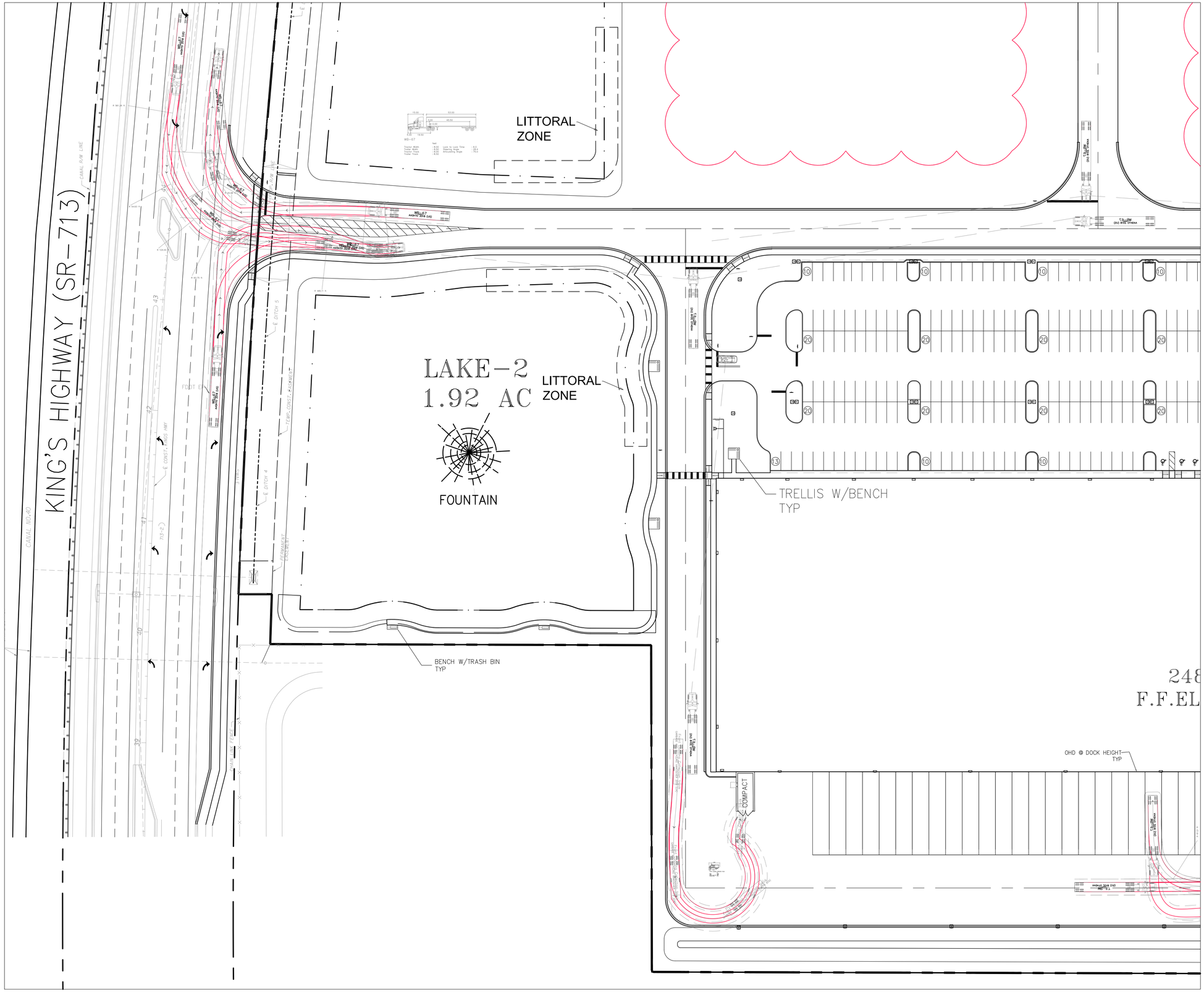
DATE	SCALE	DESIGNED BY	DRAWN BY
01-22-2021	1" = 100'	JHI	DDI

SEAL

COAN 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
TCP-1



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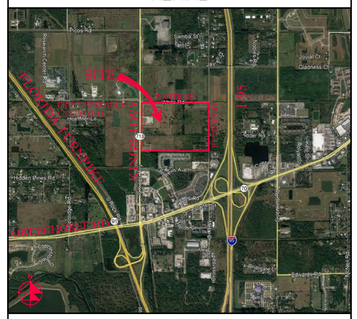
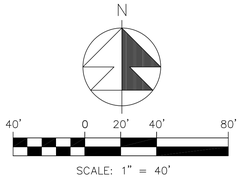


VICINITY MAP

SECTION 24, TWP 35S, RGE 39E



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Kings Highway Commerce Park

Fort Pierce, Florida

TRUCK CIRCULATION PLAN

DATE	SCALE	DESIGNED BY	DRAWN BY
01-22-2021	1" = 40'	JHI	DDI

SEAL

COAN 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
TCP-2

PRUIT RESEARCH CENTER ROAD

WHITE ROAD

KING'S HIGHWAY (SR-713)

DRY DET-4 0.33 AC

LITTORAL ZONE

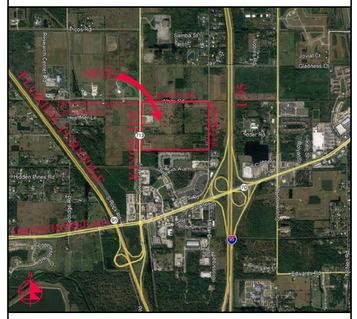
43' FDOT TEMP CONS EASMT

FOUNTAIN

LAKE-1
5.34 AC

FUTURE PHASE

AERIAL



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Kings Highway Commerce Park
Fort Pierce, Florida

TRUCK CIRCULATION PLAN

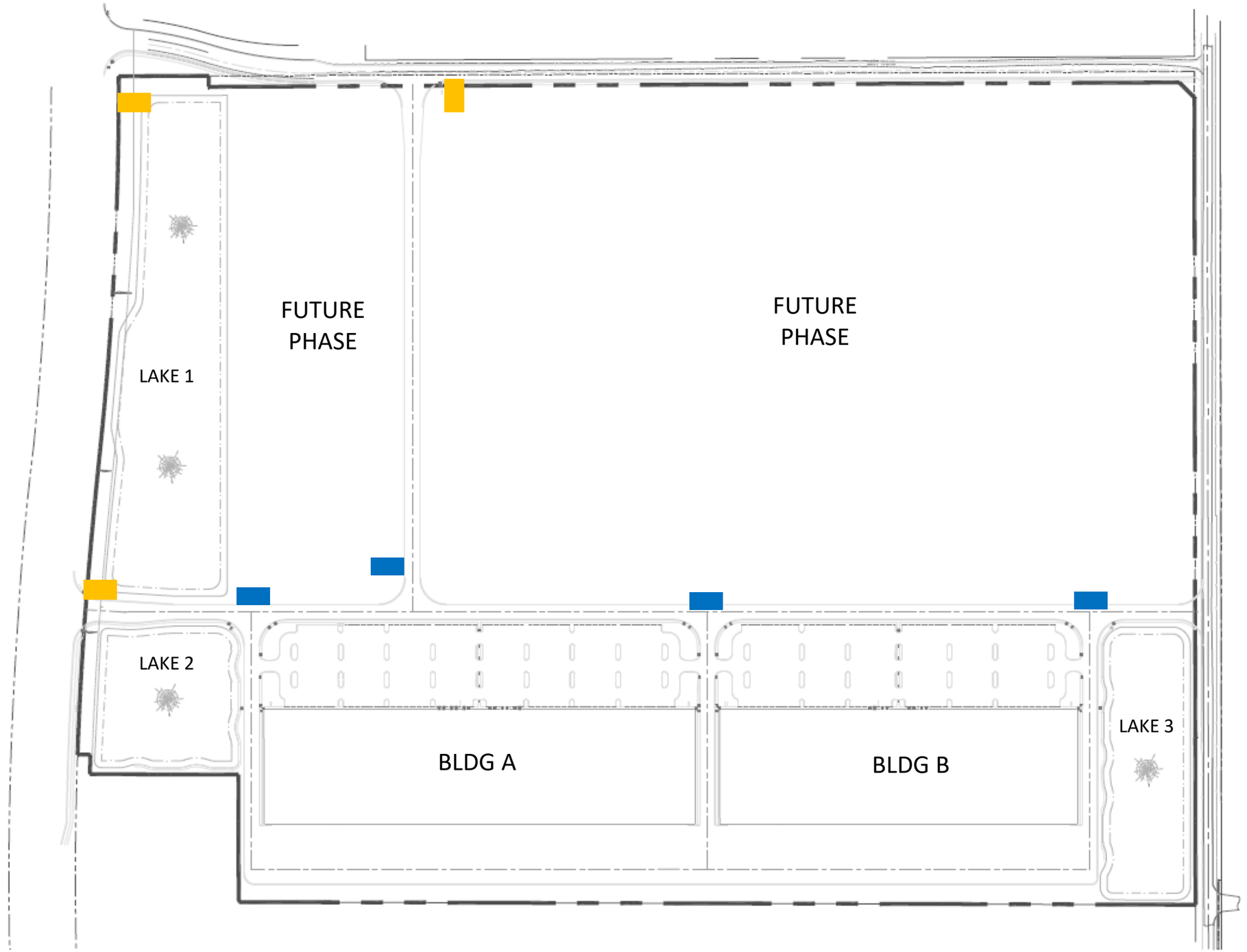
DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

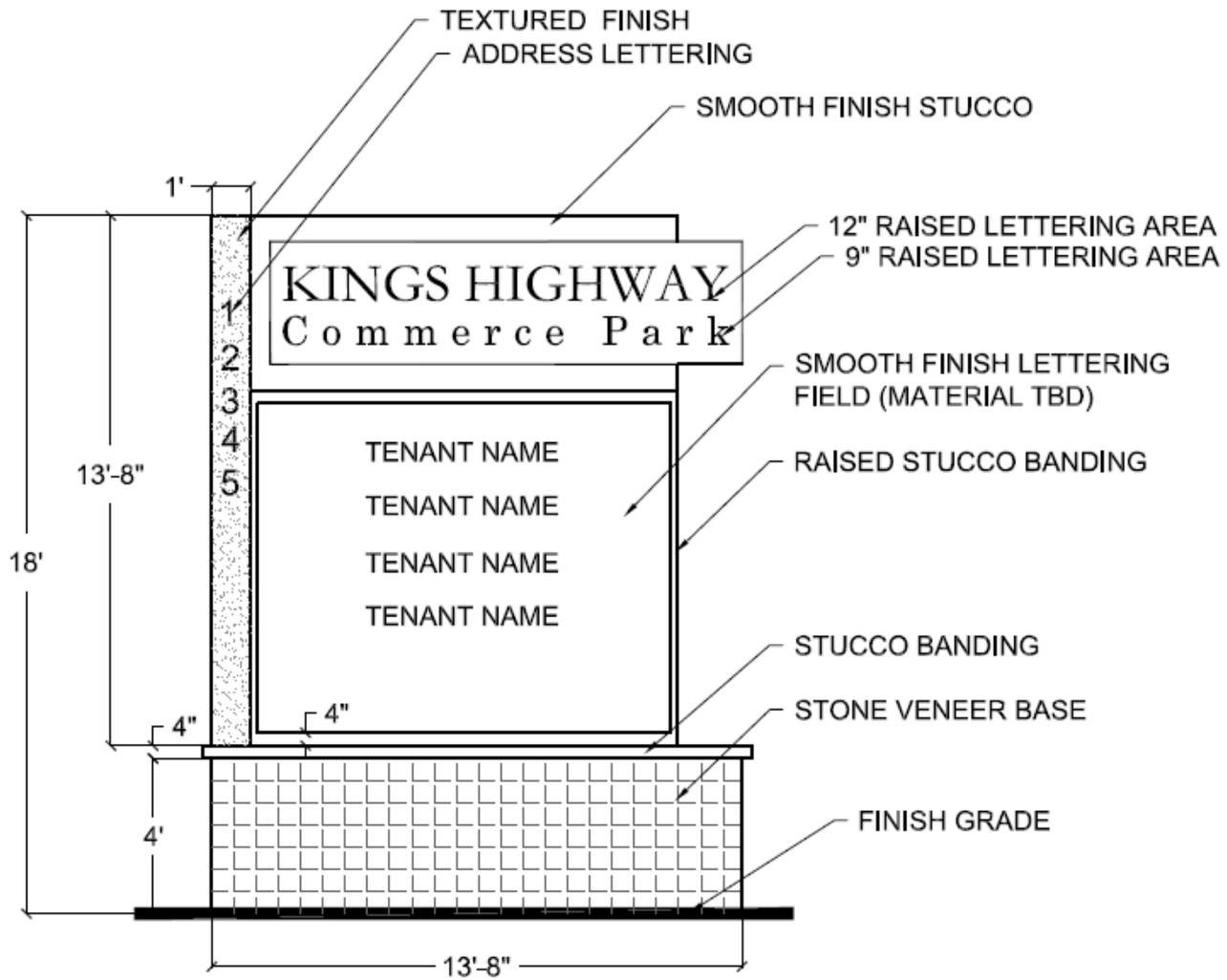
SHEET NO.
TCP-3



KINGS HIGHWAY COMMERCE PARK
MASTER SIGN PROGRAM, prepared by Cotleur & Hearing 04.29.2021

= MONUMENT SIGN
= DIRECTIONAL SIGN

Cotleur & Hearing
LC26000535
LAND PLANNING + LANDSCAPE ARCHITECTURE + TRANSPORTATION
1934 COMMERCE LANE • SUITE 1
JUPITER, FLORIDA • 33458
561.747.6336 561.747.1377



Proposed Monument Signage: 3 total

SIGN HEIGHT = 18 FEET

PROJECT SITE = 109.1 ACRES
Sites that are greater than 20 acres shall have a maximum height of 20 feet (Per Sec. 117-6.)

Proposed Directional Signage: 4 total

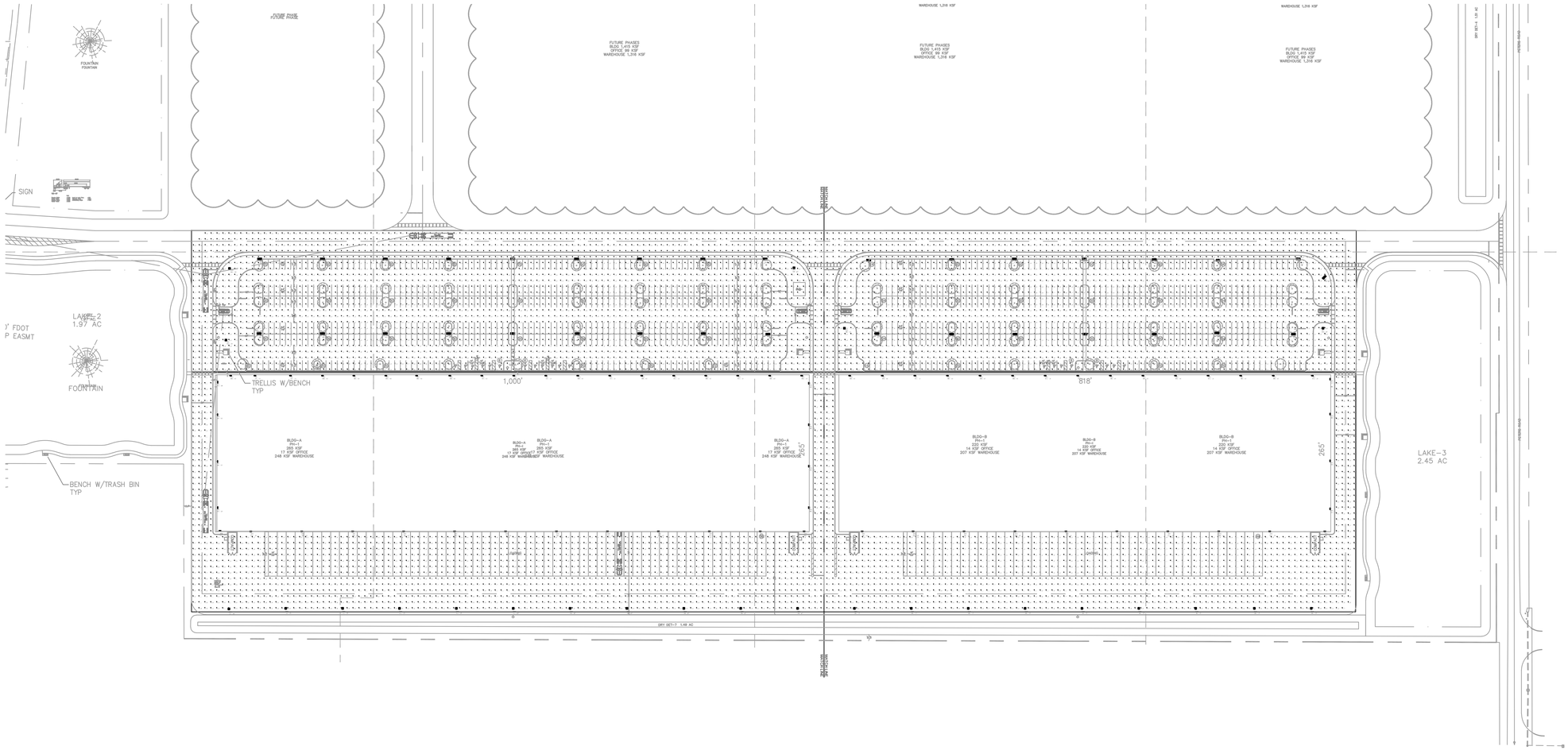
Directional signs, which shall not exceed six square feet in height, may be installed. (Per Sec. 117-7.)

Wall Signage:

One wall sign or one projecting sign per tenant, which shall not exceed a sign area equal to 20 percent of the total wall face area fronting on the main street.

Calculation Summary							
Label	Calc Type	Units	Avg	Max	Min	Avg/Min	Max/Min
Calculation	Illuminance	Fc	3.63	9.9	0.3	12.10	33.00
Parking Lot	Illuminance	Fc	3.46	9.9	0.3	11.53	33.00

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	41	SWC-SA1A1B1-T4-C-SA1A8SF-HA1L	Single	N.A.	1.000	SWC-SA1A1B1-T4-C-SA1A8SF
	7	SWA-SA4A4B1-T4-C-SA1A4SF-HA1L	Single	N.A.	1.000	SWA-SA4A4B1-T4-C-SA1A4SF
	2	SWA-SA4A4B1-T4-C-SA1A4SF-HA1L	Back-Back	N.A.	1.000	SWA-SA4A4B1-T4-C-SA1A4SF
	12	SWA5-SA4C-B1-T4-C-SA1A4SF	Single	N.A.	1.000	SWA5-SA4C-B1-T4-C-SA1A4SF
	1	SWA5-SA4C-B1-T4-C-SA1A4SF-BB	Back-Back	N.A.	1.000	SWA5-SA4C-B1-T4-C-SA1A4SF
	33	SWC-SA3C1-T4-C-SA1A4SF	Single	N.A.	1.000	SWC-SA3C1-T4-C-SA1A4SF



1 PHOTOMETRIC PLAN
SCALE: 1/8" = 1'-0"

RGD
CONSULTING
ENGINEERS

JUPITER | ORLANDO
561-743-0165 | 407-845-6630
WWW.RGDENGINEERS.COM

MEP ENGINEER: RGD CONSULTING ENGINEERS
2151 SOUTH HIGHWAY A1A ALT
SUITE 2000, JUPITER, FL 33477

STRUCTURAL ENGINEER: XXX
XXX
XXX

ARCHITECT: XXX
XXX
XXX

CLIENT: XXX
XXX
XXX

DATE 4.28.2021

REVISIONS:

NO.	DESCRIPTION	DATE

KEY PLAN
AREA DESCRIPTION

N

CLIENT PROJECT NO. XX-XXXX

PROJECT ADDRESS:
XXX

PROJECT NAME:
KINGS HIGHWAY
COMMERCE PARK

DATE: 08/10/2020

RGD PROJ. NO: 21-1089

SCALE: AS SHOWN

DRAWN:

CHECKED:

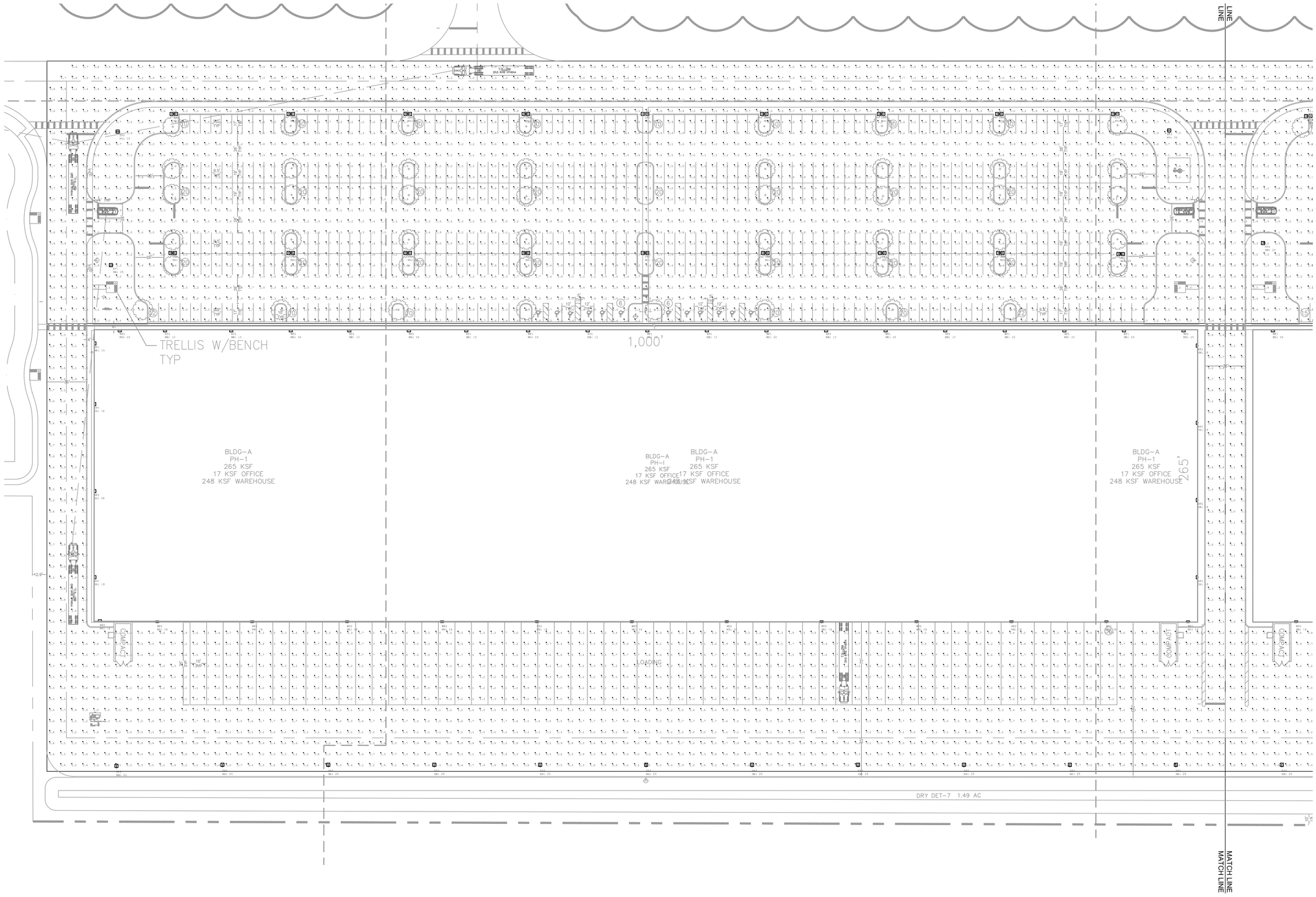
SHEET NAME:

PHOTOMETRIC PLAN

SHEET NO. E-01

PROJECT PHASE:
100% CONSTRUCTION DOCUMENTS

These Drawings are NOT VALID for any purpose which requires the original signature and seal of the engineer unless the original signature and seal are affixed. Drawings not signed and sealed by the engineer shall not be submitted to any authority or used for any purpose where signed and sealed documents are required.



1 ENLARGED PLAN - BUILDING A
SCALE: CUSTOM

RGD
CONSULTING ENGINEERS

JUPITER | ORLANDO
561-743-0165 | 407-845-6630
WWW.RGDENGINEERS.COM

MEP ENGINEER: RGD CONSULTING ENGINEERS
2151 SOUTH HIGHWAY A1A ALT
SUITE 2000, JUPITER, FL 33477

STRUCTURAL ENGINEER: XXX
XXX
XXX

ARCHITECT: XXX
XXX
XXX

CLIENT: XXX
XXX
XXX

DATE 4.28.2021

REVISIONS:

NO.	DESCRIPTION	DATE

KEY PLAN
AREA DESCRIPTION

N

CLIENT PROJECT NO. XX-XXXX

PROJECT ADDRESS:
XXX

PROJECT NAME:
KINGS HIGHWAY
COMMERCE PARK

DATE: 08/10/2020

RGD PROJ. NO: 21-1089

SCALE: AS SHOWN

DRAWN:

CHECKED:

SHEET NAME:
ENLARGED PLAN - BUILDING A

SHEET NO.
E-01A

PROJECT PHASE:
100% CONSTRUCTION DOCUMENTS

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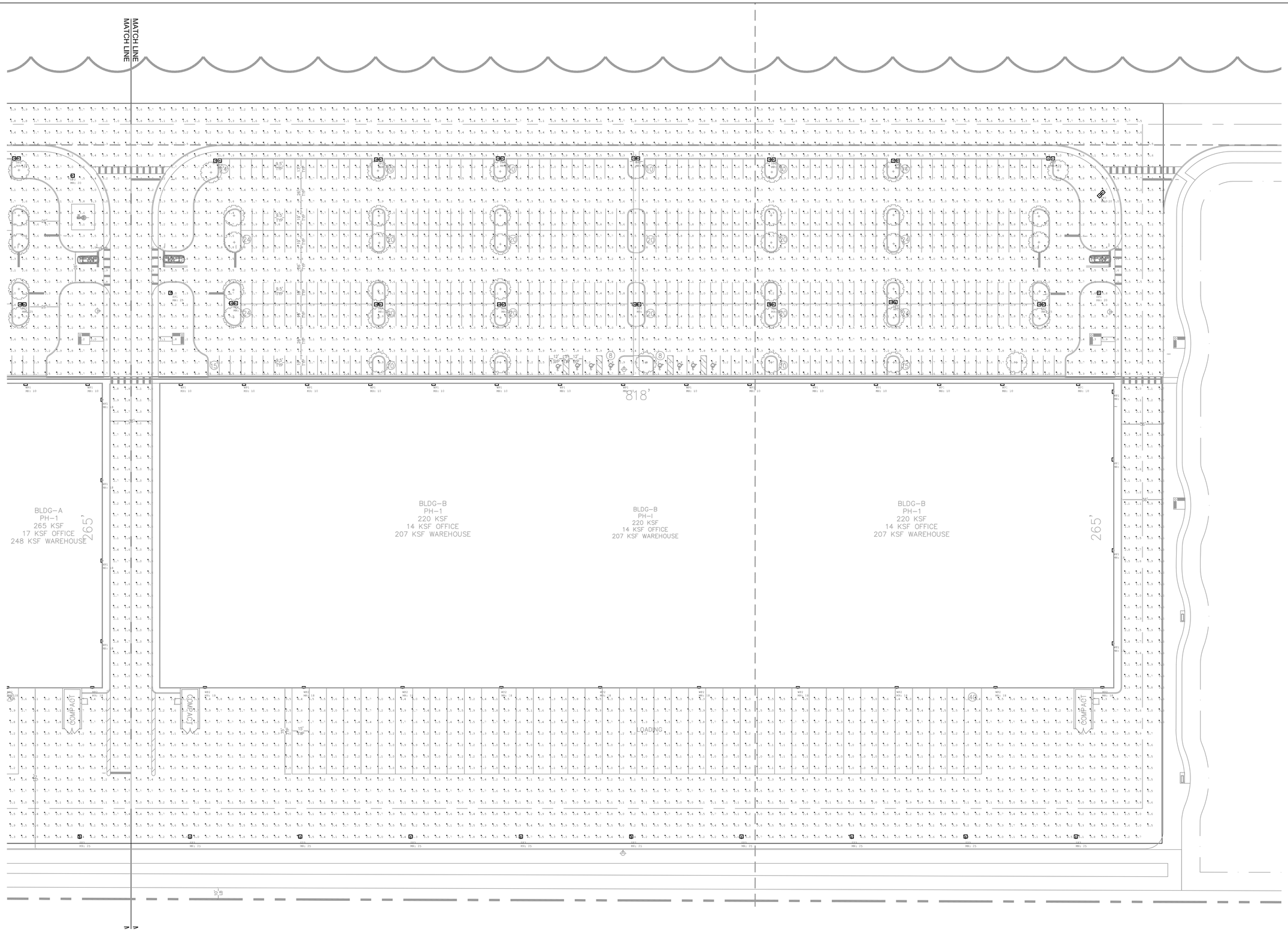

1 ENLARGED PLAN - BUILDING B
SCALE: CUSTOM

RGD
CONSULTING ENGINEERS

JUPITER | ORLANDO
561-743-0165 | 407-845-6630
WWW.RGDENGINEERS.COM

MEP ENGINEER:	RGD CONSULTING ENGINEERS 2151 SOUTH HIGHWAY A1A ALT SUITE 2000, JUPITER, FL 33477
STRUCTURAL ENGINEER:	XXX XXX XXX
ARCHITECT:	XXX XXX XXX
CLIENT:	XXX XXX XXX

DATE 4.28.2021

REVISIONS:

NO.	DESCRIPTION	DATE

KEY PLAN
AREA DESCRIPTION

N

CLIENT PROJECT NO. XX-XXXX

PROJECT ADDRESS:
XXX

PROJECT NAME:
KINGS HIGHWAY
COMMERCE PARK

DATE: 08/10/2020

RGD PROJ. NO: 21-1089

SCALE: AS SHOWN

DRAWN:

CHECKED:

SHEET NAME:

ENLARGED PLAN - BUILDING B

SHEET NO.
E-01B

PROJECT PHASE:
100% CONSTRUCTION DOCUMENTS

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Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Typical Applications

Outdoor • Parking Lots • Walkways • Roadways • Building Areas

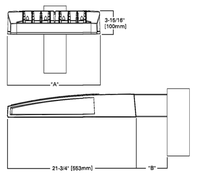
Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt

Dimensional Details



Product Certifications

DLC DLC DLC IP66 IDA YEAR

Product Features

Lensoflex Technology · No Uplight · Wireless · Light-Wise Shield™

Connected Systems

- WaveLinx
- Enlighted

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length ‡	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	–
9-10	33-3/4"	7"	16"	–	–

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

McGraw-Edison

GLEON Galleon

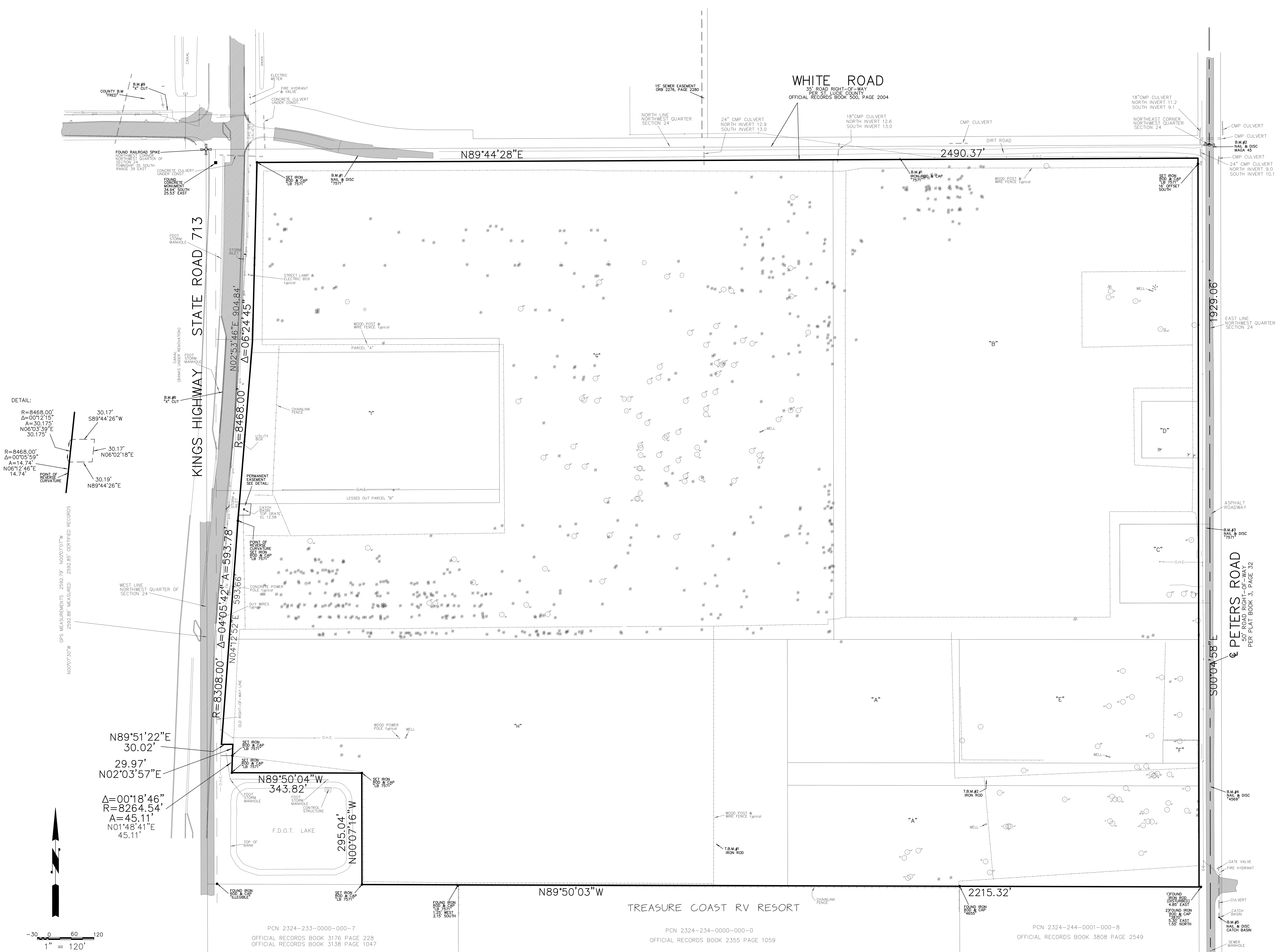
Ordering Information

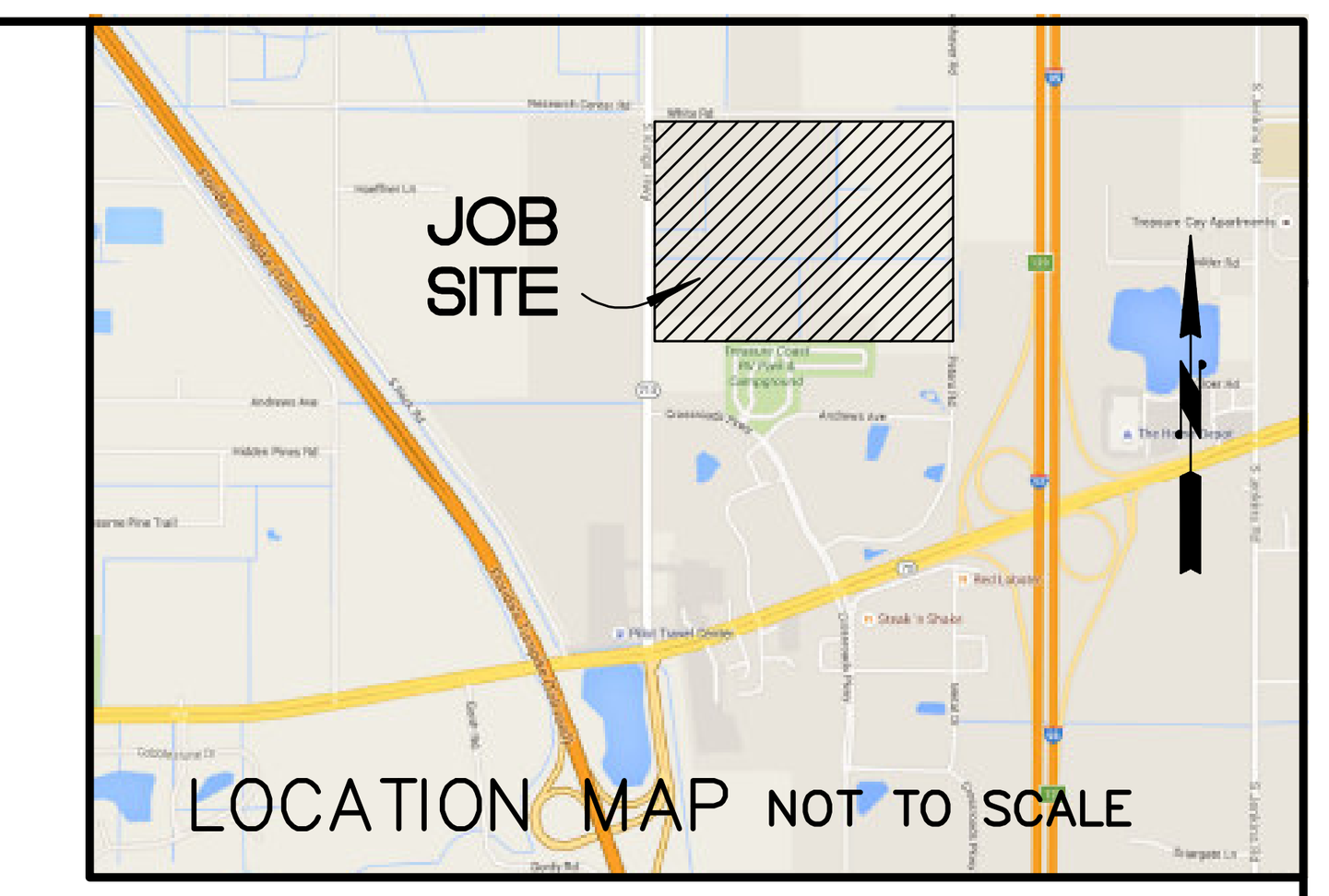
SAMPLE NUMBER: **GLEON-SA4C-740-U-T4FT-GM**

Product Family 1,2	Light Engine: Configuration	Light Engine: Drive Current	Color Temperature	Voltage	Distribution	Mounting	Finish
GLEON=Galleon	**SA1**=1 Square **SA2**=2 Squares 3 **SA3**=3 Squares 3 **SA4**=4 Squares **SA5**=5 Squares 3 **SA6**=6 Squares **SA7**=7 Squares 3 **SA8**=8 Squares 3 **SA9**=9 Squares 3 **SA10**=10 Squares 3	**A**=400mA **B**=800mA **C**=1000mA **D**=1200mA 4	**722**=722K, 2200K **727**=727K, 2700K **730**=730K, 3000K **735**=735K, 3500K **740**=740K, 4000K **750**=750K, 5000K **760**=760K, 6000K **827**=827K, 2700K **830**=830K, 3000K **AMB**=Amber, 590nm 5, 6	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **H**=347V 17 **J**=480V 17 **5**=347V 9	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **BLC**=Type II w/Spill Control **BLC**=Type III w/Spill Control **BLC**=Type IV Wide w/Spill Control **BLL**=90° Spill Light Eliminator Left **BLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **SM**=Type V Square Medium **SMD**=Type V Square Medium **SWQ**=Type V Square Wide	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm 7 **NA**=Knuckle Arm Adapter 10 **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) 11 **QMEA**=Quick Mount Arm (Extended Length) 11	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)
DBA=External 0-10V Dimming Leads 14,15 **F**=Single Fuse (120, 277 or 347V Specify Voltage) **FF**=Double Fuse (208, 240 or 480V Specify Voltage) **20K**=Series 20kV, UL 1449 Surge Protective Device **DAH**=External 0-10V Dimming Leads 14,15 **CBP**=Battery Pack with Back Box, Cold Weather Rated 3,4,16,22 **CBPC**=Battery Pack with Back Box, Cold Weather Rated, Conformal Coated 3,4,16,22 **LNO**=Optics Rotated 90° Left **RXO**=Optics Rotated 90° Right **HSS**=Factory Installed House Side Shield 23 **GSBM**=Factory Installed Glare Shield, Black 8,9,17 **GSBW**=Factory Installed Glare Shield, White 8,9,17 **HA**=50°C High Ambient 4 **HA-H3**=55°C High Ambient 4 **LCP**=Light Square Trim Plate Painted to Match Housing 18 **MT**=Factory Installed Mesh Top **CC**=Coastal Construction finish 4 **TRT**=Terminal Block, Touch-Safe Terminal Block 24 **AHD1459**=After Hours Dim, 3 Hours 19 **AHD2345**=After Hours Dim, 5 Hours 19 **AHD3456**=After Hours Dim, 7 Hours 19 **AHD3850**=After Hours Dim, 8 Hours 19 **DALI**=DALI Driver 20	**BPC**=Button Type Photocontrol **PER**=NEMA 7-Pin Photocontrol Receptacle 21 **PR7**=NEMA 7-PIN Photocontrol Receptacle 21 **SPD**=Dimming Occupancy Sensor with Bluetooth Interface, 8'-20' Mounting 25,26 **SPD4**=Dimming Occupancy Sensor with Bluetooth Interface, 21'- 40' Mounting 25,26 **MS-L20**=Motion Sensor for DIM/OFF Operation, 9' - 20' Mounting Height 25 **MS-L40W**=Motion Sensor for DIM/OFF Operation, 21' - 40' Mounting Height 25 **MSLV-L20**=Bi-Level Motion Sensor, 9' - 20' Mounting Height 25,26 **MSLV-L40W**=Bi-Level Motion Sensor, 21' - 40' Mounting Height 25,26 **MSLSBM-L20**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height 25 **MSLSBM-L40W**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height 25 **ZW**=WaveLinx Module with DALI driver and 4-PIN Receptacle **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle 26,32 **SWPD4XD**=WaveLinx Sensor Only, 21'-40' 26,32 **SWPD4XD-WW**=WaveLinx Sensor with Bluetooth, 21'-40' 26,32 **WSDXD**=WaveLinx Sensor with Bluetooth, 9'-20' 26,32 **WSFXD**=WaveLinx Sensor with Bluetooth, 15'-40' 26,32 **LMN-L4F**=Enlighted Wireless Sensor, Wide Lens for 8'-15' Mounting Height 26,28,32 **LMN-L4N**=Enlighted Wireless Sensor, Narrow Lens for 16'-40' Mounting Height 26,28,32	**DAIRA1016**=HEMA Photocontrol Multi-Tap - 105-285V **DAIRA1027**=HEMA Photocontrol - 347V **DAIRA1281**=HEMA Photocontrol - 480V **DAIRA5019**=Photocontrol Shorting Cap **DAIRA5914**=120V Photocontrol **MA1202**=120kV Surge Module Replacement **MA1535-XX**=Single Tenon Adapter for 2-3/8" O.D. Tenon **MA1537-XX**=Clip180° Tenon Adapter for 2-3/8" O.D. Tenon **MA1538-XX**=Clip360° Tenon Adapter for 2-3/8" O.D. Tenon **MA1188-XX**=Adj180° Tenon Adapter for 2-3/8" O.D. Tenon **MA1189-XX**=Adj180° Tenon Adapter for 2-3/8" O.D. Tenon **MA1190-XX**=Adj360° Tenon Adapter for 2-3/8" O.D. Tenon **MA1191-XX**=Adj120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1535-XX**=Single Tenon Adapter for 3-1/2" O.D. Tenon **MA1536-XX**=Single Tenon Adapter for 3-1/2" O.D. Tenon **MA1537-XX**=Clip180° Tenon Adapter for 3-1/2" O.D. Tenon **MA1193-XX**=Adj90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1194-XX**=Adj180° Tenon Adapter for 3-1/2" O.D. Tenon **MA1195-XX**=Adj360° Tenon Adapter for 3-1/2" O.D. Tenon **FSYA-100**=Wireless Configuration Tool for Occupancy Sensor 27 **WSKC-10**=WaveLinx Configuration Control Module (7-pin) 27,28 **SWPD4-XX**=Wireless Wireless Sensor, 7' – 15' Mounting Height 28,30,31,32 **SWPD5-XX**=Wireless Wireless Sensor, 15' – 40' Mounting Height 28,30,31,32 **GLEON-SM**=Shallow Mounting Kit 29 **GLEON-SMEA**=Quick Mount Extended Arm Kit 29 **LSI/HSS**=Field Installed House Side Shield 23,29 **LSI/GSBM**=Field Installed Glare Shield, Black 29 **LSI/GSBW**=Glare Reducing Shield, White 29,30 **LSI/PES**=Perimeter Shield, Black 29 **GLEON-MT**=Field Installed Mesh Top for 1-4 Light Squares **GLEON-MT2**=Field Installed Mesh Top for 5-6 Light Squares **GLEON-MT4**=Field Installed Mesh Top for 9-10 Light Squares **WSLC-TP-15A**=WaveLinx Outdoor Control Module 10,33 **SWPD4-XX**=Wireless Wireless Sensor, 7' – 15' Mounting Height 10,33,34 **SWPD5-XX**=Wireless Wireless Sensor, 15' – 40' Mounting Height 10,33,34

NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to Application Engineering Support PP5100100 for additional support information.
2. Outdoor Lighting Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Requires CC option in Arm and Pole.
4. Not compatible with MS-L15 or MS-L11/L31 sensors.
5. Not compatible with extended quick mount arm (QMEA).
6. Not compatible with 1 square configuration, arm (A1), or extended quick mount arm (QMEA).
7. Requires the use of an internal slip stress transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
8. Not available with 1200mA, LPO, or DIM options. Not available with single light square. Not recommended for use in corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
9. Not available with other tenon or mast luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
10. Factory installed.
11. Not available in 1 light squares.
12. Maximum 8 light squares.
13. Requires 2W or 22-receptacle.
14. Not available with 480V, 347V, 5th wire/480v and observatory use. Choose drive current A, supplied at 500mA drive current only. Available with 1000, 1200, 1A and 1050mA drive current only. Not available with 1000, 1200, 1A and 1050mA drive current only. Available with 1000, 1200, 1A and 1050mA drive current only. Not available with 1000, 1200, 1A and 1050mA drive current only. Not available with 1000, 1200, 1A and 1050mA drive current only. Not





LEGAL DESCRIPTIONS

"A"
PCN 2324-241-0004-000-0
OFFICIAL RECORDS BOOK 1798 PAGE 2252

PARCEL I:
THE WEST 455.58 FEET OF THE EAST 111.8.54 FEET OF THE NORTH HALF OF THE NORTH HALF OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 24, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

AND PARCEL II:
THE WEST 1088.54 FEET OF THE EAST 1118.54 FEET OF THE SOUTH 264.18 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

"B"
PCN 2324-211-0001-000-6
OFFICIAL RECORDS BOOK 1868 PAGE 2879

THE EAST THREE QUARTERS (3/ 4) OF THE NORTHEAST QUARTER (NE 1/ 4) OF THE NORTHWEST QUARTER (NW 1/ 4) OF SECTION TWENTY-FOUR (24) TOWNSHIP THIRTY FIVE (35) SOUTH RANGE THIRTY-NINE (39) EAST, CONTAINING APPROXIMATELY 26.9 ACRES.

"C"
PCN 2324-214-0002-000-2
OFFICIAL RECORDS BOOK 1959 PAGE 2516

FROM THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; THENCE RUN NORTH 100 FEET; THENCE RUN WEST 25 FEET TO THE POINT OF BEGINNING; CONTINUE WEST 213.71 FEET; THENCE NORTH 208.71 FEET; THENCE EAST 213.71 FEET; THENCE SOUTH 208.71 FEET TO THE POINT OF BEGINNING.

"D"
PCN 2324-214-0001-000-5
OFFICIAL RECORDS BOOK 1828 PAGE 2808

FROM THE INTERIOR QUARTER CORNER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, RUN NORTH ALONG THE EAST LINE OF THE NORTHWEST 1/ 4 OF SAID SECTION 1790.5 FEET; THENCE WEST 25 FEET TO THE POINT OF BEGINNING; FROM SAID POINT OF BEGINNING RUN WEST 155 FEET; THENCE NORTH 150 FEET; THENCE EAST 155 FEET; THENCE SOUTH 150 FEET TO THE POINT OF BEGINNING; BEING A PART OF THE NORTHEAST 1/ 4 OF THE NORTHWEST 1/ 4 OF SECTION 24, TOWNSHIP 3 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

"E"
PCN 2324-241-0002-000-6
OFFICIAL RECORDS BOOK 2981 PAGE 2561

THE NORTH 1/ 2 OF THE NORTHEAST 1/ 4 OF THE SOUTHEAST 1/ 4 OF THE NORTHWEST 1/ 4, LESS THE SOUTH 60 FEET OF THE EAST 125 FEET AND LESS THE EAST 30 FEET, SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA.

"F"
PCN 2324-241-0003-000-3
OFFICIAL RECORDS BOOK 2398 PAGE 108; ERRONEOUS LEGAL
PER ST. LUCIE COUNTY, CLERK OF THE COURT)
DESCRIPTION PER THIS OFFICE
THE SOUTH 60.00 FEET OF THE EAST 125 FEET OF THE
PER DESCRIPTION DESCRIBED IN OFFICIAL RECORDS BOOK 718, PAGE 2723

"G"
PCN 2324-232-0000-000-4
OFFICIAL RECORDS BOOK 3487 PAGE 76
THE SOUTH HALF OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, LESS THE EAST 118.54 FEET AND THE WEST 25 FEET THEREOF;
AND
THE NORTH 60 FEET OF THE WEST 1088.54 FEET OF THE EAST 1118.54 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RAGNE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS THOSE TAKING PARCELS PER ORDER OF TAKINGS.

"H"
PCN 2324-210-0000-000-6
OFFICIAL RECORDS BOOK 2382 PAGE 1143
THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER AND THE WEST HALF OF THE WEST HALF OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; LESS AND EXCEPTING THERE FROM THE SOUTH 400 FEET OF THE NORTH 903.20 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET OF SAID SECTION 24; LESS RIGHT-OF-WAY FOR KINGS HIGHWAY AND WHITE ROAD.

TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL "A"
A PARCEL OF LAND LYING IN SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS FOLLOWS:
THE SOUTH 35.30 FEET OF THE NORTH 538.50 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS THE FOLLOWING DESCRIBED
PARCEL "B"
A PARCEL OF LAND LYING IN SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS FOLLOWS:
THE SOUTH 35.30 FEET OF THE NORTH 938.50 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA.

LESS THOSE TAKING PARCELS PER ORDER OF TAKINGS.

"H"
PCN 2324-210-0002-000-3
OFFICIAL RECORDS BOOK 2650 PAGE 1994
A PARCEL OF LAND LYING IN SECTION 24, TOWNSHIP 35 SOUTH RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
THE SOUTH 400 FEET OF THE NORTH 903.20 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET;
TO GETHER WITH:
THE SOUTH 35.30 FEET OF THE NORTH 938.50 FEET OF THE EAST 750 FEET OF THE WEST 775 FEET;
AND LESS:
THE SOUTH 35.30 FEET OF THE NORTH 538.50 FEET OF THE WEST 775 FEET.

ADD PARCELS A THROGH I CONTAINING
THE SOUTH 35.30 FEET OF THE NORTH 538.50 FEET OF THE WEST 775 FEET.

ALL PARCELS "A" THOUGH "I" CONTAINING 109.439 ACRES MORE OR LESS

TREE LEGEND

- = SABLE/CABBAGE PALM
- = OAK
- = ACACIA
- = YELLOW POINCIANA
- = BOTTLEBRUSH
- = MIMOSA
- = QUEEN PALM
- = UNKNOWN
- 10" = GIRTH

TREES CALCULATIONS	
SABLE/CABBAGE PALMS	623
OAKS TREES	92
YELLOW POINCIANA	9
QUEEN PALMS	5
ACCACIA	3
BOTTLE BRUSH	2
MIMOSA	1
UNKNOWN	1
TOTAL TREES	736

SURVEY REPORT:
PROPERTY IS AN OVERGROWN DEFUNCT ORANGE, GRAPEFRUIT FARM. OVERGROWN MOSTLY BY BRAZZIALINA PEPPERS, AT THE SOUTHWEST PORTION OF PROPERTY MYRTLES EXIST. MATURE SABLES/CABBAGE PALMS LOCATED, APPROXIMATELY 150-200 CABBAGE PALMS UNDER 6 OR 7 FEET NOT LOCATED. TREES IDENTIFIED AS YELLOW POINCIANA, SHOULD BE VERIFIED BY AN ARBORIST. ONE OTHER UNKOWN TREE LOCATED NORTH OF OLD JUICE PLAT, IN NORTHWEST QUARTER. AUSTRAILIAN PINES NOT LOCATED, MOSTLY ALONG DITCHES RUNNING NORTH AND SOUTH MIDDLE OF PROJECT AND ALONG WHITE ROAD. SOME OAK TREES SEEM TO HAVE ROT ALONG THE SIDE OF TREE. SEVERAL ACACIA ARE GROWING IN ALL DIRECTIONS. AFTER GRUBBING MORE TREE LOCATION MAY NEEDED TO BE PERFORMED. THERE MAY BE OTHER TREES NOT DISCOVERED, LOT IS VERY OVERGROWN IN SOME AREAS WITH DEAD BRAZZILAIN PEPPERS.

DISTANCES ARE GROUND DISTANCES
COORDINATES INFORMATION
GRID DATUM - NAD 83, 1990 ADJUSTED
ZONE - FLORIDA EAST ZONE
LINEAR UNIT - U.S. SURVEY FOOT
COORDINATE SYSTEM- 1983 STATE PLANE TRANSVERSE MERCATOR PROJECTION
SCALE FACTOR = ~~1.000032451~~

VERTICAL DATUM INFORMATION
ST. LUCIE COUNTY
BRASS DISC "FRED"
NAVD ELEVATION = ~~17.722~~

BOUNDARY CLOSURE REPORT:
~~CLOSURE S39°05'27"W, 0.004'~~
~~0.004'/1578.57 OR 0.0127/5000'~~

PROPERTY SHOWN HEREON IS LOCATED IN FLOOD ZONE X PER FLOOD INSURANCE RATE MAP 120192 YYYY F DATED OCTOBER 5, 2017

NOTE:
THIS SURVEY PERFORMED WITHOUT BENEFIT OF TITLE

RONALD E. STOTLER
PROFESSIONAL SURVEYOR AND MAPPER
CERTIFICATE NO. 5026
STATE OF FLORIDA

MAGELLAN SURVEYING & MAPPING, INC.
M.S.&M. INC. SINCE 2007
PROFESSIONAL LAND SURVEYORS
LICENSED BUSINESS - 7571
450 S. OLD DIXIE HIGHWAY, SUITE 10
JUPITER, FLORIDA 33458
561-746-8745 FAX 561-746-9632 E-mail info@magellansurveying.com

Special Purpose Survey
Boundary & Tree Survey

Prepared For: KINGS HIGHWAY DEVELOPMENT PARTNERS

Drawn by RES	Date Of Survey	Scale
Field: TF F.B.180 Pg09	APRIL 13, 2021	1"= 120'
REVISIONS:		Drawing Number 21-020

MATCHLINE SEE SHEET X

MATCHLINE SEE SHEET 2

LAKE
1.97 AC.

FOUNTAIN

LITTORAL PLANTING (5,394 sf)
(299) GREAT SPIKE RUSH
(212) PICKEREL WEED
(208) FIRE FLAG

LITTORAL ZONE

30' FDOT
TEMP CONST EASMT

20' LME

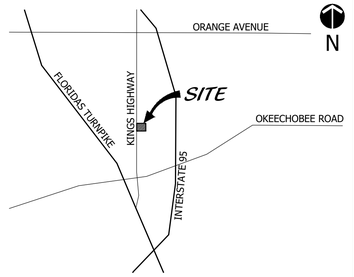
BACKFLOW

BLDG-A
PH-1
265 KSF
17 KSF OFFICE
248 KSF WAREHOUSE

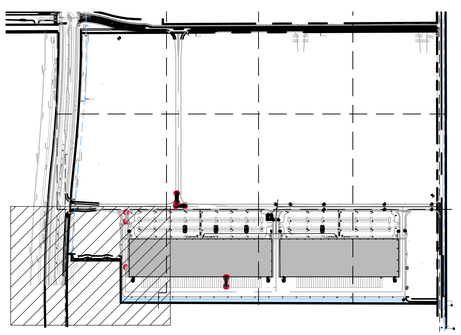
COMPACT

SOD

LOCATION MAP



SHEET LAYOUT MAP



48 HOURS BEFORE DIGGING
CALL TOLL FREE
811
SUNSHINE STATE ONE CALL
OF FLORIDA, INC.

Landscape Plan

0' 15' 30' 60' 90' 120'

Scale: 1" = 30'-0"

North

Cotleur & Hearing
Landscape Architects
Land Planners
Environmental Consultants
1934 Commerce Lane
Suite 1
Jupiter, Florida 33458
561.747.6336 · Fax 747.1377
www.cotleurhearing.com
Lic# LC-26000535

King's Highway Commerce Park

Landscape Plan

City of Fort Pierce, Florida

DESIGNED DEH
DRAWN AGB
APPROVED DEH
JOB NUMBER 21-0130
DATE 04-28-21
REVISIONS

April 28, 2021 10:59:18 a.m
Drawing: 21-0130 LP.DWG

SHEET 1 OF 13

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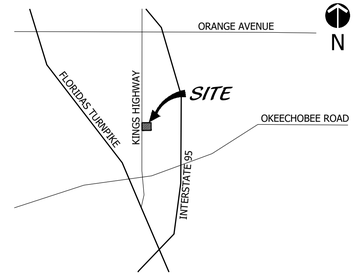
MATCHLINE SEE SHEET 7

MATCHLINE SEE SHEET 1

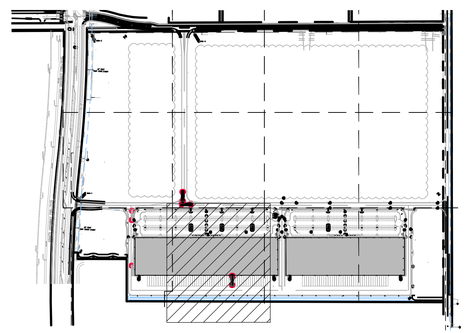
MATCHLINE SEE SHEET 3

BLDG-A
PH-1
265 KSF
17 KSF OFFICE
248 KSF WAREHOUSE

LOCATION MAP



SHEET LAYOUT MAP



Landscape Plan

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North

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561.747.6336 · Fax 747.1377
www.cotleurhearing.com
Lic# LC-26000535

King's Highway Commerce Park
Landscape Plan
City of Fort Pierce, Florida

0' 15' 30' 60'
Scale: 1" = 30'-0"

DESIGNED DEH
DRAWN AGB
APPROVED DEH
JOB NUMBER 21-0130
DATE 04-28-21
REVISIONS

April 28, 2021 10:59:18 a.m.
Drawing: 21-0130 LP.DWG

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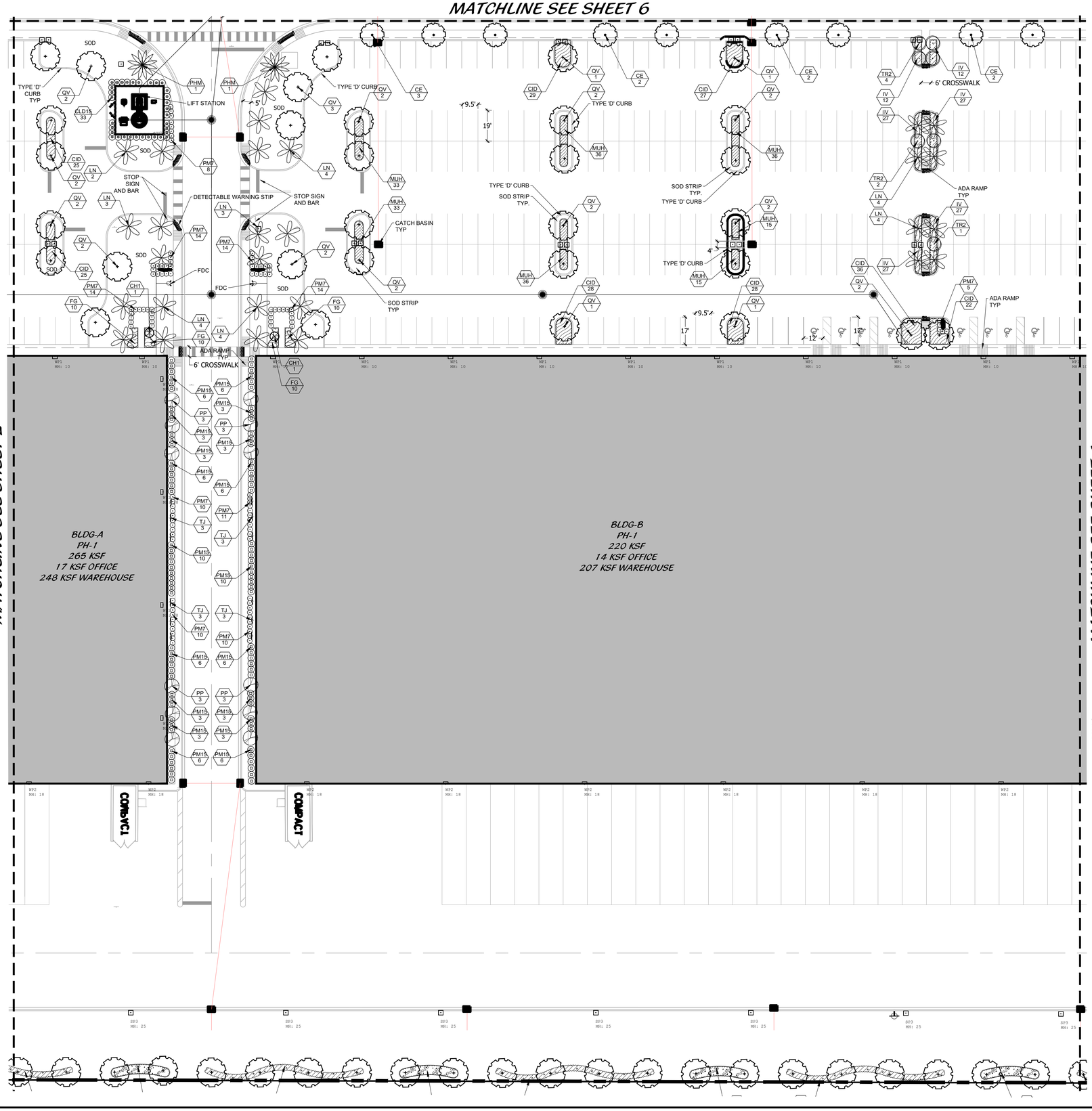
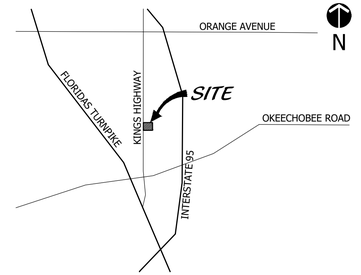
MATCHLINE SEE SHEET 6



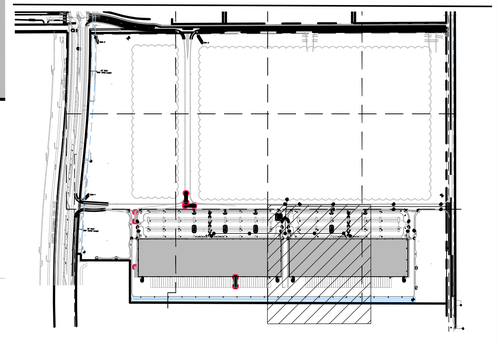
MATCHLINE SEE SHEET 2

MATCHLINE SEE SHEET 4

LOCATION MAP



SHEET LAYOUT MAP



Landscape Plan

48 HOURS BEFORE DIGGING
CALL TOLL FREE
811
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

North

Cotleur & Hearing
Landscape Architects
Land Planners
Environmental Consultants
1934 Commerce Lane
Suite 1
Jupiter, Florida 33458
561.747.6336 · Fax 747.1377
www.cotleurhearing.com
Lic# LC-26000535

King's Highway Commerce Park
Landscape Plan
City of Fort Pierce, Florida

0' 15' 30' 60'
Scale: 1" = 30'-0"

DESIGNED	DEH
DRAWN	AGB
APPROVED	DEH
JOB NUMBER	21-0130
DATE	04-28-21
REVISIONS	

April 28, 2021 10:59:18 a.m.
Drawing: 21-0130 LP.DWG

SHEET 3 OF 13

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MATCHLINE SEE SHEET 5

MATCHLINE SEE SHEET 3

BLDG-B
PH-1
220 KSF
14 KSF OFFICE
207 KSF WAREHOUSE

SOD

FDC TYP

LITTORAL ZONE

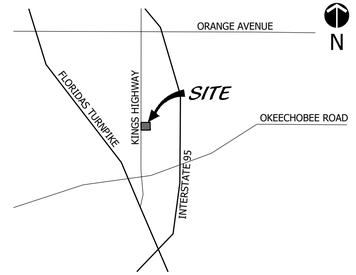
LITTORAL PLANTING (3,947 sf)
(219) GREAT SPIKE RUSH
(155) PICKEREL WEED
(152) FIRE FLAG

EXISTING OAK TREE
TO REMAIN

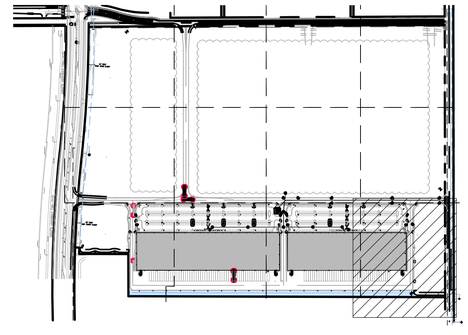
20' LME

8' - 12'

LOCATION MAP



SHEET LAYOUT MAP



Landscape Plan

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www.cotleurhearing.com
Lic# LC-26000535

King's Highway Commerce Park

Landscape Plan
City of Fort Pierce, Florida

Scale: 1" = 30'-0"

DESIGNED	DEH
DRAWN	AGB
APPROVED	DEH
JOB NUMBER	21-0130
DATE	04-28-21
REVISIONS	

April 28, 2021 10:59:18 a.m.
Drawing: 21-0130 LP.DWG

SHEET 4 OF 13

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MATCHLINE SEE SHEET 12

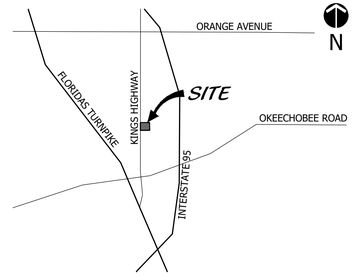
MATCHLINE SEE SHEET 6

FUTURE PHASES
BLDG 1,415 KSF
OFFICE 99 KSF
WAREHOUSE 1,316 KSF

QV 2
SOD
PE2 5
MUH 56
QV 3
PE2 5
HD 56
QV 3
PE2 5
MUH 56
QV 3
PE2 5
HD 56
QV 3
MDD 1
CI 240
LI3 5
PHM 1
LJ65 4
FG 190
ER 94
CH1 2
AGG 3
SOD
QV 10
SOD
MDD 3
SOD
MDD 3

MATCHLINE SEE SHEET 4

LOCATION MAP



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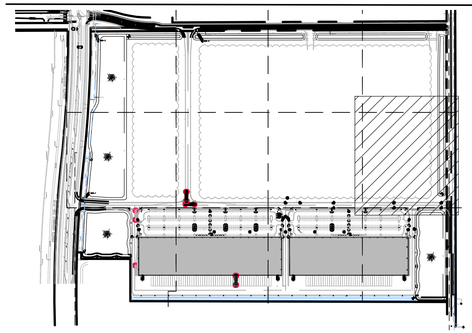

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MATCHLINE SEE SHEET 11

MATCHLINE SEE SHEET 7

MATCHLINE SEE SHEET 5

FUTURE PHASES
BLDG 1,415 KSF
OFFICE 99 KSF
WAREHOUSE 1,316 KSF

SOD

SOD

SOD

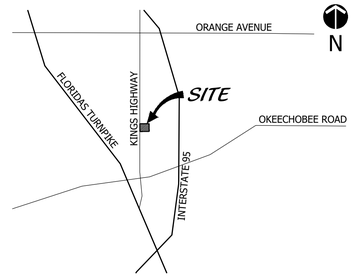
QV
17

STORM SEWER

SANITARY SEWER

MATCHLINE SEE SHEET 3

LOCATION MAP



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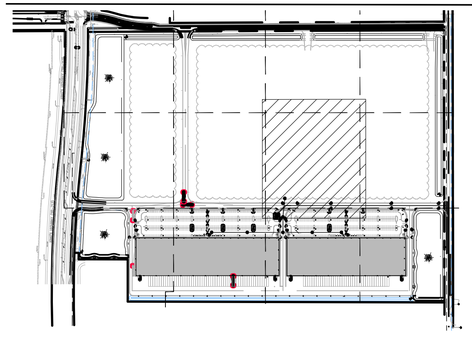

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MATCHLINE SEE SHEET 10

MATCHLINE SEE SHEET 8

MATCHLINE SEE SHEET 6

MATCHLINE SEE SHEET 2

SOD

OV 15

OV 15

SOD

SOD

SOD

SOD

CU3 72

CU3 69

XP 3

FG 54

AGG 3

FG 54

AGG 3

OV 1

XP 3

OV 12

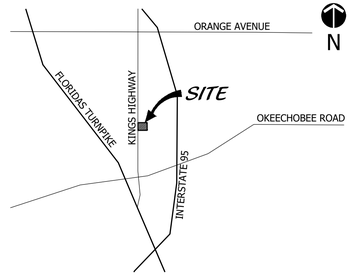
SOD

SOD

SOD

FUTURE PHASES
BLDG 1,415 KSF
OFFICE 99 KSF
WAREHOUSE 1,316 KSF

LOCATION MAP



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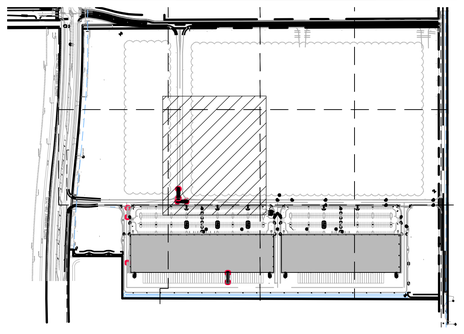

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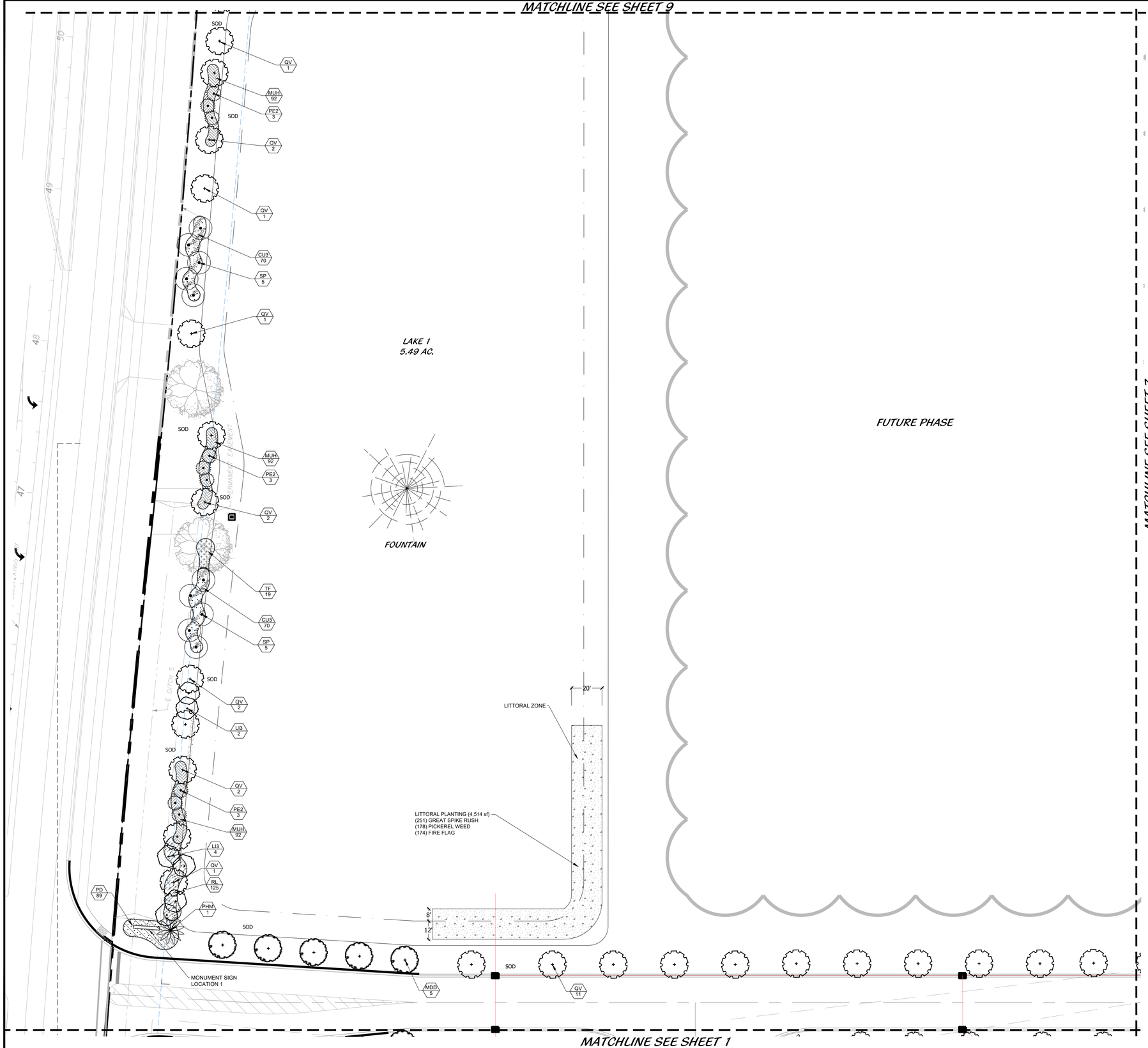
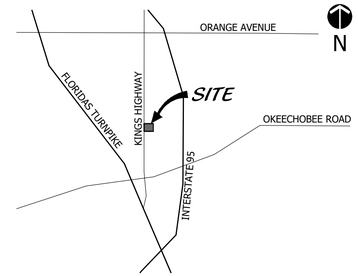
MATCHLINE SEE SHEET 9



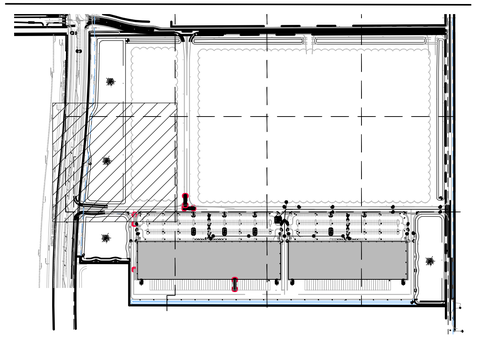
MATCHLINE SEE SHEET 1

MATCHLINE SEE SHEET 7

LOCATION MAP



SHEET LAYOUT MAP



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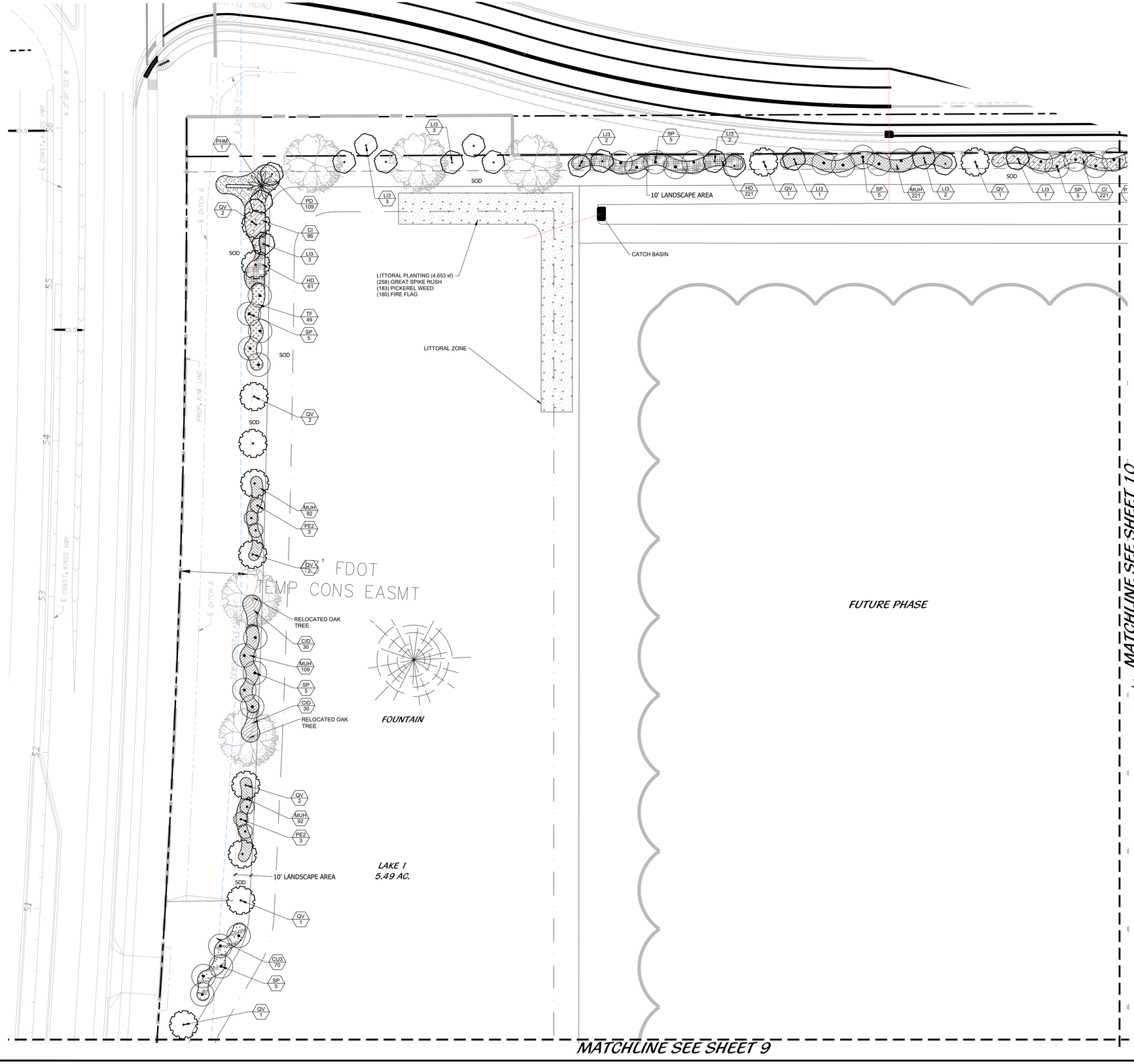

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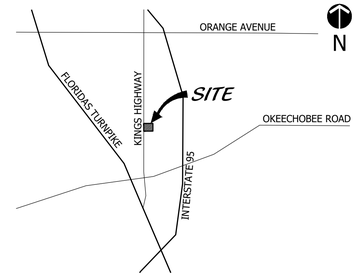

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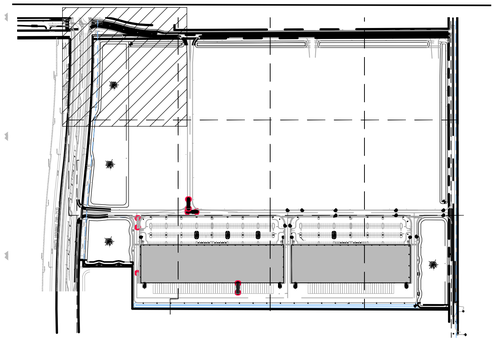

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SHEET 9 OF 13

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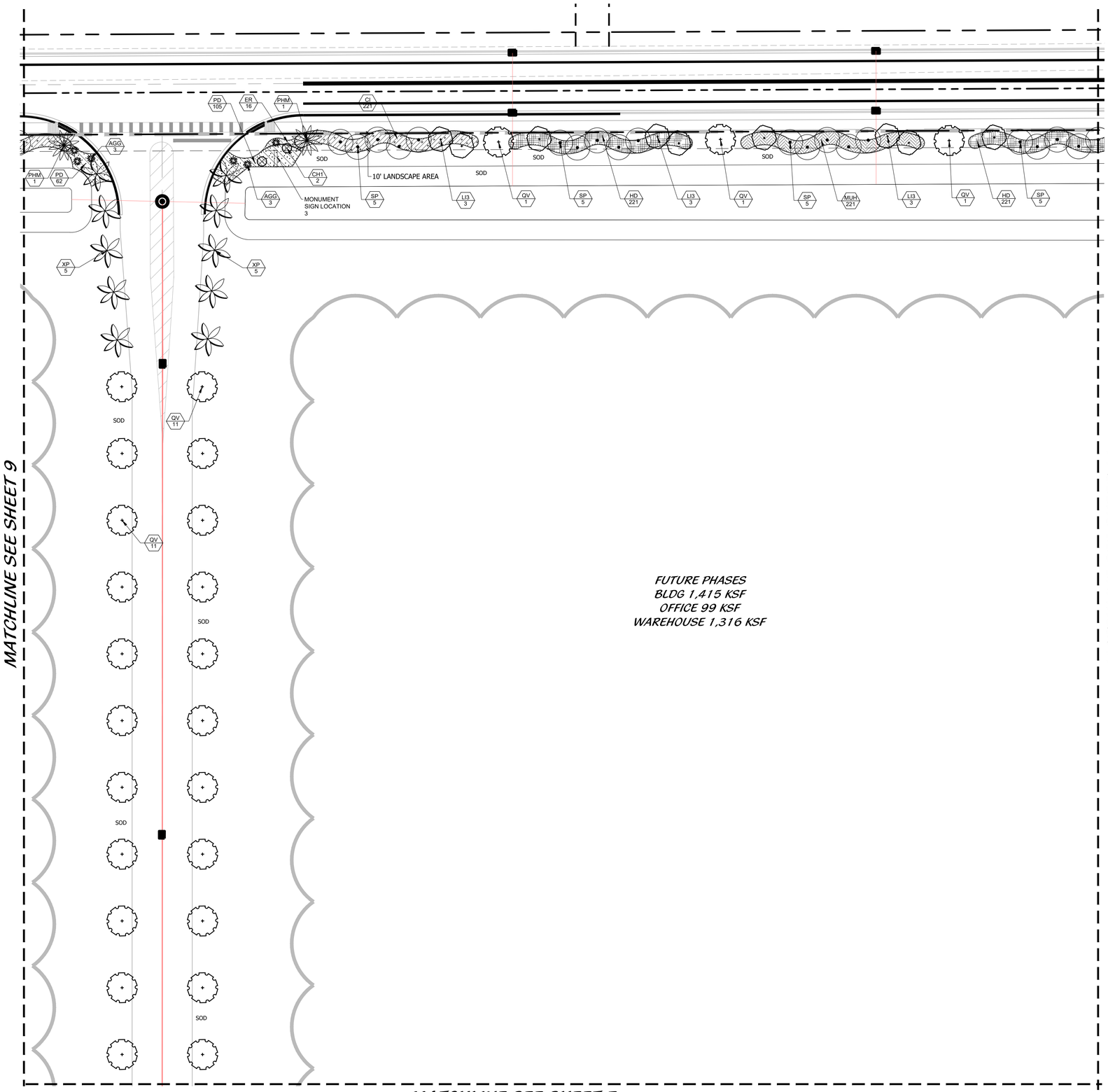
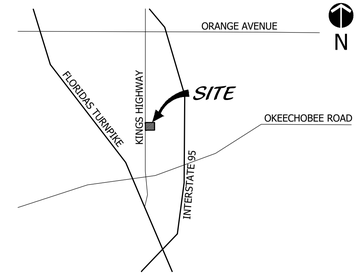


LOCATION MAP



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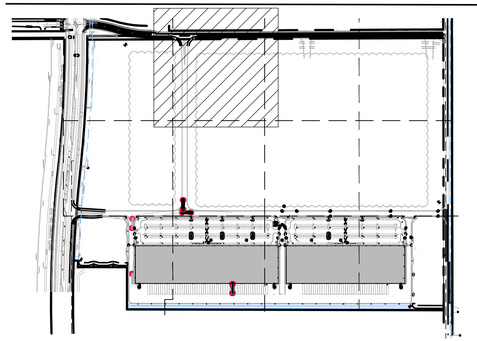

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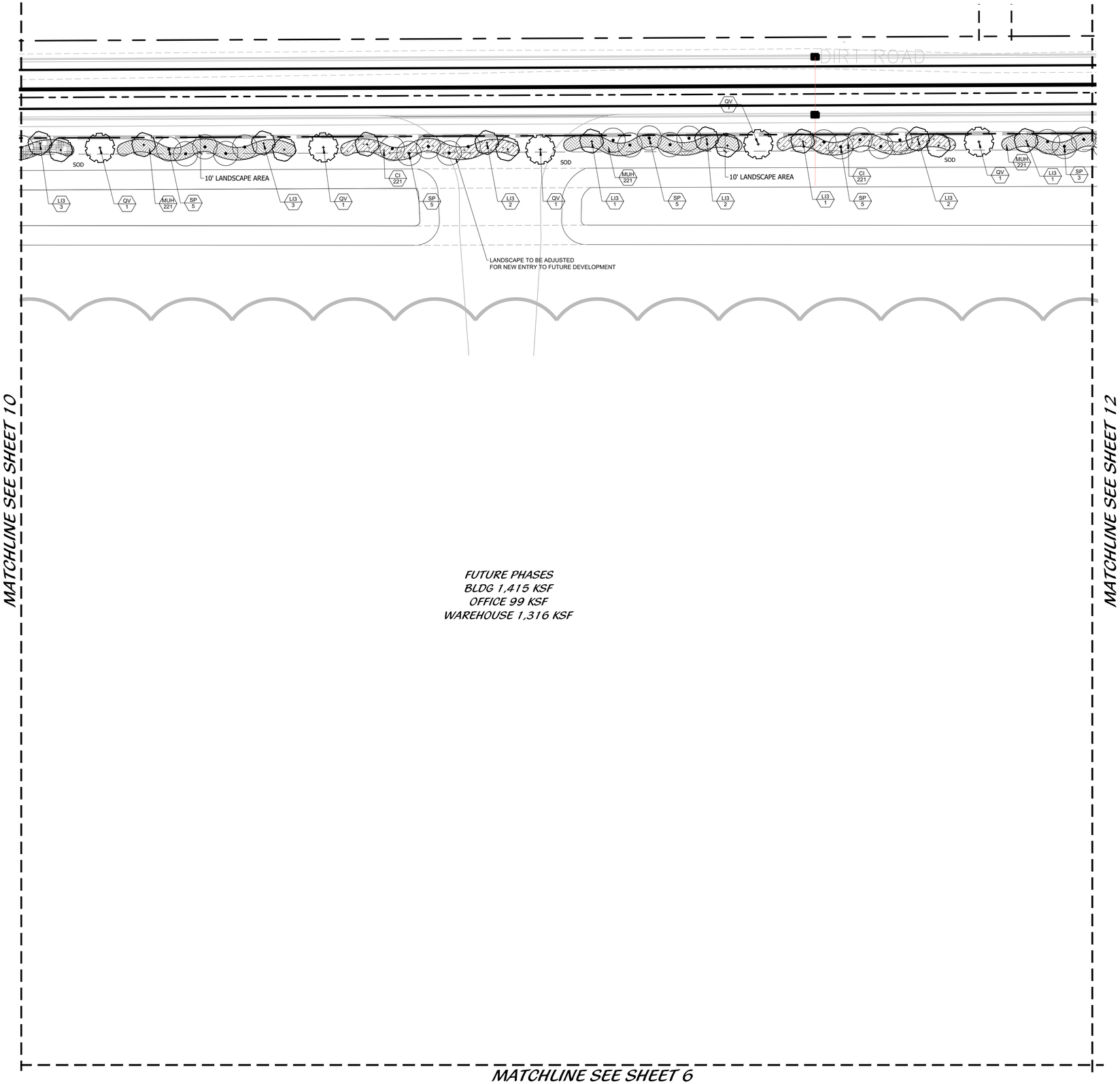


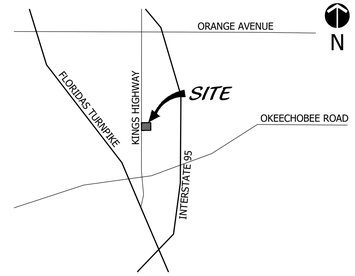
MATCHLINE SEE SHEET 10

MATCHLINE SEE SHEET 12

FUTURE PHASES
BLDG 1,415 KSF
OFFICE 99 KSF
WAREHOUSE 1,316 KSF

MATCHLINE SEE SHEET 6

LOCATION MAP



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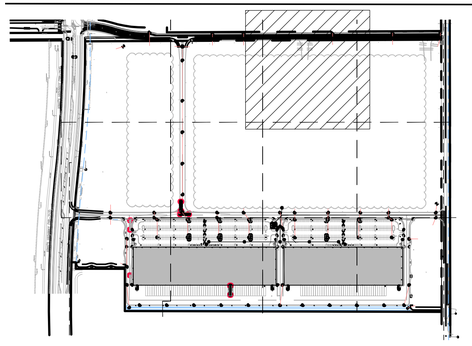

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SHEET 11 OF 13

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MATCHLINE SEE SHEET 11

SOD

SP 2 | LI3 2 | QV 1 | LI3 1 | CI 221 | SP 5 | LI3 2 | QV 1 | LI3 1 | MUH 221 | SP 5 | LI3 2 | QV 1 | LI3 1 | CI 221 | SP 5 | LI3 2 | QV 3

SOD

SP 5 | CU3 213

LANDSCAPE TO BE ADJUSTED
FOR NEW ENTRY TO FUTURE DEVELOPMENT

QV 2

SOD

PE2 5 | MUH 56

QV 2

PE2 5 | HD 56

QV 3

SOD

PE2 5 | MUH 56

QV 2

SOD

EXISTING OAK
TO REMAIN

QV 3

SOD

PE2 5 | HD 56 | QV 1

FUTURE PHASES
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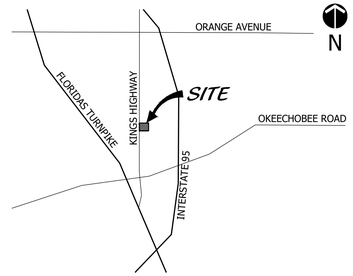
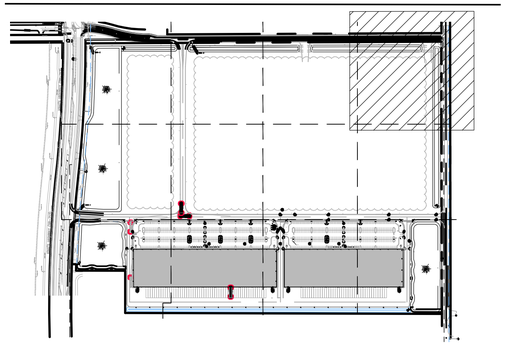
OFFICE 99 KSF
WAREHOUSE 1,316 KSF

MATCHLINE SEE SHEET 5

LOCATION MAP



SHEET LAYOUT MAP



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SHEET 12 OF 13

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LANDSCAPE NOTES

ALL PLANT MATERIAL SHALL BE FLORIDA NUMBER 1 OR BETTER AS DEFINED BY THE DIVISION OF PLANT INDUSTRY 'FLORIDA GRADES AND STANDARDS' LATEST EDITION.

ALL LANDSCAPE SHALL CONFORM TO THE REQUIREMENTS OF THE TOWN OF JUPITER LAND DEVELOPMENT REGULATIONS. THE TOWN OF JUPITER LANDSCAPE CODE (LDRs) SHALL GOVERN IN THE EVENT OF A CONFLICT.

VEGETATION REMOVAL PERMITS ARE REQUIRED PRIOR TO REMOVING, CLEARING OR STRIPPING ANY VEGETATION FROM THE PROPERTY.

AT THE TIME OF BUILDING PERMIT, THE APPLICANT SHALL EXECUTE HOLD HARMLESS AGREEMENTS WITH ALL APPLICABLE UTILITIES FOR LANDSCAPING WITHIN UTILITY EASEMENTS.

THE LANDSCAPE CONTRACTOR SHALL NOT MAKE ANY SUBSTITUTIONS AND/ OR CHANGES WITHOUT THE AUTHORIZATION OF TOWN OF JUPITER, THE OWNER AND THE LANDSCAPE ARCHITECT.

THE LANDSCAPE CONTRACTOR SHALL REVIEW THE PROJECT DRAINAGE AND UTILITY PLANS PRIOR TO CONSTRUCTION AND AVOID ALL CONFLICTS. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK.

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS.

THE CONTRACTOR SHALL COORDINATE THE PLANTING AND TRIMMING OF STREET TREES TO ENSURE FULL VISIBILITY TO TRAFFIC CONTROL AND SAFETY SIGNAGE

TREES SHALL BE POSITIONED TO AVOID CONFLICTS WITH SIGNAGE AND SITE LIGHTING. LARGER TREES WILL BE PROVIDED AT INTERSECTIONS WHERE DEEMED NECESSARY.

ALL VEGETATION SHALL BE SELECTED AND POSITIONED SO THAT IT DOES NOT PRESENT OBSTRUCTIONS TO THE LINE OF SIGHT AT INTERSECTIONS PURSUANT TO SECTION 27-126(a)(9)(c) OF THE TOWN OF JUPITER CODE.

ALL ABOVE GROUND UTILITIES I.E. TRANSFORMERS, SWITCH BOXES, AC CONDENSERS AND ALIKE SHALL BE FULLY SCREENED FROM VIEW ON THREE SIDES WITH LANDSCAPING. THE LANDSCAPING SHALL TO THE TALLEST POINT OF SAID EQUIPMENT AT TIME OF PLANTING.

ALL TREES SHALL BE LOCATED WITHIN A MULCH PLANTING BED WITH A MINIMUM OF TWO (2) FEET OF CLEARANCE TO THE EDGE OF THE BED.

SOD AND IRRIGATION SHALL BE INSTALLED IN ANY ADJACENT RIGHT OF WAY BETWEEN THE SIDEWALK AND THE CURB.

ALL SOD SHALL BE STENOTAPHRUM SECONDATUS FLORITAM-PALMETTO (ST. AUGUSTINE SOD).

TREES WITHIN PLANTING ISLANDS LESS THAN FIVE (5) FEET IN WIDTH SHALL BE LOCATED TO AVOID CONFLICTS WITH THE OVERHANG OF VEHICLES.

TYPE D RAISED CONCRETE CURBING SHALL BE PROVIDED AROUND ALL PLANTING ISLANDS WITHIN VEHICULAR USE AREAS.

TREES AT ENTRANCE WAYS AND WITHIN SIGHT TRIANGLES SHALL BE TRIMMED IN SUCH A FASHION TO MINIMIZE SITE VISIBILITY CONFLICTS. CLEAR VISIBILITY SHALL BE MAINTAINED BETWEEN 30 INCHES AND 7 FEET, TEN FOOT BY THIRTY FOOT SIGHT VISIBILITY TRIANGLES SHALL BE PROVIDED AT THE INTERSECTIONS WITH THE PUBLIC RIGHT OF WAY. IN ADDITION ALL LANDSCAPING SHALL CONFORM TO THE REQUIREMENTS OF FOOT INDEX 546.

EARTH BERMS SHALL NOT EXCEED A 3:1 SLOPE 4:1 SLOPES OR GREATER ARE PREFERABLE.

ALL TREES PLANTED UNDER OR ADJACENT TO FPL POWER LINES WILL COMPLY WITH THE FPL RIGHT TREE IN THE RIGHT PLACE GUIDELINES (REV 5/95)

PERIMETER TREES AT THE TIME OF PLANTING SHALL BE SPACED IN A WAY THAT COMPLEMENTS THE SPACING OF ANY EXISTING TREES ON ADJACENT DEVELOPED AREAS.

ALL LANDSCAPE ISLANDS AND BEDS SHALL BE FREE FROM SHELL ROCK AND CONSTRUCTION DEBRIS, EXCAVATED TO A DEPTH OF 30 INCHES OR TO CLEAN NATIVE SOILS AND FILLED WITH THE SPECIFIED BACKFILL MIXTURE.

ALL LANDSCAPE ISLANDS SHALL INCORPORATE THE INSTALLATION OF MOUNDING OF NATIVE SOILS A MINIMUM OF SIX INCHES (6") ABOVE THE TOP OF CURB.

19.5" 'BIO BARRIER' ROOT BARRIER SHALL BE PROVIDED FOR SHADE TREES PLANTED WITHIN SIX (6') FEET OF PUBLIC CURBS, SIDEWALKS OR PUBLIC RIGHT OF WAYS. ALL ROOT BARRIER SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES RECOMMENDATIONS. THE TOTAL LENGTH OF THE ROOT BARRIERS SHALL BE 20' ADJACENT TO THE SIDEWALK AND 20' ADJACENT TO THE CURB.

ALL AREAS SHALL BE FULLY IRRIGATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF JUPITER. THE IRRIGATION WATER SOURCE SHALL BE WELL WATER FOR COMMON AREAS AND POTABLE WATER AROUND THE BUILDING FOUNDATION.

CATCH BASINS AND DRAINAGE SHALL NOT BE LOCATED WITH IN REQUIRED PERIMETER BUFFERS OR PRESERVE AREAS.

THE IRRIGATION SYSTEM SHALL BE DESIGNED TO PROVIDE 100% OVERLAP COVERAGE TO ALL LANDSCAPE AND SOD AREAS.

THE IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN SENSOR/CUT OFF SWITCH IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.

EXISTING TREES AND VEGETATION TO REMAIN SHALL BE STAKED AND BARRICADED PRIOR TO ANY LAND CLEARING. TREES TO BE RELOCATED SHALL BE ROOT PRUNED AND PROTECTED DURING CONSTRUCTION.

ALL TREES PROPOSED TO BE PRESERVED ON SITE SHALL BE PROTECTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN DIVISION IV., VEGETATION REMOVAL REQUIREMENTS IN THE TOWN OF JUPITER CODE PRIOR TO THE ISSUANCE OF A C.O.

ANY AREA DESIGNATED WITH EXISTING VEGETATION TO REMAIN THAT IS DISTURBED DURING CONSTRUCTION WILL BE RESTORED WITH NATIVE PLANTINGS.

EXISTING TREES PRESERVED OR RELOCATED ON SITE SHALL BE PRUNED ACCORDING TO ANSI A300 STANDARDS OR BY AN ISA CERTIFIED ARBORIST.

ALL EXISTING LANDSCAPING AND TREES TO REMAIN SHALL BE BARRICADED WITH ORANGE CONSTRUCTION BARRICADE. THE BARRICADE SHALL BE INSTALLED AT THE DRIP LINE OF THE TREE/PALM OR AT THE EDGE OF THE SHRUB MASS. BARRICADES SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF CONSTRUCTION.

EXISTING, SUITABLE NATIVE VEGETATION LOCATED WITHIN THE PROPOSED DEVELOPMENT AREAS SHALL BE RELOCATED TO SUPPLEMENT THE LANDSCAPING. NATIVE VEGETATION SHALL BE RELOCATED BY TREE SPADE OR CRANE. PRIOR TO THE CLEARING OF THE SITE THE APPLICANT SHALL IDENTIFY ALL NATIVE VEGETATION TO BE RELOCATED.

RELOCATION METHODOLOGY: EXISTING NATIVE VEGETATION DETERMINED TO BE SUITABLE FOR RELOCATION SHALL BE RELOCATED TO TARGET AREAS USING HYDROLOGIC TREE SPADES. THE SIZE OF SPADE SHALL VARY FROM 90" TO 45" DEPENDING ON THE SIZE AND TYPE OF VEGETATION TO BE MOVED. THE APPLICANT SHALL IDENTIFY PRIOR TO THE CLEARING OF THE SITE ALL EXISTING NATIVE VEGETATION TO BE RELOCATED. FOLLOWING RELOCATION, VEGETATION SHALL BE WATERED DAILY FOR A PERIOD NOT LESS THAN 90 DAYS AFTER WHICH IT SHALL BE WATERED ON AN AS NEED BASIS TO INSURE SURVIVAL. AT A MINIMUM THE APPLICANT SHALL INSURE 60% SURVIVAL FOR ALL RELOCATED PLANT MATERIAL.

LANDSCAPE SPECIFICATIONS

1. GENERAL LANDSCAPE REQUIREMENTS

LANDSCAPE CONTRACT WORK INCLUDES, BUT IS NOT LIMITED TO, SOIL PREPARATION, FINE OR FINISH GRADING, FURNISHING AND INSTALLING PLANT MATERIAL, WATERING, STAKING, GUYING AND MULCHING.

PLANT SIZE AND QUALITY

TREES, PALMS, SHRUBS, GROUNDCOVERS:
PLANT SPECIES AND SIZES SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS, NOMENCLATURE SHALL CONFORM TO STANDARD PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS PARTS I & II, LATEST EDITION PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE FLORIDA GRADE NUMBER 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY.

ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS OF GOOD QUALITY AND BE IN A HEALTHY GROWING CONDITION.

AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER.

STANDARD PLANTING MIXTURE SHALL BE ONE (1) PART RECYCLED ORGANIC MATERIAL ADDED TO THREE (3) PARTS EXISTING NATIVE SOIL.

REPLACEMENT SOIL SHALL BE USED AS SPECIFIED TO REPLACE EXISTING SOILS THAT ARE DETERMINED BY THE LANDSCAPE ARCHITECT TO BE UNSUITABLE FOR PLANTING, IE. ROAD BASE, PAVEMENT, ETC. REPLACEMENT SOIL MIX SHALL CONTAIN 60% SAND AND 40% MUCK. SAND SHALL BE 100% CLEAN NATIVE SAND SCREENED TO 1/4" AND MUCK SHALL BE 100% CLEAN ORGANIC NATIVE MUCK SCREENED TO 1/2". ALL SOIL SHALL BE MIXED PRIOR TO DELIVERY ON SITE.

MULCH SHALL BE SHREDDED MELALEUCA, EUCALYPTUS OR GRADE "A" RECYCLED. ALL MULCH IS TO BE APPLIED TO A DEPTH OF 3", EXCEPT AS OTHERWISE NOTED.

FERTILIZER IN BACKFILL MIXTURE FOR ALL PLANTS SHALL CONSIST OF MILORGANITE ACTIVATED SLUDGE MIXED WITH THE BACKFILL AT A RATE OF NOT LESS THAN 50 LBS. PER CUBIC YARD.

FERTILIZER FOR TREES AND SHRUBS MAY BE TABLET FORM OR GRANULAR. GRANULAR FERTILIZER SHALL BE UNIFORM IN COMPOSITION, DRY AND FREE-FLOWING. THIS FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED BAGS, EACH BEARING THE MANUFACTURER'S STATEMENT OF ANALYSIS, AND SHALL MEET THE FOLLOWING REQUIREMENTS: 16% NITROGEN, 7% PHOSPHORUS, 12% POTASSIUM, PLUS IRON. TABLET FERTILIZER (AGRIFORM OR EQUAL) IN 21 GRAM SIZE SHALL MEET THE FOLLOWING REQUIREMENTS: 20% NITROGEN, 10% PHOSPHORUS AND 5% POTASSIUM.

FERTILIZER WILL BE APPLIED AT THE FOLLOWING RATES:

PLANT SIZE	16-7-12	AGRIFORM TABLETS (21 GRAM)
1 GAL.	1/4 LB.	1
3 GAL.	1/3 LB.	3
7-15 GAL.	1/2 LB.	6
1"-6" CALIPER	2 LBS./1" CALIPER	2 PER 1" CALIPER
6" AND LARGER	3 LBS./1" CALIPER	2 PER 1" CALIPER

"FLORIDA EAST COAST PALM SPECIAL" SHALL BE APPLIED TO ALL PALMS AT INSTALLATION AT A RATE OF ½ LB. PER INCH OF TRUNK UNLESS OTHERWISE SPECIFIED.

FIELD GROWN TREES AND PALMS PREVIOUSLY ROOT PRUNED SHALL OBTAIN A ROOT BALL WITH SUFFICIENT ROOTS FOR CONTINUED GROWTH WITHOUT RESULTING SHOCK.

CONTRACTOR SHALL NOT MARK OR SCAR TRUNK IN ANY FASHION.

PLANTS SHALL BE WATERED AS NECESSARY OR WITHIN 24 HOURS AFTER NOTIFICATION BY THE LANDSCAPE ARCHITECT.

THE LOCATIONS OF PLANTS, AS SHOWN IN THESE PLANS, ARE APPROXIMATE. THE FINAL LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN FIELD CONDITIONS. MAJOR ADJUSTMENTS TO THE LAYOUT ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT.

ALL PLASTIC FABRIC SHALL BE REMOVED FROM PLANT MATERIAL AT TIME OF INSTALLATION.

ALL TREES MUST BE STAKED AS SHOWN ON THE PLANTING DETAILS WITHIN 24 HOURS OF PLANTING. STAKES TO REMAIN FOR A MINIMUM OF 9 MONTHS, BUT NO LONGER THAN 18 MONTHS. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF THE STAKES.

ALL TREES MUST BE PRUNED AS PER LANDSCAPE ARCHITECT'S DIRECTION. SABAL PALMS MAY BE HURRICANE CUT.

ALL SHRUBS, TREES AND GROUND COVER WILL HAVE IMPROVED SOIL AS PER PLANTING SOIL NOTES. THE SOILS SHALL BE PLACED IN THE HOLE DURING PLANTING. TOP DRESSING ONLY IS NOT ACCEPTABLE.

DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. ALL TREES SHALL BE SPIKED IN UTILIZING WATER AND A TREE BAR.

THE LANDSCAPE CONTRACTOR SHALL WATER, MULCH, WEED, PRUNE, AND OTHERWISE MAINTAIN ALL PLANTS, INCLUDING SOD, UNTIL COMPLETION OF CONTRACT OR ACCEPTANCE BY LANDSCAPE ARCHITECT. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE, PLANTING SAUCERS RESTORED, AND DEFECTIVE WORK CORRECTED.

THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR DEBRIS CAUSED BY HIS CREWS DURING THE PERFORMANCE OF THE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROMPTLY REMOVE ALL WASTE MATERIALS, DEBRIS, UNUSED PLANT MATERIAL, EMPTY PLANT CONTAINERS AND ALL EQUIPMENT FROM THE PROJECT SITE.

UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND REQUEST A FINAL INSPECTION. ANY ITEMS THAT ARE JUDGED INCOMPLETE OR UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE SHALL BE CORRECTED BY THE LANDSCAPE CONTRACTOR WITHIN 14 DAYS.

ALL LABOR AND MATERIAL FOR SOIL AMENDMENTS AND FERTILIZER THAT IS REQUIRED TO INSURE THE SUCCESSFUL ESTABLISHMENT AND SURVIVAL OF THE PROPOSED VEGETATION, AS WELL AS ALL THE COST FOR THE REMOVAL OF UNSUITABLE OR EXCESS BACKFILL MATERIAL, SHALL BE INCLUDED IN THE CONTRACTOR'S BID TO PERFORM THE WORK REPRESENTED IN THIS PLAN SET.

2. PLANTING TREES

EXCAVATE PIT AS PER PLANTING DETAILS.

BACKFILL AROUND BALL WITH STANDARD PLANTING MIXTURE AND SLIGHTLY COMPACT, WATER THOROUGHLY AS LAYERS ARE PLACED TO ELIMINATE VOIDS AND AIR POCKETS. BUILD A 6" HIGH BERM OF STANDARD PLANTING MIXTURE BEYOND EDGE OF EXCAVATION. APPLY 3" (AFTER SETTLEMENT) OF MULCH EXCEPT WITHIN 6" OF TRUNK.

PRUNE TREE TO REMOVE DAMAGED BRANCHES, IMPROVE NATURAL SHAPE AND THIN OUT STRUCTURE. DO NOT REMOVE MORE THAN 15% OF BRANCHES. DO NOT PRUNE BACK TERMINAL LEADER.

GUY AND STAKE TREE IN ACCORDANCE WIT THE STAKING DETAILS IMMEDIATELY AFTER PLANTING.

3. PLANTING SHRUBS

LAYOUT SHRUBS TO CREATE A CONTINUOUS SMOOTH FRONT LINE AND FILL IN BEHIND.

EXCAVATE PIT OR TRENCH TO 1-1/2 TIMES THE DIAMETER OF THE BALLS OR CONTAINERS OR 1'-0" WIDER THAN THE SPREAD OF ROOTS FOR POSITIONING AT PROPER HEIGHT. BACKFILL AROUND PLANTS WITH STANDARD PLANTING MIXTURE, COMPACTED TO ELIMINATE VOIDS AND AIR POCKETS. FORM GRADE SLIGHTLY DISHED AND BERMED AT EDGES OF EXCAVATION. APPLY 3" OF MULCH EXCEPT WITHIN 3" OF STEMS.

PRUNE SHRUBS TO REMOVE DAMAGED BRANCHES, IMPROVE NATURAL SHAPE AND THIN OUT STRUCTURE. DO NOT REMOVE MORE THAN 15% OF BRANCHES.

4. PLANTING GROUND COVER

LOOSEN SUBGRADE TO DEPTH OF 4" IN AREAS WHERE TOPSOIL HAS BEEN STRIPPED AND SPREAD SMOOTH.

SPACE PLANTS AS OTHERWISE INDICATED. DIG HOLES LARGE ENOUGH TO ALLOW SPREADING OF ROOTS. COMPACT BACKFILLTO ELIMINATE VOIDS AND LEAVE GRADE SLIGHTLY DISHED AT EACH PLANT. WATER THOROUGHLY. APPLY 3" OF MULCH OVER ENTIRE PLANTING BED, LIFTING PLANT FOLIAGE ABOVE MULCH.

DURING PERIODS OF HOT SUN AND/OR WIND AT TIME OF PLANTING, PROVIDE PROTECTIVE COVER FOR SEVERAL DAYS OR AS NEEDED.

5. PLANTING LAWNS

SODDING: SOD TYPE SPECIFIED ON PLANT LIST SHALL BE MACHINE STRIPPED NOT MORE THAN 24 HOURS PRIOR TO LAYING.

LOOSEN SUBGRADE TO DEPTH OF 4" AND GRADE WITH TOPSOIL EITHER PROVIDED ON SITE OR IMPORTED STANDARD PLANTING MIX TO FINISH DESIGN ELEVATIONS. ROLL PREPARED LAWN SURFACE. WATER THOROUGHLY, BUT DO NOT CREATE MUDDY SOIL CONDITION.

FERTILIZE SOIL AT THE RATE OF APPROXIMATELY 10 LBS. PER 1,000 S.F. SPREAD FERTILIZER OVER THE AREA TO BE LEVELED BY USING AN APPROVED DISTRIBUTION DEVICE CALIBRATED TO DISTRIBUTE THE APPROPRIATE QUANTITY. DO NOT FERTILIZE WHEN WIND VELOCITY EXCEEDS 15 M.P.H. THOROUGHLY MIX FERTILIZER INTO THE TOP 2" OF TOPSOIL.

LAY SOD STRIPS WITH TIGHT JOINTS, DO NOT OVERLAP, STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. WORK SIFTED STANDARD PLANTING MIXTURE INTO MINOR CRACKS BETWEEN PIECES OF SOD AND REMOVE EXCESS SOIL DEPOSITS FROM SODDED AREAS. SOD ON SLOPES GREATER THAN 3:1 SHALL BE STAKED IN PLACE. ROLL OR STAMP LIGHTLY AND WATER THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.

6. MISCELLANEOUS LANDSCAPE WORK

LANDSCAPE MAINTENANCE

MAINTAIN LANDSCAPE WORK UNTIL FINAL ACCEPTANCE IS ISSUED BY THE OWNER'S REPRESENTATIVE. INCLUDE WATERING, WEEDING, CULTIVATING, RESTORATION OF GRADE, MOWING AND TRIMMING GRASS, PRUNING TREES AND SHRUBS, PROTECTION FROM INSECTS AND DISEASES, FERTILIZING AND SIMILAR OPERATIONS AS NEEDED TO INSURE NORMAL GROWTH AND GOOD HEALTH FOR LIVE PLANT MATERIAL.

PLANT MATERIAL SUBSTITUTION

NO SUBSTITUTION OF PLANT MATERIAL, TYPE OR SIZES WILL BE PERMITTED WITHOUT AUTHORIZATION FROM THE LANDSCAPE ARCHITECT.

PLANTING BED PREPARATION

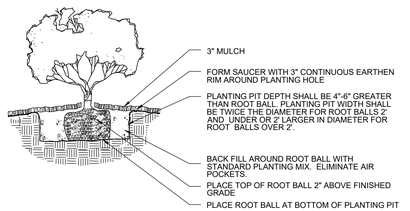
ALL PLANTING BEDS SHALL BE PROPERLY PREPARED PRIOR TO THE COMMENCEMENT OF ANY PLANTING. PLANTING AREAS, INCLUDING LAWNS SHALL BE FREE OF ALL WEEDS AND NUISANCE VEGETATION. IF TORPEDO GRASS (PANICUM REPENS) IS PRESENT OR ENCOUNTERED DURING PLANTING, THE LANDSCAPE CONTRACTOR SHALL STOP ALL PLANTING UNTIL IT CAN BE DEMONSTRATED THAT IT HAS BEEN COMPLETELY REMOVED OR ERADICATED. THERE SHALL BE NO EXCEPTIONS TO THIS PROVISION.

ALL LANDSCAPE ISLANDS AND BEDS WILL BE FREE OF SHELL ROCK AND CONSTRUCTION DEBRIS AND WILL BE EXCAVATED TO A DEPTH OF 30 INCHES OR TO CLEAN, NATIVE SOIL AND FILLED WITH THE SPECIFIED REPLACEMENT SOIL.

LANDSCAPE WARRANTY

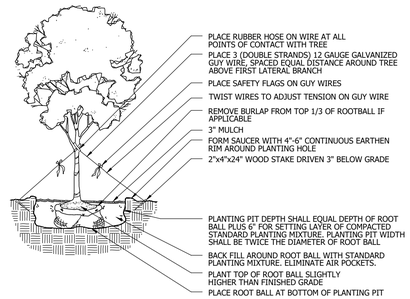
THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF SIX (6) MONTHS FROM THE DATE OF CONDITIONAL ACCEPTANCE IN WRITING FROM THE LANDSCAPE ARCHITECT. AT THE TIME OF CONDITIONAL ACCEPTANCE, THE SIX (6) MONTH PERIOD SHALL COMMENCE. ANY MATERIALS WHICH HAVE DIED OR DECLINED TO THE POINT WHERE THEY NO LONGER MEET FLORIDA #1 CONDITION DURING THIS PERIOD SHALL BE PROMPTLY REPLACED WITH SPECIMENS THAT MEET THE MINIMUM REQUIREMENTS CALLED FOR ON THE DRAWINGS. THE LANDSCAPE CONTRACTOR SHALL NOT BE HELD RESPONSIBLE FOR THE DEATH OR DAMAGE RESULTING FROM ACTS OF GOD SUCH AS LIGHTNING, VANDALISM, AND AUTOMOBILES OR FROM NEGLIGENCE BY THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND OTHERWISE MAINTAINING PLANTS UP TO THE CONDITIONAL ACCEPTANCE PERIOD, UNLESS A WRITTEN AGREEMENT WITH THE LANDSCAPE ARCHITECT PROVIDES FOR A DIFFERENT ARRANGEMENT.

PLANTING DETAILS



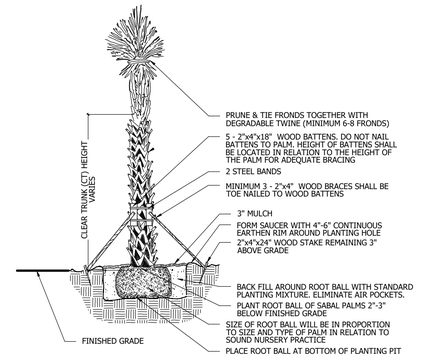
SHRUB/GROUNDCOVER PLANTING DETAIL

NTS



LARGE TREE PLANTING DETAIL

NTS



PALM PLANTING DETAIL

NTS

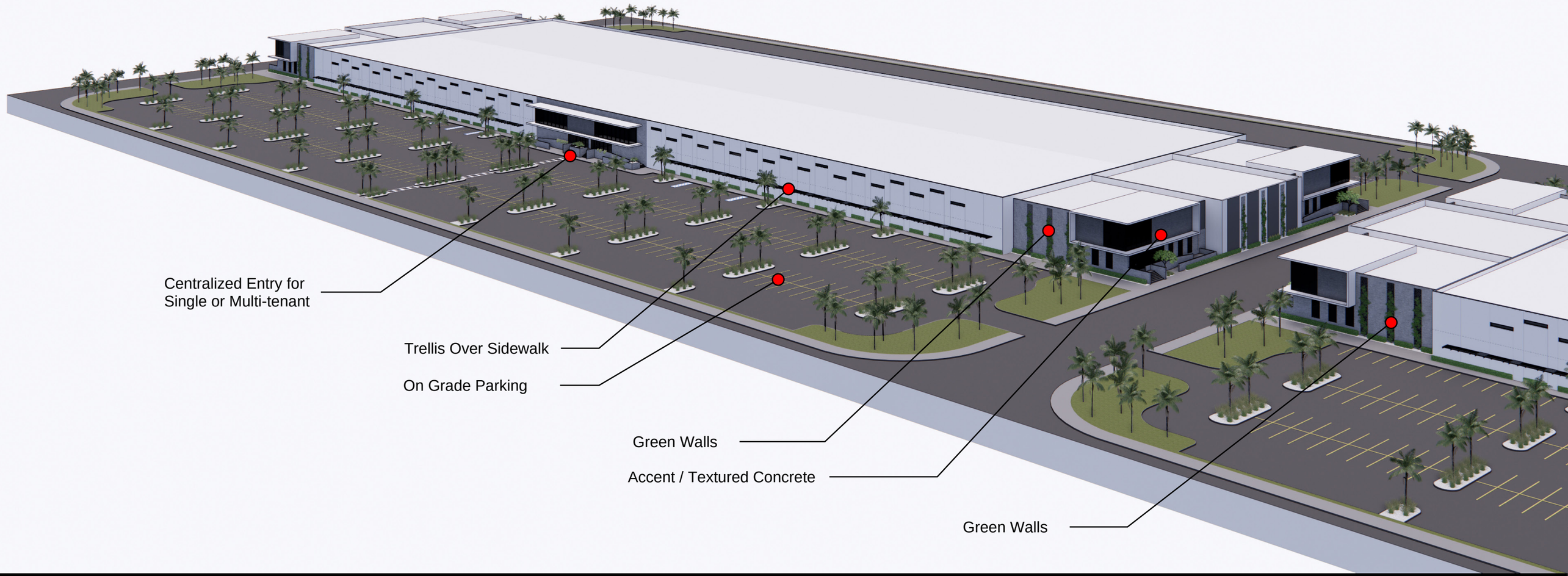
PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE	NATIVE	LOW MAINT	REMARKS
CE	31	CONOCARPUS ERECTUS	GREEN BUTTONWOOD	30 GAL. OR F.G.	2.5" CAL	12` O.A.	Y		FULL CANOPY
LI3	74	LAGERSTROEMIA INDICA `MUSKOGEE`	CRAPE MYRTLE	65 GAL. MIN.	2.5" CAL.	12` O.A.X 5` SPRD	N	N	FULL & THICK CANOPY, FLORIDA FANCY, 5` C.T.
LJ65	8	LIGUSTRUM JAPONICUM	JAPANESE PRIVET	65 gal	3 TRK MIN., 1"-2" CAL. EA.	8` HT, 8` SPRD.	N		FULL CANOPY, 4` CT., MULTI-TRUNK, FF
MDD	24	MAGNOLIA GRANDIFLORA `D.D. BLANCHARD`	SOUTHERN MAGNOLIA	200 gal	5" CAL	20` OA	Y		FULL CANOPY, SOUTH GROWN, MATCHING
PE2	61	PINUS ELLIOTTII `DENSA`	SLASH PINE	N.A.		10-12` OA	Y		FULL CANOPY; PLANTED IN PRESERVE
PP	24	POLYALTHIA LONGIFOLIA PENDULA	INDIAN MAST TREE	45 GAL	2" CAL. MIN	12`-14` HT.	N		FULL & THICK, MATCHED
QV	380	QUERCUS VIRGINIANA	LIVE OAK	30 GAL. OR F.G.	2" CAL. MIN	12` HT. X 5` SPRD.	Y		FULL CANOPY, 4` CT MIN.
TH	11	TABEBUIA HETEROPHYLLA	PINK TABEBUIA	45 GAL	2" CAL. MIN	12` HT X 4`-5` SPRD	N		FULL CANOPY, 4` CT
PALM TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**CAL**	**SIZE**	**NATIVE**	**LOW MAINT**	**REMARKS**
CH1	17	CHAMAEROPS HUMILIS ~	EUROPEAN FAN PALM	FIELD GROWN	N.A.	5`-6` O.A.		N	3 STEMS MIN., 2` STEM FOOTAGE PER TRUNK; LIMB UP 2` , FULL & THICK, MATCHED.
LN	47	LIVISTONA NITIDA ^	NITIDA PALM	FIELD GROWN	N.A.	14`-16` OA			FULL CANOPY, DIAMOND CUT, FLORIDA FANCY.
PHM	9	PHOENIX DACTYLIFERA `MEDJOOL`	MEDJOOL DATE PALM	FIELD GROWN	N.A.	10`-12` WD.	N		STRAIGHT TRUNK, FULL CANOPY, DIAMOND CUT. HT.
SP	145	SABAL PALMETTO	CABBAGE PALM	N.A.	N.A.	14`, 18`, 22` STGG.	Y		SLICK, STRAIGHT TRUNK, NEW OR RELOCATED FROM ON SITE
TR2	14	THRINAX RADIATA	FLORIDA THATCH PALM	FG	N.A.	8` - 10` HT.	Y		FULL & THICK.
SIGNATURE PALM	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**CAL**	**SIZE**	**NATIVE**	**LOW MAINT**	**REMARKS**
XP	34	X BUTIAGRUS NABONNANDII	MULE PALM	FG		8` CT.			MATCHING
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**SIZE**	**SPACE**	**NATIVE**	**LOW MAINT**	**REMARKS**
AGG	18	AGAVE AMERICANA `GAINESVILLE BLUE`	GAINESVILLE BLUE AGAVE	30 GAL	4`-5` O.A. X 3`-4` SPRD.	A.S.	N		FULL & THICK
CLD15	33	CLUSIA GUTTIFERA	CLUSIA	15 GAL	6` HT. X 3` SPRD.	3` O.C.	N		FULL & THICK
PM7	227	PODOCARPUS MAKII	PODOCARPUS	7 gal	3` X 2`	2` O.C.	N		FULL & THICK
PM15	194	PODOCARPUS MAKII~	PODOCARPUS	15 gal	5` O.A., 2` SPRD	2` O.C.	N		FULL & THICK
TJ	24	TRACHELOSPERMUM JASMINOIDES	JASMINE VINE	25 GAL	10-12` O.A.	A.S.			CLIMBING
GROUND COVERS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**SIZE**	**SPACE**	**NATIVE**	**LOW MAINT**	**REMARKS**
	18,507 sf	LITTORAL PLANTING							
EP	1,026	ELEOCHARIS PALUSTRIS	GREAT SPIKE RUSH	1 GAL	6" X 6"	3` OC	N		FULL & THICK
PC	727	PONTEDERIA CORDATA	PICKEREL WEED	1 GAL	6" HT	3` OC	Y		FULL & THICK
TG	713	THALIA GENICULATA	FIRE FLAG	1 GAL	6" HT	3` OC	Y		FULL & THICK
CI	3,122	CHRYSOBALANUS ICACO	COCOPLUM	3 GAL	18" X18"	30" O.C.	Y		FULL & THICK
CID	776	CHRYSOBALANUS ICACO `HORIZONTAL`	DWARF COCOPLUM	3 GAL	12" x 12"	24" O.C.	Y		FULL & THICK, NOT STRETCHED, FF
CU3	894	COCCOLOBA UVIFERA	SEA GRAPE	3 GAL	24" X 24"	24" O.C.	Y		FULL & THICK
ER	172	EUPHORBIA MILLII `ROSY`	CROWN OF THORNS	3 GAL	12" x 12"	24" OC	N		FULL AND THICK
FG	526	FICUS MACROPHYLLA `GREEN ISLAND`	GREEN ISLAND FICUS	3 GAL	15" X 15"	24" O.C.	N		FULL & THICK
HD	1,244	HAMELIA PATENS `COMPACTA`	DWARF FIREBUSH	3 GAL	18" X 18"	24" O.C.	Y		FULL & THICK, FLORIDA NATIVE VARIETY
IV	388	ILEX VOMITORIA `SHILLINGS DWARF`	DWARF YAUPON HOLLY	3 GAL	15" X 15"	24" O.C.	Y		FULL & THICK
MUH	3,081	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	3 GAL	24" X 24"	24" O.C.	Y		FULL &THICK
PD	548	PODOCARPUS MACROPHYLLUS `DWARF PRINGLES` ~	DWARF PODOCARPUS	3 GAL	15" X 15"	18" O.C.			FULL & THICK
RL	223	RONDELETIA LEUCOPHYLLA	PANAMA ROSE	3 GAL	18" X 18"	24" O

Kings Highway Commerce Park

Schematic Design Package


Loading Area
Access
Overhead Weather Protection
Clerestory Windows
Green Walls
Accent / Textured Concrete
Green Walls
Screen Wall
Van Access Ramp


Centralized Entry for
Single or Multi-tenant
Trellis Over Sidewalk
On Grade Parking
Green Walls
Accent / Textured Concrete
Green Walls



Kings Highway Commerce Park
Schematic Design Package



Kings Highway Commerce Park
Schematic Design Package

Kings Highway Commerce Park
Schematic Design Package



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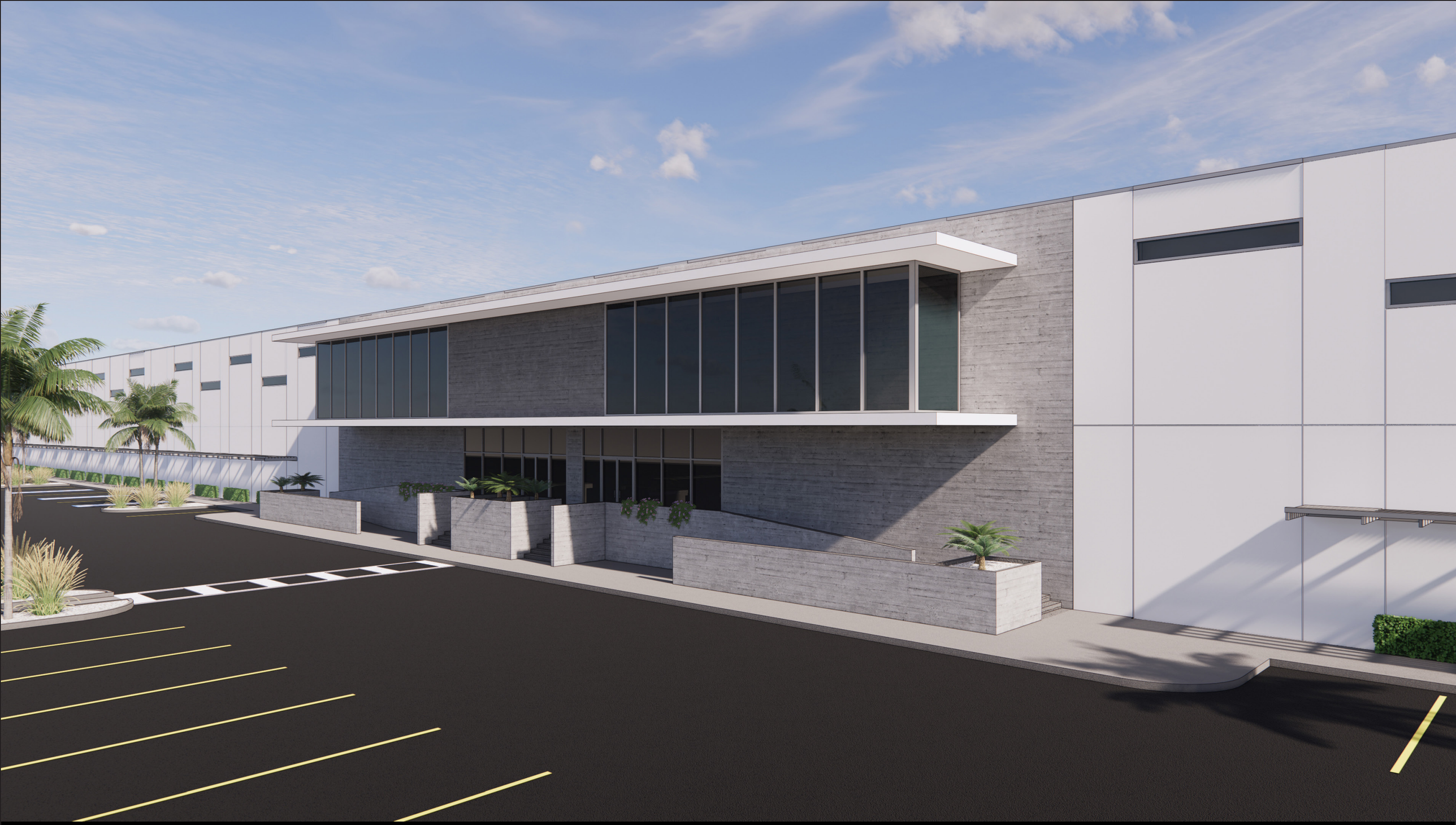
Schematic Design Package



Kings Highway Commerce Park
Schematic Design Package

Kings Highway Commerce Park
Schematic Design Package

Kings Highway Commerce Park
Schematic Design Package





Kings Highway Commerce Park
Schematic Design Package

Kings Highway Commerce Park
Schematic Design Package

The proposed design looks to integrate non-typical warehouse/tilt building architectural features to reduce the scale of the buildings and create an office building scale and asethetic.



Kings Highway Commerce Park
Schematic Design Package

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Kings Highway Commerce Park
Schematic Design Package

The proposed design looks to integrate non-typical warehouse/tilt building architectural features to reduce the scale of the buildings and create an office building scale and asethetic.

Sherwin Williams Pure White SW 7005

Sherwin Williams Cyberspace SW 7076



Precast board formed concrete-exposed

Kings Highway Commerce Park
Schematic Design Package

Kings Highway

Write a description for your map.

Legend

2496 S Kings Hwy

Google Earth

©2021 Google

4.91 ft

N

Adjacent property Kings Hwy

Write a description for your map.

Legend

2496 S Kings Hwy

2019 Google

Google Earth

©2021 Google

6.87 ft

Adjacent property Peters Road

Write a description for your map.

Legend

2496 S Kings Hwy



Peters Road

Write a description for your map.

Legend

2496 S Kings Hwy

Google Earth

©2021 Google

6.56 ft

White road Adjacent Property

Write a description for your map.

Legend



White Road

Write a description for your map.

Legend

2496 S Kings Hwy



Motel 6

Write a description for your map.

Legend

- Motel 6 Ft Pierce

Google Earth
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2.75 ft

EW Consultants, Inc.
Natural Resource Management, Wetland, and Environmental Permitting Services

KINGS HIGHWAY PARCEL
ENVIRONMENTAL IMPACT REPORT

Prepared by:

EW CONSULTANTS, INC.

March 2021

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INTRODUCTION

The 109± acre-property covered by this Environmental Impact Report is located in Section 24, Township 35 South, Range 39 East, City of Ft. Pierce, Florida (Figures 1&2). The property is bordered to the north by White Road and agricultural lands, to the east by Peters Road and undeveloped land, to the south by undeveloped land and an RV vacation resort, and to the west by Kings Highway and agricultural lands.

This report has been prepared to document existing conditions, natural resources and potential environmental impacts on a 109 ± acre property referred to as the Kings Highway Parcel. The subject property is mostly undeveloped and currently utilized as unimproved pasture. This report has been prepared in accordance with City of Ft. Pierce, Land Development Ordinances and St. Lucie County, Land Development Code.

PROPERTY DESCRIPTION

The subject property is currently undeveloped except for a few residential structures along Peters Road on the eastern portion of the property, and a road construction staging area on the western portion of the property. The remainder of the land is utilized as unimproved pasture. Management practices and the presence of livestock were observed during the site assessment. Historical aerial imagery from c.1985 indicates that the majority of the property was previously planted with row crops which was likely citrus up to the mid-2000's. The unimproved pastures are now vegetated with typical pasture grasses, ruderal weeds and scattered clumps of trees and shrubs. A system of man-made ditches is present on the property, likely associated with prior agricultural uses for draining and irrigating the land.

SOILS

A soils map obtained from the USDA Web Soil Survey and with the property boundary is attached in the Appendix. According to the soil map, five soil types are found on the subject property. The description of these soils, in their natural state, according to the St. Lucie County Soil Survey is provided below:

Chobee loamy sands – Soils of the Chobee series are fine-loamy, siliceous, nearly level, very poorly drained, very slowly permeable soils that formed in unconsolidated, moderately fine marine sedi-ment. The water table is above the surface for 6 to 9 months in most years and is within 10 inches of the surface for most of the rest of the year except in very dry periods. Slope ranges from O to 2 percent. Under natural conditions, vegetation may consist of arrowhead, cabbage palm, Carolina willow, cypress, maidencane, pickerelweed, lilies, sawgrass, smartweed, wax myrtle, slash pine, water oak, understory of ferns and water tolerant grasses, and scattered swamp maples in treeless areas.

Pineda sand – Soils of the Pineda series are loamy, siliceous, poorly drained, slowly to very slowly permeable soils that formed in unconsolidated marine sandy and loamy materials. The water table is within a depth of 10 inches for 1 to 6 months and between depths of 10 to 40 inches for most of the rest of the year. Slope ranges from 0 to 2 inches. Under natural

conditions, vegetation consists of south Florida slash pine, cypress, myrtle, cabbage palm, blue maidencane, chalky bluestem, saw palmetto sedges, pineland threeawn, and sand cordgrass.

Riviera fine sand, 0 to 2 percent slopes – Soils of the Riviera series are loamy, siliceous, nearly level, poorly drained, slowly to very slowly permeable soils that formed in unconsolidated, marine sandy and loamy materials. The water table is within a depth of 10 inches for 2 to 4 months and between depths of 10 to 30 inches for most of the rest of the year. Depressional areas are ponded for 6 to 9 months or more annually. Nearly all of the acreage has been cleared and is planted to row crops/citrus or managed as pasture. Typical natural vegetation is cabbage palms and scattered longleaf pine and slash pine and an understory of wax myrtle and saw palmetto.

Wabasso sand – Soils of the Wabasso series are sandy, siliceous, nearly level, poorly drained, slowly and very slowly permeable soils that formed in beds of marine sandy and loamy materials. These soils are on broad flatwoods. In most years, the water table is within a depth of 10 inches for 1 to 4 months and between depths of 10 to 40 inches for 6 to 9 months. Slope ranges from 0 to 2 percent. The typical natural vegetation consists of longleaf pine, slash pine, cabbage palm, live oak, with an understory of saw palmetto, laurel oak, wax myrtle, chalky bluestem, creeping bluestem, indiangrass, little bluestem, Florida paspalum, running oak, south Florida slash pine and pineland threeawn.

Winder loamy sand – Soils of the Winder series are fine-loamy, siliceous, nearly level, poorly drained, slowly to very slowly permeable soils that formed in unconsolidated marine sand, and loamy mate-rials These soils are in hammocks, along poorly defined drainageways, and in depressional areas. A water table is within a depth of 10 inches for 2 to 4 months and between depths of 10 to 40 inches for most of the rest of the year. Depressional areas are ponded for 6 to 9 months in most years. Slope ranges from 0 to 2 percent. Typical natural vegetation consists of cordgrass, maidencane, cabbage palmetto, saw palmetto, and pineland threeawn.

NATURAL COMMUNITIES AND LAND COVER

The following is a summary of the land cover and vegetation communities found on the subject site. Land cover and vegetative community classifications were mapped based on the Florida Land Use, Cover and Forms Classification System (FLUCFCS) developed by the Florida Department of Transportation. Field reconnaissance and aerial photograph interpretation were employed in the mapping effort of the vegetative communities on the subject property. Observed and potential listed wildlife species presence and usage of the habitat is further discussed in the subsequent section of this report.

There are four different FLUCFCS classifications currently present on the site including (111) single family units, (140) commercial and services, (212) unimproved pasture, the ditches that network throughout the site are classified as streams and waterways (510).

A land cover map of the observed community types is included as Figure in the Appendix of this report. The land cover types observed on the property are described as follows:

111 Fixed Single Family Units – 9.3 ± acres

There are several single family and associated structures along the eastern portion of the property. Some appear dilapidated and uninhabited, and some appear maintained and inhabited. The property immediately surrounding these structures appears maintained and contains a variety of grasses, shrubs and trees, some landscaping and some natural.

140 Commercial Services – 7.4 ± acres
This area is located along the western portion of the property and appears to be utilized for road construction staging and storage. The area has been cleared of vegetation and the surface leveled and partially graveled.

212 Unimproved Pasture – 91.4 ± acres
This land cover accounts for the majority of the property where citrus and crops once existed. There is still evidence of rows and swales associated with prior uses, however the groundcover has been allowed to fill in and has possibly been supplemented with pasture grasses. Vegetation assemblages within this land cover type is predominantly short, herbaceous grass and ruderal weeds with dominant species including bahia grass, dropseed grass, guinea grass, dog fennel, ragweed, shrubby false buttonweed, pepperweed, Caesarweed and sandspur grass. Taller vegetation and trees consist mainly of Brazilian pepper, live oak, Australian pine, earleaf acacia and sabal palms. The remnant swales contain some wetland vegetation such as primrose willow, marsh purslane, spikerush and dollarweed.

510 Ditches – 0.9 ± acres
A system of drainage ditches extends throughout the property. The ditches are approximately 6-10 feet wide and are typically open water with scattered vegetation such as Carolina willow, primrose willow, cattail, and swamp fern.

WILDLIFE AND LISTED SPECIES

The pasture and ditch areas provide habitat for numerous wildlife species. Observations from the site visit conducted in March, 2021 included sightings or signs of great egret, white Ibis, glossy ibis, northern mocking bird, tri-colored heron, cattle egret, and raccoon.

Of these species observed, only the tri-colored heron is protected and listed by the State as a threatened species. The tri-colored heron was observed foraging in a ditch area and no nests were observed on the site. Although not observed, the site also provides suitable habitat for three Federally listed species, Audubon's crested caracara, wood stork, and eastern indigo snake. During the site plan approval process, the U.S Fish and Wildlife Service should be consulted for guidance and protection measures for these species.

The absence of natural habitat combined with active agricultural and land management practices has left the property unsuitable for most other listed species found in the region.

PROPOSED IMPACTS FROM DEVELOPMENT

Under the development proposal, the majority of the 109-acre site will be occupied with warehouse and office space with associated infrastructure such as parking and surface water

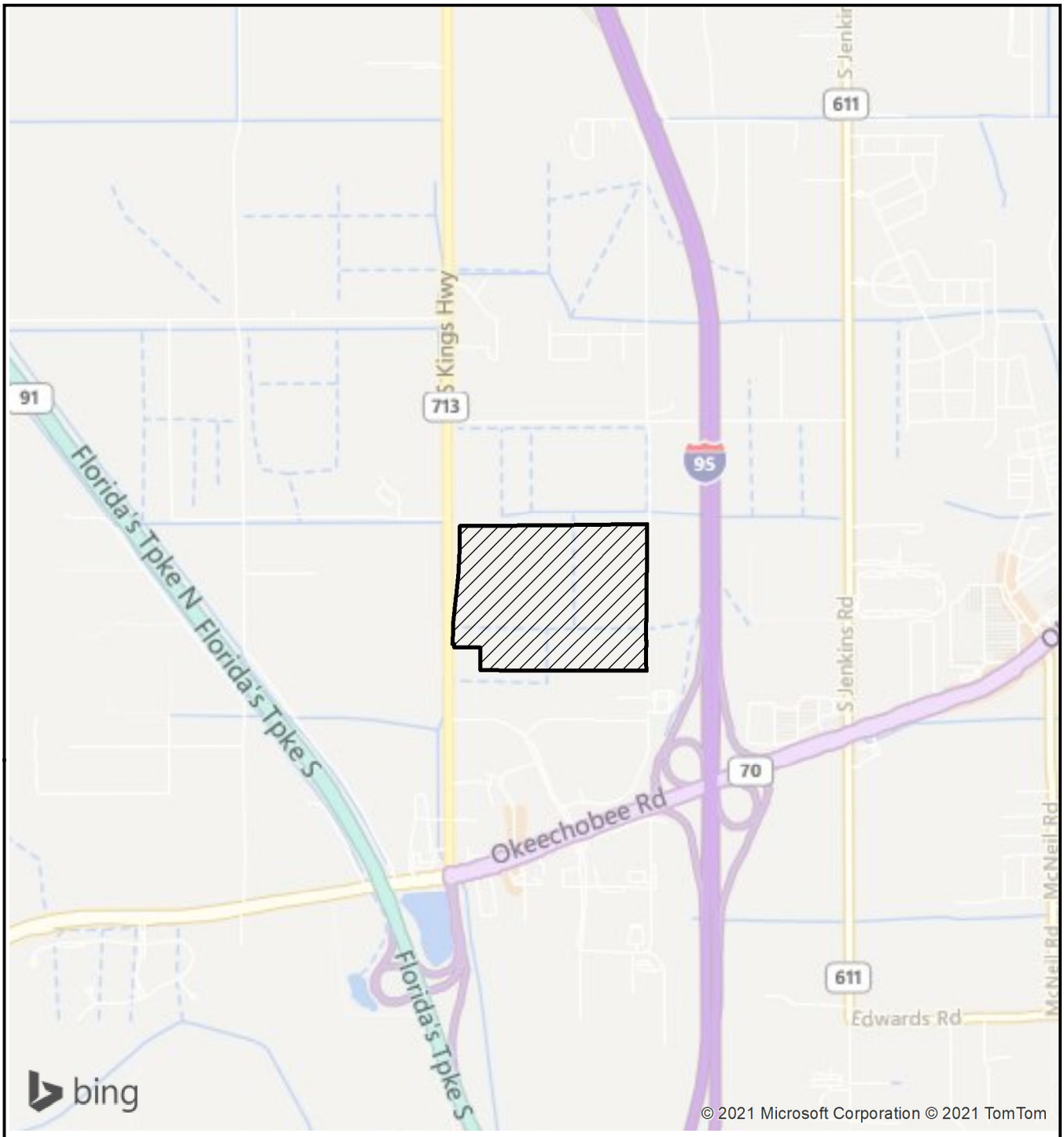
management systems. Because there is no significant native upland or native wetland habitat present on the site, the environmental impacts are minimal.

There are surface waters in the form of drainage ditches. Permits will be obtained from South Florida Water Management District (SFWMD) that will address impacts to surface waters. The proposed surface water management lakes will provide surface water area to offset the ditch impacts. Although federally listed species were not observed during the site assessment, U.S Fish and Wildlife Service will be consulted for guidance and protection measures for listed species habitat that occurs on the property.

APPENDIX

FIGURE 1. LOCATION MAP
FIGURE 2. QUAD MAP
FIGURE 3. AERIAL MAP
FIGURE 4. FLUCFCS MAP

ATTACHMENT
SOILS REPORT



LEGEND

- SITE (109+/- AC)

0 2,000 Feet

N

KINGS HIGHWAY PARCEL LOCATION

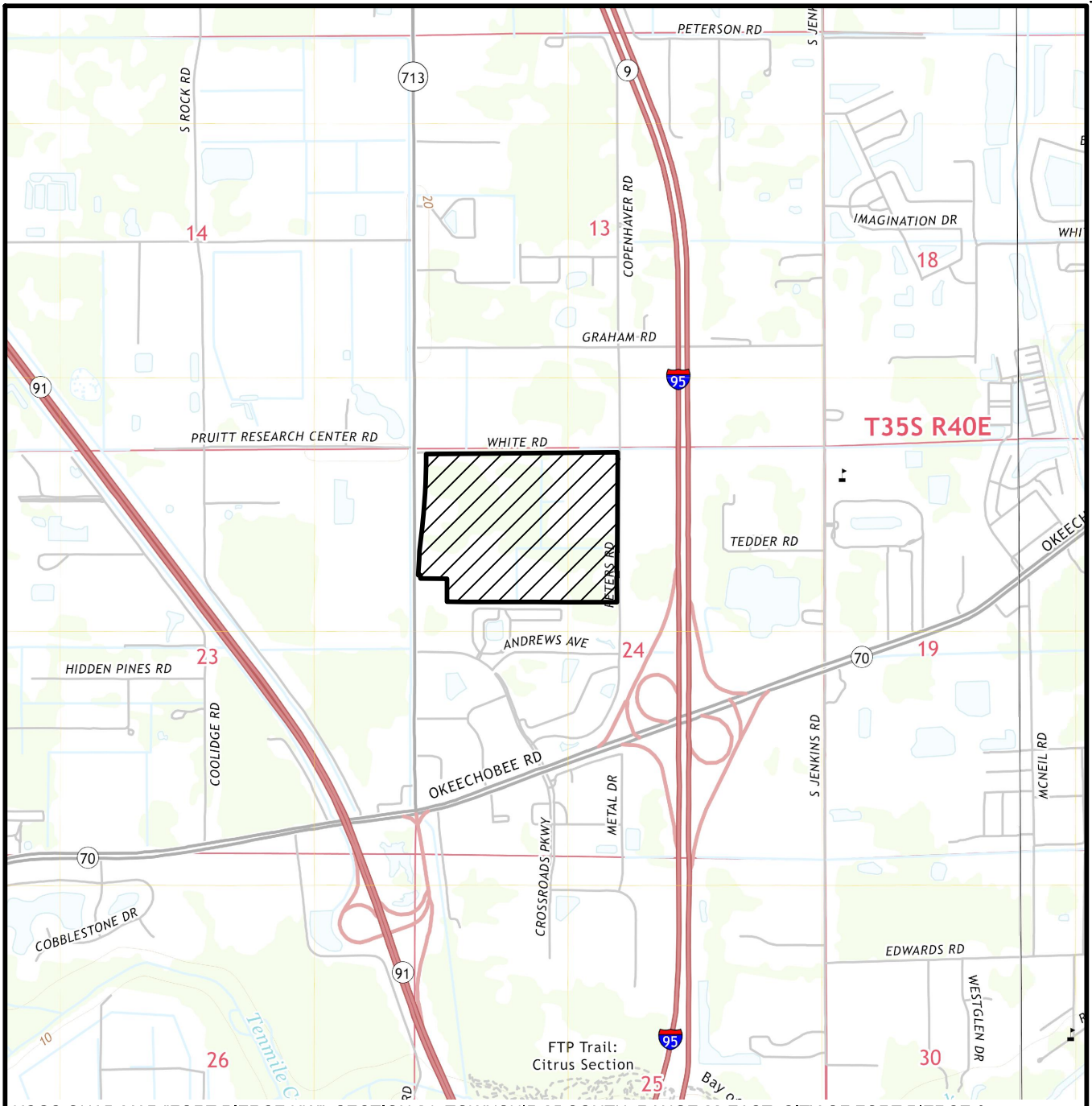
EW CONSULTANTS, INC.

2581 METROCENTRE BLVD., SUITE 1
WEST PALM BEACH, FL 33407
561-291-7950 PHONE 561-530-4908 FAX
WWW.EWCONSULTANTS.COM

MAR 2021

FIGURE

1



USGS QUAD MAP "FORT PIERCE NW", SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, CITY OF FORT PIERCE & UNINCORPORATED ST LUCIE COUNTY, FORT PIERCE, ST LUCIE COUNTY, FLORIDA, LATITUDE 27°25'26" LONGITUDE -80°23'42"

LEGEND

▨ - SITE (109± AC)

0 2000

SCALE IN FEET

KINGS HIGHWAY PARCEL

QUAD

EW CONSULTANTS, INC.

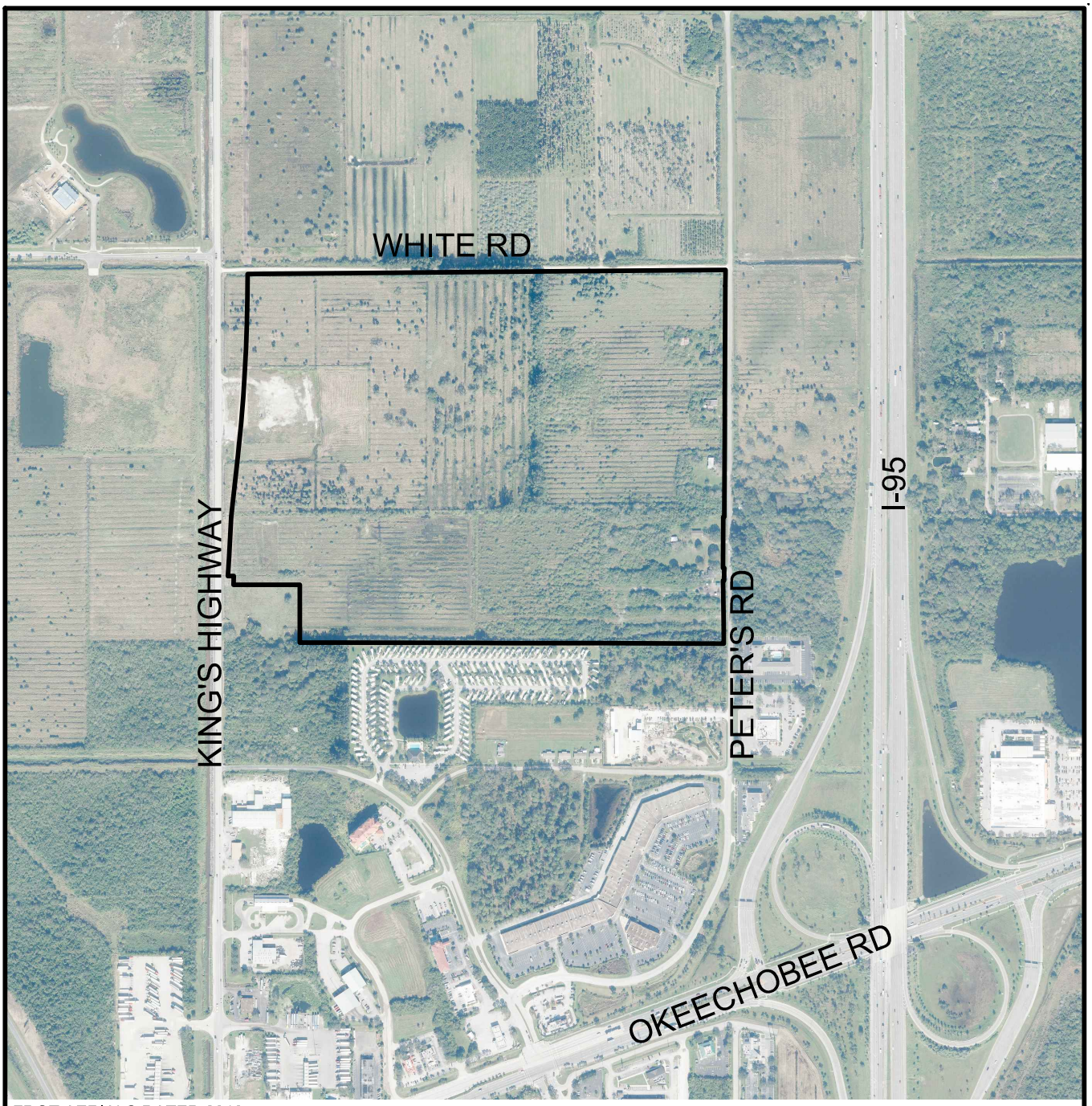
2581 METROCENTRE BLVD., SUITE 1
WEST PALM BEACH, FL 33407
561-291-7950 PHONE 561-530-4908 FAX
WWW.EWCONSULTANTS.COM

MAR 2021

FIGURE

2

Kings Highway Parcel.dwg QUAD



FDOT AERIALS DATED 2018

0 800
SCALE IN FEET

KINGS HIGHWAY PARCEL

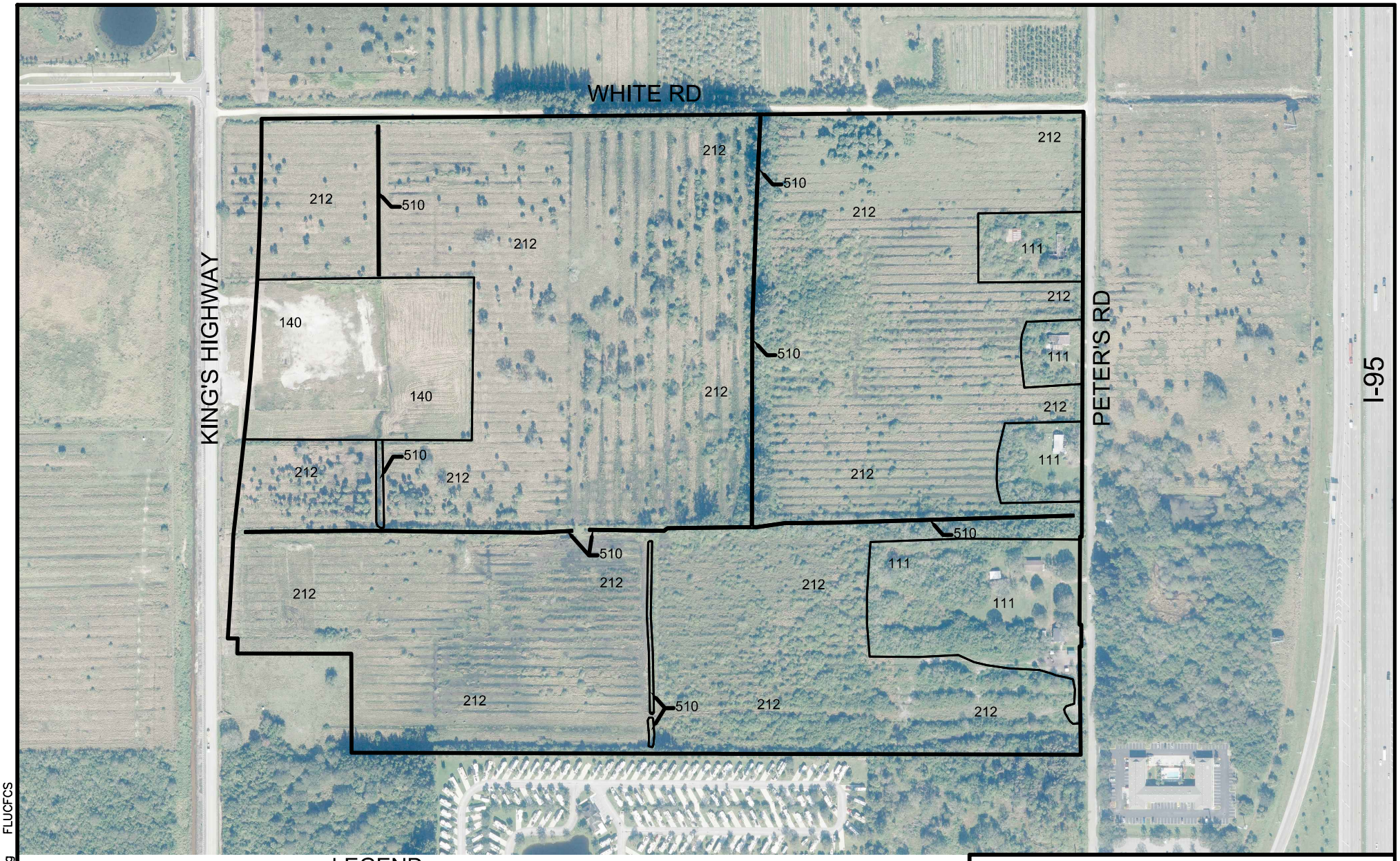
AERIAL

EW CONSULTANTS, INC.
2581 METROCENTRE BLVD., SUITE 1
WEST PALM BEACH, FL 33407
561-291-7950 PHONE 561-530-4908 FAX
WWW.EWCONSULTANTS.COM

MAR 2021

FIGURE
3

Kings Highway Parcel.dwg AERIAL



FDOT AERIALS DATED 2018

LEGEND

111 - FIXED SINGLE FAMILY UNITS (9.3± AC)
140 - COMMERCIAL & SERVICES (7.4± AC)
212 - UNIMPROVED PASTURE (91.4± AC)
510 - DITCHES (0.9± AC)
TOTAL SITE (109± AC)

0 400
SCALE IN FEET

KINGS HIGHWAY PARCEL FLUCFCS MAP

EW CONSULTANTS, INC.
2581 METROCENTRE BLVD., SUITE 1
WEST PALM BEACH, FL 33407
561-291-7950 PHONE 561-530-4908 FAX
WWW.EWCONSULTANTS.COM

MAR 2021

FIGURE 4

Kings Highway Parcel.dwg FLUCFCS

Soil Map—St. Lucie County, Florida
(KINGS HIGHWAY PARCEL)



Map Scale: 1:5,010 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 14, Jun 9, 2020

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

Date(s) aerial images were photographed: Mar 6, 2019—Mar 23, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
11	Chobee loamy sand, frequently ponded, 0 to 1 percent slopes	0.7	0.6%
32	Pineda sand, 0 to 2 percent slopes	4.6	4.3%
38	Riviera fine sand, 0 to 2 percent slopes	4.2	3.8%
48	Wabasso sand, 0 to 2 percent slopes	8.1	7.4%
55	Winder loamy sand	91.5	83.9%
Totals for Area of Interest		**109.0**	**100.0%**

Stormwater Management Report

For

Kings Highway Commerce Park

Ft. Pierce, Florida

04/26/2021

Prepared By:

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Consulting Engineers
1934 Commerce Lane, Suite 5
Jupiter, Florida 33458

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Jeff H. Iravani, P.E.
Florida Registration # 33155
FR#6986

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I. Introduction 3

II. Site Data 4

III. Off-site Discharge 5

IV. Wetlands 5

V. Water Table 5

VI. Design Criteria 5

VII. Allowable Discharge 6

VIII. Bleeder Design 7

IX. Utilities 7

X. Maintenance Entity 7

XI. Irrigation 7

XII. ICPR Flood Routing 7

XI. Nutrient Removal 8

I. Introduction

The project is located in the southeast quadrant of Kings Hwy (SR-513) and White Road and extends east to Peters Road. The site is approximately 1 mile north of Okeechobee Rd (SR-70) and consist of 109.46 ac of land. See Exhibit-A

A commercial & industrial development with ultimate buildout of 43.61 ac of buildings and supporting infrastructure is proposed.

The site historical discharge is to North St. Lucie River Water Control District (NSLRWCD) Canal-40 along the west side of Kings Hwy via 2-24" CMP and then into the Ten Mile Creek and ultimately into the St. Lucie River North Fork which is considered impaired.
These 2 pipes are now replaced by Florida Department of Transportation (FDOT) with 2-30" RCP as a part of Kings Hwy improvements.

Portions of this project, 2 separate parcels at the time, were previously permitted by South Florida Water Management District (SFWMD). The 39.87 ac parcel to the northwest of the site was permitted under 56-03026-P which is now expired. The 21.27-ac parcel to the southwest was permitted under 56-103824-P which is active.

The proposed master drainage system consists of 3 lakes, with wet retention/detention, totaling 9.56 ac and 5 dry detention areas totaling 4.83 ac.

The dry detention area shall provide the pre-treatment requirements along with exfiltration trenches.

There are 2 control structures that connect to NSLRWCD canal-40 via the 2-existing 30" RCP outfalls. CS-1 is in Lake-1 with CS-2 located in Lake-2.

The construction of this project shall be phased. Phase-1 includes the master drainage system, the main roadway, one drive from White Road to the main roadway and 2-buildings totaling 11.13 ac with supporting infrastructure.

Off-site improvements include 2-right turn lanes on Kings Hwy, widening White Road east approach at the intersection with Kings Hwy, as improved by FDOT, and extending White Road to Peters Road.
The runoff from Kings Hwy improvements including White Road east approach is being detained in the area designated as FDOT Temporary construction easement.
The runoff from the remainder of White Road is routed to the project master drainage system.

Section 24, Township 35S, Range 39E, City of Fort Pierce, St. Lucie County, Florida

II. Site Data

Project area	109.46 ac
White Rd R/W Ded	(-)1.34 ac
Project net area	108.12 ac
White Rd off-site	+2.10 ac
Total area	**110.22 ac**

Bldg area	43.61 ac @ 100%	= 43.61 ac
Pavt	35.84 ac @ 100%	= 35.84 ac
Sidewalk	2.27 ac @ 100%	= 2.27 ac
Lake TOB	11.56 ac	
Water @ el 11.5	9.56 ac @ 100%	= 9.56 ac
Bank	2.00 ac	
Dry Det	4.83 ac	
Imp site w/lake	90.32 ac	
Perv site	17.80 ac	
Imp White Rd	1.93 ac	

Total Imp	**92.25 ac**
Total Perv	**17.97 ac**
Imp w/o lake	**82.69 ac**
Perv w/o Dry Det	**13.14 ac**

% Imp	83.7%
% Imp w/o lake	75.0%

S = 6.8" (Depressional) x (1-0.837) x 0.75 = 0.83 in
CN = 92.3

Phase-I

Bldg. area	11.13 ac
Pavt	16.82 ac
Sidewalk	1.05 ac
Impervious area	29.00 ac

All lakes & dry detention area shall also be constructed in Ph-1.
See Ph-I plan.

III. Off-site Discharge

This project has Kings Hwy to the west, White Road to the north and Peter's road to the east. There are 2 vacant parcels to the south and a RV park.
The only off-site discharge into this project is portion of the White Road from the driveway on White Rd to Peters Road which are conveyed to the master drainage system as identified under s Site Data in Section-II

IV. Wetlands

There are no wetlands on this property**.** As per aerial photograph of the site, the entire site was previously utilized as citrus grove exception of the 5 single family Homes along Peters Road and the 6-ac site on Kings Hwy which was developed as an industrial site. The building on this site was demolished during the Kings Hwy Improvements by FDOT.

V. Water Table

As per attached soil report/boring, the average high-water table is 11.47 FT, NAVD. The report also mentions the water table may be perched. The control elevation in the NSLRWCD canal is 4.5 FT, NAVD. HWT of 11.5 FT, NAVD/13.0 FT, NGVD is assumed for this project which is the same as previous permits referenced under section-I Introduction.
Lake control el is set at 12.35 to provide for 0.85' of wet retention. See Sect XIV.

VI. Design Criteria

Water Quality
CS-1 & 2 at Lake-1 & 2
Control el is set @ 12.35 to provide 0.85' of wet retention for nutrient treatment.
Weir el is set @ el 14.5 to provide 2.05' of wet detention.
Littoral planting is provided so add 'l 50% treatment for impaired waters is not req'd.

Required water quality is the greater of:

a. 2.5" wet detention over impervious area.
b. 1.25" wet retention over impervious area.
c. 1" over the entire project area.

V req wet det = (82.69-43.69 bldg.) x 2.5"/12 = 8.13 A-F
110.22 x 1"/12 = 9.17 A-F
9.17 A-F req'd
V **prop wet det** = 2.05' (lake area (@ 12.35 + @ 14.5)/2 = 2.05'(9.96+11.06)/2 = **21.55 A-F**
Prop wet detention is 235% of req'd. 21.55/9.17 = 235%

VI. Design Criteria, cont'd

Pre-treatment
Vreq pre-treat = 82.69 x 0.5"/12 = **3.45 A-F**
Dry detention and exfiltration trenches will be utilized.
1' of dry detention is proposed at all dry detentions
V dry det = dry det area (@ 12.5 + @13.5)/2 = (2.06+2.98)/2= 2.52 A-F
V Exfiltration = 1.0 A-F
V prop pre-treat = 2.52 dry det + 1.0 exf = **3.52 A-F**

Nutrient treatment
Wet retention and exfiltration/dry retention shall be utilized.
V prop wet ret = 0.85(lake area @ 11.5+lake area @ 12.35)/2= 0.85(9.56+9.96)/2 = **8.3 A-F**
V Exfiltration = 1.0 A-F
V total = 8.3+1.0 = 9.3 A-F
Prop retention = 9.3x12/ (110.22-9.56 lake) = **1.11"**

Design Elevations
Min Pavt EL
10yr-24hr storm peak stage 15.20 FT, NAVD
Min Pavt EL 15.5 FT

Perimeter Berm EL
10yr-72hr storm peak stage 15.94 FT, NAVD (NSLRWCD req't)
Min perim berm EL 16.0 FT

Min Fin Floor EL
100yr-72hr storm peak stage 16.64 FT, NAVD
Min F.F. EL 17.50 FT

VII. Allowable Discharge

NSLRWCD allowable discharge is 2" per day for a 10yr-72hr storm. This is a volume-based limitation. There is no limitation on the peak discharge rate.
V allowable (10yr-72hr) = 110.22 ac x 2"/12 = 18.4 A-F /day
V max prop (10yr-72hr) = 17.1 A-F from 60.0-hr to 84.0 hr (see 10yr-72hr storm routing)

VIII. Bleeder Design

(SFWMD) Bleeder is to discharge 1/2" in 24 hr.
Q SFWMD = 110.22 ac x 1/2" x 43,560/(12 x 3600 x 24) = 2.32 cfs

$Q = 4.8 \times A \times (H)^{0.5}$
H avg = 1.075'
$2.32 = 4.8 \times A \times 1.075^{0.5}$
A = 0.466 sf = 67.13 sq in

CS-2 bleeder is 3" dia
CS-1 bleeder area = $67.13-(3/2)^2)3.14 = 60.07$ sq in
CS-1 bleeder dia = $2(60.07/3.14)^{0.5} = 8.75$"

IX. Utilities

Fort Pierce Utility Authority would be providing water & wastewater services to the proposed development.

X. Maintenance Entity

The applicant shall be the maintenance entity.

XI. Irrigation

The lake surface water shall be utilized for irrigation purposes. A water use permit shall be obtained from SFWMD.

XII. ICPR Flood Routing

The retention volumes are not included in flood routing calculations to be conservative and due to low soil hydraulic conductivity.

Grading assumption for ICPR Input:
1. Surface el's except sidewalk 15.5-17.0
2. Sidewalk el 17.0-17.5
3. F,F, el 17.5

See node/basin diagram.

XIII. Nutrient Removal

St. Lucie River is considered impaired so post development nutrient loading rates, nitrogen (TN) & phosphorus (TP), need to match pre-development.

"Evaluation of Current **S**tormwater **D**esign **C**riteria within **S**tate of **F**lorida "final report (**FSDC**) dated June 2007 is utilized in this section. The referenced portions of FSDC are attached under Appendix. The 2012 South Florida Environmental Report Appendix 10-1 (**SFER**) for land use categories in the St. Lucie River Watershed will be used for the nutrient concentrations. SFWMD Vol IV Manual 2012 reference is shown as **SFWMD.**

The project is in Zone-2 per FSDC Fig 4-3

Per FSDC Fig 6.1, BOD removal in excess of 95% shall be achieved if removal efficiency is provided for both nitrogen & phosphorus.

The proposed development is considered low intensity commercial. FSDC 4.1.5.
The site was previously developed as citrus groves from before 1968 to mid-1990's & now is used as a pasture. Therefore, unimproved pasture, as defined in Florida Fish & Wildlife "Florida Land Use Classification…, December 2012, is assumed for the pre-development land use.
Existing soil is assumed to be depressional.

Pre Dev-Nutrient Loading Basin 110.22 ac
Post Dev Nutrient Loading Basin = 110.22-9.56 lake-4.83 dry det = **95.83 ac**

Pre-Development
Type D soil
Avg WT depth = 2'+
Pasture in good condition,
NDCIA CN = 80 SCS TR 55 (SCS) Table 2-2c

Post Development
Avg WT depth > 4'
Open Space in good condition
Pervious area CN = 80 SCS Table 2-2a
NDCIA Imp = 0
NDCIA Total = 13.14 ac Perv w/o dry det Sec II
NDCIA CN = 80
DCIA = 82.69 ac Imp w/o lake Sec II
DCIA % = (82,69/(110.22) = **75.0%**

XIII. Nutrient Removal, cont'd

Pre Dev Mean Annual C = 0.111 FSDC Appendix C Zone-2
Post Dev Mean Annual C = 0.635

Pre-dev vs post dev loading
TN 1.19 mg/l vs 1.48 mg/l SFER
Req % removal = ((1.48 x0.635x95.83) -(1.19 x0.111 x110.22))/ (1.48x0.635x95.83) = 83.83%

TP 0.25 mg/l vs 0.24 mg/l SFER
Req % removal = ((0.24x0.635x95.83) -(0.25 x0.111 x110.22))/ (0.24 x0.635x95.83) = 79.06%

Annual rainfall = 53.5" FSDC Appendix A-3
Mean annual runoff = 0.635 x 53.5 = 33.97"
V_{runoff} = 33.97"(95.83ac)/(12x365) = 0.743 A-F /day
$V_{perm\ pool}$ = 93.96 a-f
$T_{wet\ det\ residence}$ = 93.96/0.743 = 126 days

Removal Efficiency (RE)
1.1" of retention shall be provided
It is proposed to provide 1.1" of retention & wet detention w/ 126 days residency

1" retention has 75% RE FSDC Appendix-D
Wet detention w/ 126 days residency has 75.93% RE TP FSDC Fig 5-9
42.28% RE TN FSDC Fig 5-10
Overall Removal Efficiency (ORE)
ORE TN = 0.75 + (1-0.75) (0.423) = **85.58% > 83.83%** FSDC 6.1.2 Eq-1
ORE TP = 0.75 + (1-0.75) (0.759) = **93.98% > 79.06%**

==========
==== Basins ====
==========

Name: A-DET 6 Node: A-DET 6 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 8.000 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: B-DET 65 Node: B-DET 65 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 4.400 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: C-DET 5 Node: C-DET 5 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 8.000 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: D-DET 54 Node: D-DET 54 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 4.600 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: E-DET 4 Node: E-DET 4 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 1.900 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: F-DET 7 Node: F-DET 7 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0

Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 7.500 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: G-DET 8 Node: G-DET 8 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 15.500 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: H-LAKE 3 Node: H-LAKE 3 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 18.700 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: J-LAKE 2 Node: J-LAKE-2 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 10.450 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: K-LAKE 1 Node: K-LAKE-1 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: SFWMD72 Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 30.00
Area(ac): 31.170 Time Shift(hrs): 0.00
Curve Number: 92.30 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

==========
==== Nodes ==========
==========

Name: A-DET 6 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.490	0.0000
12.500	0.4200

15.500	0.8500
17.000	4.6700
17.500	4.8300

Name: B-DET 65 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.490	0.0000
12.500	0.0008
15.500	0.0008
17.000	2.5600
17.500	2.6600

Name: C-DET 5 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.490	0.0000
12.500	0.3700
15.500	0.8100
17.000	4.6700
17.500	4.8300

Name: D-DET 54 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.490	0.0000
12.500	0.0008
15.500	0.0008
17.000	2.6900
17.500	2.7800

Name: E-DET 4 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.490	0.0000
12.500	0.1600
15.500	0.3300
17.000	1.1100
17.500	1.1500

Name: F-DET 7 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.490	0.0000

12.500	0.7100
15.500	1.3500
17.000	4.3800
17.500	4.5300

Name: G-DET 8 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.490	0.0000
12.500	0.4600
15.500	1.4900
17.000	9.0500
17.500	9.3700

Name: H-LAKE 3 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.340	0.0000
12.350	2.4200
15.500	2.8800
17.000	10.9200
17.500	11.3000

Name: J-LAKE-2 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.340	0.0000
12.350	2.0200
15.500	2.3600
17.000	6.1000
17.500	6.3200

Name: JK-CB 21 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.500	0.0010
17.500	0.0010

Name: K-LAKE-1 Base Flow(cfs): 0.000 Init Stage(ft): 12.500
Group: BASE Warn Stage(ft): 17.500
Type: Stage/Area

Stage(ft)	Area(ac)
12.340	0.0000
12.350	5.5400
15.500	6.3300

17.000	18.1900
17.500	18.8400

Name: L-CANAL Base Flow(cfs): 0.000 Init Stage(ft): 4.500
Group: BASE Warn Stage(ft): 14.500
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	4.500
72.00	14.000
120.00	12.000

Pipes

Name: 54-4 From Node: D-DET 54 Length(ft): 56.00
Group: BASE To Node: E-DET 4 Count: 1
Friction Equation: Automatic
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	42.00	42.00
Rise(in):	42.00	42.00
Invert(ft):	12.500	12.500
Manning's N:	0.013000	0.013000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: 54-5 From Node: D-DET 54 Length(ft): 56.00
Group: BASE To Node: C-DET 5 Count: 1
Friction Equation: Automatic
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	42.00	42.00
Rise(in):	42.00	42.00
Invert(ft):	12.500	12.500
Manning's N:	0.013000	0.013000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: 65-5 From Node: B-DET 65 Length(ft): 56.00
Group: BASE To Node: C-DET 5 Count: 1
Friction Equation: Automatic
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	42.00	42.00
Rise(in):	42.00	42.00
Invert(ft):	12.500	12.500

Manning's N:	0.013000	0.013000	Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option:	None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name:	65-6	From Node: B-DET 65	Length(ft):	56.00
Group:	BASE	To Node: A-DET 6	Count:	1
			Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM	Solution Algorithm:	Automatic
Geometry:	Circular	Circular	Flow:	Both
Span(in):	42.00	42.00	Entrance Loss Coef:	0.00
Rise(in):	42.00	42.00	Exit Loss Coef:	1.00
Invert(ft):	12.500	12.500	Bend Loss Coef:	0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option:	None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name:	LAKE 2-21	From Node: J-LAKE-2	Length(ft):	88.00
Group:	BASE	To Node: JK-CB 21	Count:	1
			Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM	Solution Algorithm:	Automatic
Geometry:	Circular	Circular	Flow:	Both
Span(in):	42.00	42.00	Entrance Loss Coef:	0.00
Rise(in):	42.00	42.00	Exit Loss Coef:	1.00
Invert(ft):	6.000	6.000	Bend Loss Coef:	0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option:	None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name:	LAKE 21-1	From Node: JK-CB 21	Length(ft):	49.00
Group:	BASE	To Node: K-LAKE-1	Count:	1
			Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM	Solution Algorithm:	Automatic
Geometry:	Circular	Circular	Flow:	Both
Span(in):	60.00	60.00	Entrance Loss Coef:	0.00
Rise(in):	60.00	60.00	Exit Loss Coef:	1.00
Invert(ft):	6.000	6.000	Bend Loss Coef:	0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option:	None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

==========
==== Drop Structures ==========
==========

Name:	CS-1	From Node:	K-LAKE-1
Group:	BASE	To Node:	L-CANAL
Length(ft):	24.00		
Count:	1		

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Friction Equation:	Average Conveyance
Span(in):	24.00	24.00	Solution Algorithm:	Automatic
Rise(in):	24.00	24.00	Flow:	None
Invert(ft):	7.500	7.500	Entrance Loss Coef:	0.000
Manning's N:	0.013000	0.013000	Exit Loss Coef:	0.000
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dn
			Solution Incs:	0

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 2 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.130
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	11.00	Invert(ft):	14.500
Rise(in):	24.00	Control Elev(ft):	14.500

*** Weir 2 of 2 for Drop Structure CS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.130
Geometry:	Circular	Orifice Disc Coef:	0.600
Span(in):	8.75	Invert(ft):	12.350
Rise(in):	8.75	Control Elev(ft):	12.350

Name:	CS-2	From Node:	J-LAKE-2
Group:	BASE	To Node:	L-CANAL
Length(ft):	24.00		
Count:	1		

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Friction Equation:	Average Conveyance
Span(in):	24.00	24.00	Solution Algorithm:	Automatic
Rise(in):	24.00	24.00	Flow:	None
Invert(ft):	7.500	7.500	Entrance Loss Coef:	0.000
Manning's N:	0.013000	0.013000	Exit Loss Coef:	0.000
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dn
			Solution Incs:	0

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 2 for Drop Structure CS-2 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.130
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	4.00	Invert(ft):	14.500
Rise(in):	24.00	Control Elev(ft):	14.500

*** Weir 2 of 2 for Drop Structure CS-2 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.130
Geometry:	Circular	Orifice Disc Coef:	0.600
Span(in):	3.00	Invert(ft):	12.350
Rise(in):	3.00	Control Elev(ft):	12.350

Name:	CS-24	From Node:	G-DET 8	Length(ft):	60.00
Group:	BASE	To Node:	H-LAKE 3	Count:	1

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Friction Equation:	Automatic
Span(in):	36.00	36.00	Solution Algorithm:	Automatic
Rise(in):	36.00	36.00	Flow:	Both
Invert(ft):	5.100	5.000	Entrance Loss Coef:	0.000
Manning's N:	0.010000	0.010000	Exit Loss Coef:	1.000
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
			Solution Incs:	10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CS-24 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	39.00	Invert(ft):	12.500
Rise(in):	18.00	Control Elev(ft):	12.500

Name:	CS-26	From Node:	F-DET 7	Length(ft):	156.00
Group:	BASE	To Node:	H-LAKE 3	Count:	1

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Friction Equation:	Automatic
Span(in):	42.00	42.00	Solution Algorithm:	Automatic
Rise(in):	42.00	42.00	Flow:	Both
Invert(ft):	5.100	5.000	Entrance Loss Coef:	0.000
Manning's N:	0.010000	0.010000	Exit Loss Coef:	1.000
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
			Solution Incs:	10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CS-26 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	39.00	Invert(ft):	12.500
Rise(in):	18.00	Control Elev(ft):	12.500

Name:	CS-5	From Node:	G-DET 8	Length(ft):	332.00
Group:	BASE	To Node:	J-LAKE-2	Count:	1

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Friction Equation:	Automatic
Span(in):	42.00	42.00	Solution Algorithm:	Automatic
Rise(in):	42.00	42.00	Flow:	Both
Invert(ft):	7.000	5.500	Entrance Loss Coef:	0.000
Manning's N:	0.013000	0.013000	Exit Loss Coef:	1.000
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
			Solution Incs:	10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CS-5 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	39.00	Invert(ft):	12.500
Rise(in):	18.00	Control Elev(ft):	12.500

Name:	CS-81	From Node:	E-DET 4	Length(ft):	52.00
Group:	BASE	To Node:	K-LAKE-1	Count:	1

	UPSTREAM	DOWNSTREAM		
Geometry:	Circular	Circular	Friction Equation:	Automatic
Span(in):	54.00	54.00	Solution Algorithm:	Automatic
Rise(in):	54.00	54.00	Flow:	Both
Invert(ft):	5.100	5.000	Entrance Loss Coef:	0.000
Manning's N:	0.010000	0.010000	Exit Loss Coef:	1.000
Top Clip(in):	0.000	0.000	Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
			Solution Incs:	10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure CS-81 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	39.00	Invert(ft):	12.500
Rise(in):	18.00	Control Elev(ft):	12.500

==========
==== Hydrology Simulations ==========
==========

Name: 100YR-72HR
Filename: C:\ICPRUSER1\100YR-72HR.R32

Override Defaults: Yes
Storm Duration(hrs): 72.00
Rainfall File: SFWMD72
Rainfall Amount(in): 10.00

Time(hrs)	Print Inc(min)
48.000	60.00
72.000	15.00

Name: 10YR-24HR
Filename: C:\ICPRUSER1\10YR-24HR.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 5.50

Time(hrs)	Print Inc(min)
8.000	60.00
16.000	30.00
24.000	60.00

Name: 10YR-72HR
Filename: C:\ICPRUSER1\10 yr 72 hr.R32

Override Defaults: Yes
Storm Duration(hrs): 72.00
Rainfall File: SFWMD72
Rainfall Amount(in): 8.10

Time(hrs)	Print Inc(min)
48.000	60.00
72.000	15.00

Name: 5YR-24HR
Filename: C:\ICPRUSER1\5YR-24HR.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 4.60

Time(hrs)	Print Inc(min)
8.000	60.00
16.000	30.00
24.000	60.00

==========
==== Routing Simulations ==========
==========

Name: 100YR-72HR Hydrology Sim: 100YR-72HR
Filename: C:\ICPRUSER1\100YR-72HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500

Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 220.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

IBP

Time(hrs)	Print Inc(min)
36.000	720.000
48.000	360.000
60.000	60.000
62.000	60.000
63.000	60.000
96.000	240.000
220.000	2880.000

Group	Run
BASE	Yes

Name: 10YR-24HR Hydrology Sim: 10YR-24HR
Filename: C:\ICPRUSER1\10YR-24HR.I32

Execute: No Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 100.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	240.000
10.000	60.000
12.000	15.000
24.000	120.000
100.000	240.000

Group	Run
BASE	Yes

Name: 10YR-72HR Hydrology Sim: 10YR-72HR
Filename: C:\ICPRUSER1\25YR72HR.I32

Execute: No Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 100.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

IBP

Time(hrs)	Print Inc(min)
36.000	60.000
48.000	60.000
60.000	60.000

62.000 60.000
63.000 60.000
96.000 60.000
100.000 60.000

Group	Run
BASE	Yes

Name: 5YR-24HR Hydrology Sim: 5YR-24HR
Filename: C:\ICPRUSER1\5YR-24HR.I32

Execute: No Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 168.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
4.000	240.000
10.000	60.000
12.000	15.000
24.000	120.000
168.000	2880.000

Group	Run
BASE	Yes

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
A-DET 6	BASE	100YR-72HR	72.00	16.644	17.500	0.0003	163948	60.00	20.769	0.00	0.000
B-DET 65	BASE	100YR-72HR	72.00	16.644	17.500	0.0003	85072	60.25	11.591	59.95	9.384
C-DET 5	BASE	100YR-72HR	72.00	16.644	17.500	0.0003	163538	60.00	19.490	0.00	0.000
D-DET 54	BASE	100YR-72HR	72.00	16.644	17.500	0.0003	89390	60.25	12.118	59.96	9.995
E-DET 4	BASE	100YR-72HR	72.00	16.644	17.500	0.0003	40294	60.00	18.809	60.11	12.429
F-DET 7	BASE	100YR-72HR	93.31	16.644	17.500	0.0002	159435	60.25	19.757	61.52	0.054
G-DET 8	BASE	100YR-72HR	94.62	16.644	17.500	0.0002	315984	60.25	40.831	60.13	12.647
H-LAKE 3	BASE	100YR-72HR	93.31	16.644	17.500	0.0002	392472	60.25	50.297	0.00	0.000
J-LAKE-2	BASE	100YR-72HR	93.31	16.644	17.500	0.0002	227022	60.25	35.132	60.79	13.254
JK-CB 21	BASE	100YR-72HR	72.42	16.602	17.500	-0.0299	127	60.79	13.254	0.00	0.000
K-LAKE-1	BASE	100YR-72HR	72.30	16.644	17.500	0.0002	669695	60.25	64.362	0.00	0.000
L-CANAL	BASE	100YR-72HR	72.00	14.000	14.500	0.0022	0	0.00	0.000	0.00	0.000
A-DET 6	BASE	10YR-24HR	13.49	15.198	17.500	0.0002	35221	12.01	13.178	0.00	0.000
B-DET 65	BASE	10YR-24HR	13.49	15.188	17.500	0.0010	279	12.50	7.258	12.30	7.383
C-DET 5	BASE	10YR-24HR	13.54	15.163	17.500	0.0002	33300	12.00	12.018	0.00	0.000
D-DET 54	BASE	10YR-24HR	23.95	15.137	17.500	0.0014	282	12.50	7.588	12.50	7.498
E-DET 4	BASE	10YR-24HR	23.99	15.136	17.500	0.0003	13561	12.67	24.059	12.95	20.038
F-DET 7	BASE	10YR-24HR	24.00	15.162	17.500	0.0001	55663	12.50	12.371	24.18	0.447
G-DET 8	BASE	10YR-24HR	24.00	15.156	17.500	0.0001	59758	12.50	25.567	12.51	13.795
H-LAKE 3	BASE	10YR-24HR	24.00	15.161	17.500	0.0002	123294	12.50	34.481	0.00	0.000
J-LAKE-2	BASE	10YR-24HR	24.00	15.146	17.500	0.0001	101143	12.50	26.888	0.00	0.034
JK-CB 21	BASE	10YR-24HR	24.00	15.177	17.500	0.0327	127	0.00	0.000	12.24	31.684
K-LAKE-1	BASE	10YR-24HR	24.00	15.130	17.500	0.0001	271704	12.50	99.536	24.00	4.559
L-CANAL	BASE	10YR-24HR	72.00	14.000	14.500	0.0011	0	24.00	5.487	0.00	0.000
A-DET 6	BASE	10YR-72HR	62.45	15.930	17.500	0.0003	84726	60.27	18.715	0.00	0.000
B-DET 65	BASE	10YR-72HR	62.46	15.928	17.500	0.0008	31898	60.25	9.323	60.31	10.737
C-DET 5	BASE	10YR-72HR	62.49	15.924	17.500	0.0003	82852	60.25	16.948	0.00	0.000
D-DET 54	BASE	10YR-72HR	62.62	15.913	17.500	-0.0003	32387	60.25	9.747	60.25	9.607
E-DET 4	BASE	10YR-72HR	62.82	15.900	17.500	0.0003	23465	60.37	22.163	60.55	17.183
F-DET 7	BASE	10YR-72HR	68.98	15.944	17.500	0.0002	97846	60.25	15.891	74.33	0.695
G-DET 8	BASE	10YR-72HR	68.82	15.932	17.500	0.0002	159684	60.25	32.842	60.30	13.787
H-LAKE 3	BASE	10YR-72HR	68.96	15.942	17.500	0.0002	228615	60.25	42.397	0.00	0.000
J-LAKE-2	BASE	10YR-72HR	68.69	15.904	17.500	0.0001	146724	60.25	30.967	0.00	0.034
JK-CB 21	BASE	10YR-72HR	68.61	15.931	17.500	0.0327	127	0.00	0.000	75.17	31.831
K-LAKE-1	BASE	10YR-72HR	68.58	15.884	17.500	0.0001	407898	60.25	111.832	64.85	7.826
L-CANAL	BASE	10YR-72HR	72.00	14.000	14.500	0.0011	0	65.09	9.907	0.00	0.000

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	A-DET 6	BASE	0.00	12.500	17.500	18300	0.000	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	0.00	12.500	17.500	123	0.000	0.000	0.0	0.0
10YR-72HR	C-DET 5	BASE	0.00	12.500	17.500	16127	0.000	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	0.00	12.500	17.500	123	0.000	0.000	0.0	0.0
10YR-72HR	E-DET 4	BASE	0.00	12.500	17.500	6975	0.000	0.000	0.0	0.0
10YR-72HR	F-DET 7	BASE	0.00	12.500	17.500	30928	0.000	0.000	0.0	0.0
10YR-72HR	G-DET 8	BASE	0.00	12.500	17.500	20038	0.000	0.000	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	0.00	12.500	17.500	106369	0.000	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	0.00	12.500	17.500	88704	0.000	0.034	0.0	0.0
10YR-72HR	K-LAKE-1	BASE	0.00	12.500	17.500	242967	0.000	0.063	0.0	0.0
10YR-72HR	L-CANAL	BASE	0.00	4.500	14.500	0	0.097	0.000	0.0	0.0
10YR-72HR	A-DET 6	BASE	1.00	12.500	17.500	18300	0.000	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	1.00	12.500	17.500	123	0.000	0.000	0.0	0.0
10YR-72HR	C-DET 5	BASE	1.00	12.500	17.500	16127	0.000	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	1.00	12.500	17.500	123	0.000	0.000	0.0	0.0
10YR-72HR	E-DET 4	BASE	1.00	12.500	17.500	6975	0.000	0.000	0.0	0.0
10YR-72HR	F-DET 7	BASE	1.00	12.500	17.500	30928	0.000	0.000	0.0	0.0
10YR-72HR	G-DET 8	BASE	1.00	12.500	17.500	20038	0.000	0.000	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	1.00	12.500	17.500	106369	0.000	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	1.00	12.499	17.500	88699	0.000	-12.799	0.0	-0.5
10YR-72HR	K-LAKE-1	BASE	1.00	12.499	17.500	242956	29.683	0.062	1.2	0.0
10YR-72HR	L-CANAL	BASE	1.00	4.632	14.500	0	0.096	0.000	0.0	0.0
10YR-72HR	A-DET 6	BASE	2.00	12.500	17.500	18300	0.000	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	2.00	12.500	17.500	123	0.000	0.000	0.0	0.0
10YR-72HR	C-DET 5	BASE	2.00	12.500	17.500	16127	0.000	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	2.00	12.500	17.500	123	0.000	0.000	0.0	0.0
10YR-72HR	E-DET 4	BASE	2.00	12.500	17.500	6975	0.000	0.000	0.0	0.0
10YR-72HR	F-DET 7	BASE	2.00	12.500	17.500	30928	0.000	0.000	0.0	0.0
10YR-72HR	G-DET 8	BASE	2.00	12.500	17.500	20038	0.000	0.000	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	2.00	12.500	17.500	106369	0.000	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	2.00	12.498	17.500	88694	0.000	-12.799	0.0	-1.6
10YR-72HR	K-LAKE-1	BASE	2.00	12.498	17.500	242945	29.683	0.061	3.7	0.0
10YR-72HR	L-CANAL	BASE	2.00	4.764	14.500	0	0.094	0.000	0.0	0.0
10YR-72HR	A-DET 6	BASE	3.00	12.500	17.500	18300	0.000	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	3.00	12.500	17.500	123	0.000	0.000	0.0	0.0
10YR-72HR	C-DET 5	BASE	3.00	12.500	17.500	16127	0.000	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	3.00	12.500	17.500	123	0.000	0.000	0.0	0.0
10YR-72HR	E-DET 4	BASE	3.00	12.500	17.500	6975	0.000	0.000	0.0	0.0
10YR-72HR	F-DET 7	BASE	3.00	12.500	17.500	30928	0.000	0.000	0.0	0.0
10YR-72HR	G-DET 8	BASE	3.00	12.500	17.500	20038	0.000	0.000	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	3.00	12.500	17.500	106369	0.000	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	3.00	12.497	17.500	88689	0.000	-12.800	0.0	-2.6
10YR-72HR	K-LAKE-1	BASE	3.00	12.497	17.500	242933	29.684	0.060	6.1	0.0
10YR-72HR	L-CANAL	BASE	3.00	4.896	14.500	0	0.093	0.000	0.0	0.0
10YR-72HR	A-DET 6	BASE	4.00	12.500	17.500	18295	0.000	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	4.00	12.500	17.500	113	0.000	0.000	0.0	0.0
10YR-72HR	C-DET 5	BASE	4.00	12.500	17.500	16117	0.000	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	4.00	12.500	17.500	113	0.000	0.000	0.0	0.0
10YR-72HR	E-DET 4	BASE	4.00	12.500	17.500	6970	0.000	0.000	0.0	0.0
10YR-72HR	F-DET 7	BASE	4.00	12.500	17.500	30928	0.000	0.000	0.0	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	G-DET 8	BASE	4.00	12.500	17.500	20038	0.000	0.000	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	4.00	12.500	17.500	106369	0.000	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	4.00	12.496	17.500	88685	0.000	-12.800	0.0	-3.7
10YR-72HR	K-LAKE-1	BASE	4.00	12.496	17.500	242923	29.684	0.060	8.6	0.0
10YR-72HR	L-CANAL	BASE	4.00	5.028	14.500	0	0.092	0.000	0.0	0.0
10YR-72HR	A-DET 6	BASE	5.00	12.500	17.500	18297	0.001	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	5.00	12.509	17.500	121	0.001	0.000	0.0	0.0
10YR-72HR	C-DET 5	BASE	5.00	12.500	17.500	16121	0.001	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	5.00	12.510	17.500	121	0.001	0.000	0.0	0.0
10YR-72HR	E-DET 4	BASE	5.00	12.500	17.500	6971	0.000	0.000	0.0	0.0
10YR-72HR	F-DET 7	BASE	5.00	12.500	17.500	30928	0.001	0.000	0.0	0.0
10YR-72HR	G-DET 8	BASE	5.00	12.500	17.500	20040	0.002	0.000	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	5.00	12.500	17.500	106370	0.003	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	5.00	12.495	17.500	88680	0.002	-12.800	0.0	-4.8
10YR-72HR	K-LAKE-1	BASE	5.00	12.495	17.500	242912	29.688	0.059	11.0	0.0
10YR-72HR	L-CANAL	BASE	5.00	5.160	14.500	0	0.091	0.000	0.0	0.0
10YR-72HR	A-DET 6	BASE	6.00	12.502	17.500	18319	0.021	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	6.00	12.550	17.500	150	0.009	0.008	0.0	0.0
10YR-72HR	C-DET 5	BASE	6.00	12.503	17.500	16156	0.025	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	6.00	12.551	17.500	151	0.009	0.009	0.0	0.0
10YR-72HR	E-DET 4	BASE	6.00	12.502	17.500	6984	0.008	0.002	0.0	0.0
10YR-72HR	F-DET 7	BASE	6.00	12.501	17.500	30937	0.015	0.001	0.0	0.0
10YR-72HR	G-DET 8	BASE	6.00	12.503	17.500	20079	0.032	0.009	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	6.00	12.501	17.500	106374	0.043	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	6.00	12.494	17.500	88678	0.026	-12.800	0.0	-5.8
10YR-72HR	K-LAKE-1	BASE	6.00	12.494	17.500	242907	29.751	0.058	13.5	0.0
10YR-72HR	L-CANAL	BASE	6.00	5.292	14.500	0	0.090	0.000	0.0	0.0
10YR-72HR	A-DET 6	BASE	7.00	12.509	17.500	18367	0.046	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	7.00	12.570	17.500	161	0.020	0.019	0.0	0.0
10YR-72HR	C-DET 5	BASE	7.00	12.512	17.500	16228	0.056	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	7.00	12.572	17.500	162	0.021	0.020	0.0	0.0
10YR-72HR	E-DET 4	BASE	7.00	12.505	17.500	7001	0.019	0.012	0.0	0.0
10YR-72HR	F-DET 7	BASE	7.00	12.504	17.500	30962	0.034	0.003	0.0	0.0
10YR-72HR	G-DET 8	BASE	7.00	12.508	17.500	20156	0.071	0.040	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	7.00	12.503	17.500	106390	0.107	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	7.00	12.495	17.500	88682	0.069	-12.793	0.0	-6.9
10YR-72HR	K-LAKE-1	BASE	7.00	12.495	17.500	242915	29.846	0.059	16.0	0.0
10YR-72HR	L-CANAL	BASE	7.00	5.424	14.500	0	0.091	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	8.00	12.520	17.500	18444	0.071	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	8.00	12.584	17.500	168	0.031	0.030	0.0	0.0
10YR-72HR	C-DET 5	BASE	8.00	12.528	17.500	16339	0.087	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	8.00	12.586	17.500	168	0.032	0.032	0.0	0.0
10YR-72HR	E-DET 4	BASE	8.00	12.508	17.500	7013	0.029	0.024	0.0	0.0
10YR-72HR	F-DET 7	BASE	8.00	12.508	17.500	31005	0.053	0.004	0.0	0.0
10YR-72HR	G-DET 8	BASE	8.00	12.513	17.500	20234	0.109	0.081	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	8.00	12.508	17.500	106420	0.171	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	8.00	12.497	17.500	88692	0.119	-12.779	0.0	-7.9
10YR-72HR	K-LAKE-1	BASE	8.00	12.497	17.500	242938	29.946	0.061	18.4	0.0
10YR-72HR	L-CANAL	BASE	8.00	5.556	14.500	0	0.094	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	9.00	12.536	17.500	18545	0.093	0.000	0.0	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	B-DET 65	BASE	9.00	12.593	17.500	171	0.040	0.040	0.0	0.0
10YR-72HR	C-DET 5	BASE	9.00	12.550	17.500	16487	0.116	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	9.00	12.595	17.500	171	0.042	0.042	0.0	0.0
10YR-72HR	E-DET 4	BASE	9.00	12.511	17.500	7020	0.038	0.034	0.0	0.0
10YR-72HR	F-DET 7	BASE	9.00	12.515	17.500	31066	0.069	0.005	0.0	0.0
10YR-72HR	G-DET 8	BASE	9.00	12.518	17.500	20306	0.143	0.114	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	9.00	12.515	17.500	106463	0.219	0.000	0.0	0.0
10YR-72HR	J-LAKE-2	BASE	9.00	12.501	17.500	88709	0.168	-12.763	0.0	-9.0
10YR-72HR	K-LAKE-1	BASE	9.00	12.501	17.500	242977	30.039	0.064	20.9	0.0
10YR-72HR	L-CANAL	BASE	9.00	5.688	14.500	0	0.098	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	10.00	12.556	17.500	18673	0.115	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	10.00	12.602	17.500	176	0.049	0.048	0.0	0.0
10YR-72HR	C-DET 5	BASE	10.00	12.578	17.500	16672	0.137	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	10.00	12.604	17.500	176	0.051	0.051	0.0	0.0
10YR-72HR	E-DET 4	BASE	10.00	12.513	17.500	7027	0.047	0.041	0.0	0.0
10YR-72HR	F-DET 7	BASE	10.00	12.523	17.500	31141	0.084	0.010	0.0	0.0
10YR-72HR	G-DET 8	BASE	10.00	12.524	17.500	20393	0.173	0.134	0.0	0.0
10YR-72HR	H-LAKE 3	BASE	10.00	12.523	17.500	106513	0.247	0.000	0.1	0.0
10YR-72HR	J-LAKE-2	BASE	10.00	12.506	17.500	88733	0.221	-12.742	0.0	-10.0
10YR-72HR	K-LAKE-1	BASE	10.00	12.506	17.500	243029	30.125	0.068	23.4	0.1
10YR-72HR	L-CANAL	BASE	10.00	5.819	14.500	0	0.104	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	11.00	12.580	17.500	18828	0.138	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	11.00	12.617	17.500	181	0.057	0.056	0.0	0.0
10YR-72HR	C-DET 5	BASE	11.00	12.608	17.500	16878	0.148	0.000	0.0	0.0
10YR-72HR	D-DET 54	BASE	11.00	12.618	17.500	180	0.059	0.058	0.0	0.0
10YR-72HR	E-DET 4	BASE	11.00	12.517	17.500	7039	0.059	0.049	0.0	0.0
10YR-72HR	F-DET 7	BASE	11.00	12.532	17.500	31223	0.097	0.018	0.0	0.0
10YR-72HR	G-DET 8	BASE	11.00	12.531	17.500	20506	0.200	0.154	0.1	0.0
10YR-72HR	H-LAKE 3	BASE	11.00	12.531	17.500	106568	0.264	0.000	0.1	0.0
10YR-72HR	J-LAKE-2	BASE	11.00	12.512	17.500	88762	0.284	-12.712	0.1	-11.1
10YR-72HR	K-LAKE-1	BASE	11.00	12.512	17.500	243095	30.215	0.073	25.9	0.1
10YR-72HR	L-CANAL	BASE	11.00	5.951	14.500	0	0.112	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	12.00	12.609	17.500	19012	0.166	0.000	0.0	0.0
10YR-72HR	B-DET 65	BASE	12.00	12.640	17.500	189	0.064	0.062	0.0	0.0
10YR-72HR	C-DET 5	BASE	12.00	12.639	17.500	17084	0.141	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	12.00	12.641	17.500	187	0.067	0.065	0.0	0.0
10YR-72HR	E-DET 4	BASE	12.00	12.523	17.500	7057	0.079	0.064	0.0	0.0
10YR-72HR	F-DET 7	BASE	12.00	12.541	17.500	31309	0.108	0.027	0.0	0.0
10YR-72HR	G-DET 8	BASE	12.00	12.540	17.500	20630	0.224	0.176	0.1	0.1
10YR-72HR	H-LAKE 3	BASE	12.00	12.540	17.500	106626	0.274	0.000	0.1	0.0
10YR-72HR	J-LAKE-2	BASE	12.00	12.520	17.500	88798	0.350	-12.678	0.1	-12.1
10YR-72HR	K-LAKE-1	BASE	12.00	12.519	17.500	243175	30.309	0.080	28.4	0.1
10YR-72HR	L-CANAL	BASE	12.00	6.083	14.500	0	0.122	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	13.00	12.643	17.500	19230	0.195	0.000	0.1	0.0
10YR-72HR	B-DET 65	BASE	13.00	12.667	17.500	196	0.070	0.068	0.0	0.0
10YR-72HR	C-DET 5	BASE	13.00	12.667	17.500	17267	0.122	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	13.00	12.667	17.500	193	0.073	0.072	0.0	0.0
10YR-72HR	E-DET 4	BASE	13.00	12.532	17.500	7082	0.107	0.089	0.0	0.0
10YR-72HR	F-DET 7	BASE	13.00	12.551	17.500	31397	0.119	0.036	0.0	0.0
10YR-72HR	G-DET 8	BASE	13.00	12.548	17.500	20759	0.246	0.196	0.1	0.1

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	H-LAKE 3	BASE	13.00	12.550	17.500	106685	0.279	0.000	0.1	0.0
10YR-72HR	J-LAKE-2	BASE	13.00	12.529	17.500	88840	0.415	-12.644	0.1	-13.2
10YR-72HR	K-LAKE-1	BASE	13.00	12.528	17.500	243269	30.407	0.089	30.9	0.1
10YR-72HR	L-CANAL	BASE	13.00	6.215	14.500	0	0.135	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	14.00	12.681	17.500	19469	0.205	0.000	0.1	0.0
10YR-72HR	B-DET 65	BASE	14.00	12.691	17.500	202	0.076	0.074	0.0	0.0
10YR-72HR	C-DET 5	BASE	14.00	12.691	17.500	17426	0.115	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	14.00	12.689	17.500	199	0.079	0.078	0.0	0.0
10YR-72HR	E-DET 4	BASE	14.00	12.542	17.500	7109	0.139	0.118	0.0	0.0
10YR-72HR	F-DET 7	BASE	14.00	12.560	17.500	31486	0.129	0.044	0.1	0.0
10YR-72HR	G-DET 8	BASE	14.00	12.557	17.500	20891	0.266	0.214	0.1	0.1
10YR-72HR	H-LAKE 3	BASE	14.00	12.559	17.500	106745	0.284	0.000	0.1	0.0
10YR-72HR	J-LAKE-2	BASE	14.00	12.539	17.500	88888	0.475	-12.614	0.2	-14.2
10YR-72HR	K-LAKE-1	BASE	14.00	12.538	17.500	243378	30.502	0.099	33.4	0.1
10YR-72HR	L-CANAL	BASE	14.00	6.347	14.500	0	0.149	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	15.00	12.717	17.500	19697	0.182	0.000	0.1	0.0
10YR-72HR	B-DET 65	BASE	15.00	12.718	17.500	208	0.081	0.079	0.0	0.0
10YR-72HR	C-DET 5	BASE	15.00	12.716	17.500	17593	0.132	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	15.00	12.712	17.500	204	0.084	0.083	0.0	0.0
10YR-72HR	E-DET 4	BASE	15.00	12.554	17.500	7140	0.176	0.152	0.1	0.0
10YR-72HR	F-DET 7	BASE	15.00	12.570	17.500	31577	0.138	0.052	0.1	0.0
10YR-72HR	G-DET 8	BASE	15.00	12.566	17.500	21029	0.284	0.229	0.1	0.1
10YR-72HR	H-LAKE 3	BASE	15.00	12.569	17.500	106807	0.289	0.000	0.2	0.0
10YR-72HR	J-LAKE-2	BASE	15.00	12.550	17.500	88941	0.526	-12.589	0.2	-15.3
10YR-72HR	K-LAKE-1	BASE	15.00	12.549	17.500	243499	30.591	0.111	35.9	0.1
10YR-72HR	L-CANAL	BASE	15.00	6.479	14.500	0	0.166	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	16.00	12.748	17.500	19896	0.165	0.000	0.1	0.0
10YR-72HR	B-DET 65	BASE	16.00	12.748	17.500	214	0.085	0.084	0.0	0.0
10YR-72HR	C-DET 5	BASE	16.00	12.744	17.500	17778	0.140	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	16.00	12.738	17.500	208	0.089	0.088	0.0	0.0
10YR-72HR	E-DET 4	BASE	16.00	12.566	17.500	7173	0.214	0.188	0.1	0.1
10YR-72HR	F-DET 7	BASE	16.00	12.580	17.500	31669	0.146	0.056	0.1	0.0
10YR-72HR	G-DET 8	BASE	16.00	12.576	17.500	21176	0.301	0.241	0.2	0.1
10YR-72HR	H-LAKE 3	BASE	16.00	12.579	17.500	106870	0.301	0.000	0.2	0.0
10YR-72HR	J-LAKE-2	BASE	16.00	12.563	17.500	88999	0.562	-12.574	0.2	-16.3
10YR-72HR	K-LAKE-1	BASE	16.00	12.561	17.500	243632	30.670	0.124	38.5	0.1
10YR-72HR	L-CANAL	BASE	16.00	6.611	14.500	0	0.185	0.000	0.1	0.0
10YR-72HR	A-DET 6	BASE	17.00	12.777	17.500	20077	0.153	0.000	0.1	0.0
10YR-72HR	B-DET 65	BASE	17.00	12.777	17.500	219	0.090	0.088	0.1	0.1
10YR-72HR	C-DET 5	BASE	17.00	12.772	17.500	17960	0.134	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	17.00	12.763	17.500	213	0.094	0.092	0.1	0.1
10YR-72HR	E-DET 4	BASE	17.00	12.580	17.500	7208	0.259	0.231	0.1	0.1
10YR-72HR	F-DET 7	BASE	17.00	12.590	17.500	31766	0.153	0.058	0.1	0.0
10YR-72HR	G-DET 8	BASE	17.00	12.587	17.500	21335	0.316	0.250	0.2	0.1
10YR-72HR	H-LAKE 3	BASE	17.00	12.589	17.500	106936	0.321	0.000	0.2	0.0
10YR-72HR	J-LAKE-2	BASE	17.00	12.576	17.500	89060	0.582	-12.572	0.3	-17.4
10YR-72HR	K-LAKE-1	BASE	17.00	12.574	17.500	243775	30.741	0.140	41.0	0.1
10YR-72HR	L-CANAL	BASE	17.00	6.743	14.500	0	0.205	0.000	0.2	0.0
10YR-72HR	A-DET 6	BASE	18.00	12.803	17.500	20243	0.141	0.000	0.1	0.0
10YR-72HR	B-DET 65	BASE	18.00	12.803	17.500	223	0.094	0.092	0.1	0.1

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	C-DET 5	BASE	18.00	12.798	17.500	18128	0.122	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	18.00	12.786	17.500	217	0.098	0.097	0.1	0.1
10YR-72HR	E-DET 4	BASE	18.00	12.594	17.500	7245	0.307	0.278	0.1	0.1
10YR-72HR	F-DET 7	BASE	18.00	12.601	17.500	31869	0.160	0.057	0.1	0.0
10YR-72HR	G-DET 8	BASE	18.00	12.598	17.500	21509	0.330	0.258	0.2	0.2
10YR-72HR	H-LAKE 3	BASE	18.00	12.600	17.500	107008	0.348	0.000	0.2	0.0
10YR-72HR	J-LAKE-2	BASE	18.00	12.589	17.500	89124	0.587	-12.581	0.3	-18.4
10YR-72HR	K-LAKE-1	BASE	18.00	12.588	17.500	243925	30.802	0.157	43.6	0.1
10YR-72HR	L-CANAL	BASE	18.00	6.875	14.500	0	0.227	0.000	0.2	0.0
10YR-72HR	A-DET 6	BASE	19.00	12.827	17.500	20393	0.127	0.000	0.1	0.0
10YR-72HR	B-DET 65	BASE	19.00	12.826	17.500	227	0.097	0.096	0.1	0.1
10YR-72HR	C-DET 5	BASE	19.00	12.821	17.500	18279	0.111	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	19.00	12.807	17.500	221	0.102	0.100	0.1	0.1
10YR-72HR	E-DET 4	BASE	19.00	12.609	17.500	7283	0.354	0.324	0.1	0.1
10YR-72HR	F-DET 7	BASE	19.00	12.613	17.500	31981	0.166	0.054	0.1	0.0
10YR-72HR	G-DET 8	BASE	19.00	12.611	17.500	21698	0.343	0.264	0.2	0.2
10YR-72HR	H-LAKE 3	BASE	19.00	12.613	17.500	107085	0.378	0.000	0.3	0.0
10YR-72HR	J-LAKE-2	BASE	19.00	12.603	17.500	89191	0.585	-12.596	0.4	-19.4
10YR-72HR	K-LAKE-1	BASE	19.00	12.602	17.500	244082	30.856	0.176	46.1	0.1
10YR-72HR	L-CANAL	BASE	19.00	7.007	14.500	0	0.251	0.000	0.2	0.0
10YR-72HR	A-DET 6	BASE	20.00	12.848	17.500	20526	0.114	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	20.00	12.847	17.500	230	0.101	0.099	0.1	0.1
10YR-72HR	C-DET 5	BASE	20.00	12.841	17.500	18413	0.099	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	20.00	12.826	17.500	224	0.105	0.104	0.1	0.1
10YR-72HR	E-DET 4	BASE	20.00	12.624	17.500	7322	0.400	0.369	0.2	0.1
10YR-72HR	F-DET 7	BASE	20.00	12.626	17.500	32103	0.171	0.051	0.1	0.0
10YR-72HR	G-DET 8	BASE	20.00	12.625	17.500	21901	0.354	0.270	0.3	0.2
10YR-72HR	H-LAKE 3	BASE	20.00	12.626	17.500	107169	0.405	0.000	0.3	0.0
10YR-72HR	J-LAKE-2	BASE	20.00	12.618	17.500	89259	0.582	-12.609	0.4	-20.5
10YR-72HR	K-LAKE-1	BASE	20.00	12.617	17.500	244244	30.904	0.197	48.7	0.1
10YR-72HR	L-CANAL	BASE	20.00	7.139	14.500	0	0.279	0.000	0.2	0.0
10YR-72HR	A-DET 6	BASE	21.00	12.867	17.500	20645	0.101	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	21.00	12.866	17.500	233	0.104	0.103	0.1	0.1
10YR-72HR	C-DET 5	BASE	21.00	12.859	17.500	18532	0.088	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	21.00	12.843	17.500	226	0.108	0.107	0.1	0.1
10YR-72HR	E-DET 4	BASE	21.00	12.639	17.500	7361	0.443	0.412	0.2	0.2
10YR-72HR	F-DET 7	BASE	21.00	12.640	17.500	32232	0.177	0.048	0.1	0.0
10YR-72HR	G-DET 8	BASE	21.00	12.639	17.500	22114	0.365	0.276	0.3	0.2
10YR-72HR	H-LAKE 3	BASE	21.00	12.640	17.500	107258	0.429	0.000	0.3	0.0
10YR-72HR	J-LAKE-2	BASE	21.00	12.633	17.500	89330	0.583	-12.619	0.5	-21.5
10YR-72HR	K-LAKE-1	BASE	21.00	12.632	17.500	244409	30.951	0.219	51.2	0.2
10YR-72HR	L-CANAL	BASE	21.00	7.271	14.500	0	0.309	0.000	0.2	0.0
10YR-72HR	A-DET 6	BASE	22.00	12.883	17.500	20749	0.089	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	22.00	12.882	17.500	235	0.107	0.106	0.1	0.1
10YR-72HR	C-DET 5	BASE	22.00	12.875	17.500	18636	0.077	0.000	0.1	0.0
10YR-72HR	D-DET 54	BASE	22.00	12.857	17.500	228	0.111	0.110	0.1	0.1
10YR-72HR	E-DET 4	BASE	22.00	12.655	17.500	7401	0.483	0.452	0.2	0.2
10YR-72HR	F-DET 7	BASE	22.00	12.655	17.500	32369	0.182	0.047	0.2	0.0
10YR-72HR	G-DET 8	BASE	22.00	12.654	17.500	22337	0.375	0.282	0.3	0.3
10YR-72HR	H-LAKE 3	BASE	22.00	12.654	17.500	107352	0.448	0.000	0.4	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	J-LAKE-2	BASE	22.00	12.648	17.500	89402	0.587	-12.625	0.5	-22.6
10YR-72HR	K-LAKE-1	BASE	22.00	12.647	17.500	244579	30.998	0.242	53.8	0.2
10YR-72HR	L-CANAL	BASE	22.00	7.403	14.500	0	0.340	0.000	0.3	0.0
10YR-72HR	A-DET 6	BASE	23.00	12.898	17.500	20840	0.078	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	23.00	12.896	17.500	237	0.109	0.108	0.1	0.1
10YR-72HR	C-DET 5	BASE	23.00	12.889	17.500	18727	0.068	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	23.00	12.870	17.500	230	0.114	0.113	0.1	0.1
10YR-72HR	E-DET 4	BASE	23.00	12.671	17.500	7441	0.520	0.487	0.3	0.3
10YR-72HR	F-DET 7	BASE	23.00	12.670	17.500	32510	0.186	0.046	0.2	0.0
10YR-72HR	G-DET 8	BASE	23.00	12.669	17.500	22567	0.385	0.288	0.4	0.3
10YR-72HR	H-LAKE 3	BASE	23.00	12.670	17.500	107449	0.464	0.000	0.4	0.0
10YR-72HR	J-LAKE-2	BASE	23.00	12.664	17.500	89476	0.593	-12.628	0.6	-23.6
10YR-72HR	K-LAKE-1	BASE	23.00	12.663	17.500	244751	31.044	0.267	56.3	0.2
10YR-72HR	L-CANAL	BASE	23.00	7.535	14.500	0	0.370	0.000	0.3	0.0
10YR-72HR	A-DET 6	BASE	24.00	12.910	17.500	20919	0.068	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	24.00	12.908	17.500	239	0.112	0.111	0.1	0.1
10YR-72HR	C-DET 5	BASE	24.00	12.902	17.500	18807	0.060	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	24.00	12.881	17.500	232	0.117	0.116	0.1	0.1
10YR-72HR	E-DET 4	BASE	24.00	12.687	17.500	7481	0.553	0.520	0.3	0.3
10YR-72HR	F-DET 7	BASE	24.00	12.686	17.500	32656	0.190	0.046	0.2	0.1
10YR-72HR	G-DET 8	BASE	24.00	12.685	17.500	22804	0.393	0.293	0.4	0.3
10YR-72HR	H-LAKE 3	BASE	24.00	12.685	17.500	107549	0.477	0.000	0.5	0.0
10YR-72HR	J-LAKE-2	BASE	24.00	12.680	17.500	89552	0.601	-12.627	0.6	-24.6
10YR-72HR	K-LAKE-1	BASE	24.00	12.679	17.500	244927	31.091	0.293	58.9	0.2
10YR-72HR	L-CANAL	BASE	24.00	7.667	14.500	0	0.400	0.000	0.3	0.0
10YR-72HR	A-DET 6	BASE	25.00	12.929	17.500	21040	0.153	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	25.00	12.928	17.500	241	0.152	0.150	0.1	0.1
10YR-72HR	C-DET 5	BASE	25.00	12.921	17.500	18934	0.138	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	25.00	12.902	17.500	235	0.159	0.157	0.1	0.1
10YR-72HR	E-DET 4	BASE	25.00	12.706	17.500	7530	0.634	0.588	0.4	0.3
10YR-72HR	F-DET 7	BASE	25.00	12.705	17.500	32837	0.259	0.051	0.2	0.1
10YR-72HR	G-DET 8	BASE	25.00	12.705	17.500	23098	0.535	0.390	0.4	0.3
10YR-72HR	H-LAKE 3	BASE	25.00	12.705	17.500	107673	0.678	0.000	0.5	0.0
10YR-72HR	J-LAKE-2	BASE	25.00	12.699	17.500	89641	0.769	-12.597	0.7	-25.7
10YR-72HR	K-LAKE-1	BASE	25.00	12.698	17.500	245132	31.468	0.325	61.5	0.3
10YR-72HR	L-CANAL	BASE	25.00	7.799	14.500	0	0.437	0.000	0.4	0.0
10YR-72HR	A-DET 6	BASE	26.00	12.956	17.500	21208	0.159	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	26.00	12.955	17.500	245	0.167	0.166	0.1	0.1
10YR-72HR	C-DET 5	BASE	26.00	12.947	17.500	19105	0.141	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	26.00	12.927	17.500	238	0.175	0.173	0.1	0.1
10YR-72HR	E-DET 4	BASE	26.00	12.729	17.500	7589	0.720	0.669	0.4	0.4
10YR-72HR	F-DET 7	BASE	26.00	12.729	17.500	33057	0.285	0.060	0.2	0.1
10YR-72HR	G-DET 8	BASE	26.00	12.728	17.500	23448	0.590	0.432	0.5	0.4
10YR-72HR	H-LAKE 3	BASE	26.00	12.728	17.500	107822	0.735	0.000	0.6	0.0
10YR-72HR	J-LAKE-2	BASE	26.00	12.722	17.500	89749	0.865	-12.561	0.8	-26.7
10YR-72HR	K-LAKE-1	BASE	26.00	12.721	17.500	245379	31.689	0.366	64.1	0.3
10YR-72HR	L-CANAL	BASE	26.00	7.931	14.500	0	0.483	0.000	0.4	0.0
10YR-72HR	A-DET 6	BASE	27.00	12.981	17.500	21367	0.138	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	27.00	12.979	17.500	248	0.174	0.172	0.1	0.1
10YR-72HR	C-DET 5	BASE	27.00	12.972	17.500	19265	0.119	0.000	0.2	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	D-DET 54	BASE	27.00	12.950	17.500	241	0.182	0.181	0.2	0.2
10YR-72HR	E-DET 4	BASE	27.00	12.755	17.500	7653	0.804	0.750	0.5	0.5
10YR-72HR	F-DET 7	BASE	27.00	12.754	17.500	33287	0.297	0.064	0.3	0.1
10YR-72HR	G-DET 8	BASE	27.00	12.753	17.500	23818	0.613	0.448	0.5	0.4
10YR-72HR	H-LAKE 3	BASE	27.00	12.753	17.500	107980	0.755	0.000	0.6	0.0
10YR-72HR	J-LAKE-2	BASE	27.00	12.747	17.500	89865	0.910	-12.545	0.8	-27.8
10YR-72HR	K-LAKE-1	BASE	27.00	12.745	17.500	245648	31.826	0.411	66.7	0.3
10YR-72HR	L-CANAL	BASE	27.00	8.063	14.500	0	0.534	0.000	0.4	0.0
10YR-72HR	A-DET 6	BASE	28.00	13.002	17.500	21496	0.106	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	28.00	12.999	17.500	250	0.178	0.176	0.2	0.2
10YR-72HR	C-DET 5	BASE	28.00	12.991	17.500	19389	0.089	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	28.00	12.965	17.500	243	0.186	0.185	0.2	0.2
10YR-72HR	E-DET 4	BASE	28.00	12.781	17.500	7719	0.889	0.833	0.6	0.5
10YR-72HR	F-DET 7	BASE	28.00	12.779	17.500	33523	0.303	0.065	0.3	0.1
10YR-72HR	G-DET 8	BASE	28.00	12.778	17.500	24197	0.626	0.455	0.6	0.4
10YR-72HR	H-LAKE 3	BASE	28.00	12.779	17.500	108142	0.769	0.000	0.7	0.0
10YR-72HR	J-LAKE-2	BASE	28.00	12.772	17.500	89985	0.927	-12.546	0.9	-28.8
10YR-72HR	K-LAKE-1	BASE	28.00	12.771	17.500	245928	31.929	0.461	69.4	0.4
10YR-72HR	L-CANAL	BASE	28.00	8.194	14.500	0	0.590	0.000	0.5	0.0
10YR-72HR	A-DET 6	BASE	29.00	13.017	17.500	21593	0.079	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	29.00	13.014	17.500	252	0.181	0.180	0.2	0.2
10YR-72HR	C-DET 5	BASE	29.00	13.005	17.500	19482	0.066	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	29.00	12.976	17.500	245	0.189	0.188	0.2	0.2
10YR-72HR	E-DET 4	BASE	29.00	12.807	17.500	7787	0.960	0.904	0.6	0.6
10YR-72HR	F-DET 7	BASE	29.00	12.805	17.500	33763	0.308	0.064	0.3	0.1
10YR-72HR	G-DET 8	BASE	29.00	12.804	17.500	24585	0.637	0.460	0.6	0.5
10YR-72HR	H-LAKE 3	BASE	29.00	12.804	17.500	108306	0.785	0.000	0.8	0.0
10YR-72HR	J-LAKE-2	BASE	29.00	12.799	17.500	90108	0.937	-12.549	1.0	-29.8
10YR-72HR	K-LAKE-1	BASE	29.00	12.797	17.500	246215	32.015	0.513	72.0	0.4
10YR-72HR	L-CANAL	BASE	29.00	8.326	14.500	0	0.648	0.000	0.5	0.0
10YR-72HR	A-DET 6	BASE	30.00	13.028	17.500	21664	0.059	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	30.00	13.025	17.500	253	0.184	0.183	0.2	0.2
10YR-72HR	C-DET 5	BASE	30.00	13.016	17.500	19550	0.050	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	30.00	12.984	17.500	246	0.192	0.192	0.2	0.2
10YR-72HR	E-DET 4	BASE	30.00	12.834	17.500	7854	1.015	0.958	0.7	0.7
10YR-72HR	F-DET 7	BASE	30.00	12.831	17.500	34007	0.314	0.063	0.3	0.1
10YR-72HR	G-DET 8	BASE	30.00	12.830	17.500	24979	0.648	0.465	0.7	0.5
10YR-72HR	H-LAKE 3	BASE	30.00	12.831	17.500	108474	0.799	0.000	0.8	0.0
10YR-72HR	J-LAKE-2	BASE	30.00	12.825	17.500	90233	0.948	-12.546	1.1	-30.9
10YR-72HR	K-LAKE-1	BASE	30.00	12.824	17.500	246506	32.087	0.568	74.6	0.4
10YR-72HR	L-CANAL	BASE	30.00	8.458	14.500	0	0.708	0.000	0.6	0.0
10YR-72HR	A-DET 6	BASE	31.00	13.037	17.500	21719	0.047	0.000	0.2	0.0
10YR-72HR	B-DET 65	BASE	31.00	13.034	17.500	254	0.187	0.186	0.2	0.2
10YR-72HR	C-DET 5	BASE	31.00	13.024	17.500	19603	0.041	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	31.00	12.991	17.500	248	0.195	0.195	0.2	0.2
10YR-72HR	E-DET 4	BASE	31.00	12.861	17.500	7921	1.052	0.995	0.8	0.7
10YR-72HR	F-DET 7	BASE	31.00	12.858	17.500	34255	0.318	0.064	0.4	0.1
10YR-72HR	G-DET 8	BASE	31.00	12.857	17.500	25377	0.658	0.471	0.7	0.5
10YR-72HR	H-LAKE 3	BASE	31.00	12.857	17.500	108643	0.808	0.000	0.9	0.0
10YR-72HR	J-LAKE-2	BASE	31.00	12.852	17.500	90359	0.963	-12.535	1.1	-31.9

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	K-LAKE-1	BASE	31.00	12.851	17.500	246798	32.150	0.624	77.3	0.5
10YR-72HR	L-CANAL	BASE	31.00	8.590	14.500	0	0.769	0.000	0.7	0.0
10YR-72HR	A-DET 6	BASE	32.00	13.044	17.500	21765	0.042	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	32.00	13.041	17.500	255	0.189	0.189	0.2	0.2
10YR-72HR	C-DET 5	BASE	32.00	13.031	17.500	19650	0.039	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	32.00	12.999	17.500	249	0.198	0.197	0.2	0.2
10YR-72HR	E-DET 4	BASE	32.00	12.887	17.500	7988	1.075	1.018	0.9	0.8
10YR-72HR	F-DET 7	BASE	32.00	12.885	17.500	34504	0.323	0.065	0.4	0.1
10YR-72HR	G-DET 8	BASE	32.00	12.884	17.500	25777	0.667	0.476	0.8	0.6
10YR-72HR	H-LAKE 3	BASE	32.00	12.884	17.500	108814	0.812	0.000	0.9	0.0
10YR-72HR	J-LAKE-2	BASE	32.00	12.879	17.500	90485	0.983	-12.516	1.2	-32.9
10YR-72HR	K-LAKE-1	BASE	32.00	12.877	17.500	247090	32.204	0.681	80.0	0.5
10YR-72HR	L-CANAL	BASE	32.00	8.722	14.500	0	0.831	0.000	0.7	0.0
10YR-72HR	A-DET 6	BASE	33.00	13.051	17.500	21808	0.042	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	33.00	13.048	17.500	255	0.192	0.191	0.2	0.2
10YR-72HR	C-DET 5	BASE	33.00	13.038	17.500	19697	0.041	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	33.00	13.007	17.500	250	0.200	0.200	0.3	0.2
10YR-72HR	E-DET 4	BASE	33.00	12.913	17.500	8055	1.087	1.030	1.0	0.9
10YR-72HR	F-DET 7	BASE	33.00	12.912	17.500	34753	0.327	0.067	0.4	0.1
10YR-72HR	G-DET 8	BASE	33.00	12.911	17.500	26178	0.675	0.482	0.8	0.6
10YR-72HR	H-LAKE 3	BASE	33.00	12.911	17.500	108985	0.813	0.000	1.0	0.0
10YR-72HR	J-LAKE-2	BASE	33.00	12.906	17.500	90611	1.006	-12.491	1.3	-34.0
10YR-72HR	K-LAKE-1	BASE	33.00	12.904	17.500	247381	32.252	0.738	82.6	0.6
10YR-72HR	L-CANAL	BASE	33.00	8.854	14.500	0	0.893	0.000	0.8	0.0
10YR-72HR	A-DET 6	BASE	34.00	13.059	17.500	21854	0.047	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	34.00	13.055	17.500	256	0.194	0.193	0.3	0.3
10YR-72HR	C-DET 5	BASE	34.00	13.046	17.500	19748	0.047	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	34.00	13.017	17.500	251	0.203	0.202	0.3	0.3
10YR-72HR	E-DET 4	BASE	34.00	12.939	17.500	8120	1.089	1.032	1.1	1.0
10YR-72HR	F-DET 7	BASE	34.00	12.938	17.500	35002	0.330	0.070	0.4	0.1
10YR-72HR	G-DET 8	BASE	34.00	12.937	17.500	26577	0.682	0.488	0.9	0.7
10YR-72HR	H-LAKE 3	BASE	34.00	12.938	17.500	109155	0.810	0.000	1.1	0.0
10YR-72HR	J-LAKE-2	BASE	34.00	12.932	17.500	90737	1.032	-12.461	1.4	-35.0
10YR-72HR	K-LAKE-1	BASE	34.00	12.930	17.500	247669	32.294	0.794	85.3	0.7
10YR-72HR	L-CANAL	BASE	34.00	8.986	14.500	0	0.954	0.000	0.9	0.0
10YR-72HR	A-DET 6	BASE	35.00	13.067	17.500	21907	0.055	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	35.00	13.064	17.500	257	0.196	0.195	0.3	0.3
10YR-72HR	C-DET 5	BASE	35.00	13.055	17.500	19808	0.055	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	35.00	13.029	17.500	253	0.205	0.204	0.3	0.3
10YR-72HR	E-DET 4	BASE	35.00	12.965	17.500	8186	1.084	1.028	1.2	1.1
10YR-72HR	F-DET 7	BASE	35.00	12.965	17.500	35250	0.334	0.074	0.5	0.1
10YR-72HR	G-DET 8	BASE	35.00	12.964	17.500	26973	0.689	0.494	1.0	0.7
10YR-72HR	H-LAKE 3	BASE	35.00	12.965	17.500	109324	0.804	0.000	1.2	0.0
10YR-72HR	J-LAKE-2	BASE	35.00	12.959	17.500	90861	1.060	-12.427	1.5	-36.0
10YR-72HR	K-LAKE-1	BASE	35.00	12.957	17.500	247955	32.331	0.849	88.0	0.7
10YR-72HR	L-CANAL	BASE	35.00	9.118	14.500	0	1.013	0.000	1.0	0.0
10YR-72HR	A-DET 6	BASE	36.00	13.077	17.500	21969	0.066	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	36.00	13.074	17.500	258	0.198	0.197	0.3	0.3
10YR-72HR	C-DET 5	BASE	36.00	13.066	17.500	19880	0.066	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	36.00	13.043	17.500	254	0.207	0.205	0.3	0.3

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	E-DET 4	BASE	36.00	12.991	17.500	8250	1.074	1.018	1.3	1.2
10YR-72HR	F-DET 7	BASE	36.00	12.991	17.500	35495	0.337	0.078	0.5	0.1
10YR-72HR	G-DET 8	BASE	36.00	12.990	17.500	27365	0.696	0.500	1.0	0.8
10YR-72HR	H-LAKE 3	BASE	36.00	12.991	17.500	109492	0.797	0.000	1.2	0.0
10YR-72HR	J-LAKE-2	BASE	36.00	12.985	17.500	90984	1.089	-12.391	1.6	-37.1
10YR-72HR	K-LAKE-1	BASE	36.00	12.982	17.500	248238	32.365	0.902	90.6	0.8
10YR-72HR	L-CANAL	BASE	36.00	9.250	14.500	0	1.070	0.000	1.0	0.0
10YR-72HR	A-DET 6	BASE	37.00	13.089	17.500	22045	0.081	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	37.00	13.086	17.500	259	0.201	0.200	0.3	0.3
10YR-72HR	C-DET 5	BASE	37.00	13.079	17.500	19965	0.079	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	37.00	13.059	17.500	256	0.210	0.209	0.3	0.3
10YR-72HR	E-DET 4	BASE	37.00	13.016	17.500	8314	1.065	1.008	1.3	1.3
10YR-72HR	F-DET 7	BASE	37.00	13.018	17.500	35738	0.342	0.082	0.5	0.1
10YR-72HR	G-DET 8	BASE	37.00	13.016	17.500	27755	0.707	0.509	1.1	0.8
10YR-72HR	H-LAKE 3	BASE	37.00	13.017	17.500	109658	0.797	0.000	1.3	0.0
10YR-72HR	J-LAKE-2	BASE	37.00	13.011	17.500	91106	1.124	-12.354	1.7	-38.1
10YR-72HR	K-LAKE-1	BASE	37.00	13.008	17.500	248518	32.409	0.951	93.3	0.9
10YR-72HR	L-CANAL	BASE	37.00	9.382	14.500	0	1.124	0.000	1.1	0.0
10YR-72HR	A-DET 6	BASE	38.00	13.103	17.500	22133	0.092	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	38.00	13.101	17.500	261	0.203	0.202	0.3	0.3
10YR-72HR	C-DET 5	BASE	38.00	13.095	17.500	20063	0.090	0.000	0.2	0.0
10YR-72HR	D-DET 54	BASE	38.00	13.077	17.500	258	0.212	0.211	0.3	0.3
10YR-72HR	E-DET 4	BASE	38.00	13.041	17.500	8377	1.056	0.999	1.4	1.3
10YR-72HR	F-DET 7	BASE	38.00	13.044	17.500	35980	0.346	0.087	0.5	0.1
10YR-72HR	G-DET 8	BASE	38.00	13.042	17.500	28143	0.715	0.515	1.1	0.8
10YR-72HR	H-LAKE 3	BASE	38.00	13.043	17.500	109824	0.790	0.000	1.3	0.0
10YR-72HR	J-LAKE-2	BASE	38.00	13.037	17.500	91227	1.155	-12.318	1.7	-39.1
10YR-72HR	K-LAKE-1	BASE	38.00	13.034	17.500	248797	32.444	0.997	96.0	1.0
10YR-72HR	L-CANAL	BASE	38.00	9.514	14.500	0	1.174	0.000	1.2	0.0
10YR-72HR	A-DET 6	BASE	39.00	13.119	17.500	22233	0.103	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	39.00	13.117	17.500	262	0.204	0.203	0.3	0.3
10YR-72HR	C-DET 5	BASE	39.00	13.111	17.500	20173	0.099	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	39.00	13.096	17.500	260	0.214	0.212	0.4	0.4
10YR-72HR	E-DET 4	BASE	39.00	13.066	17.500	8440	1.046	0.989	1.5	1.4
10YR-72HR	F-DET 7	BASE	39.00	13.069	17.500	36220	0.349	0.090	0.6	0.1
10YR-72HR	G-DET 8	BASE	39.00	13.068	17.500	28526	0.720	0.520	1.2	0.9
10YR-72HR	H-LAKE 3	BASE	39.00	13.069	17.500	109988	0.783	0.000	1.4	0.0
10YR-72HR	J-LAKE-2	BASE	39.00	13.062	17.500	91348	1.181	-12.286	1.8	-40.1
10YR-72HR	K-LAKE-1	BASE	39.00	13.059	17.500	249074	32.472	1.038	98.7	1.0
10YR-72HR	L-CANAL	BASE	39.00	9.646	14.500	0	1.219	0.000	1.3	0.0
10YR-72HR	A-DET 6	BASE	40.00	13.136	17.500	22342	0.112	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	40.00	13.135	17.500	264	0.206	0.205	0.4	0.4
10YR-72HR	C-DET 5	BASE	40.00	13.130	17.500	20291	0.106	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	40.00	13.117	17.500	262	0.215	0.214	0.4	0.4
10YR-72HR	E-DET 4	BASE	40.00	13.091	17.500	8503	1.037	0.980	1.6	1.5
10YR-72HR	F-DET 7	BASE	40.00	13.095	17.500	36457	0.351	0.093	0.6	0.1
10YR-72HR	G-DET 8	BASE	40.00	13.093	17.500	28907	0.725	0.524	1.3	0.9
10YR-72HR	H-LAKE 3	BASE	40.00	13.094	17.500	110150	0.778	0.000	1.5	0.0
10YR-72HR	J-LAKE-2	BASE	40.00	13.088	17.500	91467	1.203	-12.260	1.9	-41.1
10YR-72HR	K-LAKE-1	BASE	40.00	13.084	17.500	249350	32.493	1.069	101.4	1.1

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	L-CANAL	BASE	40.00	9.778	14.500	0	1.254	0.000	1.4	0.0
10YR-72HR	A-DET 6	BASE	41.00	13.155	17.500	22460	0.119	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	41.00	13.153	17.500	266	0.207	0.206	0.4	0.4
10YR-72HR	C-DET 5	BASE	41.00	13.149	17.500	20417	0.112	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	41.00	13.138	17.500	264	0.217	0.215	0.4	0.4
10YR-72HR	E-DET 4	BASE	41.00	13.116	17.500	8565	1.032	0.976	1.7	1.6
10YR-72HR	F-DET 7	BASE	41.00	13.120	17.500	36692	0.353	0.097	0.6	0.2
10YR-72HR	G-DET 8	BASE	41.00	13.118	17.500	29284	0.730	0.529	1.3	1.0
10YR-72HR	H-LAKE 3	BASE	41.00	13.120	17.500	110311	0.770	0.000	1.5	0.0
10YR-72HR	J-LAKE-2	BASE	41.00	13.113	17.500	91586	1.228	-12.224	2.0	-42.2
10YR-72HR	K-LAKE-1	BASE	41.00	13.109	17.500	249621	32.527	1.134	104.0	1.2
10YR-72HR	L-CANAL	BASE	41.00	9.910	14.500	0	1.322	0.000	1.5	0.0
10YR-72HR	A-DET 6	BASE	42.00	13.174	17.500	22582	0.125	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	42.00	13.173	17.500	267	0.208	0.207	0.4	0.4
10YR-72HR	C-DET 5	BASE	42.00	13.169	17.500	20547	0.116	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	42.00	13.159	17.500	266	0.218	0.216	0.4	0.4
10YR-72HR	E-DET 4	BASE	42.00	13.140	17.500	8626	1.030	0.974	1.8	1.7
10YR-72HR	F-DET 7	BASE	42.00	13.145	17.500	36924	0.355	0.101	0.7	0.2
10YR-72HR	G-DET 8	BASE	42.00	13.143	17.500	29655	0.734	0.533	1.4	1.0
10YR-72HR	H-LAKE 3	BASE	42.00	13.145	17.500	110470	0.760	0.000	1.6	0.0
10YR-72HR	J-LAKE-2	BASE	42.00	13.138	17.500	91702	1.255	-12.187	2.1	-43.2
10YR-72HR	K-LAKE-1	BASE	42.00	13.134	17.500	249889	32.565	1.197	106.7	1.3
10YR-72HR	L-CANAL	BASE	42.00	10.042	14.500	0	1.390	0.000	1.6	0.0
10YR-72HR	A-DET 6	BASE	43.00	13.194	17.500	22709	0.128	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	43.00	13.193	17.500	269	0.210	0.208	0.4	0.4
10YR-72HR	C-DET 5	BASE	43.00	13.190	17.500	20680	0.119	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	43.00	13.181	17.500	268	0.219	0.217	0.4	0.4
10YR-72HR	E-DET 4	BASE	43.00	13.164	17.500	8686	1.030	0.975	1.9	1.7
10YR-72HR	F-DET 7	BASE	43.00	13.170	17.500	37153	0.357	0.105	0.7	0.2
10YR-72HR	G-DET 8	BASE	43.00	13.168	17.500	30021	0.738	0.538	1.4	1.1
10YR-72HR	H-LAKE 3	BASE	43.00	13.169	17.500	110626	0.750	0.000	1.7	0.0
10YR-72HR	J-LAKE-2	BASE	43.00	13.162	17.500	91817	1.282	-12.150	2.2	-44.2
10YR-72HR	K-LAKE-1	BASE	43.00	13.158	17.500	250152	32.604	1.260	109.4	1.4
10YR-72HR	L-CANAL	BASE	43.00	10.174	14.500	0	1.456	0.000	1.8	0.0
10YR-72HR	A-DET 6	BASE	44.00	13.215	17.500	22837	0.131	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	44.00	13.214	17.500	271	0.211	0.209	0.4	0.4
10YR-72HR	C-DET 5	BASE	44.00	13.211	17.500	20816	0.121	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	44.00	13.203	17.500	270	0.220	0.219	0.4	0.4
10YR-72HR	E-DET 4	BASE	44.00	13.188	17.500	8746	1.032	0.977	1.9	1.8
10YR-72HR	F-DET 7	BASE	44.00	13.194	17.500	37378	0.359	0.109	0.7	0.2
10YR-72HR	G-DET 8	BASE	44.00	13.192	17.500	30382	0.742	0.542	1.5	1.1
10YR-72HR	H-LAKE 3	BASE	44.00	13.193	17.500	110780	0.740	0.000	1.7	0.0
10YR-72HR	J-LAKE-2	BASE	44.00	13.186	17.500	91930	1.308	-12.115	2.4	-45.2
10YR-72HR	K-LAKE-1	BASE	44.00	13.181	17.500	250412	32.643	1.322	112.1	1.5
10YR-72HR	L-CANAL	BASE	44.00	10.306	14.500	0	1.521	0.000	1.9	0.0
10YR-72HR	A-DET 6	BASE	45.00	13.236	17.500	22967	0.132	0.000	0.3	0.0
10YR-72HR	B-DET 65	BASE	45.00	13.235	17.500	273	0.212	0.210	0.4	0.4
10YR-72HR	C-DET 5	BASE	45.00	13.232	17.500	20952	0.123	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	45.00	13.225	17.500	272	0.221	0.220	0.5	0.5
10YR-72HR	E-DET 4	BASE	45.00	13.211	17.500	8804	1.036	0.981	2.0	1.9

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
10YR-72HR	F-DET 7	BASE	45.00	13.218	17.500	37600	0.361	0.113	0.8	0.2
10YR-72HR	G-DET 8	BASE	45.00	13.215	17.500	30738	0.746	0.547	1.6	1.1
10YR-72HR	H-LAKE 3	BASE	45.00	13.217	17.500	110932	0.730	0.000	1.8	0.0
10YR-72HR	J-LAKE-2	BASE	45.00	13.210	17.500	92041	1.332	-12.081	2.5	-46.2
10YR-72HR	K-LAKE-1	BASE	45.00	13.205	17.500	250668	32.681	1.383	114.8	1.6
10YR-72HR	L-CANAL	BASE	45.00	10.438	14.500	0	1.586	0.000	2.0	0.0
10YR-72HR	A-DET 6	BASE	46.00	13.256	17.500	23098	0.134	0.000	0.4	0.0
10YR-72HR	B-DET 65	BASE	46.00	13.256	17.500	274	0.213	0.211	0.5	0.5
10YR-72HR	C-DET 5	BASE	46.00	13.253	17.500	21089	0.124	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	46.00	13.246	17.500	273	0.222	0.221	0.5	0.5
10YR-72HR	E-DET 4	BASE	46.00	13.234	17.500	8862	1.040	0.985	2.1	2.0
10YR-72HR	F-DET 7	BASE	46.00	13.241	17.500	37818	0.362	0.117	0.8	0.2
10YR-72HR	G-DET 8	BASE	46.00	13.239	17.500	31088	0.749	0.551	1.6	1.2
10YR-72HR	H-LAKE 3	BASE	46.00	13.241	17.500	111082	0.720	0.000	1.8	0.0
10YR-72HR	J-LAKE-2	BASE	46.00	13.233	17.500	92151	1.356	-12.048	2.6	-47.2
10YR-72HR	K-LAKE-1	BASE	46.00	13.228	17.500	250920	32.718	1.440	117.5	1.8
10YR-72HR	L-CANAL	BASE	46.00	10.569	14.500	0	1.645	0.000	2.2	0.0
10YR-72HR	A-DET 6	BASE	47.00	13.277	17.500	23229	0.135	0.000	0.4	0.0
10YR-72HR	B-DET 65	BASE	47.00	13.276	17.500	276	0.214	0.212	0.5	0.5
10YR-72HR	C-DET 5	BASE	47.00	13.274	17.500	21225	0.125	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	47.00	13.268	17.500	275	0.223	0.222	0.5	0.5
10YR-72HR	E-DET 4	BASE	47.00	13.257	17.500	8920	1.042	0.988	2.2	2.1
10YR-72HR	F-DET 7	BASE	47.00	13.265	17.500	38034	0.364	0.120	0.8	0.2
10YR-72HR	G-DET 8	BASE	47.00	13.262	17.500	31434	0.752	0.553	1.7	1.2
10YR-72HR	H-LAKE 3	BASE	47.00	13.264	17.500	111229	0.714	0.000	1.9	0.0
10YR-72HR	J-LAKE-2	BASE	47.00	13.256	17.500	92260	1.374	-12.025	2.7	-48.2
10YR-72HR	K-LAKE-1	BASE	47.00	13.251	17.500	251171	32.745	1.472	120.2	1.9
10YR-72HR	L-CANAL	BASE	47.00	10.701	14.500	0	1.680	0.000	2.3	0.0
10YR-72HR	A-DET 6	BASE	48.00	13.298	17.500	23361	0.136	0.000	0.4	0.0
10YR-72HR	B-DET 65	BASE	48.00	13.298	17.500	277	0.214	0.213	0.5	0.5
10YR-72HR	C-DET 5	BASE	48.00	13.295	17.500	21363	0.126	0.000	0.3	0.0
10YR-72HR	D-DET 54	BASE	48.00	13.290	17.500	277	0.224	0.222	0.5	0.5
10YR-72HR	E-DET 4	BASE	48.00	13.280	17.500	8977	1.045	0.990	2.3	2.1
10YR-72HR	F-DET 7	BASE	48.00	13.288	17.500	38248	0.365	0.122	0.8	0.2
10YR-72HR	G-DET 8	BASE	48.00	13.285	17.500	31778	0.755	0.556	1.7	1.3
10YR-72HR	H-LAKE 3	BASE	48.00	13.287	17.500	111376	0.709	0.000	2.0	0.0
10YR-72HR	J-LAKE-2	BASE	48.00	13.279	17.500	92368	1.389	-12.006	2.8	-49.2
10YR-72HR	K-LAKE-1	BASE	48.00	13.274	17.500	251420	32.767	1.503	122.9	2.0
10YR-72HR	L-CANAL	BASE	48.00	10.833	14.500	0	1.714	0.000	2.4	0.0
10YR-72HR	A-DET 6	BASE	49.00	13.322	17.500	23510	0.166	0.000	0.4	0.0
10YR-72HR	B-DET 65	BASE	49.00	13.321	17.500	279	0.232	0.230	0.5	0.5
10YR-72HR	C-DET 5	BASE	49.00	13.319	17.500	21517	0.152	0.000	0.4	0.0
10YR-72HR	D-DET 54	BASE	49.00	13.314	17.500	279	0.243	0.241	0.5	0.5
10YR-72HR	E-DET 4	BASE	49.00	13.304	17.500	9037	1.099	1.037	2.4	2.2
10YR-72HR	F-DET 7	BASE	49.00	13.312	17.500	38473	0.396	0.125	0.9	0.2
10YR-72HR	G-DET 8	BASE	49.00	13.309	17.500	32141	0.819	0.595	1.8	1.3
10YR-72HR	H-LAKE 3	BASE	49.00	13.311	17.500	111530	0.787	0.000	2.0	0.0
10YR-72HR	J-LAKE-2	BASE	49.00	13.303	17.500	92481	1.472	-11.982	2.9	-50.1
10YR-72HR	K-LAKE-1	BASE	49.00	13.298	17.500	251681	32.960	1.534	125.7	2.1
10YR-72HR	L-CANAL	BASE	49.00	10.965	14.500	0	1.749	0.000	2.6	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	A-DET 6	BASE	50.00	13.348	17.500	23673	0.171	0.000	0.4	0.0
10YR-72HR	B-DET 65	BASE	50.00	13.347	17.500	281	0.242	0.240	0.5	0.5
10YR-72HR	C-DET 5	BASE	50.00	13.345	17.500	21684	0.157	0.000	0.4	0.0
10YR-72HR	D-DET 54	BASE	50.00	13.340	17.500	280	0.253	0.251	0.6	0.6
10YR-72HR	E-DET 4	BASE	50.00	13.330	17.500	9102	1.150	1.085	2.5	2.3
10YR-72HR	F-DET 7	BASE	50.00	13.338	17.500	38715	0.413	0.127	0.9	0.2
10YR-72HR	G-DET 8	BASE	50.00	13.335	17.500	32531	0.854	0.616	1.9	1.4
10YR-72HR	H-LAKE 3	BASE	50.00	13.337	17.500	111696	0.825	0.000	2.1	0.0
10YR-72HR	J-LAKE-2	BASE	50.00	13.329	17.500	92603	1.524	-11.964	3.0	-51.1
10YR-72HR	K-LAKE-1	BASE	50.00	13.324	17.500	251964	33.091	1.568	128.4	2.3
10YR-72HR	L-CANAL	BASE	50.00	11.097	14.500	0	1.786	0.000	2.7	0.0
10YR-72HR	A-DET 6	BASE	51.00	13.379	17.500	23865	0.221	0.000	0.4	0.0
10YR-72HR	B-DET 65	BASE	51.00	13.378	17.500	283	0.278	0.275	0.6	0.5
10YR-72HR	C-DET 5	BASE	51.00	13.376	17.500	21881	0.201	0.000	0.4	0.0
10YR-72HR	D-DET 54	BASE	51.00	13.370	17.500	282	0.291	0.288	0.6	0.6
10YR-72HR	E-DET 4	BASE	51.00	13.360	17.500	9176	1.272	1.193	2.6	2.4
10YR-72HR	F-DET 7	BASE	51.00	13.367	17.500	38989	0.474	0.130	0.9	0.2
10YR-72HR	G-DET 8	BASE	51.00	13.365	17.500	32971	0.979	0.691	2.0	1.4
10YR-72HR	H-LAKE 3	BASE	51.00	13.367	17.500	111883	0.986	0.000	2.2	0.0
10YR-72HR	J-LAKE-2	BASE	51.00	13.358	17.500	92740	1.676	-11.938	3.2	-52.1
10YR-72HR	K-LAKE-1	BASE	51.00	13.352	17.500	252280	33.469	1.605	131.1	2.4
10YR-72HR	L-CANAL	BASE	51.00	11.229	14.500	0	1.827	0.000	2.9	0.0
10YR-72HR	A-DET 6	BASE	52.00	13.414	17.500	24089	0.247	0.000	0.4	0.0
10YR-72HR	B-DET 65	BASE	52.00	13.414	17.500	285	0.309	0.306	0.6	0.6
10YR-72HR	C-DET 5	BASE	52.00	13.411	17.500	22110	0.226	0.000	0.4	0.0
10YR-72HR	D-DET 54	BASE	52.00	13.405	17.500	285	0.323	0.320	0.6	0.6
10YR-72HR	E-DET 4	BASE	52.00	13.394	17.500	9262	1.407	1.316	2.7	2.5
10YR-72HR	F-DET 7	BASE	52.00	13.402	17.500	39305	0.526	0.133	1.0	0.3
10YR-72HR	G-DET 8	BASE	52.00	13.399	17.500	33481	1.087	0.755	2.0	1.5
10YR-72HR	H-LAKE 3	BASE	52.00	13.401	17.500	112099	1.121	0.000	2.3	0.0
10YR-72HR	J-LAKE-2	BASE	52.00	13.392	17.500	92899	1.811	-11.917	3.3	-53.1
10YR-72HR	K-LAKE-1	BASE	52.00	13.386	17.500	252648	33.825	1.647	133.9	2.5
10YR-72HR	L-CANAL	BASE	52.00	11.361	14.500	0	1.873	0.000	3.0	0.0
10YR-72HR	A-DET 6	BASE	53.00	13.461	17.500	24383	0.355	0.000	0.5	0.0
10YR-72HR	B-DET 65	BASE	53.00	13.460	17.500	288	0.388	0.384	0.6	0.6
10YR-72HR	C-DET 5	BASE	53.00	13.457	17.500	22409	0.322	0.000	0.4	0.0
10YR-72HR	D-DET 54	BASE	53.00	13.450	17.500	287	0.406	0.402	0.6	0.6
10YR-72HR	E-DET 4	BASE	53.00	13.437	17.500	9368	1.687	1.564	2.8	2.6
10YR-72HR	F-DET 7	BASE	53.00	13.444	17.500	39698	0.661	0.136	1.0	0.3
10YR-72HR	G-DET 8	BASE	53.00	13.441	17.500	34117	1.367	0.918	2.1	1.6
10YR-72HR	H-LAKE 3	BASE	53.00	13.443	17.500	112368	1.485	0.000	2.4	0.0
10YR-72HR	J-LAKE-2	BASE	53.00	13.434	17.500	93095	2.139	-11.879	3.5	-54.1
10YR-72HR	K-LAKE-1	BASE	53.00	13.428	17.500	253100	34.662	1.697	136.7	2.7
10YR-72HR	L-CANAL	BASE	53.00	11.493	14.500	0	1.928	0.000	3.2	0.0
10YR-72HR	A-DET 6	BASE	54.00	13.523	17.500	24770	0.459	0.000	0.5	0.0
10YR-72HR	B-DET 65	BASE	54.00	13.522	17.500	291	0.483	0.478	0.6	0.6
10YR-72HR	C-DET 5	BASE	54.00	13.518	17.500	22801	0.418	0.000	0.5	0.0
10YR-72HR	D-DET 54	BASE	54.00	13.510	17.500	291	0.505	0.500	0.7	0.7
10YR-72HR	E-DET 4	BASE	54.00	13.493	17.500	9508	2.067	1.905	3.0	2.8
10YR-72HR	F-DET 7	BASE	54.00	13.499	17.500	40210	0.824	0.139	1.1	0.3

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	G-DET 8	BASE	54.00	13.497	17.500	34944	1.702	1.109	2.3	1.6
10YR-72HR	H-LAKE 3	BASE	54.00	13.498	17.500	112719	1.920	0.000	2.5	0.0
10YR-72HR	J-LAKE-2	BASE	54.00	13.488	17.500	93351	2.530	-11.845	3.7	-55.1
10YR-72HR	K-LAKE-1	BASE	54.00	13.482	17.500	253692	35.702	1.760	139.6	2.8
10YR-72HR	L-CANAL	BASE	54.00	11.625	14.500	0	1.998	0.000	3.3	0.0
10YR-72HR	A-DET 6	BASE	55.00	13.598	17.500	25243	0.561	0.000	0.5	0.0
10YR-72HR	B-DET 65	BASE	55.00	13.597	17.500	295	0.586	0.579	0.7	0.7
10YR-72HR	C-DET 5	BASE	55.00	13.593	17.500	23282	0.514	0.000	0.5	0.0
10YR-72HR	D-DET 54	BASE	55.00	13.583	17.500	294	0.613	0.606	0.7	0.7
10YR-72HR	E-DET 4	BASE	55.00	13.563	17.500	9684	2.495	2.290	3.2	3.0
10YR-72HR	F-DET 7	BASE	55.00	13.568	17.500	40855	0.999	0.138	1.2	0.3
10YR-72HR	G-DET 8	BASE	55.00	13.566	17.500	35984	2.064	1.307	2.4	1.7
10YR-72HR	H-LAKE 3	BASE	55.00	13.568	17.500	113160	2.385	0.000	2.7	0.0
10YR-72HR	J-LAKE-2	BASE	55.00	13.557	17.500	93674	2.942	-11.818	3.9	-56.0
10YR-72HR	K-LAKE-1	BASE	55.00	13.550	17.500	254440	36.830	1.837	142.6	2.9
10YR-72HR	L-CANAL	BASE	55.00	11.757	14.500	0	2.083	0.000	3.5	0.0
10YR-72HR	A-DET 6	BASE	56.00	13.686	17.500	25795	0.662	0.000	0.6	0.0
10YR-72HR	B-DET 65	BASE	56.00	13.685	17.500	298	0.691	0.683	0.7	0.7
10YR-72HR	C-DET 5	BASE	56.00	13.681	17.500	23846	0.611	0.000	0.5	0.0
10YR-72HR	D-DET 54	BASE	56.00	13.670	17.500	298	0.722	0.714	0.8	0.8
10YR-72HR	E-DET 4	BASE	56.00	13.648	17.500	9895	2.934	2.684	3.4	3.2
10YR-72HR	F-DET 7	BASE	56.00	13.652	17.500	41634	1.177	0.133	1.3	0.3
10YR-72HR	G-DET 8	BASE	56.00	13.650	17.500	37242	2.433	1.500	2.6	1.9
10YR-72HR	H-LAKE 3	BASE	56.00	13.651	17.500	113694	2.854	0.000	2.9	0.0
10YR-72HR	J-LAKE-2	BASE	56.00	13.640	17.500	94066	3.353	-11.796	4.2	-57.0
10YR-72HR	K-LAKE-1	BASE	56.00	13.633	17.500	255349	37.975	1.926	145.7	3.1
10YR-72HR	L-CANAL	BASE	56.00	11.889	14.500	0	2.181	0.000	3.7	0.0
10YR-72HR	A-DET 6	BASE	57.00	13.790	17.500	26441	0.804	0.000	0.7	0.0
10YR-72HR	B-DET 65	BASE	57.00	13.789	17.500	302	0.811	0.802	0.8	0.8
10YR-72HR	C-DET 5	BASE	57.00	13.784	17.500	24508	0.746	0.000	0.6	0.0
10YR-72HR	D-DET 54	BASE	57.00	13.773	17.500	302	0.848	0.839	0.8	0.8
10YR-72HR	E-DET 4	BASE	57.00	13.750	17.500	10150	3.392	3.082	3.6	3.4
10YR-72HR	F-DET 7	BASE	57.00	13.751	17.500	42557	1.383	0.123	1.4	0.3
10YR-72HR	G-DET 8	BASE	57.00	13.750	17.500	38731	2.858	1.713	2.8	2.0
10YR-72HR	H-LAKE 3	BASE	57.00	13.751	17.500	114326	3.388	0.000	3.2	0.0
10YR-72HR	J-LAKE-2	BASE	57.00	13.739	17.500	94530	3.822	-11.762	4.5	-58.0
10YR-72HR	K-LAKE-1	BASE	57.00	13.732	17.500	256426	39.248	2.027	148.9	3.3
10YR-72HR	L-CANAL	BASE	57.00	12.021	14.500	0	2.292	0.000	3.9	0.0
10YR-72HR	A-DET 6	BASE	58.00	13.915	17.500	27228	1.073	0.000	0.7	0.0
10YR-72HR	B-DET 65	BASE	58.00	13.914	17.500	305	1.000	0.988	0.9	0.9
10YR-72HR	C-DET 5	BASE	58.00	13.909	17.500	25314	0.995	0.000	0.7	0.0
10YR-72HR	D-DET 54	BASE	58.00	13.898	17.500	305	1.045	1.033	0.9	0.9
10YR-72HR	E-DET 4	BASE	58.00	13.875	17.500	10459	4.019	3.615	3.9	3.7
10YR-72HR	F-DET 7	BASE	58.00	13.870	17.500	43660	1.704	0.103	1.5	0.3
10YR-72HR	G-DET 8	BASE	58.00	13.869	17.500	40514	3.521	2.034	3.1	2.1
10YR-72HR	H-LAKE 3	BASE	58.00	13.870	17.500	115082	4.224	0.000	3.5	0.0
10YR-72HR	J-LAKE-2	BASE	58.00	13.857	17.500	95084	4.536	-11.713	4.8	-59.0
10YR-72HR	K-LAKE-1	BASE	58.00	13.850	17.500	257710	41.145	2.141	152.2	3.4
10YR-72HR	L-CANAL	BASE	58.00	12.153	14.500	0	2.418	0.000	4.1	0.0
10YR-72HR	A-DET 6	BASE	59.00	14.080	17.500	28257	1.621	0.000	0.8	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	B-DET 65	BASE	59.00	14.079	17.500	308	1.342	1.324	1.0	1.0
10YR-72HR	C-DET 5	BASE	59.00	14.074	17.500	26366	1.504	0.000	0.8	0.0
10YR-72HR	D-DET 54	BASE	59.00	14.062	17.500	308	1.403	1.386	1.0	1.0
10YR-72HR	E-DET 4	BASE	59.00	14.035	17.500	10857	5.044	4.452	4.3	4.0
10YR-72HR	F-DET 7	BASE	59.00	14.020	17.500	45053	2.287	0.049	1.7	0.3
10YR-72HR	G-DET 8	BASE	59.00	14.020	17.500	42769	4.727	2.583	3.4	2.3
10YR-72HR	H-LAKE 3	BASE	59.00	14.020	17.500	116037	5.782	0.000	3.9	0.0
10YR-72HR	J-LAKE-2	BASE	59.00	14.005	17.500	95779	5.740	-11.669	5.2	-59.9
10YR-72HR	K-LAKE-1	BASE	59.00	13.997	17.500	259323	44.430	2.276	155.8	3.6
10YR-72HR	L-CANAL	BASE	59.00	12.285	14.500	0	2.568	0.000	4.3	0.0
10YR-72HR	A-DET 6	BASE	60.00	14.748	17.500	32423	17.571	0.000	1.6	0.0
10YR-72HR	B-DET 65	BASE	60.00	14.750	17.500	301	8.420	8.257	1.4	1.4
10YR-72HR	C-DET 5	BASE	60.00	14.733	17.500	30572	16.379	0.000	1.5	0.0
10YR-72HR	D-DET 54	BASE	60.00	14.721	17.500	302	8.802	8.643	1.4	1.4
10YR-72HR	E-DET 4	BASE	60.00	14.615	17.500	12285	17.203	11.275	5.2	4.7
10YR-72HR	F-DET 7	BASE	60.00	14.450	17.500	49049	14.352	-1.355	2.3	0.3
10YR-72HR	G-DET 8	BASE	60.00	14.495	17.500	49871	29.660	11.306	4.8	2.9
10YR-72HR	H-LAKE 3	BASE	60.00	14.456	17.500	118809	38.638	0.000	5.7	0.0
10YR-72HR	J-LAKE-2	BASE	60.00	14.378	17.500	97535	27.093	-11.456	6.6	-60.9
10YR-72HR	K-LAKE-1	BASE	60.00	14.369	17.500	263385	101.513	2.585	161.8	3.8
10YR-72HR	L-CANAL	BASE	60.00	12.417	14.500	0	2.910	0.000	4.5	0.0
10YR-72HR	A-DET 6	BASE	61.00	15.806	17.500	71038	4.600	0.000	2.6	0.0
10YR-72HR	B-DET 65	BASE	61.00	15.803	17.500	22609	4.758	3.299	1.9	1.8
10YR-72HR	C-DET 5	BASE	61.00	15.790	17.500	67926	4.513	0.000	2.4	0.0
10YR-72HR	D-DET 54	BASE	61.00	15.760	17.500	20458	4.974	3.541	2.0	1.9
10YR-72HR	E-DET 4	BASE	61.00	15.707	17.500	19126	17.083	15.505	6.7	5.8
10YR-72HR	F-DET 7	BASE	61.00	15.407	17.500	57945	8.110	-0.733	3.3	0.2
10YR-72HR	G-DET 8	BASE	61.00	15.407	17.500	63520	16.760	7.462	6.8	3.7
10YR-72HR	H-LAKE 3	BASE	61.00	15.410	17.500	124878	18.810	0.000	8.1	0.0
10YR-72HR	J-LAKE-2	BASE	61.00	15.254	17.500	101653	19.438	-10.416	8.5	-61.8
10YR-72HR	K-LAKE-1	BASE	61.00	15.242	17.500	272927	80.042	5.001	169.3	4.1
10YR-72HR	L-CANAL	BASE	61.00	12.549	14.500	0	6.071	0.000	4.9	0.0
10YR-72HR	A-DET 6	BASE	62.00	15.921	17.500	83787	0.929	0.000	2.8	0.0
10YR-72HR	B-DET 65	BASE	62.00	15.919	17.500	31231	2.292	1.935	2.2	2.1
10YR-72HR	C-DET 5	BASE	62.00	15.913	17.500	81649	1.036	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	62.00	15.898	17.500	31173	2.397	1.910	2.3	2.2
10YR-72HR	E-DET 4	BASE	62.00	15.875	17.500	22899	11.206	10.736	7.8	6.8
10YR-72HR	F-DET 7	BASE	62.00	15.729	17.500	78937	3.908	0.325	3.8	0.2
10YR-72HR	G-DET 8	BASE	62.00	15.719	17.500	112957	8.076	2.953	7.8	4.1
10YR-72HR	H-LAKE 3	BASE	62.00	15.728	17.500	178641	8.060	0.000	9.2	0.0
10YR-72HR	J-LAKE-2	BASE	62.00	15.662	17.500	120387	10.405	-9.969	9.7	-62.6
10YR-72HR	K-LAKE-1	BASE	62.00	15.652	17.500	328033	57.668	6.900	175.0	4.6
10YR-72HR	L-CANAL	BASE	62.00	12.681	14.500	0	8.612	0.000	5.5	0.0
10YR-72HR	A-DET 6	BASE	63.00	15.922	17.500	83853	-0.512	0.000	2.8	0.0
10YR-72HR	B-DET 65	BASE	63.00	15.921	17.500	31354	1.018	1.202	2.3	2.2
10YR-72HR	C-DET 5	BASE	63.00	15.918	17.500	82181	-0.433	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	63.00	15.910	17.500	32141	1.064	1.184	2.5	2.3
10YR-72HR	E-DET 4	BASE	63.00	15.899	17.500	23455	7.472	7.506	8.6	7.6
10YR-72HR	F-DET 7	BASE	63.00	15.826	17.500	87471	1.735	0.399	4.0	0.2
10YR-72HR	G-DET 8	BASE	63.00	15.819	17.500	134851	3.586	1.396	8.3	4.3

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	H-LAKE 3	BASE	63.00	15.825	17.500	201233	3.084	0.000	9.7	0.0
10YR-72HR	J-LAKE-2	BASE	63.00	15.797	17.500	135091	5.454	-10.122	10.4	-63.5
10YR-72HR	K-LAKE-1	BASE	63.00	15.790	17.500	375780	45.098	7.562	179.3	5.2
10YR-72HR	L-CANAL	BASE	63.00	12.813	14.500	0	9.508	0.000	6.2	0.0
10YR-72HR	A-DET 6	BASE	64.00	15.907	17.500	82239	-0.115	0.000	2.8	0.0
10YR-72HR	B-DET 65	BASE	64.00	15.907	17.500	30325	0.818	0.857	2.4	2.3
10YR-72HR	C-DET 5	BASE	64.00	15.905	17.500	80789	-0.083	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	64.00	15.902	17.500	31479	0.856	0.866	2.5	2.4
10YR-72HR	E-DET 4	BASE	64.00	15.897	17.500	23390	5.252	5.237	9.1	8.1
10YR-72HR	F-DET 7	BASE	64.00	15.873	17.500	91587	1.395	0.338	4.1	0.2
10YR-72HR	G-DET 8	BASE	64.00	15.867	17.500	145463	2.883	1.209	8.5	4.4
10YR-72HR	H-LAKE 3	BASE	64.00	15.872	17.500	212201	2.448	0.000	9.9	0.0
10YR-72HR	J-LAKE-2	BASE	64.00	15.852	17.500	140992	4.520	-9.876	10.8	-64.3
10YR-72HR	K-LAKE-1	BASE	64.00	15.843	17.500	394041	41.545	7.775	182.8	5.9
10YR-72HR	L-CANAL	BASE	64.00	12.944	14.500	0	9.813	0.000	7.0	0.0
10YR-72HR	A-DET 6	BASE	65.00	15.901	17.500	81558	-0.161	0.000	2.8	0.0
10YR-72HR	B-DET 65	BASE	65.00	15.901	17.500	29889	0.559	0.616	2.5	2.3
10YR-72HR	C-DET 5	BASE	65.00	15.900	17.500	80201	-0.145	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	65.00	15.898	17.500	31199	0.584	0.631	2.6	2.4
10YR-72HR	E-DET 4	BASE	65.00	15.895	17.500	23364	3.826	3.852	9.5	8.5
10YR-72HR	F-DET 7	BASE	65.00	15.903	17.500	94253	0.952	0.417	4.2	0.3
10YR-72HR	G-DET 8	BASE	65.00	15.896	17.500	151885	1.968	1.160	8.7	4.5
10YR-72HR	H-LAKE 3	BASE	65.00	15.902	17.500	219221	1.228	0.000	10.0	0.0
10YR-72HR	J-LAKE-2	BASE	65.00	15.879	17.500	143973	4.050	-9.317	11.2	-65.1
10YR-72HR	K-LAKE-1	BASE	65.00	15.867	17.500	402031	38.724	7.825	186.2	6.5
10YR-72HR	L-CANAL	BASE	65.00	13.076	14.500	0	9.907	0.000	7.8	0.0
10YR-72HR	A-DET 6	BASE	66.00	15.897	17.500	81062	-0.050	0.000	2.8	0.0
10YR-72HR	B-DET 65	BASE	66.00	15.896	17.500	29567	0.488	0.506	2.5	2.4
10YR-72HR	C-DET 5	BASE	66.00	15.896	17.500	79741	-0.044	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	66.00	15.895	17.500	30932	0.510	0.524	2.6	2.5
10YR-72HR	E-DET 4	BASE	66.00	15.893	17.500	23309	3.110	3.118	9.8	8.8
10YR-72HR	F-DET 7	BASE	66.00	15.919	17.500	95691	0.832	0.484	4.3	0.3
10YR-72HR	G-DET 8	BASE	66.00	15.911	17.500	155114	1.720	1.230	8.9	4.6
10YR-72HR	H-LAKE 3	BASE	66.00	15.918	17.500	222988	0.801	0.000	10.1	0.0
10YR-72HR	J-LAKE-2	BASE	66.00	15.890	17.500	145190	4.147	-8.820	11.5	-65.8
10YR-72HR	K-LAKE-1	BASE	66.00	15.874	17.500	404594	37.832	7.788	189.3	7.1
10YR-72HR	L-CANAL	BASE	66.00	13.208	14.500	0	9.881	0.000	8.7	0.0
10YR-72HR	A-DET 6	BASE	67.00	15.896	17.500	81017	0.027	0.000	2.8	0.0
10YR-72HR	B-DET 65	BASE	67.00	15.896	17.500	29540	0.472	0.462	2.6	2.4
10YR-72HR	C-DET 5	BASE	67.00	15.896	17.500	79710	0.028	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	67.00	15.895	17.500	30929	0.494	0.482	2.7	2.5
10YR-72HR	E-DET 4	BASE	67.00	15.893	17.500	23316	2.810	2.800	10.0	9.0
10YR-72HR	F-DET 7	BASE	67.00	15.930	17.500	96685	0.805	0.537	4.4	0.3
10YR-72HR	G-DET 8	BASE	67.00	15.921	17.500	157251	1.664	1.289	9.0	4.7
10YR-72HR	H-LAKE 3	BASE	67.00	15.929	17.500	225587	0.616	0.000	10.2	0.0
10YR-72HR	J-LAKE-2	BASE	67.00	15.897	17.500	145888	4.340	-8.485	11.9	-66.5
10YR-72HR	K-LAKE-1	BASE	67.00	15.878	17.500	405958	37.617	7.729	192.4	7.8
10YR-72HR	L-CANAL	BASE	67.00	13.340	14.500	0	9.825	0.000	9.5	0.0
10YR-72HR	A-DET 6	BASE	68.00	15.899	17.500	81282	0.075	0.000	2.8	0.0
10YR-72HR	B-DET 65	BASE	68.00	15.899	17.500	29718	0.473	0.445	2.6	2.5

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	C-DET 5	BASE	68.00	15.898	17.500	79983	0.074	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	68.00	15.897	17.500	31127	0.494	0.464	2.7	2.6
10YR-72HR	E-DET 4	BASE	68.00	15.896	17.500	23377	2.683	2.661	10.3	9.3
10YR-72HR	F-DET 7	BASE	68.00	15.940	17.500	97495	0.805	0.574	4.4	0.4
10YR-72HR	G-DET 8	BASE	68.00	15.929	17.500	159019	1.665	1.330	9.2	4.8
10YR-72HR	H-LAKE 3	BASE	68.00	15.938	17.500	227712	0.535	0.000	10.2	0.0
10YR-72HR	J-LAKE-2	BASE	68.00	15.902	17.500	146497	4.500	-8.283	12.2	-67.2
10YR-72HR	K-LAKE-1	BASE	68.00	15.882	17.500	407393	37.601	7.669	195.5	8.4
10YR-72HR	L-CANAL	BASE	68.00	13.472	14.500	0	9.766	0.000	10.3	0.0
10YR-72HR	A-DET 6	BASE	69.00	15.898	17.500	81163	-0.105	0.000	2.8	0.0
10YR-72HR	B-DET 65	BASE	69.00	15.897	17.500	29639	0.357	0.395	2.6	2.5
10YR-72HR	C-DET 5	BASE	69.00	15.897	17.500	79869	-0.102	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	69.00	15.896	17.500	31055	0.374	0.412	2.8	2.6
10YR-72HR	E-DET 4	BASE	69.00	15.895	17.500	23360	2.468	2.497	10.5	9.5
10YR-72HR	F-DET 7	BASE	69.00	15.944	17.500	97846	0.609	0.613	4.5	0.4
10YR-72HR	G-DET 8	BASE	69.00	15.932	17.500	159665	1.259	1.303	9.3	4.9
10YR-72HR	H-LAKE 3	BASE	69.00	15.942	17.500	228614	-0.015	0.000	10.3	0.0
10YR-72HR	J-LAKE-2	BASE	69.00	15.904	17.500	146693	4.299	-8.159	12.6	-67.9
10YR-72HR	K-LAKE-1	BASE	69.00	15.883	17.500	407697	36.699	7.589	198.6	9.1
10YR-72HR	L-CANAL	BASE	69.00	13.604	14.500	0	9.679	0.000	11.1	0.0
10YR-72HR	A-DET 6	BASE	70.00	15.892	17.500	80569	-0.129	0.000	2.7	0.0
10YR-72HR	B-DET 65	BASE	70.00	15.892	17.500	29243	0.321	0.368	2.7	2.5
10YR-72HR	C-DET 5	BASE	70.00	15.892	17.500	79274	-0.126	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	70.00	15.891	17.500	30648	0.336	0.384	2.8	2.6
10YR-72HR	E-DET 4	BASE	70.00	15.890	17.500	23245	2.313	2.350	10.7	9.7
10YR-72HR	F-DET 7	BASE	70.00	15.942	17.500	97681	0.548	0.633	4.5	0.5
10YR-72HR	G-DET 8	BASE	70.00	15.929	17.500	159124	1.132	1.290	9.4	5.0
10YR-72HR	H-LAKE 3	BASE	70.00	15.940	17.500	228161	-0.202	0.000	10.2	0.0
10YR-72HR	J-LAKE-2	BASE	70.00	15.901	17.500	146353	4.254	-8.090	12.9	-68.6
10YR-72HR	K-LAKE-1	BASE	70.00	15.879	17.500	406416	36.346	7.480	201.6	9.7
10YR-72HR	L-CANAL	BASE	70.00	13.736	14.500	0	9.554	0.000	11.9	0.0
10YR-72HR	A-DET 6	BASE	71.00	15.887	17.500	79959	-0.114	0.000	2.7	0.0
10YR-72HR	B-DET 65	BASE	71.00	15.887	17.500	28836	0.314	0.355	2.7	2.5
10YR-72HR	C-DET 5	BASE	71.00	15.886	17.500	78662	-0.111	0.000	2.6	0.0
10YR-72HR	D-DET 54	BASE	71.00	15.886	17.500	30226	0.329	0.371	2.8	2.7
10YR-72HR	E-DET 4	BASE	71.00	15.885	17.500	23125	2.230	2.263	10.9	9.9
10YR-72HR	F-DET 7	BASE	71.00	15.938	17.500	97359	0.536	0.642	4.6	0.5
10YR-72HR	G-DET 8	BASE	71.00	15.925	17.500	158262	1.107	1.287	9.5	5.1
10YR-72HR	H-LAKE 3	BASE	71.00	15.936	17.500	227301	-0.249	0.000	10.2	0.0
10YR-72HR	J-LAKE-2	BASE	71.00	15.897	17.500	145887	4.260	-8.069	13.3	-69.3
10YR-72HR	K-LAKE-1	BASE	71.00	15.875	17.500	404842	36.232	7.363	204.6	10.3
10YR-72HR	L-CANAL	BASE	71.00	13.868	14.500	0	9.418	0.000	12.7	0.0
10YR-72HR	A-DET 6	BASE	72.00	15.882	17.500	79440	-0.670	0.000	2.7	0.0
10YR-72HR	B-DET 65	BASE	72.00	15.882	17.500	28490	0.000	0.343	2.7	2.6
10YR-72HR	C-DET 5	BASE	72.00	15.882	17.500	78141	-0.668	0.000	2.5	0.0
10YR-72HR	D-DET 54	BASE	72.00	15.881	17.500	29866	0.000	0.362	2.8	2.7
10YR-72HR	E-DET 4	BASE	72.00	15.880	17.500	23021	2.043	2.208	11.0	10.1
10YR-72HR	F-DET 7	BASE	72.00	15.934	17.500	97009	0.000	0.644	4.6	0.6
10YR-72HR	G-DET 8	BASE	72.00	15.921	17.500	157374	0.000	1.283	9.5	5.2
10YR-72HR	H-LAKE 3	BASE	72.00	15.932	17.500	226372	-1.588	0.000	10.2	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	J-LAKE-2	BASE	72.00	15.893	17.500	145445	3.516	-8.082	13.6	-69.9
10YR-72HR	K-LAKE-1	BASE	72.00	15.871	17.500	403424	33.955	7.246	207.5	10.9
10YR-72HR	L-CANAL	BASE	72.00	14.000	14.500	0	9.282	0.000	13.4	0.0
10YR-72HR	A-DET 6	BASE	73.00	15.852	17.500	76141	-0.591	0.000	2.7	0.0
10YR-72HR	B-DET 65	BASE	73.00	15.852	17.500	26286	0.000	0.204	2.7	2.6
10YR-72HR	C-DET 5	BASE	73.00	15.852	17.500	74823	-0.580	0.000	2.5	0.0
10YR-72HR	D-DET 54	BASE	73.00	15.852	17.500	27572	0.000	0.213	2.8	2.7
10YR-72HR	E-DET 4	BASE	73.00	15.851	17.500	22366	1.588	1.761	11.2	10.2
10YR-72HR	F-DET 7	BASE	73.00	15.908	17.500	94743	0.000	0.693	4.6	0.7
10YR-72HR	G-DET 8	BASE	73.00	15.895	17.500	151524	0.000	1.109	9.5	5.3
10YR-72HR	H-LAKE 3	BASE	73.00	15.906	17.500	220320	-1.612	0.000	10.0	0.0
10YR-72HR	J-LAKE-2	BASE	73.00	15.868	17.500	142728	3.414	-8.030	13.9	-70.6
10YR-72HR	K-LAKE-1	BASE	73.00	15.845	17.500	394582	33.563	7.131	210.3	11.5
10YR-72HR	L-CANAL	BASE	73.00	13.958	14.500	0	9.122	0.000	14.2	0.0
10YR-72HR	A-DET 6	BASE	74.00	15.825	17.500	73082	-0.558	0.000	2.6	0.0
10YR-72HR	B-DET 65	BASE	74.00	15.825	17.500	24242	0.000	0.185	2.7	2.6
10YR-72HR	C-DET 5	BASE	74.00	15.824	17.500	71738	-0.547	0.000	2.4	0.0
10YR-72HR	D-DET 54	BASE	74.00	15.824	17.500	25429	0.000	0.194	2.8	2.7
10YR-72HR	E-DET 4	BASE	74.00	15.824	17.500	21747	1.483	1.650	11.3	10.4
10YR-72HR	F-DET 7	BASE	74.00	15.882	17.500	92395	0.000	0.694	4.6	0.7
10YR-72HR	G-DET 8	BASE	74.00	15.868	17.500	145664	0.000	1.094	9.5	5.4
10YR-72HR	H-LAKE 3	BASE	74.00	15.880	17.500	214086	-1.610	0.000	9.9	0.0
10YR-72HR	J-LAKE-2	BASE	74.00	15.841	17.500	139855	3.398	-8.035	14.2	-71.3
10YR-72HR	K-LAKE-1	BASE	74.00	15.818	17.500	385376	33.475	7.011	213.1	12.1
10YR-72HR	L-CANAL	BASE	74.00	13.917	14.500	0	8.955	0.000	14.9	0.0
10YR-72HR	A-DET 6	BASE	75.00	15.797	17.500	70038	-0.534	0.000	2.6	0.0
10YR-72HR	B-DET 65	BASE	75.00	15.797	17.500	22207	0.000	0.169	2.7	2.6
10YR-72HR	C-DET 5	BASE	75.00	15.797	17.500	68667	-0.523	0.000	2.4	0.0
10YR-72HR	D-DET 54	BASE	75.00	15.797	17.500	23294	0.000	0.177	2.8	2.7
10YR-72HR	E-DET 4	BASE	75.00	15.796	17.500	21130	1.404	1.567	11.4	10.5
10YR-72HR	F-DET 7	BASE	75.00	15.854	17.500	89983	0.000	0.694	4.6	0.8
10YR-72HR	G-DET 8	BASE	75.00	15.841	17.500	139664	0.000	1.072	9.5	5.5
10YR-72HR	H-LAKE 3	BASE	75.00	15.852	17.500	207684	-1.602	0.000	9.8	0.0
10YR-72HR	J-LAKE-2	BASE	75.00	15.814	17.500	136939	3.368	-8.071	14.5	-71.9
10YR-72HR	K-LAKE-1	BASE	75.00	15.791	17.500	376101	33.398	6.891	215.9	12.6
10YR-72HR	L-CANAL	BASE	75.00	13.875	14.500	0	8.788	0.000	15.7	0.0
10YR-72HR	A-DET 6	BASE	76.00	15.770	17.500	66986	-0.515	0.000	2.5	0.0
10YR-72HR	B-DET 65	BASE	76.00	15.770	17.500	20167	0.000	0.155	2.7	2.6
10YR-72HR	C-DET 5	BASE	76.00	15.769	17.500	65588	-0.504	0.000	2.4	0.0
10YR-72HR	D-DET 54	BASE	76.00	15.769	17.500	21152	0.000	0.162	2.8	2.8
10YR-72HR	E-DET 4	BASE	76.00	15.769	17.500	20511	1.336	1.495	11.5	10.6
10YR-72HR	F-DET 7	BASE	76.00	15.826	17.500	87511	0.000	0.691	4.6	0.8
10YR-72HR	G-DET 8	BASE	76.00	15.813	17.500	133537	0.000	1.046	9.5	5.6
10YR-72HR	H-LAKE 3	BASE	76.00	15.824	17.500	201126	-1.587	0.000	9.6	0.0
10YR-72HR	J-LAKE-2	BASE	76.00	15.787	17.500	133982	3.324	-8.125	14.7	-72.6
10YR-72HR	K-LAKE-1	BASE	76.00	15.764	17.500	366737	33.323	6.771	218.6	13.2
10YR-72HR	L-CANAL	BASE	76.00	13.833	14.500	0	8.621	0.000	16.4	0.0
10YR-72HR	A-DET 6	BASE	77.00	15.742	17.500	63906	-0.496	0.000	2.5	0.0
10YR-72HR	B-DET 65	BASE	77.00	15.742	17.500	18107	0.000	0.141	2.7	2.7
10YR-72HR	C-DET 5	BASE	77.00	15.742	17.500	62480	-0.485	0.000	2.3	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	D-DET 54	BASE	77.00	15.741	17.500	18991	0.000	0.147	2.8	2.8
10YR-72HR	E-DET 4	BASE	77.00	15.741	17.500	19886	1.269	1.426	11.6	10.7
10YR-72HR	F-DET 7	BASE	77.00	15.798	17.500	84983	0.000	0.685	4.6	0.9
10YR-72HR	G-DET 8	BASE	77.00	15.784	17.500	127288	0.000	1.017	9.5	5.7
10YR-72HR	H-LAKE 3	BASE	77.00	15.795	17.500	194422	-1.567	0.000	9.5	0.0
10YR-72HR	J-LAKE-2	BASE	77.00	15.759	17.500	130981	3.269	-8.191	15.0	-73.3
10YR-72HR	K-LAKE-1	BASE	77.00	15.737	17.500	357264	33.244	6.650	221.4	13.8
10YR-72HR	L-CANAL	BASE	77.00	13.792	14.500	0	8.453	0.000	17.1	0.0
10YR-72HR	A-DET 6	BASE	78.00	15.714	17.500	60786	-0.479	0.000	2.4	0.0
10YR-72HR	B-DET 65	BASE	78.00	15.714	17.500	16020	0.000	0.126	2.7	2.7
10YR-72HR	C-DET 5	BASE	78.00	15.714	17.500	59330	-0.467	0.000	2.3	0.0
10YR-72HR	D-DET 54	BASE	78.00	15.713	17.500	16800	0.000	0.132	2.8	2.8
10YR-72HR	E-DET 4	BASE	78.00	15.713	17.500	19253	1.205	1.359	11.7	10.9
10YR-72HR	F-DET 7	BASE	78.00	15.768	17.500	82402	0.000	0.678	4.6	0.9
10YR-72HR	G-DET 8	BASE	78.00	15.755	17.500	120917	0.000	0.985	9.5	5.8
10YR-72HR	H-LAKE 3	BASE	78.00	15.766	17.500	187576	-1.544	0.000	9.4	0.0
10YR-72HR	J-LAKE-2	BASE	78.00	15.731	17.500	127931	3.207	-8.267	15.3	-73.9
10YR-72HR	K-LAKE-1	BASE	78.00	15.709	17.500	347658	33.162	6.529	224.1	14.3
10YR-72HR	L-CANAL	BASE	78.00	13.750	14.500	0	8.284	0.000	17.8	0.0
10YR-72HR	A-DET 6	BASE	79.00	15.685	17.500	57615	-0.462	0.000	2.4	0.0
10YR-72HR	B-DET 65	BASE	79.00	15.685	17.500	13899	0.000	0.111	2.7	2.7
10YR-72HR	C-DET 5	BASE	79.00	15.685	17.500	56129	-0.450	0.000	2.2	0.0
10YR-72HR	D-DET 54	BASE	79.00	15.685	17.500	14573	0.000	0.117	2.8	2.8
10YR-72HR	E-DET 4	BASE	79.00	15.684	17.500	18608	1.140	1.293	11.8	11.0
10YR-72HR	F-DET 7	BASE	79.00	15.738	17.500	79767	0.000	0.670	4.6	1.0
10YR-72HR	G-DET 8	BASE	79.00	15.726	17.500	114420	0.000	0.951	9.5	5.9
10YR-72HR	H-LAKE 3	BASE	79.00	15.736	17.500	180588	-1.517	0.000	9.2	0.0
10YR-72HR	J-LAKE-2	BASE	79.00	15.703	17.500	124827	3.138	-8.349	15.5	-74.6
10YR-72HR	K-LAKE-1	BASE	79.00	15.680	17.500	337892	33.077	6.407	226.8	14.8
10YR-72HR	L-CANAL	BASE	79.00	13.708	14.500	0	8.114	0.000	18.5	0.0
10YR-72HR	A-DET 6	BASE	80.00	15.656	17.500	54382	-0.445	0.000	2.4	0.0
10YR-72HR	B-DET 65	BASE	80.00	15.656	17.500	11737	0.000	0.096	2.7	2.7
10YR-72HR	C-DET 5	BASE	80.00	15.656	17.500	52866	-0.433	0.000	2.2	0.0
10YR-72HR	D-DET 54	BASE	80.00	15.656	17.500	12302	0.000	0.101	2.8	2.8
10YR-72HR	E-DET 4	BASE	80.00	15.655	17.500	17951	1.074	1.224	11.9	11.1
10YR-72HR	F-DET 7	BASE	80.00	15.708	17.500	77076	0.000	0.662	4.6	1.0
10YR-72HR	G-DET 8	BASE	80.00	15.695	17.500	107789	0.000	0.915	9.5	5.9
10YR-72HR	H-LAKE 3	BASE	80.00	15.706	17.500	173452	-1.488	0.000	9.1	0.0
10YR-72HR	J-LAKE-2	BASE	80.00	15.674	17.500	121660	3.065	-8.435	15.8	-75.3
10YR-72HR	K-LAKE-1	BASE	80.00	15.652	17.500	327938	32.988	6.284	229.6	15.4
10YR-72HR	L-CANAL	BASE	80.00	13.667	14.500	0	7.942	0.000	19.1	0.0
10YR-72HR	A-DET 6	BASE	81.00	15.626	17.500	51078	-0.428	0.000	2.3	0.0
10YR-72HR	B-DET 65	BASE	81.00	15.626	17.500	9527	0.000	0.080	2.7	2.7
10YR-72HR	C-DET 5	BASE	81.00	15.626	17.500	49531	-0.415	0.000	2.2	0.0
10YR-72HR	D-DET 54	BASE	81.00	15.626	17.500	9982	0.000	0.083	2.8	2.8
10YR-72HR	E-DET 4	BASE	81.00	15.626	17.500	17280	1.006	1.154	12.0	11.2
10YR-72HR	F-DET 7	BASE	81.00	15.676	17.500	74326	0.000	0.653	4.6	1.1
10YR-72HR	G-DET 8	BASE	81.00	15.664	17.500	101010	0.000	0.877	9.5	6.0
10YR-72HR	H-LAKE 3	BASE	81.00	15.674	17.500	166157	-1.459	0.000	9.0	0.0
10YR-72HR	J-LAKE-2	BASE	81.00	15.644	17.500	118423	2.989	-8.524	16.0	-76.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	K-LAKE-1	BASE	81.00	15.622	17.500	317768	32.895	6.159	232.3	15.9
10YR-72HR	L-CANAL	BASE	81.00	13.625	14.500	0	7.768	0.000	19.8	0.0
10YR-72HR	A-DET 6	BASE	82.00	15.596	17.500	47694	-0.410	0.000	2.3	0.0
10YR-72HR	B-DET 65	BASE	82.00	15.596	17.500	7262	0.000	0.062	2.7	2.7
10YR-72HR	C-DET 5	BASE	82.00	15.596	17.500	46114	-0.396	0.000	2.1	0.0
10YR-72HR	D-DET 54	BASE	82.00	15.595	17.500	7604	0.000	0.065	2.8	2.8
10YR-72HR	E-DET 4	BASE	82.00	15.595	17.500	16592	0.934	1.080	12.1	11.3
10YR-72HR	F-DET 7	BASE	82.00	15.644	17.500	71509	0.000	0.644	4.6	1.2
10YR-72HR	G-DET 8	BASE	82.00	15.633	17.500	94068	0.000	0.838	9.5	6.1
10YR-72HR	H-LAKE 3	BASE	82.00	15.642	17.500	158688	-1.428	0.000	8.9	0.0
10YR-72HR	J-LAKE-2	BASE	82.00	15.613	17.500	115106	2.909	-8.615	16.3	-76.7
10YR-72HR	K-LAKE-1	BASE	82.00	15.592	17.500	307349	32.797	6.032	235.0	16.4
10YR-72HR	L-CANAL	BASE	82.00	13.583	14.500	0	7.591	0.000	20.4	0.0
10YR-72HR	A-DET 6	BASE	83.00	15.564	17.500	44215	-0.391	0.000	2.3	0.0
10YR-72HR	B-DET 65	BASE	83.00	15.564	17.500	4934	0.000	0.044	2.7	2.7
10YR-72HR	C-DET 5	BASE	83.00	15.564	17.500	42602	-0.377	0.000	2.1	0.0
10YR-72HR	D-DET 54	BASE	83.00	15.564	17.500	5160	0.000	0.046	2.8	2.8
10YR-72HR	E-DET 4	BASE	83.00	15.564	17.500	15885	0.857	1.001	12.2	11.3
10YR-72HR	F-DET 7	BASE	83.00	15.612	17.500	68619	0.000	0.635	4.6	1.2
10YR-72HR	G-DET 8	BASE	83.00	15.600	17.500	86941	0.000	0.796	9.5	6.1
10YR-72HR	H-LAKE 3	BASE	83.00	15.610	17.500	151023	-1.396	0.000	8.8	0.0
10YR-72HR	J-LAKE-2	BASE	83.00	15.582	17.500	111699	2.827	-8.708	16.5	-77.5
10YR-72HR	K-LAKE-1	BASE	83.00	15.561	17.500	296643	32.695	5.902	237.7	16.9
10YR-72HR	L-CANAL	BASE	83.00	13.542	14.500	0	7.411	0.000	21.0	0.0
10YR-72HR	A-DET 6	BASE	84.00	15.532	17.500	40627	-0.371	0.000	2.2	0.0
10YR-72HR	B-DET 65	BASE	84.00	15.532	17.500	2534	0.000	0.023	2.7	2.7
10YR-72HR	C-DET 5	BASE	84.00	15.532	17.500	38980	-0.356	0.000	2.1	0.0
10YR-72HR	D-DET 54	BASE	84.00	15.532	17.500	2640	0.000	0.024	2.8	2.8
10YR-72HR	E-DET 4	BASE	84.00	15.531	17.500	15155	0.775	0.917	12.2	11.4
10YR-72HR	F-DET 7	BASE	84.00	15.578	17.500	65644	0.000	0.626	4.6	1.3
10YR-72HR	G-DET 8	BASE	84.00	15.567	17.500	79602	0.000	0.752	9.5	6.2
10YR-72HR	H-LAKE 3	BASE	84.00	15.576	17.500	143133	-1.365	0.000	8.6	0.0
10YR-72HR	J-LAKE-2	BASE	84.00	15.550	17.500	108187	2.743	-8.801	16.8	-78.2
10YR-72HR	K-LAKE-1	BASE	84.00	15.529	17.500	285607	32.587	5.770	240.4	17.4
10YR-72HR	L-CANAL	BASE	84.00	13.500	14.500	0	7.228	0.000	21.6	0.0
10YR-72HR	A-DET 6	BASE	85.00	15.501	17.500	37212	-4.231	0.000	2.0	0.0
10YR-72HR	B-DET 65	BASE	85.00	15.497	17.500	250	0.000	-7.852	2.7	2.4
10YR-72HR	C-DET 5	BASE	85.00	15.500	17.500	35420	-8.090	0.000	1.7	0.0
10YR-72HR	D-DET 54	BASE	85.00	15.495	17.500	251	0.000	-7.712	2.8	2.5
10YR-72HR	E-DET 4	BASE	85.00	15.497	17.500	14437	-3.242	0.761	12.1	11.5
10YR-72HR	F-DET 7	BASE	85.00	15.543	17.500	62570	0.000	0.619	4.6	1.3
10YR-72HR	G-DET 8	BASE	85.00	15.532	17.500	72007	0.000	0.711	9.5	6.3
10YR-72HR	H-LAKE 3	BASE	85.00	15.541	17.500	134981	-1.335	0.000	8.5	0.0
10YR-72HR	J-LAKE-2	BASE	85.00	15.516	17.500	104536	2.665	-8.859	17.0	-78.9
10YR-72HR	K-LAKE-1	BASE	85.00	15.495	17.500	275687	32.429	5.633	243.1	17.8
10YR-72HR	L-CANAL	BASE	85.00	13.458	14.500	0	7.037	0.000	22.2	0.0
10YR-72HR	A-DET 6	BASE	86.00	15.468	17.500	36898	-4.132	0.000	1.7	0.0
10YR-72HR	B-DET 65	BASE	86.00	15.464	17.500	254	0.000	-7.588	2.7	1.7
10YR-72HR	C-DET 5	BASE	86.00	15.467	17.500	35213	-7.830	0.000	1.1	0.0
10YR-72HR	D-DET 54	BASE	86.00	15.462	17.500	254	0.000	-7.413	2.8	1.9

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	E-DET 4	BASE	86.00	15.464	17.500	14357	-3.039	0.817	11.9	11.6
10YR-72HR	F-DET 7	BASE	86.00	15.506	17.500	59376	0.000	0.607	4.6	1.4
10YR-72HR	G-DET 8	BASE	86.00	15.497	17.500	64853	0.000	0.645	9.5	6.3
10YR-72HR	H-LAKE 3	BASE	86.00	15.505	17.500	126512	-1.290	0.000	8.4	0.0
10YR-72HR	J-LAKE-2	BASE	86.00	15.482	17.500	102723	2.541	-9.047	17.2	-79.6
10YR-72HR	K-LAKE-1	BASE	86.00	15.462	17.500	275323	32.404	5.499	245.8	18.3
10YR-72HR	L-CANAL	BASE	86.00	13.417	14.500	0	6.850	0.000	22.8	0.0
10YR-72HR	A-DET 6	BASE	87.00	15.435	17.500	36693	-4.006	0.000	1.3	0.0
10YR-72HR	B-DET 65	BASE	87.00	15.431	17.500	258	0.000	-7.343	2.7	1.1
10YR-72HR	C-DET 5	BASE	87.00	15.434	17.500	35005	-7.581	0.000	0.4	0.0
10YR-72HR	D-DET 54	BASE	87.00	15.429	17.500	258	0.000	-7.169	2.8	1.3
10YR-72HR	E-DET 4	BASE	87.00	15.431	17.500	14277	-2.926	0.805	11.6	11.6
10YR-72HR	F-DET 7	BASE	87.00	15.470	17.500	58531	0.000	0.574	4.6	1.4
10YR-72HR	G-DET 8	BASE	87.00	15.461	17.500	64327	0.000	0.620	9.5	6.4
10YR-72HR	H-LAKE 3	BASE	87.00	15.469	17.500	125253	-1.225	0.000	8.3	0.0
10YR-72HR	J-LAKE-2	BASE	87.00	15.448	17.500	102564	2.419	-9.210	17.4	-80.4
10YR-72HR	K-LAKE-1	BASE	87.00	15.429	17.500	274962	32.324	5.368	248.5	18.7
10YR-72HR	L-CANAL	BASE	87.00	13.375	14.500	0	6.669	0.000	23.4	0.0
10YR-72HR	A-DET 6	BASE	88.00	15.402	17.500	36490	-3.882	0.000	1.0	0.0
10YR-72HR	B-DET 65	BASE	88.00	15.398	17.500	261	0.000	-7.110	2.7	0.5
10YR-72HR	C-DET 5	BASE	88.00	15.401	17.500	34799	-7.342	0.000	-0.2	0.0
10YR-72HR	D-DET 54	BASE	88.00	15.397	17.500	261	0.000	-6.938	2.8	0.7
10YR-72HR	E-DET 4	BASE	88.00	15.399	17.500	14199	-2.825	0.787	11.4	11.7
10YR-72HR	F-DET 7	BASE	88.00	15.436	17.500	58209	0.000	0.551	4.6	1.5
10YR-72HR	G-DET 8	BASE	88.00	15.427	17.500	63817	0.000	0.597	9.5	6.4
10YR-72HR	H-LAKE 3	BASE	88.00	15.434	17.500	125033	-1.182	0.000	8.2	0.0
10YR-72HR	J-LAKE-2	BASE	88.00	15.415	17.500	102408	2.330	-9.336	17.6	-81.2
10YR-72HR	K-LAKE-1	BASE	88.00	15.396	17.500	274607	32.258	5.243	251.1	19.2
10YR-72HR	L-CANAL	BASE	88.00	13.333	14.500	0	6.494	0.000	23.9	0.0
10YR-72HR	A-DET 6	BASE	89.00	15.370	17.500	36291	-3.763	0.000	0.7	0.0
10YR-72HR	B-DET 65	BASE	89.00	15.366	17.500	264	0.000	-6.889	2.7	-0.0
10YR-72HR	C-DET 5	BASE	89.00	15.369	17.500	34598	-7.115	0.000	-0.8	0.0
10YR-72HR	D-DET 54	BASE	89.00	15.365	17.500	264	0.000	-6.721	2.8	0.1
10YR-72HR	E-DET 4	BASE	89.00	15.367	17.500	14121	-2.733	0.768	11.2	11.8
10YR-72HR	F-DET 7	BASE	89.00	15.402	17.500	57897	0.000	0.532	4.6	1.5
10YR-72HR	G-DET 8	BASE	89.00	15.394	17.500	63321	0.000	0.578	9.5	6.5
10YR-72HR	H-LAKE 3	BASE	89.00	15.400	17.500	124819	-1.145	0.000	8.1	0.0
10YR-72HR	J-LAKE-2	BASE	89.00	15.382	17.500	102256	2.255	-9.444	17.8	-81.9
10YR-72HR	K-LAKE-1	BASE	89.00	15.364	17.500	274258	32.201	5.123	253.8	19.6
10YR-72HR	L-CANAL	BASE	89.00	13.292	14.500	0	6.327	0.000	24.4	0.0
10YR-72HR	A-DET 6	BASE	90.00	15.339	17.500	36096	-3.649	0.000	0.4	0.0
10YR-72HR	B-DET 65	BASE	90.00	15.335	17.500	267	0.000	-6.678	2.7	-0.6
10YR-72HR	C-DET 5	BASE	90.00	15.338	17.500	34400	-6.898	0.000	-1.4	0.0
10YR-72HR	D-DET 54	BASE	90.00	15.333	17.500	267	0.000	-6.514	2.8	-0.4
10YR-72HR	E-DET 4	BASE	90.00	15.335	17.500	14045	-2.646	0.748	10.9	11.8
10YR-72HR	F-DET 7	BASE	90.00	15.370	17.500	57593	0.000	0.515	4.6	1.5
10YR-72HR	G-DET 8	BASE	90.00	15.362	17.500	62837	0.000	0.559	9.5	6.5
10YR-72HR	H-LAKE 3	BASE	90.00	15.368	17.500	124612	-1.113	0.000	8.0	0.0
10YR-72HR	J-LAKE-2	BASE	90.00	15.351	17.500	102107	2.188	-9.542	18.0	-82.7
10YR-72HR	K-LAKE-1	BASE	90.00	15.333	17.500	273916	32.147	5.007	256.4	20.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	L-CANAL	BASE	90.00	13.250	14.500	0	6.166	0.000	25.0	0.0
10YR-72HR	A-DET 6	BASE	91.00	15.308	17.500	35905	-3.541	0.000	0.1	0.0
10YR-72HR	B-DET 65	BASE	91.00	15.304	17.500	269	0.000	-6.479	2.7	-1.2
10YR-72HR	C-DET 5	BASE	91.00	15.307	17.500	34206	-6.692	0.000	-1.9	0.0
10YR-72HR	D-DET 54	BASE	91.00	15.303	17.500	269	0.000	-6.319	2.8	-1.0
10YR-72HR	E-DET 4	BASE	91.00	15.305	17.500	13971	-2.564	0.728	10.7	11.9
10YR-72HR	F-DET 7	BASE	91.00	15.338	17.500	57298	0.000	0.500	4.6	1.6
10YR-72HR	G-DET 8	BASE	91.00	15.330	17.500	62365	0.000	0.542	9.5	6.6
10YR-72HR	H-LAKE 3	BASE	91.00	15.336	17.500	124410	-1.085	0.000	7.9	0.0
10YR-72HR	J-LAKE-2	BASE	91.00	15.320	17.500	101962	2.127	-9.632	18.1	-83.5
10YR-72HR	K-LAKE-1	BASE	91.00	15.302	17.500	273582	32.098	4.898	259.1	20.4
10YR-72HR	L-CANAL	BASE	91.00	13.208	14.500	0	6.013	0.000	25.5	0.0
10YR-72HR	A-DET 6	BASE	92.00	15.278	17.500	35718	-3.438	0.000	-0.2	0.0
10YR-72HR	B-DET 65	BASE	92.00	15.274	17.500	272	0.000	-6.287	2.7	-1.7
10YR-72HR	C-DET 5	BASE	92.00	15.277	17.500	34016	-6.496	0.000	-2.5	0.0
10YR-72HR	D-DET 54	BASE	92.00	15.273	17.500	272	0.000	-6.132	2.8	-1.5
10YR-72HR	E-DET 4	BASE	92.00	15.275	17.500	13898	-2.486	0.709	10.5	11.9
10YR-72HR	F-DET 7	BASE	92.00	15.307	17.500	57009	0.000	0.486	4.6	1.6
10YR-72HR	G-DET 8	BASE	92.00	15.299	17.500	61903	0.000	0.526	9.5	6.6
10YR-72HR	H-LAKE 3	BASE	92.00	15.305	17.500	124213	-1.058	0.000	7.9	0.0
10YR-72HR	J-LAKE-2	BASE	92.00	15.289	17.500	101819	2.070	-9.716	18.3	-84.3
10YR-72HR	K-LAKE-1	BASE	92.00	15.272	17.500	273254	32.051	4.793	261.8	20.8
10YR-72HR	L-CANAL	BASE	92.00	13.167	14.500	0	5.867	0.000	25.9	0.0
10YR-72HR	A-DET 6	BASE	93.00	15.248	17.500	35535	-3.339	0.000	-0.5	0.0
10YR-72HR	B-DET 65	BASE	93.00	15.245	17.500	274	0.000	-6.105	2.7	-2.2
10YR-72HR	C-DET 5	BASE	93.00	15.247	17.500	33830	-6.308	0.000	-3.0	0.0
10YR-72HR	D-DET 54	BASE	93.00	15.243	17.500	274	0.000	-5.954	2.8	-2.0
10YR-72HR	E-DET 4	BASE	93.00	15.245	17.500	13827	-2.412	0.691	10.3	12.0
10YR-72HR	F-DET 7	BASE	93.00	15.276	17.500	56727	0.000	0.473	4.6	1.7
10YR-72HR	G-DET 8	BASE	93.00	15.269	17.500	61452	0.000	0.511	9.5	6.7
10YR-72HR	H-LAKE 3	BASE	93.00	15.275	17.500	124020	-1.033	0.000	7.8	0.0
10YR-72HR	J-LAKE-2	BASE	93.00	15.260	17.500	101680	2.016	-9.795	18.5	-85.1
10YR-72HR	K-LAKE-1	BASE	93.00	15.243	17.500	272933	32.007	4.693	264.4	21.2
10YR-72HR	L-CANAL	BASE	93.00	13.125	14.500	0	5.727	0.000	26.4	0.0
10YR-72HR	A-DET 6	BASE	94.00	15.219	17.500	35355	-3.245	0.000	-0.7	0.0
10YR-72HR	B-DET 65	BASE	94.00	15.216	17.500	276	0.000	-5.931	2.7	-2.7
10YR-72HR	C-DET 5	BASE	94.00	15.218	17.500	33647	-6.128	0.000	-3.5	0.0
10YR-72HR	D-DET 54	BASE	94.00	15.215	17.500	276	0.000	-5.783	2.8	-2.4
10YR-72HR	E-DET 4	BASE	94.00	15.216	17.500	13756	-2.341	0.674	10.1	12.0
10YR-72HR	F-DET 7	BASE	94.00	15.247	17.500	56451	0.000	0.460	4.6	1.7
10YR-72HR	G-DET 8	BASE	94.00	15.240	17.500	61010	0.000	0.497	9.5	6.7
10YR-72HR	H-LAKE 3	BASE	94.00	15.245	17.500	123831	-1.009	0.000	7.7	0.0
10YR-72HR	J-LAKE-2	BASE	94.00	15.231	17.500	101543	1.966	-9.871	18.6	-85.9
10YR-72HR	K-LAKE-1	BASE	94.00	15.214	17.500	272619	31.965	4.597	267.0	21.6
10YR-72HR	L-CANAL	BASE	94.00	13.083	14.500	0	5.593	0.000	26.9	0.0
10YR-72HR	A-DET 6	BASE	95.00	15.191	17.500	35180	-3.154	0.000	-1.0	0.0
10YR-72HR	B-DET 65	BASE	95.00	15.188	17.500	278	0.000	-5.764	2.7	-3.2
10YR-72HR	C-DET 5	BASE	95.00	15.190	17.500	33469	-5.956	0.000	-4.0	0.0
10YR-72HR	D-DET 54	BASE	95.00	15.187	17.500	279	0.000	-5.620	2.8	-2.9
10YR-72HR	E-DET 4	BASE	95.00	15.188	17.500	13688	-2.273	0.657	9.9	12.1

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	F-DET 7	BASE	95.00	15.218	17.500	56181	0.000	0.448	4.6	1.7
10YR-72HR	G-DET 8	BASE	95.00	15.211	17.500	60578	0.000	0.483	9.5	6.7
10YR-72HR	H-LAKE 3	BASE	95.00	15.216	17.500	123647	-0.986	0.000	7.6	0.0
10YR-72HR	J-LAKE-2	BASE	95.00	15.202	17.500	101409	1.917	-9.943	18.8	-86.8
10YR-72HR	K-LAKE-1	BASE	95.00	15.186	17.500	272311	31.925	4.506	269.7	22.0
10YR-72HR	L-CANAL	BASE	95.00	13.042	14.500	0	5.466	0.000	27.4	0.0
10YR-72HR	A-DET 6	BASE	96.00	15.163	17.500	35007	-3.068	0.000	-1.3	0.0
10YR-72HR	B-DET 65	BASE	96.00	15.160	17.500	280	0.000	-5.604	2.7	-3.6
10YR-72HR	C-DET 5	BASE	96.00	15.162	17.500	33294	-5.792	0.000	-4.5	0.0
10YR-72HR	D-DET 54	BASE	96.00	15.159	17.500	280	0.000	-5.464	2.8	-3.4
10YR-72HR	E-DET 4	BASE	96.00	15.160	17.500	13620	-2.208	0.641	9.7	12.2
10YR-72HR	F-DET 7	BASE	96.00	15.189	17.500	55917	0.000	0.437	4.6	1.8
10YR-72HR	G-DET 8	BASE	96.00	15.182	17.500	60155	0.000	0.470	9.5	6.8
10YR-72HR	H-LAKE 3	BASE	96.00	15.188	17.500	123466	-0.964	0.000	7.5	0.0
10YR-72HR	J-LAKE-2	BASE	96.00	15.174	17.500	101278	1.871	-10.011	19.0	-87.6
10YR-72HR	K-LAKE-1	BASE	96.00	15.158	17.500	272009	31.886	4.420	272.3	22.4
10YR-72HR	L-CANAL	BASE	96.00	13.000	14.500	0	5.344	0.000	27.8	0.0
10YR-72HR	A-DET 6	BASE	97.00	15.136	17.500	34838	-2.985	0.000	-1.5	0.0
10YR-72HR	B-DET 65	BASE	97.00	15.133	17.500	282	0.000	-5.451	2.7	-4.1
10YR-72HR	C-DET 5	BASE	97.00	15.135	17.500	33122	-5.634	0.000	-5.0	0.0
10YR-72HR	D-DET 54	BASE	97.00	15.132	17.500	282	0.000	-5.313	2.8	-3.8
10YR-72HR	E-DET 4	BASE	97.00	15.133	17.500	13554	-2.145	0.626	9.6	12.2
10YR-72HR	F-DET 7	BASE	97.00	15.161	17.500	55658	0.000	0.426	4.6	1.8
10YR-72HR	G-DET 8	BASE	97.00	15.155	17.500	59741	0.000	0.457	9.5	6.8
10YR-72HR	H-LAKE 3	BASE	97.00	15.160	17.500	123289	-0.943	0.000	7.4	0.0
10YR-72HR	J-LAKE-2	BASE	97.00	15.147	17.500	101149	1.826	-10.076	19.1	-88.4
10YR-72HR	K-LAKE-1	BASE	97.00	15.131	17.500	271713	31.850	4.337	275.0	22.7
10YR-72HR	L-CANAL	BASE	97.00	12.958	14.500	0	5.228	0.000	28.2	0.0
10YR-72HR	A-DET 6	BASE	98.00	15.109	17.500	34672	-2.904	0.000	-1.8	0.0
10YR-72HR	B-DET 65	BASE	98.00	15.107	17.500	284	0.000	-5.302	2.7	-4.5
10YR-72HR	C-DET 5	BASE	98.00	15.108	17.500	32953	-5.480	0.000	-5.4	0.0
10YR-72HR	D-DET 54	BASE	98.00	15.105	17.500	284	0.000	-5.167	2.8	-4.3
10YR-72HR	E-DET 4	BASE	98.00	15.107	17.500	13489	-2.084	0.611	9.4	12.3
10YR-72HR	F-DET 7	BASE	98.00	15.134	17.500	55405	0.000	0.416	4.6	1.9
10YR-72HR	G-DET 8	BASE	98.00	15.128	17.500	59335	0.000	0.445	9.5	6.9
10YR-72HR	H-LAKE 3	BASE	98.00	15.133	17.500	123116	-0.923	0.000	7.4	0.0
10YR-72HR	J-LAKE-2	BASE	98.00	15.120	17.500	101023	1.784	-10.139	19.3	-89.2
10YR-72HR	K-LAKE-1	BASE	98.00	15.105	17.500	271422	31.815	4.259	277.6	23.1
10YR-72HR	L-CANAL	BASE	98.00	12.917	14.500	0	5.117	0.000	28.7	0.0
10YR-72HR	A-DET 6	BASE	99.00	15.083	17.500	34509	-2.827	0.000	-2.0	0.0
10YR-72HR	B-DET 65	BASE	99.00	15.080	17.500	285	0.000	-5.158	2.7	-5.0
10YR-72HR	C-DET 5	BASE	99.00	15.082	17.500	32787	-5.333	0.000	-5.9	0.0
10YR-72HR	D-DET 54	BASE	99.00	15.079	17.500	286	0.000	-5.026	2.8	-4.7
10YR-72HR	E-DET 4	BASE	99.00	15.081	17.500	13426	-2.025	0.598	9.2	12.3
10YR-72HR	F-DET 7	BASE	99.00	15.107	17.500	55156	0.000	0.406	4.6	1.9
10YR-72HR	G-DET 8	BASE	99.00	15.101	17.500	58936	0.000	0.434	9.5	6.9
10YR-72HR	H-LAKE 3	BASE	99.00	15.106	17.500	122946	-0.904	0.000	7.3	0.0
10YR-72HR	J-LAKE-2	BASE	99.00	15.094	17.500	100899	1.745	-10.197	19.4	-90.1
10YR-72HR	K-LAKE-1	BASE	99.00	15.079	17.500	271137	31.782	4.184	280.2	23.4
10YR-72HR	L-CANAL	BASE	99.00	12.875	14.500	0	5.012	0.000	29.1	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	A-DET 6	BASE	100.00	15.057	17.500	34349	-2.753	0.000	-2.2	0.0
10YR-72HR	B-DET 65	BASE	100.00	15.055	17.500	287	0.000	-5.021	2.7	-5.4
10YR-72HR	C-DET 5	BASE	100.00	15.056	17.500	32624	-5.191	0.000	-6.3	0.0
10YR-72HR	D-DET 54	BASE	100.00	15.053	17.500	287	0.000	-4.891	2.8	-5.1
10YR-72HR	E-DET 4	BASE	100.00	15.055	17.500	13363	-1.968	0.585	9.1	12.4
10YR-72HR	F-DET 7	BASE	100.00	15.081	17.500	54912	0.000	0.396	4.6	1.9
10YR-72HR	G-DET 8	BASE	100.00	15.075	17.500	58546	0.000	0.423	9.5	6.9
10YR-72HR	H-LAKE 3	BASE	100.00	15.080	17.500	122779	-0.884	0.000	7.2	0.0
10YR-72HR	J-LAKE-2	BASE	100.00	15.068	17.500	100778	1.704	-10.257	19.6	-90.9
10YR-72HR	K-LAKE-1	BASE	100.00	15.053	17.500	270856	31.749	4.112	282.8	23.8
10YR-72HR	L-CANAL	BASE	100.00	12.833	14.500	0	4.911	0.000	29.5	0.0
10YR-72HR	A-DET 6	BASE	100.00	15.057	17.500	34349	-2.753	0.000	-2.2	0.0
10YR-72HR	B-DET 65	BASE	100.00	15.055	17.500	287	0.000	-5.021	2.7	-5.4
10YR-72HR	C-DET 5	BASE	100.00	15.056	17.500	32624	-5.191	0.000	-6.3	0.0
10YR-72HR	D-DET 54	BASE	100.00	15.053	17.500	287	0.000	-4.891	2.8	-5.1
10YR-72HR	E-DET 4	BASE	100.00	15.055	17.500	13363	-1.968	0.585	9.1	12.4
10YR-72HR	F-DET 7	BASE	100.00	15.081	17.500	54912	0.000	0.396	4.6	1.9
10YR-72HR	G-DET 8	BASE	100.00	15.075	17.500	58546	0.000	0.423	9.5	6.9
10YR-72HR	H-LAKE 3	BASE	100.00	15.080	17.500	122779	-0.884	0.000	7.2	0.0
10YR-72HR	J-LAKE-2	BASE	100.00	15.068	17.500	100778	1.704	-10.257	19.6	-90.9
10YR-72HR	K-LAKE-1	BASE	100.00	15.053	17.500	270856	31.749	4.112	282.8	23.8
10YR-72HR	L-CANAL	BASE	100.00	12.833	14.500	0	4.911	0.000	29.5	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	K-LAKE-1	BASE	95.00	15.264	17.500	273031	32.061	4.839	271.8	23.8
10YR-72HR	L-CANAL	BASE	95.00	13.042	14.500	0	5.911	0.000	29.6	0.0
10YR-72HR	A-DET 6	BASE	96.00	15.239	17.500	35479	-3.315	0.000	0.9	0.0
10YR-72HR	B-DET 65	BASE	96.00	15.236	17.500	275	0.000	-6.048	2.7	0.5
10YR-72HR	C-DET 5	BASE	96.00	15.238	17.500	33773	-6.251	0.000	-0.3	0.0
10YR-72HR	D-DET 54	BASE	96.00	15.234	17.500	275	0.000	-5.889	2.9	0.7
10YR-72HR	E-DET 4	BASE	96.00	15.236	17.500	13804	-2.370	0.702	11.7	12.0
10YR-72HR	F-DET 7	BASE	96.00	15.267	17.500	56639	0.000	0.483	4.7	1.7
10YR-72HR	G-DET 8	BASE	96.00	15.260	17.500	61311	0.000	0.521	9.6	6.7
10YR-72HR	H-LAKE 3	BASE	96.00	15.265	17.500	116131	-0.988	0.000	4.4	0.0
10YR-72HR	J-LAKE-2	BASE	96.00	15.251	17.500	101578	1.991	-9.806	22.0	-84.4
10YR-72HR	JK-CB 21	BASE	96.00	15.280	17.500	127	-10.837	31.311	-90.4	243.1
10YR-72HR	K-LAKE-1	BASE	96.00	15.234	17.500	272688	32.013	4.737	274.5	24.2
10YR-72HR	L-CANAL	BASE	96.00	13.000	14.500	0	5.768	0.000	30.1	0.0
10YR-72HR	A-DET 6	BASE	97.00	15.210	17.500	35296	-3.220	0.000	0.6	0.0
10YR-72HR	B-DET 65	BASE	97.00	15.207	17.500	277	0.000	-5.871	2.7	0.0
10YR-72HR	C-DET 5	BASE	97.00	15.209	17.500	33587	-6.069	0.000	-0.8	0.0
10YR-72HR	D-DET 54	BASE	97.00	15.205	17.500	277	0.000	-5.715	2.9	0.3
10YR-72HR	E-DET 4	BASE	97.00	15.207	17.500	13733	-2.297	0.685	11.5	12.1
10YR-72HR	F-DET 7	BASE	97.00	15.236	17.500	56357	0.000	0.470	4.7	1.7
10YR-72HR	G-DET 8	BASE	97.00	15.230	17.500	60860	0.000	0.506	9.6	6.7
10YR-72HR	H-LAKE 3	BASE	97.00	15.235	17.500	114927	-0.958	0.000	4.3	0.0
10YR-72HR	J-LAKE-2	BASE	97.00	15.221	17.500	101431	1.935	-9.888	22.2	-85.3
10YR-72HR	JK-CB 21	BASE	97.00	15.251	17.500	127	-10.880	31.283	-91.3	245.6
10YR-72HR	K-LAKE-1	BASE	97.00	15.205	17.500	272352	31.968	4.640	277.1	24.5
10YR-72HR	L-CANAL	BASE	97.00	12.958	14.500	0	5.632	0.000	30.6	0.0
10YR-72HR	A-DET 6	BASE	98.00	15.181	17.500	35116	-3.128	0.000	0.4	0.0
10YR-72HR	B-DET 65	BASE	98.00	15.178	17.500	279	0.000	-5.702	2.7	-0.5
10YR-72HR	C-DET 5	BASE	98.00	15.180	17.500	33404	-5.895	0.000	-1.3	0.0
10YR-72HR	D-DET 54	BASE	98.00	15.176	17.500	279	0.000	-5.549	2.9	-0.2
10YR-72HR	E-DET 4	BASE	98.00	15.178	17.500	13663	-2.228	0.669	11.4	12.2
10YR-72HR	F-DET 7	BASE	98.00	15.207	17.500	56080	0.000	0.459	4.7	1.7
10YR-72HR	G-DET 8	BASE	98.00	15.200	17.500	60418	0.000	0.493	9.6	6.8
10YR-72HR	H-LAKE 3	BASE	98.00	15.205	17.500	113748	-0.929	0.000	4.3	0.0
10YR-72HR	J-LAKE-2	BASE	98.00	15.192	17.500	101288	1.881	-9.965	22.3	-86.1
10YR-72HR	JK-CB 21	BASE	98.00	15.222	17.500	127	-10.920	31.256	-92.2	248.2
10YR-72HR	K-LAKE-1	BASE	98.00	15.176	17.500	272022	31.925	4.547	279.7	24.9
10YR-72HR	L-CANAL	BASE	98.00	12.917	14.500	0	5.502	0.000	31.0	0.0
10YR-72HR	A-DET 6	BASE	99.00	15.152	17.500	34940	-3.041	0.000	0.1	0.0
10YR-72HR	B-DET 65	BASE	99.00	15.150	17.500	281	0.000	-5.540	2.7	-0.9
10YR-72HR	C-DET 5	BASE	99.00	15.152	17.500	33225	-5.728	0.000	-1.8	0.0
10YR-72HR	D-DET 54	BASE	99.00	15.148	17.500	281	0.000	-5.390	2.9	-0.7
10YR-72HR	E-DET 4	BASE	99.00	15.150	17.500	13594	-2.161	0.654	11.2	12.2
10YR-72HR	F-DET 7	BASE	99.00	15.178	17.500	55810	0.000	0.447	4.7	1.8
10YR-72HR	G-DET 8	BASE	99.00	15.171	17.500	59985	0.000	0.480	9.6	6.8
10YR-72HR	H-LAKE 3	BASE	99.00	15.176	17.500	112592	-0.901	0.000	4.2	0.0
10YR-72HR	J-LAKE-2	BASE	99.00	15.163	17.500	101147	1.828	-10.039	22.5	-86.9
10YR-72HR	JK-CB 21	BASE	99.00	15.194	17.500	127	-10.959	31.230	-93.1	250.8
10YR-72HR	K-LAKE-1	BASE	99.00	15.148	17.500	271698	31.884	4.458	282.4	25.3
10YR-72HR	L-CANAL	BASE	99.00	12.875	14.500	0	5.378	0.000	31.5	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
10YR-72HR	A-DET 6	BASE	100.00	15.125	17.500	34767	-2.957	0.000	-0.1	0.0
10YR-72HR	B-DET 65	BASE	100.00	15.122	17.500	283	0.000	-5.383	2.7	-1.4
10YR-72HR	C-DET 5	BASE	100.00	15.124	17.500	33049	-5.567	0.000	-2.2	0.0
10YR-72HR	D-DET 54	BASE	100.00	15.120	17.500	283	0.000	-5.237	2.9	-1.1
10YR-72HR	E-DET 4	BASE	100.00	15.122	17.500	13526	-2.096	0.639	11.0	12.3
10YR-72HR	F-DET 7	BASE	100.00	15.149	17.500	55544	0.000	0.437	4.7	1.8
10YR-72HR	G-DET 8	BASE	100.00	15.143	17.500	59560	0.000	0.468	9.6	6.9
10YR-72HR	H-LAKE 3	BASE	100.00	15.148	17.500	111459	-0.875	0.000	4.1	0.0
10YR-72HR	J-LAKE-2	BASE	100.00	15.135	17.500	101009	1.779	-10.110	22.6	-87.7
10YR-72HR	JK-CB 21	BASE	100.00	15.166	17.500	127	-10.995	31.205	-94.0	253.4
10YR-72HR	K-LAKE-1	BASE	100.00	15.120	17.500	271379	31.844	4.374	285.0	25.7
10YR-72HR	L-CANAL	BASE	100.00	12.833	14.500	0	5.259	0.000	31.9	0.0
10YR-72HR	A-DET 6	BASE	100.00	15.125	17.500	34767	-2.957	0.000	-0.1	0.0
10YR-72HR	B-DET 65	BASE	100.00	15.122	17.500	283	0.000	-5.383	2.7	-1.4
10YR-72HR	C-DET 5	BASE	100.00	15.124	17.500	33049	-5.567	0.000	-2.2	0.0
10YR-72HR	D-DET 54	BASE	100.00	15.120	17.500	283	0.000	-5.237	2.9	-1.1
10YR-72HR	E-DET 4	BASE	100.00	15.122	17.500	13526	-2.096	0.639	11.0	12.3
10YR-72HR	F-DET 7	BASE	100.00	15.149	17.500	55544	0.000	0.437	4.7	1.8
10YR-72HR	G-DET 8	BASE	100.00	15.143	17.500	59560	0.000	0.468	9.6	6.9
10YR-72HR	H-LAKE 3	BASE	100.00	15.148	17.500	111459	-0.875	0.000	4.1	0.0
10YR-72HR	J-LAKE-2	BASE	100.00	15.135	17.500	101009	1.779	-10.110	22.6	-87.7
10YR-72HR	JK-CB 21	BASE	100.00	15.166	17.500	127	-10.995	31.205	-94.0	253.4
10YR-72HR	K-LAKE-1	BASE	100.00	15.120	17.500	271379	31.844	4.374	285.0	25.7
10YR-72HR	L-CANAL	BASE	100.00	12.833	14.500	0	5.259	0.000	31.9	0.0

Exhibit A

Aerial



Appendix

Job No.: 68001-001-02
Report No.: 9650
Date.: 4/18/2005

EXFILTRATION TEST
CONSTANT HEAD OPEN HOLE TEST

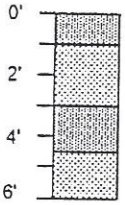
Client: Elite General Contractor & Remodeling, Inc.
3147 Jupiter Park Circle, Suite 2
Jupiter, Florida 33458

Project: Exfiltration Test Results - Kings Landings
2496 S. Kings Highway
Fort Pierce, Florida

Test Date: 4/14/2005

SOIL PROFILE

E-1



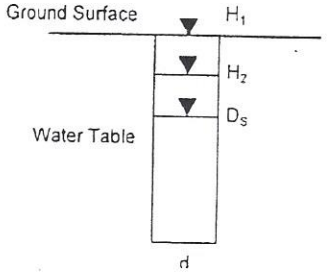
Brown sand with traces of roots [SP]

Light brown sand with traces of silt [SP]
Grayish brown sand with silt [SP-SM]

Gray silty sand [SM]

NOTES: Water table encountered at 6-foot test Depth

CALCULATIONS



0.5	d	= Diameter of Casing (ft)
6	H	= Depth to Water Table (ft)
0	D_s	= Saturated Hole Depth (ft)
0.97	W	= Water added during test interval (Gal)
0	t_1	= Time at Start of Test (sec)
1980	t_2	= Time at End of Test (sec)

$$K = \frac{4 * Q}{\pi * d(2H^2 + 4H * D_s + H * d)}$$

2.2E-06 K = Hydraulic Conductivity (cfs/ft^2 -ft. head)

The next step is to compute the project-specific S-value to use for determining the runoff volume which will be discharged from the site. The depth to the water table will be 3 feet (17.0 - 14.0 = 3.0), consequently the total amount of water which can be stored under pervious surfaces will be 4.95 inches. If 15% of the project will be in lakes and 35% will be covered by impervious surfaces, then the remainder, or 50% will be pervious areas and the appropriate weighted S-value will be:

$$4.95" \times (1 - (.15+.35)) = 2.48" = S$$

Figure E-1 is a graphical representation of the cumulative water storage capabilities of the soil profile for the developed and undisturbed conditions versus the depth to the average wet season water table for the typical sandy soils found within the South Florida Water Management District boundaries.

In about April, 1993, the US SCS furnished the District test data for Immokalee and Riviera soils which show less soil storage than the typical soils described above. The following table shows the average values as compared to the typical values (Coastal). Although the lesser storage values result in higher SCS runoff curve numbers, the depressional and flatwoods soils typically are in flat and depressed areas with standing water, thus the areas have low runoff potential.

SOIL STORAGE

Depth to W.T.	Coastal (1) Stor. (In.)	CN	Flatwoods (2) Stor. (In.)	CN	Depressional (3) Stor. (In.)	CN
1'	0.6	94	0.6	94	0.6	94
2'	2.5	80	2.5	80	2.1	83
3'	6.6	60	5.4	65	4.4	69
4'	10.9	48	9.0	53	6.8	60

(1) Sandy soils 0 - 40" thick with water tables dropping below 40" - St. Lucie series is representative

(2) Water tables 15" - 40" - Immokalee series is representative

(3) Water tables above ground - 15" - Riviera and Pompano series are representative

Figure E-1 is also a graphical comparison of the cumulative water storage capabilities of the soil profile for flatwoods and depressional storage.

Evaluation of Current Stormwater Design Criteria within the State of Florida

Final Report

Prepared for:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

FDEP Contract No. SO108

June 2007

Prepared By:

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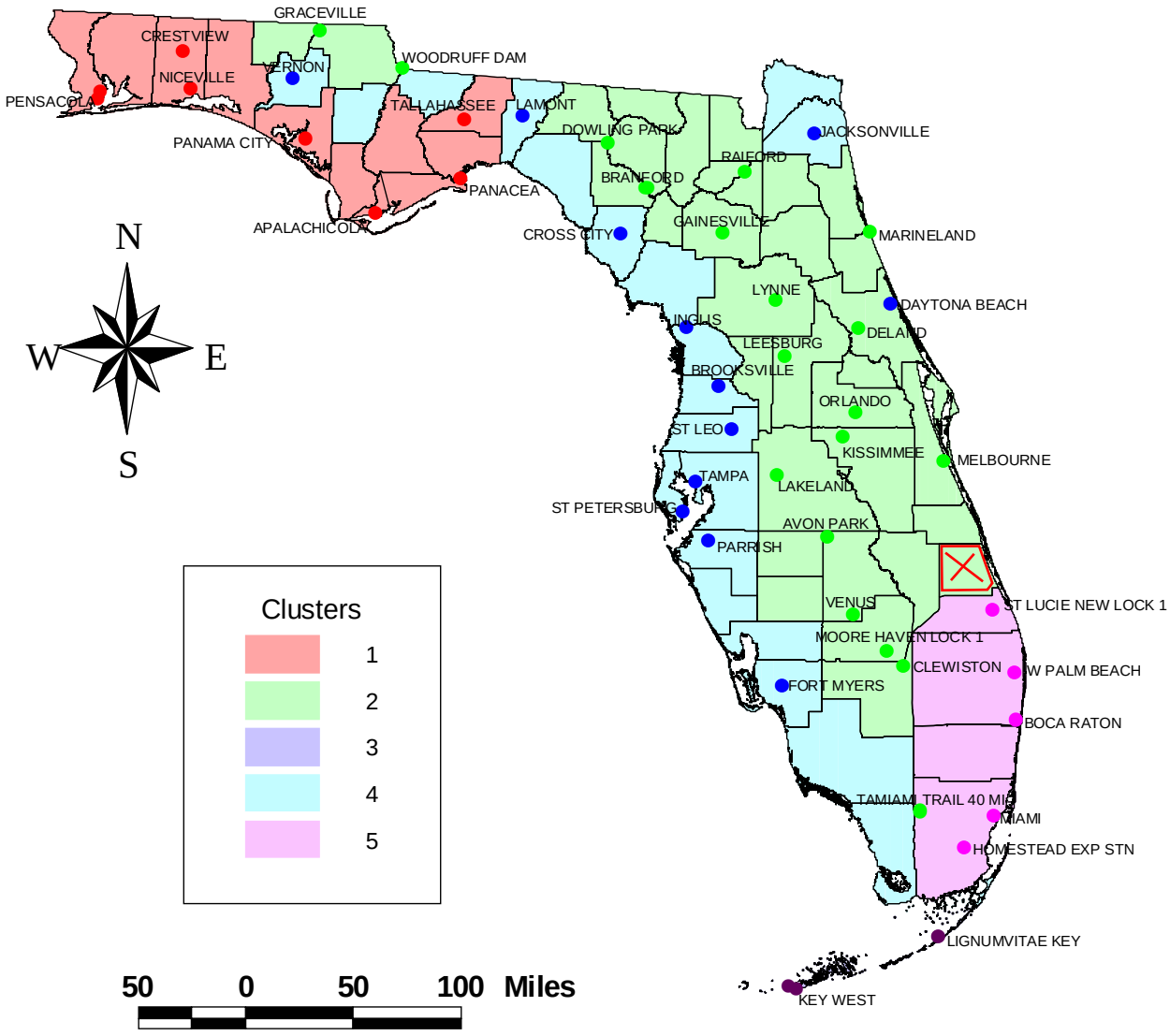


Figure 4-3. Meteorological Zones Identified Using Cluster Analysis.

Unfortunately, not all counties in Florida have long-term meteorological monitoring sites with hourly data. For purposes of designating meteorological zones, counties without a monitoring site were grouped according to the meteorological characteristics of adjacent counties with monitoring sites. The resulting zones appear to be relatively intuitive with respect to meteorological processes. The cluster groupings only have two apparent outliers, Daytona Beach and Tamiami Trail, which appear out of place. However, in a data set containing 45 points, an analysis conducted at a 95% probability level would be expected to have approximately 2-3 outlier values. A listing of counties included in each meteorological zone is given in Table 4-23.

TABLE 4-23

COUNTIES INCLUDED IN THE DESIGNATED METEORLOGICAL ZONES

ZONE				
1	**2**	**3**	**4**	**5**
Okaloosa	St. Lucie	Monroe	Washington	Martin
Liberty	Columbia		Manatee	Broward
Bay	DeSoto		Levy	Miami-Dade
Wakulla	St. Johns		Pasco	Palm Beach
Leon	Seminole		Pinellas	
Santarosa	Sumter		Lee	
Gulf	Flagler		Hillsborough	
Franklin	Suwannee		Hernando	
Escambia	Gadsden		Sarasota	
Walton	Gilchrist		Duval	
	Glades		Dixie	
	Calhoun		Collier	
	Hamilton		Citrus	
	Hardee		Charlotte	
	Hendry		Taylor	
	Union		Nassau	
	Highlands		Jefferson	
	Putnam		Monroe	
	Holmes			
	Indian River			
	Jackson			
	Volusia			
	Lafayette			
	Lake			
	Polk			
	Brevard			
	Bradford			
	Baker			
	Madison			
	Osceola			
	Marion			
	Orange			
	Clay			
	Okeechobee			
	Alachua			

A summary of mean runoff coefficients for each cluster as a function of land use and hydrologic soil group is given in Table 4-24. The values summarized in this table reflect the mean runoff coefficients for each land use and hydrologic soil group and each meteorological monitoring site included in each of the five clusters. The values summarized in Table 4-24 reflect differences in runoff coefficients as a result of frequency distributions of common rain events only. This analysis does not include variability in rainfall depth throughout the State which must be multiplied times the mean runoff coefficients to obtain an estimate of annual runoff volume.

$$BOD_i = BOD_o \times exp(-K \times t)$$

where:

BOD_t = BOD at time, t (mg/l)

BOD_o = initial BOD (mg/l)

t = time (days)

K = decomposition constant ($time^{-1}$)

BOD decomposition constants (K) in surface waters are temperature-dependent but are typically on the order of 0.1/day. A graphical representation of the theoretical removal of BOD as a function of time, based upon a decomposition constant of 0.1/day, is given in Figure 6-1. This relationship can be used to estimate the time required to achieve a certain BOD removal efficiency within a wet detention pond. A removal efficiency of approximately 80% is achieved for BOD after a residence time of approximately 15 days, with removal efficiencies in excess of 95% after approximately 30-35 days. As a result, the removal of BOD in aquatic systems occurs at a much more rapid rate than removal of total nitrogen or total phosphorus, as indicated in Figures 5-10 and 5-11. Therefore, if a stormwater management system provides the required removal efficiency for both total nitrogen and total phosphorus, the system will also easily provide the same pollutant removal efficiency for BOD.

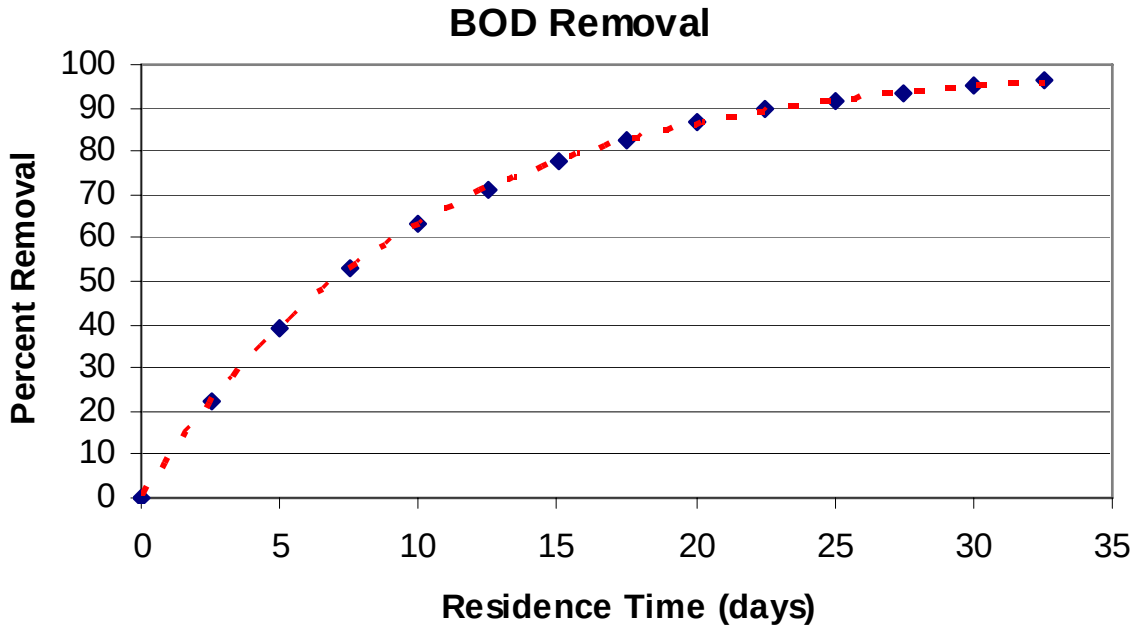


Figure 6-1. Theoretical Removal of BOD as a Function of Residence Time in a Wet Detention Pond.

4.1.5 Low-Intensity Commercial Areas

For the purposes of this evaluation, the term intensity refers to the level of use of the commercial area rather than an indication of the type of business or density of development. Low-intensity commercial areas are defined as areas which receive only a moderate amount of traffic volume and where cars may be parked during the day for extended periods of time. Since most commercial activities themselves generate relatively little pollutant loading, the majority of pollutant deposition occurs as a result of automobiles and trucks operating within the commercial area. Low-intensity commercial areas include schools, churches, professional office sites, and small shopping centers. High-intensity commercial areas include downtown business districts and large regional shopping areas.

A summary of hydrologic characteristics from low-intensity commercial stormwater characterization studies is given in Table B.3. Nine separate studies were identified in the available literature, with watershed areas ranging from 2.17-50.70 acres. Percentage imperviousness for the commercial sites range from 60% to approximately 100%. Eight of the nine studies utilize curb and gutter stormsewer systems, with swales utilized for drainage conveyance at the Florida Aquarium site.

A summary of mean stormwater emc values from low-intensity commercial stormwater studies is given in Table 4-7. Characterization data for total nitrogen, total phosphorus, and TSS are provided for each of the nine studies, with eight of the nine studies providing characterization data for BOD. As observed in previous land use categories, characterization data for heavy metals is somewhat limited. In general, low-intensity commercial areas are characterized by relatively low levels of total nitrogen, total phosphorus, and BOD, although TSS concentrations are somewhat elevated. Runoff characteristics reported by Harper and Herr (1993) are not included in calculation of the mean value since the runoff in this study received pre-treatment in a vegetated swale prior to collection.

TABLE 4-7

SUMMARY OF MEAN STORMWATER CHARACTERISTICS FROM LOW-INTENSITY COMMERCIAL STORMWATER STUDIES

LOCATION	REFERENCE	MEAN emc VALUE (mg/l)										
		TN	TP	BOD	TSS	Cd	Cr	Cu	Fe	Ni	Pb	Zn
Orlando Areawide Study[1]	ECFRPC (1978)	0.89	0.16	3.6	146	--	--	--	--	--	0.068[2]	--
Ft. Lauderdale - Coral Ridge Mall	Miller (1979)	1.10	0.10	5.4	45.0	--	--	0.015	--	--	0.387[2]	0.128
Tampa - Norma Park	U.S. EPA (1983)	1.19	0.15	12.0	22.0	--	--	--	--	--	0.046[2]	0.037
Orlando - International Market Place	Harper (1988)	1.53	0.19	11.6	111	0.008	0.013	0.031	1.10	0.028	0.136[2]	0.168
DeBary[3]	Harper and Herr (1993)	0.761	0.260	6.9	79.1	0.0005	0.003	0.010	0.582	--	0.009	0.028
Bradfordville	ERD (2000)	2.14	0.160	9.0	38.3	--	--	--	--	--	--	--
Tallahassee - Cross Creek Shopping Center	COT and ERD (2002)	0.925	0.15	8.0	15.0	--	--	0.008	--	--	0.002	0.045
Sarasota County	ERD (2004)	0.88	0.31	4.3	39.9	--	--	--	--	--	--	--
Florida Aquarium - Tampa	Teague, et al. (2005)	0.761	0.215	--	42.4	0.003	--	0.019	1.17	--	0.008	0.090
Overall Mean Value		**1.18**	**0.179**	**7.7**	**57.5**	**0.006**	**0.013**	**0.018**	**1.14**	**0.028**	**0.005**	**0.094**

1. Average of studies performed on a parking lot, motel complex, and commercial strip development
2. Data not included in calculation of mean value
3. Values excluded from means due to swale pre-treatment

Zone 2
Mean Annual Runoff Coefficients (C Values) as a Function of DCIA Percentage and Non-DCIA Curve Number (CN)

NDCIA CN	Percent DCIA																				
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
30	0.002	0.043	0.083	0.123	0.164	0.204	0.244	0.285	0.325	0.366	0.406	0.446	0.487	0.527	0.567	0.608	0.648	0.688	0.729	0.769	0.809
35	0.004	0.044	0.085	0.125	0.165	0.205	0.246	0.286	0.326	0.366	0.407	0.447	0.487	0.528	0.568	0.608	0.648	0.689	0.729	0.769	0.809
40	0.007	0.047	0.087	0.127	0.167	0.207	0.248	0.288	0.328	0.368	0.408	0.448	0.488	0.528	0.569	0.609	0.649	0.689	0.729	0.769	0.809
45	0.010	0.050	0.090	0.130	0.170	0.210	0.250	0.290	0.330	0.370	0.410	0.450	0.490	0.530	0.570	0.610	0.650	0.690	0.729	0.769	0.809
50	0.015	0.055	0.095	0.134	0.174	0.214	0.254	0.293	0.333	0.373	0.412	0.452	0.492	0.531	0.571	0.611	0.651	0.690	0.730	0.770	0.809
55	0.022	0.061	0.101	0.140	0.179	0.219	0.258	0.298	0.337	0.376	0.416	0.455	0.494	0.534	0.573	0.613	0.652	0.691	0.731	0.770	0.809
60	0.030	0.069	0.108	0.147	0.186	0.225	0.264	0.303	0.342	0.381	0.420	0.459	0.498	0.537	0.576	0.615	0.654	0.693	0.731	0.770	0.809
65	0.042	0.080	0.119	0.157	0.195	0.234	0.272	0.311	0.349	0.387	0.426	0.464	0.502	0.541	0.579	0.618	0.656	0.694	0.733	0.771	0.809
70	0.057	0.095	0.133	0.170	0.208	0.245	0.283	0.321	0.358	0.396	0.433	0.471	0.509	0.546	0.584	0.621	0.659	0.697	0.734	0.772	0.809
75	0.079	0.116	0.152	0.189	0.225	0.262	0.298	0.335	0.371	0.408	0.444	0.481	0.517	0.554	0.590	0.627	0.663	0.700	0.736	0.773	0.809
80	0.111	0.146	0.181	0.216	0.251	0.285	0.320	0.355	0.390	0.425	0.460	0.495	0.530	0.565	0.600	0.635	0.670	0.705	0.740	0.774	0.809
85	0.160	0.192	0.225	0.257	0.290	0.322	0.355	0.387	0.420	0.452	0.485	0.517	0.550	0.582	0.614	0.647	0.679	0.712	0.744	0.777	0.809
90	0.242	0.270	0.299	0.327	0.355	0.384	0.412	0.440	0.469	0.497	0.526	0.554	0.582	0.611	0.639	0.667	0.696	0.724	0.753	0.781	0.809
95	0.404	0.424	0.444	0.464	0.485	0.505	0.525	0.546	0.566	0.586	0.606	0.627	0.647	0.667	0.688	0.708	0.728	0.749	0.769	0.789	0.809
98	0.595	0.605	0.616	0.627	0.638	0.648	0.659	0.670	0.680	0.691	0.702	0.713	0.723	0.734	0.745	0.756	0.766	0.777	0.788	0.799	0.809

Table B-4. Estimated runoff and TN and TP loads [in pounds per acre per year (lbs/ac/yr)] and concentrations [in milligrams per liter (mg/L)] for 2004 land use categories in the St. Lucie River Watershed.

Land Use Category	Land Use Description	FLUCCS	Runoff (in/yr)	Unit TN Load (lbs/ ac/yr)	TN Concen- tration (mg/L)	Unit TP Load (lbs/ ac/yr)	TP Concen- tration (mg/L)
Residential Low Density	Residential Low Density[1]	1100	17.5676	4.29	1.08	0.49	0.12
Residential Medium Density	Residential Medium Density[2]	1200	20.7617	6.24	1.33	1.40	0.30
Residential High Density	Residential High Density[2]	1300	23.9558	9.36	1.73	3.00	0.55
Other Urban	Commercial and Services[2]	1400	25.5528	8.58	1.48	1.40	0.24
	Industrial[2]	1500	27.1499	7.80	1.27	2.40	0.39
	Extractive[2]	1600	23.9558	5.46	1.01	0.66	0.12
	Institutional[2]	1700	23.9558	5.46	1.01	2.40	0.44
	Recreational[2]	1800	17.5676	5.46	1.37	0.96	0.24
Improved Pastures	Improved Pastures	2110	19.1646	8.66	2.00	1.90	0.44
Unimproved Pastures	Unimproved Pastures	2120	15.9705	4.29	1.19	0.92	0.25
Woodland Pastures/Rangeland	Woodland Pastures	2130	15.9705	3.20	0.89	0.88	0.24
	Rangeland	3000	15.9705	3.20	0.89	0.28	0.08
Row Crops	Row Crops	2140	22.3587	11.70	2.31	4.50	0.89
Sugar Cane	Sugar Cane	2156	19.1646	6.24	1.44	0.63	0.15
Citrus	Citrus	2210	19.1646	6.63	1.53	1.80	0.42
Sod Farms	Sod Farms	2420	19.1646	7.02	1.62	2.52	0.58
Ornamentals	Ornamentals	2430	19.1646	9.36	2.16	2.90	0.67
Horse Farms	Horse Farms	2510	15.9705	12.48	3.45	1.82	0.50
Dairies	Dairies	2520	15.9705	15.60	4.32	9.38	2.60
Other Areas	Field Crops	2150	15.9705	5.17	1.43	2.96	0.82
	Mixed Crops	2160	19.1646	8.58	1.98	3.50	0.81
	Fruit Orchards	2220	19.1646	7.02	1.62	2.30	0.53
	Other Groves	2230	19.1646	7.02	1.62	2.30	0.53
	Cattle Feeding Operations	2310	19.1646	42.16	9.72	8.96	2.07
	Poultry Feeding Operations	2320	19.1646	7.80	1.80	1.50	0.35
	Tree Nurseries	2410	15.9705	9.36	2.59	2.90	0.80
	Specialty Farms	2500	15.9705	6.24	1.73	1.82	0.50
	Aquaculture	2540	7.98525	7.80	4.32	0.70	0.39
	Fallow Crop Land	2610	19.1646	5.46	1.26	0.70	0.16
Tree Plantations	Tree Plantations	4400	15.9705	2.42	0.67	0.18	0.05
Water	Water	5000	3.1941	0.70	0.97	0.05	0.07
Natural Areas	Upland Forests (not including 4400s)	4000	14.3735	1.95	0.60	0.28	0.09
	Wetlands	6000	1.59705	1.17	3.24	0.01	0.03
	Barren Land	7000	23.9558	5.46	1.01	0.75	0.14
	Open Land	1900	15.9705	3.12	0.86	0.28	0.08
Transportation	Transportation	8100	27.1499	7.18	1.17	1.65	0.27
Communication/Utilities	Communications	8200	15.9705	4.68	1.30	0.48	0.13
	Utilities	8300	15.9705	4.68	1.30	0.48	0.13

[1]Assumed to be on septic systems.

[2]Assumed discharge from wastewater treatment outside of the watershed.

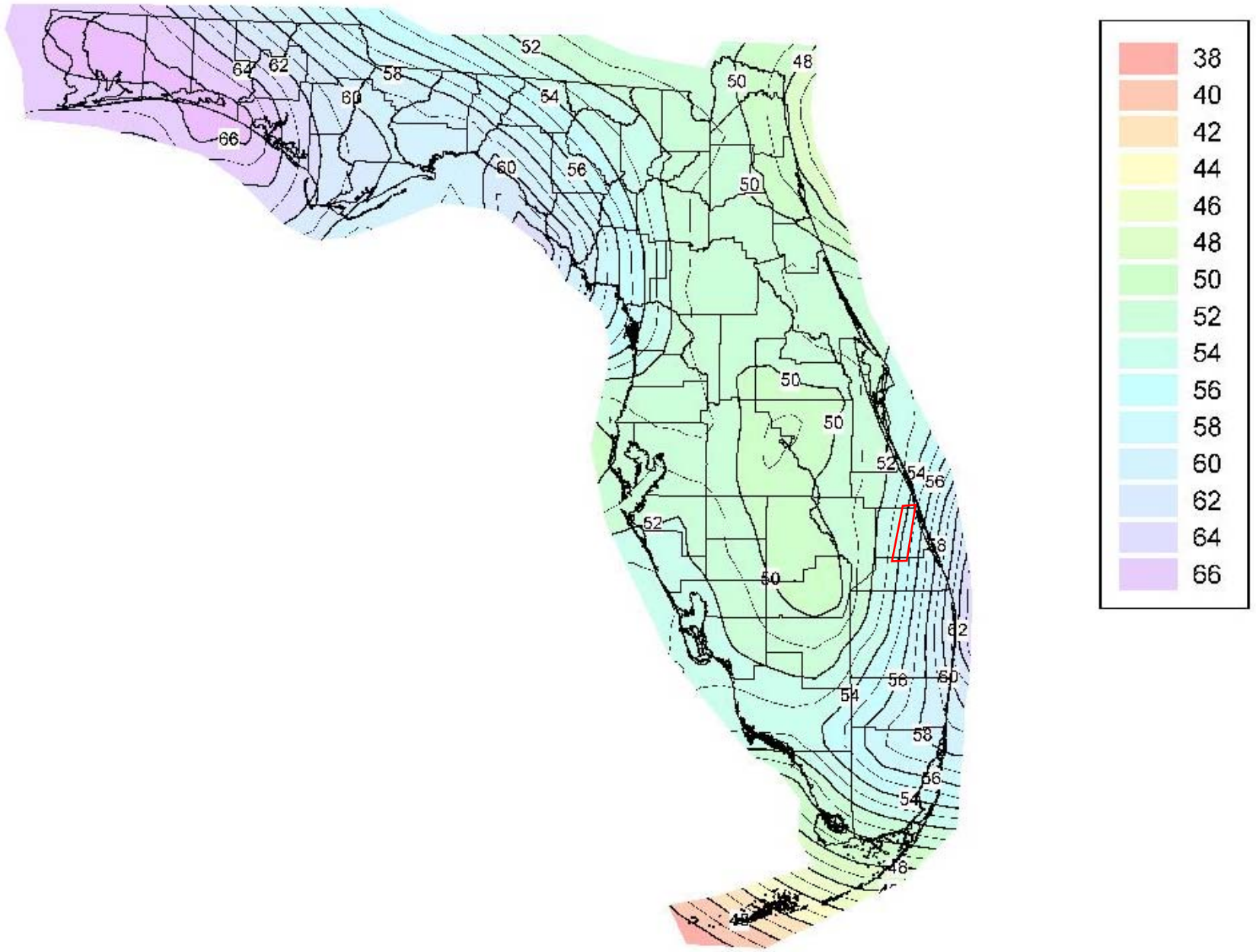
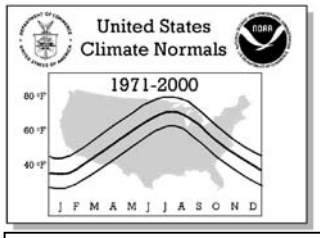


Figure 3-2. Isopleths of Mean Annual Precipitation in Florida from 1971-2000.



CLIMATOGRAPHY OF THE UNITED STATES NO. 81

Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days

1971-2000

FLORIDA

PRECIPITATION NORMALS (Total in Inches)

No.	Station Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
001	APALACHICOLA AP	4.87	3.76	4.95	3.00	2.62	4.30	7.31	7.29	7.10	4.18	3.62	3.51	56.51
002	ARCADIA	2.13	2.43	3.10	1.86	3.87	7.81	7.64	7.02	6.77	2.87	2.08	1.76	49.34
003	ARCHBOLD BIO STATION	2.32	2.38	3.25	2.33	3.98	7.74	7.66	7.42	6.50	3.00	2.07	1.95	50.60
004	AVON PARK 2 W	2.48	2.41	3.02	2.17	3.63	8.25	6.81	7.18	5.98	3.02	2.27	1.87	49.09
005	BABSON PARK 1 ENE	2.06	2.56	3.13	1.95	4.10	6.86	8.23	7.29	5.65	2.29	2.48	1.75	48.35
006	BARTOW	2.51	2.82	3.11	2.53	3.81	6.78	8.56	6.52	6.68	2.71	2.18	2.37	50.58
007	BELLE GLADE EXP STN	2.51	1.88	2.65	2.41	5.04	7.33	7.34	7.16	7.09	3.54	2.79	1.82	51.56
008	BITHLO	2.35	2.69	2.81	1.88	3.47	7.26	6.86	8.06	6.14	3.75	2.14	1.87	49.28
009	BRADENTON 5 ESE	2.94	2.66	3.36	1.83	2.85	7.41	8.71	9.43	7.25	2.88	2.35	2.45	54.12
010	BROOKSVILLE CHIN HILL	3.27	3.24	4.22	2.62	3.40	7.24	7.16	8.24	5.96	2.38	2.39	2.45	52.57
011	BUSHNELL 2 E	3.43	3.02	3.93	2.34	3.79	6.18	6.43	7.24	6.00	2.14	2.18	2.52	49.20
012	CANAL POINT USDA	2.60	2.27	3.44	2.42	4.61	7.64	6.22	6.69	7.28	3.91	2.95	2.07	52.10
013	CHIPLEY 3 E	6.09	4.81	6.11	3.84	4.21	5.24	6.92	5.38	4.76	2.90	4.12	3.86	58.24
014	CLERMONT 7 S	3.11	2.58	3.81	2.18	3.67	7.86	6.78	6.96	5.59	2.40	2.40	2.40	49.74
015	CLEWISTON US ENGINEERS	2.38	2.01	2.68	2.16	4.50	7.15	6.58	6.28	4.99	2.87	2.28	1.52	45.40
016	CRESCENT CITY	3.34	2.83	4.06	2.56	3.52	6.53	6.34	6.28	6.11	3.12	2.55	2.55	49.79
017	CRESTVIEW BOB SIKES AP	6.49	4.91	7.06	4.26	4.94	7.41	6.83	6.34	4.88	3.02	4.20	3.60	63.94
018	CROSS CITY 2 WNW	4.41	3.54	4.42	3.48	3.06	6.34	8.92	9.67	6.10	2.93	2.35	3.27	58.49
019	DAYTONA BEACH INTL AP	3.13	2.74	3.84	2.54	3.26	5.69	5.17	6.09	6.61	4.48	3.03	2.71	49.29
020	DE FUNIAK SPRINGS	5.61	5.39	6.23	3.93	4.95	6.60	7.67	6.77	6.03	3.23	4.76	4.35	65.52
021	DELAND 1 SSE	3.35	2.96	3.84	2.80	4.27	7.60	7.88	7.70	7.17	4.09	2.72	2.65	57.03
022	DESOTO CITY 8 SW	2.31	2.57	3.10	2.20	3.61	8.21	7.00	6.97	6.48	2.64	2.30	1.62	49.01
023	DEVILS GARDEN	2.37	2.09	2.78	2.63	4.33	8.58	7.52	8.10	6.53	3.52	2.58	1.64	52.67
024	EVERGLADES	1.71	1.49	1.92	1.93	3.56	9.89	7.34	8.62	8.23	3.80	1.89	1.72	52.10
025	FEDERAL POINT	3.09	2.89	3.68	2.34	3.55	6.67	6.16	6.57	6.83	3.34	2.70	2.72	50.54
026	FERNANDINA BEACH	3.82	3.17	4.01	2.91	2.87	5.30	5.80	5.34	7.73	4.22	2.49	2.73	50.39
027	FLAMINGO RANGER STN	1.94	1.63	1.87	2.06	5.06	7.25	4.73	7.43	7.20	4.26	2.46	1.57	47.46
028	FORT DRUM 5 NW	2.27	2.47	3.78	2.43	4.47	8.05	7.60	7.27	6.60	3.73	2.30	1.86	52.83
029	FORT GREEN 12 WSW	2.43	2.62	3.31	2.09	3.42	8.18	8.29	7.78	6.86	2.62	2.13	2.23	51.96
030	FORT LAUDERDALE	2.94	2.70	2.80	3.91	6.33	10.01	6.70	6.88	8.26	6.44	4.57	2.65	64.19
031	FORT MYERS (PAGE AP)	2.23	2.10	2.74	1.67	3.42	9.77	8.98	9.54	7.86	2.59	1.71	1.58	54.19
032	FORT PIERCE	2.70	2.99	3.27	2.77	4.38	5.84	5.79	6.35	7.81	5.82	3.50	2.28	53.50
033	FOUNTAIN 3 SSE	5.83	4.69	6.38	3.05	4.39	7.20	8.00	6.50	6.61	2.95	4.01	4.41	64.02
034	GAINESVILLE 3 WSW	4.13	3.90	3.94	3.03	3.70	5.87	5.34	6.69	5.33	1.89	2.58	3.05	49.45
035	GAINESVILLE 11 WNW	3.95	2.34	4.31	2.92	3.34	6.20	7.50	7.89	4.05	2.99	1.87	2.20	49.56
036	GAINESVILLE RGNL AP	3.51	3.39	4.26	2.86	3.23	6.78	6.10	6.63	4.37	2.50	2.17	2.56	48.36
037	GLEN ST MARY 1 W	4.34	3.41	4.52	3.29	3.58	6.53	6.33	7.33	5.36	3.10	2.23	2.92	52.94
038	HASTINGS ARC	3.39	2.69	3.94	2.72	3.47	6.98	5.56	6.37	7.40	3.94	2.88	2.65	51.99
039	HIALEAH	2.34	2.22	3.20	3.90	6.08	10.24	7.00	9.20	8.88	6.56	3.83	2.59	66.04
040	HIGH SPRINGS	4.35	3.69	4.33	3.28	3.63	6.88	7.53	7.92	4.56	2.96	2.28	2.74	54.15
041	HILLSBOROUGH RVR ST PK	3.35	3.12	3.41	2.23	3.21	7.87	7.27	8.16	7.23	2.71	2.72	3.28	54.56
042	HOMESTEAD EXP STN	1.94	1.78	1.88	2.74	5.77	9.51	6.82	9.16	8.90	5.49	2.59	1.61	58.19
043	IMMOKALEE 3 NNW	2.33	2.26	2.97	2.36	4.08	7.78	7.27	7.49	6.61	2.88	2.27	1.77	50.07
044	INVERNESS 3 SE	3.55	2.96	4.17	2.40	3.33	7.40	7.05	7.52	5.93	2.63	2.27	2.56	51.77
045	JACKSONVILLE CECIL NAS	3.50	3.20	4.16	2.91	3.25	6.54	6.39	7.07	6.69	3.24	2.28	2.65	51.88
046	JACKSONVILLE INTL AP	3.69	3.15	3.93	3.14	3.48	5.37	5.97	6.87	7.90	3.86	2.34	2.64	52.34
047	JACKSONVILLE NAS	3.39	2.59	3.97	2.77	3.22	5.78	5.99	5.87	7.28	3.30	2.35	2.45	48.96
048	JACKSONVILLE BEACH	3.56	2.84	3.92	2.87	3.03	5.70	5.21	6.11	7.53	5.04	2.36	2.75	50.92
049	JASPER	4.96	4.13	5.16	3.45	3.33	6.03	5.62	6.27	4.20	2.87	2.79	3.43	52.24
050	KEY WEST INTL AP	2.22	1.51	1.86	2.06	3.48	4.57	3.27	5.40	5.45	4.34	2.64	2.14	38.94
051	KEY WEST NAS	2.50	1.65	1.80	2.12	3.88	5.42	4.11	5.48	6.33	4.58	2.62	2.24	42.73
052	KISSIMMEE 2	2.39	2.72	3.32	2.02	3.83	6.02	6.55	7.32	6.01	3.17	2.42	2.24	48.01
053	LA BELLE	2.31	2.16	2.89	2.29	3.91	8.88	7.69	7.78	6.57	3.35	2.34	1.71	51.88
054	LAKE ALFRED EXP STN	2.52	2.75	3.43	1.99	4.12	6.88	7.11	7.43	6.53	2.96	2.29	2.28	50.29
055	LAKE CITY 2 E	4.52	3.61	4.90	3.15	3.71	6.91	6.74	7.19	4.67	2.82	2.42	2.96	53.60
056	LAKELAND	2.45	2.73	3.38	2.04	3.81	7.00	7.51	7.33	6.33	2.29	2.12	2.14	49.13
057	LISBON	3.32	2.87	4.03	2.80	4.13	6.13	5.67	6.20	5.76	2.54	2.53	2.65	48.63
058	LIVE OAK	4.99	4.01	5.33	3.29	3.23	6.06	6.35	6.13	4.64	3.26	2.43	3.11	52.83
059	LOXAHATCHEE	2.99	2.23	2.97	2.27	5.33	8.84	7.30	5.58	9.25	5.18	4.44	2.06	58.44
060	MADISON	5.50	4.11	5.59	3.22	3.10	5.82	6.18	5.38	3.94	2.96	3.31	4.07	53.18
061	MAYPORT PILOT STN	2.70	2.58	3.23	2.41	2.13	4.06	4.21	4.45	7.15	4.16	1.74	2.20	41.02
062	MAYO	4.88	3.66	4.85	3.07	3.19	5.82	7.60	7.97	5.07	3.01	2.52	3.23	54.87
063	MELBOURNE WFO	2.48	2.49	2.92	2.08	3.94	5.83	5.38	5.78	7.20	4.76	3.12	2.31	48.29
064	MIAMI BEACH	2.44	2.14	2.20	2.81	4.90	6.90	3.63	5.44	6.31	4.53	3.32	1.98	46.60
065	MIAMI INTL AP	1.88	2.07	2.56	3.36	5.52	8.54	5.79	8.63	8.38	6.19	3.43	2.18	58.53
066	MILTON EXPERIMENT STN	6.39	5.04	7.32	4.35	4.83	7.11	8.17	6.62	6.12	3.66	5.47	4.40	69.48
067	MONTICELLO 3 W	5.63	4.64	6.00	3.63	4.03	5.60	6.50	6.73	4.70	3.32	3.63	3.90	58.31
068	MOORE HAVEN LOCK 1	2.04	2.05	2.93	2.35	3.70	6.98	6.67	6.80	6.42	2.95	1.91	1.64	46.44
069	MOUNTAIN LAKE	2.38	2.43	3.12	2.02	3.88	7.12	7.45	6.64	5.83	2.50	2.23	2.10	47.70

5.2.2.1 SJRWMD Design Criteria

Wet detention ponds designed according to St. Johns River Water Management District (SJRWMD) criteria are characterized by relatively short residence times, ranging from approximately 14-21 days under wet season conditions. Virtually all existing research studies on wet detention systems, as summarized in Table 5-2, have been performed on shallow ponds with relatively short residence times. Six of the eight studies summarized in Table 5-2 are located in the St. Johns River Water Management District, although designs for some of the earlier studies may be different from current design criteria.

A summary of estimated performance efficiencies of wet detention ponds designed according to SJRWMD criteria is given in Table 5-8. The values summarized in this table reflect the overall mean treatment efficiencies for wet detention systems summarized in Table 5-2. The values summarized in Table 5-8 correspond closely to performance efficiencies measured by Harper and Herr (1993) for a wet detention pond constructed according to SJRWMD criteria. Based upon the estimated performance efficiency summarized in Table 5-8, with the possible exception of TSS, wet detention ponds designed according to SJRWMD criteria fail to meet the 80% removal criteria outlined in Chapter 62-40.

TABLE 5-8

ESTIMATED PERFORMANCE EFFICIENCY OF WET DETENTION PONDS DESIGNED ACCORDING TO SJRWMD CRITERIA

PARAMETER	ANNUAL MASS REMOVAL (%)
Total N	25
Total P	65
TSS	75-85
BOD	65-70

5.2.2.2 SFWMD Design Criteria

As discussed in a previous section, wet detention systems designed within the South Florida Water Management District (SFWMD) are often excavated to water depths of 20 ft or more. The SFWMD does not have any specific limitation on pond depth, and developers often dig deep wet detention ponds to provide additional fill for low areas within a development. This technique can result in ponds with substantially extended detention times, often in excess of 200 days.

Mean Annual Mass Removal Efficiencies for 0.75-inches of Retention in Zone 2

NDCIA	Percent DCIA																			
CN	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
30	97.9	98.2	97.5	96.2	94.4	92.1	89.6	86.9	84.1	81.3	78.5	75.9	73.3	70.9	68.5	66.3	64.2	62.2	60.4	58.6
35	96.7	97.3	96.8	95.6	93.8	91.7	89.2	86.6	83.8	81.1	78.4	75.7	73.2	70.8	68.5	66.3	64.2	62.2	60.4	58.6
40	95.0	96.1	95.9	94.8	93.1	91.1	88.7	86.2	83.5	80.8	78.2	75.6	73.1	70.7	68.4	66.2	64.2	62.2	60.4	58.6
45	93.0	94.7	94.6	93.7	92.2	90.3	88.1	85.6	83.1	80.5	77.9	75.4	72.9	70.6	68.3	66.2	64.1	62.2	60.4	58.6
50	90.7	92.8	93.1	92.4	91.1	89.3	87.3	85.0	82.5	80.0	77.5	75.1	72.7	70.4	68.2	66.1	64.0	62.1	60.3	58.6
55	88.0	90.6	91.1	90.7	89.7	88.1	86.3	84.1	81.8	79.4	77.0	74.7	72.4	70.1	68.0	65.9	64.0	62.1	60.3	58.6
60	84.8	87.9	88.8	88.7	88.0	86.7	85.0	83.0	80.9	78.7	76.5	74.2	72.0	69.8	67.8	65.8	63.8	62.0	60.3	58.6
65	81.5	84.9	86.2	86.3	85.8	84.8	83.4	81.7	79.8	77.8	75.7	73.6	71.5	69.5	67.5	65.5	63.7	61.9	60.2	58.6
70	78.1	81.7	83.1	83.5	83.2	82.5	81.4	80.0	78.4	76.6	74.7	72.8	70.9	68.9	67.1	65.2	63.5	61.8	60.2	58.6
75	74.9	78.1	79.6	80.2	80.2	79.8	79.0	77.9	76.5	75.0	73.4	71.7	70.0	68.3	66.5	64.8	63.2	61.6	60.1	58.6
80	71.6	74.3	75.8	76.5	76.7	76.5	76.0	75.2	74.1	73.0	71.7	70.3	68.8	67.3	65.8	64.3	62.8	61.4	60.0	58.6
85	68.6	70.6	71.8	72.5	72.8	72.7	72.4	71.9	71.2	70.3	69.3	68.3	67.1	65.9	64.7	63.5	62.2	61.0	59.8	58.6
90	65.7	66.9	67.7	68.1	68.3	68.3	68.2	67.9	67.5	66.9	66.3	65.6	64.9	64.0	63.2	62.3	61.4	60.5	59.5	58.6
95	62.7	63.0	63.2	63.3	63.4	63.4	63.3	63.2	63.0	62.8	62.5	62.2	61.8	61.4	61.0	60.5	60.1	59.6	59.1	58.6
98	60.8	60.8	60.8	60.7	60.7	60.6	60.5	60.4	60.3	60.2	60.1	59.9	59.8	59.6	59.5	59.3	59.2	59.0	58.8	58.6

Mean Annual Mass Removal Efficiencies for 1.00-inches of Retention in Zone 2

NDCIA	Percent DCIA																			
CN	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
30	98.5	98.8	98.5	97.9	96.9	95.6	94.1	92.3	90.4	88.4	86.3	84.2	82.1	80.0	77.9	75.9	74.0	72.2	70.3	68.6
35	97.5	98.2	98.0	97.4	96.5	95.3	93.7	92.0	90.2	88.2	86.2	84.1	82.0	79.9	77.9	75.9	74.0	72.1	70.3	68.6
40	96.4	97.3	97.2	96.8	95.9	94.8	93.3	91.7	89.9	87.9	85.9	83.9	81.8	79.8	77.8	75.8	73.9	72.1	70.3	68.6
45	94.8	96.1	96.3	96.0	95.2	94.1	92.7	91.2	89.4	87.6	85.6	83.6	81.6	79.6	77.7	75.8	73.9	72.1	70.3	68.6
50	93.0	94.8	95.2	94.9	94.3	93.3	92.0	90.5	88.9	87.1	85.3	83.3	81.4	79.5	77.5	75.6	73.8	72.0	70.3	68.6
55	91.0	93.2	93.7	93.6	93.1	92.3	91.1	89.8	88.2	86.6	84.8	82.9	81.1	79.2	77.3	75.5	73.7	72.0	70.2	68.6
60	88.8	91.2	92.0	92.0	91.7	91.0	90.0	88.8	87.4	85.9	84.2	82.4	80.7	78.9	77.1	75.3	73.6	71.9	70.2	68.6
65	86.2	88.9	89.9	90.2	90.0	89.5	88.7	87.6	86.4	85.0	83.4	81.8	80.2	78.5	76.8	75.1	73.4	71.8	70.2	68.6
70	83.6	86.4	87.5	88.0	88.0	87.6	86.9	86.1	85.1	83.8	82.5	81.0	79.5	77.9	76.4	74.8	73.2	71.6	70.1	68.6
75	81.0	83.6	84.9	85.5	85.6	85.3	84.9	84.2	83.4	82.4	81.2	80.0	78.6	77.2	75.8	74.3	72.9	71.5	70.0	68.6
80	78.6	80.8	82.0	82.5	82.8	82.7	82.4	81.9	81.3	80.5	79.6	78.5	77.4	76.3	75.0	73.8	72.5	71.2	69.9	68.6
85	76.1	77.7	78.7	79.3	79.6	79.7	79.5	79.2	78.8	78.2	77.5	76.7	75.9	74.9	74.0	72.9	71.9	70.8	69.7	68.6
90	73.9	74.8	75.5	75.9	76.1	76.2	76.2	76.0	75.7	75.3	74.9	74.4	73.8	73.2	72.5	71.8	71.0	70.3	69.4	68.6
95	71.5	71.8	72.0	72.1	72.2	72.2	72.2	72.1	72.0	71.9	71.7	71.4	71.2	70.9	70.6	70.2	69.9	69.5	69.0	68.6
98	70.2	70.2	70.2	70.2	70.1	70.1	70.1	70.0	69.9	69.8	69.7	69.7	69.6	69.4	69.3	69.2	69.0	68.9	68.8	68.6

Each of the four water management districts mentioned previously provides calculations for a treatment volume associated with the wet detention system. This treatment volume is often referred to as the "water quality volume" since the criteria are similar to the water quality treatment criteria for dry retention or dry detention. However, research on wet detention ponds clearly indicates that the most significant factor impacting the performance efficiency of a wet detention pond is the residence time within the system - specifically, the volume of the permanent pool with respect to the volume of runoff entering the pond (Toet, et al., 1990; Harper and Herr, 1993; Rushton, et al., 1995; and DB Environmental, 2005). Since the specified treatment volumes are negligible in comparison to the permanent pool volume contained within the wet detention pond, the treatment volume criteria primarily regulates the drawdown characteristics of the wet detention pond and has little impact on the overall water quality performance efficiency of the system.

Residence time within a wet detention pond is determined by the relationship between the permanent pool volume and the annual runoff inputs, as follows:

$$Detention\ \ Time,\ t_d\ (days) = \frac{PPV}{RO} \times \frac{365\ days}{year}$$

where:

PPV = permanent pool volume (ac-ft)

RO = annual runoff inputs (ac-ft/yr)

For purposes of this calculation, the permanent pool volume is considered to include the total volume of water within the pond below the control elevation.

Criteria related to residence time and pond depth are not included in specific design criteria outlined by the Suwannee River or Southwest Florida Water Management Districts. Wet detention ponds designed in these districts could conceivably have a wide range of detention times and associated performance efficiencies, with some ponds approaching design criteria similar to that used in the St. Johns River Water Management District and other ponds approaching design criteria utilized in the South Florida Water Management District. As a result, estimates of the anticipated performance efficiency of wet detention systems designed in the St. Johns River and South Florida Water Management Districts will be presented in this section, with the anticipated efficiency of wet detention systems designed in the Suwannee River and Southwest Florida Water Management Districts likely to fall somewhere in between.

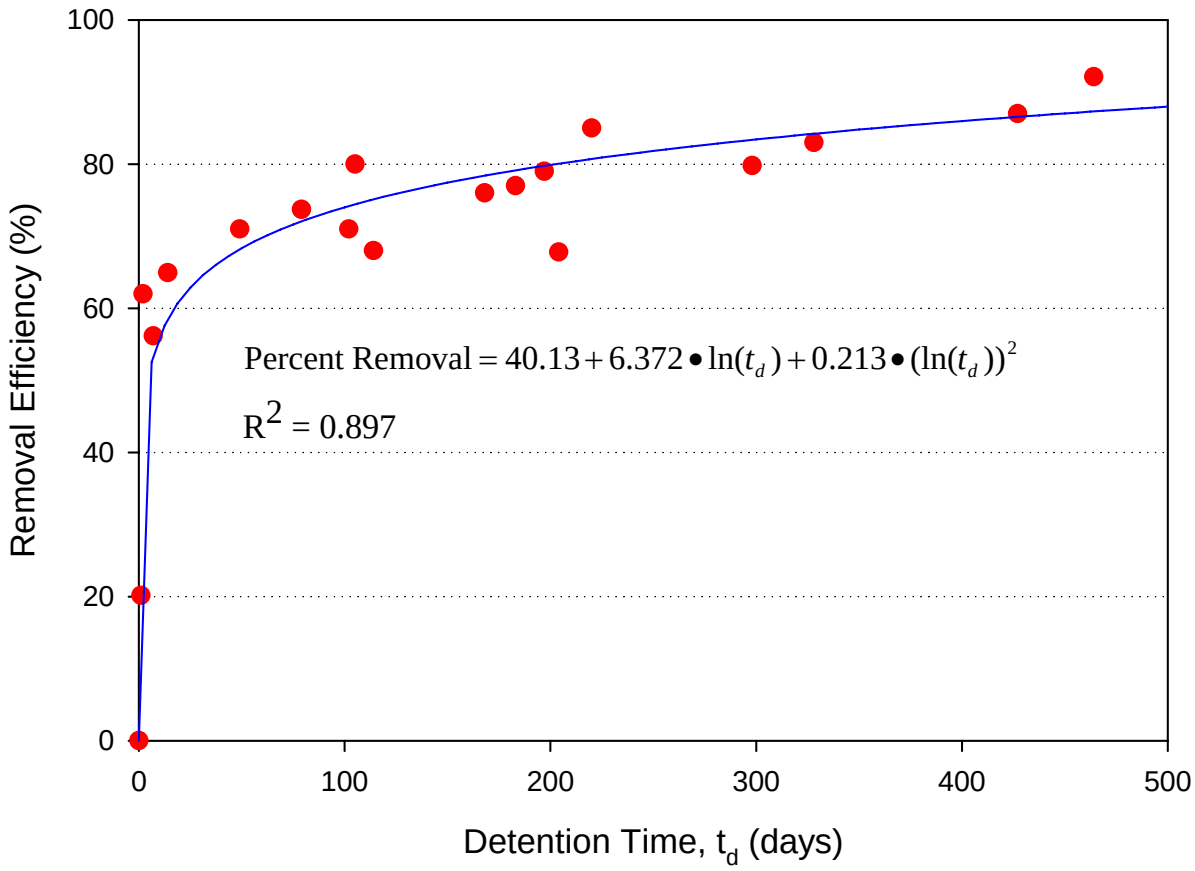


Figure 5-9. Removal Efficiency of Total Phosphorus in Wet Detention Ponds as a Function of Residence Time.

The relationship indicated on Figure 5-9 suggests that removal of phosphorus in wet detention ponds continues to occur, although at a progressively slower rate, with increases in residence time within the system. A removal efficiency of 80% can be achieved at a detention time of about 200 days. The upper limit for removal efficiencies in wet detention ponds appears to be approximately 90%, although removal efficiencies in excess of 90% were achieved at extended detention times in three of the 20 studies. At this point, total phosphorus concentrations within wet detention ponds appear to approach irreducible concentrations which reflect natural background phosphorus levels in surface waterbodies.

Relationships between detention time and removal efficiencies for total nitrogen in wet detention ponds are illustrated on Figure 5-10. The data points presented on this figure are based upon the referenced studies summarized in Table 5-9. The annual mass removal efficiency of 63% reported by Rushton, et al. (1995) for a wet pond with a detention time of 14 days and the removal efficiency of 33% for a 2-day detention time were eliminated from the data set as outliers due to elevated values for the Student T and Cook's D parameters.

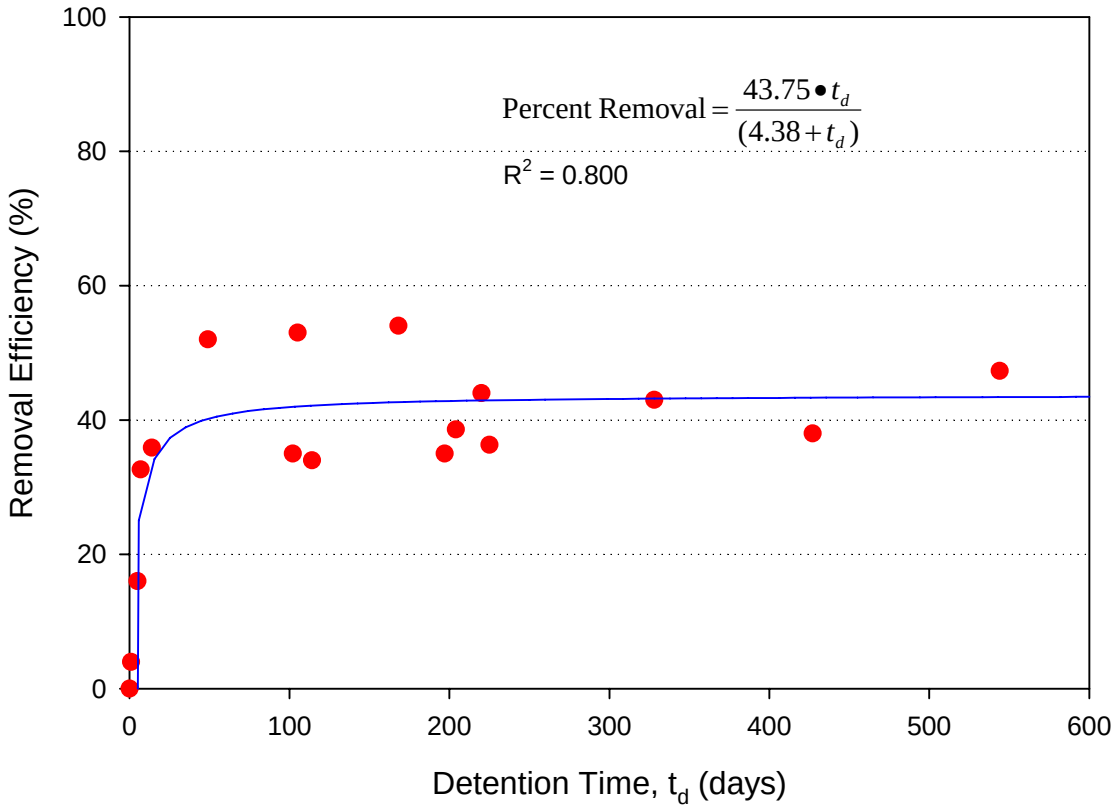


Figure 5-10. Removal Efficiency of Total Nitrogen in Wet Detention Ponds as a Function of Residence Time.

The best-fit for the relationship between removal efficiency and detention time for total nitrogen was obtained using a hyperbolic equation. The final version of this equation is summarized on Figure 5-10. The R^2 value of 0.800 suggests that detention time explains approximately 80% of the observed variability in removal efficiencies for total nitrogen in wet detention ponds. The remaining variability in removal efficiencies for total nitrogen is likely due to variability in methods of analysis between the listed studies as well as variability in the dominant nitrogen form present in the stormwater inflows. In general, inorganic forms of nitrogen (ammonia and NO_x) and particulate nitrogen are removed relatively rapidly in wet detention ponds. The initial rapid removal of nitrogen within the first 10-20 days, indicated on Figure 5-10, is probably a result of the rapid uptake of inorganic nitrogen and the settling of particulate species. Other forms of nitrogen, such as organic nitrogen, are removed at a substantially slower rate and are likely responsible for the dramatic slowdown in removal efficiency observed for total nitrogen after approximately 20-30 days.

The hyperbolic relationship summarized on Figure 5-10 indicates that a removal efficiency of approximately 40% can be achieved for total nitrogen in 50 days, with a maximum efficiency of approximately 45% at extended detention periods. The lack of additional removal efficiencies for total nitrogen observed at extended detention times is probably a reflection of either phosphorus limitation or that irreducible concentrations of total nitrogen have been achieved within the pond.

As indicated previously, wet detention systems must be utilized as part of a treatment train to achieve the required 80% removal efficiency specified under the Water Resource Implementation Rule (Chapter 62-40). When treatment systems are used in series as part of a treatment train, the efficiency of the overall treatment train can be calculated using the following equation:

$$\textit{Overall Treatment Train Efficiency (decimal)} = Eff_1 + (1 - Eff_1) \times Eff_2 \qquad \textit{(Eq. 1)}$$

where:

Eff_1 = efficiency of initial treatment system (decimal)

Eff_2 = efficiency of second treatment system (decimal)

After treatment in the initial system, a load reduction has occurred which is a function of the type of treatment provided. After migrating through the initial treatment system, the remaining load consists of mass which was not removed in the initial system. This mass is then acted upon by the second treatment system with an efficiency associated with the particular type of system used. The overall efficiency can then be calculated according to the above equation.

To achieve an overall annual mass load reduction of 80% using wet detention, a pre-treatment system must first be used to provide a significant portion of the desired pollutant removal effectiveness. For example, assume that a wet detention pond is designed with a detention period of approximately 50 days which is sufficient to achieve a removal efficiency of approximately 40% for total nitrogen. Utilizing the relationship summarized as Eq. 1, and assuming that the efficiency of the wet detention system for total nitrogen (40%) is represented by Eff_2, the efficiency of the initial treatment system (Eff_1) would need to be 67% to achieve an overall treatment efficiency of 80%.

Depending upon the characteristics of the development and the meteorological region, achieving an initial 67% annual mass load reduction using retention will require between 0.25-0.75 inch of dry retention as pre-treatment. When pre-treatment is provided and the remaining stormwater is discharged into the wet detention pond, the overall treatment system will achieve a mass removal efficiency of 80% for total nitrogen. The mass removal efficiency for total phosphorus and other significant pollutants will be substantially in excess of 80%.

SOUTH FLORIDA WATER
MANAGEMENT DISTRICT

BEG. PERMIT NUMBER:

56-02636-P

APPLICATION NUMBER:

060420-15

56-02636-P

FORM #0190
Rev 8/85

APPLICATION/PERMIT FILE RECORD & ACTION SHEET

Name: Interstate Business Park Permit No. 56-02636-A

Application No. 060420-15

This file contains:

☐ ORIGINAL APPLICATION ☐ PERMIT ☐ SPECIAL CONDITION SHEET(S)
☐ STAFF CALCULATION SHEET(S) ☐ DRAWING(S) ☐ STAFF REPORT

Chronological Correspondence/Action Record

Date	Subject	By	Comments
3/27/07	Staff Report Mailed	GH	G. Goeas
4/12/07	Permit Issued		M. Parrott

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE PERMIT NO. 56-02636-P
DATE ISSUED: APRIL 12, 2007

FORM #0145
Rev. 09/95

PERMITTEE: SIX KINGS, L.L.C.
(INTERSTATE BUSINESS PARK (AKA KINGS LANDI
3147 JUPITER PARK CIR.,
JUPITER , FL 33458

PROJECT DESCRIPTION: CONCEPTUAL APPROVAL WITH AUTHORIZATION FOR CONSTRUCTION AND OPERATION OF PHASE 1 OF A SURFACE WATER MANAGEMENT SYSTEM SERVING A 23.74 ACRE COMMERCIAL PROJECT KNOWN AS INTERSTATE BUSINESS PARK.

PROJECT LOCATION: ST LUCIE COUNTY , SECTION 24 TWP 35S RGE 39E

PERMIT DURATION: See Special Condition No:1. See attached Rule 40E-4.321, Florida Administrative Code.

This Permit is issued pursuant to Application No. 060420-15 , dated April 13, 2006. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of activities authorized by this Permit. This Permit is issued under the provisions of Chapter 373 , Part IV Florida Statutes (F.S.), and the Operating Agreement Concerning Regulation Under Part IV, Chapter 373 F.S., between South Florida Water Management District and the Department of Environmental Protection. Issuance of this Permit constitutes certification of compliance with state water quality standards where necessary pursuant to Section 401, Public Law 92-500, 33 USC Section 1341 , unless this Permit is issued pursuant to the net improvement provisions of Subsections 373.414(1)(b), F.S., or as otherwise stated herein.

This Permit may be transferred pursuant to the appropriate provisions of Chapter 373, F.S, and Sections 40E-1.6107(1) and (2), and 40E-4.351(1), (2), and (4), Florida Administrative Code (F.A.C.). This Permit may be revoked, suspended, or modified at any time pursuant to the appropriate provisions of Chapter 373, F.S. and Sections 40E-4.351(1), (2), and (4), F.A.C.

This Permit shall be subject to the General Conditions set forth in Rule 40E-4.381, F.A.C., unless waived or modified by the Governing Board. The Application, and the Environmental Resource Permit Staff Review Summary of the Application, including all conditions, and all plans and specifications incorporated by reference, are a part of this Permit. All activities authorized by this Permit shall be implemented as set forth in the plans, specifications, and performance criteria as set forth and incorporated in the Environmental Resource Permit Staff Review Summary. Within 30 days after completion of construction of the permitted activity, the Permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual, pursuant to the appropriate provisions of Chapter 373, F.S. and Sections 40E-4.361 and 40E-4.381, F.A.C.

In the event the property is sold or otherwise conveyed, the Permittee will remain liable for compliance with this Permit until transfer is approved by the District pursuant to Rule 40E-1.6107, F.A.C.

SPECIAL AND GENERAL CONDITIONS ARE AS FOLLOWS:

SEE PAGES 2 - 3 OF 6 (16 SPECIAL CONDITIONS).
SEE PAGES 4 - 6 OF 6 (19 GENERAL CONDITIONS).

SOUTH FLORIDA WATER MANAGEMENT
DISTRICT, BY ITS GOVERNING BOARD

On ORIGINAL SIGNED BY:

By ELIZABETH VEGUILLA
DEPUTY CLERK

SPECIAL CONDITIONS

1. The conceptual phase of this permit shall expire on April 12, 2009.
   The construction phase of this permit shall expire on April 12, 2012.

2. Operation of the surface water management system shall be the responsibility of the permittee.

3. Discharge Facilities:

   1-9" W X 12" H SHARP CRESTED weir with crest at elev. 16' NGVD 29.
   1-4" dia. CIRCULAR ORIFICE with invert at elev. 13' NGVD 29.

   Receiving body : NSLRWCD Canal No. 40
   Control elev : 13 feet NGVD 29.

4. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

5. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

6. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

   Lake side slopes shall be no steeper than 4:1 (horizontal:vertical) to a depth of two feet below the control elevation. ... slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth, unless shown on the plans.

8. Facilities other than those stated herein shall not be constructed ...thout an approved modification of this permit.

9. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

10. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

11. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

12. Minimum building floor elevation: BASIN: Site - 19.00 feet NGVD 29.

13. Minimum road crown elevation: Basin: Site - 17.00 feet NGVD 29.

14. All commercial/industrial parcels shall provide a minimum dry pre-treatment volume of 1/2 inch of runoff prior to discharge into the master surface water management system.

15. The work within the Kings Highway right of way is being authorised as a modification of SFWMD permit No 56-01432-P (app. No. 070305-2). No work shall occur within the Kings Highway right-of-way other than the construction of the outfall culvert until the FDOT permit, and an easment for the proposed improvements located on the adjacent property are provided to the District.

16. The permittee (SIX KINGS, L.L.C) has stated they will retain ownership of the property including all parcels/phases and will be responsible for operation and maintenance of all components of the water management system as the sole

owner. Prior to the sale of any portion of the property the permit must be modified to include all appropriate easements and an operating entity approved by the District in accordance within Section 9.0 (Operating Entity Requirements) of the Basis of Review.

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved

responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

Last Date For Agency Action: 12-APR-2007

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Interstate Business Park (Aka Kings Landing)

Permit No.: 56-02636-P

Application No.: 060420-15 **Associated File:** 060420-12 WU

Application Type: Environmental Resource (Conceptual Approval And New Construction/Operation)

Location: St Lucie County, S24/T35S/R39E

Permittee : Six Kings, L.L.C.

Operating Entity : Six Kings, L.L.C.

Project Area: 23.74 acres

Project Land Use: Commercial
Industrial

Drainage Basin: NORTH ST LUCIE

Receiving Body: NSLRWCD Canal

DRAFT
Subject to Governing
Board Approval

Class: CLASS III

Special Drainage District: North St Lucie River Water Control District

Conservation Easement To District : No

Sovereign Submerged Lands: No

PROJECT PURPOSE:

This application is a request for an Environmental Resource Permit for conceptual approval with construction and operation authorization for Phase 1 of a surface water management system to serve a 23.74 acre commercial project known as Interstate Business Park (fka Kings Landing). Staff recommends approval with conditions.

PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

The site is located on the east side of Kings Highway approximately 1 mile [illegible] of Okeechobee Road (SR 70). Please see the enclosed location map EXHIBIT 1.00.

There are no permitted surface water management facilities within the project area. The historical use of the property has been agricultural.

There are no wetlands or other surface waters located within the proposed project limits.

PROPOSED PROJECT:

The proposed project is a commercial business park consisting of five (5) parcels with: an access road connecting Kings Highway to Peters Road, a surface water management system, and supporting infrastructure. The Phase 1 construction includes only the internal access road and connection to Peters Road, on site grading, and construction of the master surface water management system and out fall culvert. The proposed improvements within the Kings Highway right-of-way are being reviewed under application no. 070305-2.

LAND USE:

The following tables represent the land use and grading assumptions for the conceptual design and Phase 1 construction authorization. Please see Exhibit 3.00 for the proposed land use assumptions for each lot/phase.

Conceptual:

		Area (ac)	Starting Elev. (ft)	Ending Elev. (ft)
Site	Building Coverage	5.57	19	
	Pervious	5.55	17	18.5
	Pavement	10.92	17	19
	Lake	1.7	13	
	Total:	**23.74**		

Construction:
Project:

	This Phase	Total Project	
Building Coverage	.00	5.57	acres
Lake	1.70	1.70	acres
Pavement	1.95	10.92	acres
Pervious	20.09	5.55	acres
Total:	**23.74**	**23.74**	

WATER QUANTITY :

Discharge Rate :

The project is located within the North St. Lucie River Water Control District (NSLRWCD). Discharges from projects within the NSLRWCD system are limited to a maximum of 2 inches per day within any 24 hour period associated with the 10 year 3 day storm event. The proposed project peak discharge rate shown in the table below is consistent with NSLRWCD criteria.

Discharge Storm Frequency : 10 YEAR-3 DAY Design Rainfall : 7.88 inches

Basin	Allow Disch (cfs)	Method Of Determination	Peak Disch (cfs)	Peak Stage (ft, NGVD 29)
Site	2.14	Discharge Formula	2.14	17.14

Finished Floors :

Building Storm Frequency : 100 YEAR-3 DAY Design Rainfall : 10.9 inches

Basin	Peak Stage (ft, NGVD 29)	Proposed Min. Finished Floors (ft, NGVD 29)	FEMA Elevation (ft, NGVD 29)
Site	18.08	19	N/A

Road Design :

Road Storm Frequency : 5 YEAR-1 DAY Design Rainfall: 4.6 inches

Basin	Peak Stage (ft, NGVD 29)	Proposed Min. Road Crown (ft, NGVD 29)
Site	15.17	17

Control Elevation :

Basin	Area (Acres)	Ctrl Elev (ft, NGVD 29)	WSWT Ctrl Elev (ft, NGVD 29)	Method Of Determination
Site	23.74	13	13.00	Wet Season Soil Borings

Receiving Body :

Basin	Str.#	Receiving Body
Site	CB-18	NSLRWCD Canal 40

Water Quality Structures: Note: The units for all the elevation values of structures are (ft, NGVD 29)

Bleeders: Basin	Str#	Count	Type	Width	Height	Length	Dia.	Invert Angle	Invert Elev.
Site	CB-18	1	Circular Orifice				4"		13

Weirs: Basin	Str#	Count	Type	Width	Height	Length	Dia.	Elev.
Site	CB-18	1	Sharp Crested	9"	12"			16 (crest)

WATER QUALITY :

Water quality treatment equal to 2.5 inches times the percentage of imperviousness (less 0.5 inch that will be provided in each lot as dry treatment) will be provided in the wet detention pond as shown below. One half inch of dry pretreatment will be required within each parcel/phase prior to overflowing into the master surface water management system. No adverse water quality impacts are anticipated as a result of the proposed project.

Basin	Treatment Method		Vol Req.d (ac-ft)	Vol Prov'd
Site	Treatment	Wet Detention	2.13	2.13

CERTIFICATION AND MAINTENANCE OF THE WATER MANAGEMENT SYSTEM:

It is suggested that the permittee retain the services of a Professional Engineer registered in the State of Florida for periodic observation of construction of the surface water management (SWM) system. This will facilitate the completion of construction completion certification Form #0881 which is required pursuant to Section 10 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, and Rule 40E-4.361(2), Florida Administrative Code (F.A.C.).

Pursuant to Chapter 40E-4 F.A.C., this permit may not be converted from the construction phase to the operation phase until certification of the SWM system is submitted to and accepted by this District. Rule 40E-4.321(7) F.A.C. states that failure to complete construction of the SWM system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization unless a permit extension is granted.

For SWM systems permitted with an operating entity who is different from the permittee, it should be noted that until the permit is transferred to the operating entity pursuant to Rule 40E-1.6107, F.A.C., the permittee is liable for compliance with the terms of this permit.

The permittee is advised that the efficiency of a SWM system will normally decrease over time unless the system is periodically maintained. A significant reduction in flow capacity can usually be attributed to partial blockages of the conveyance system. Once flow capacity is compromised, flooding of the project may result. Maintenance of the SWM system is required to protect the public health, safety and the natural resources of the state. Therefore, the permittee must have periodic inspections of the SWM system performed to ensure performance for flood protection and water quality purposes. If deficiencies are found, it is the responsibility of the permittee to correct these deficiencies in a timely manner.

RELATED CONCERNS:

Water Use Permit Status:

The applicant has indicated that the proposed lake will be used as the water source for irrigation. Water Use application number 060420-12 is being processed concurrently for this project.

The applicant has indicated that dewatering may be required for construction of this project. A dewatering permit will be required prior to the commencement of any dewatering activities.

This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation, unless the work qualifies for a No-Notice Short-Term Dewatering permit pursuant to Chapter 40E-20.302(3) or is exempt pursuant to Section 40E-2.051, FAC.

CERP:

The propose[illegible] project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Potable Water Supplier:

Fort Pierce Utility Authority

Waste Water System/Supplier:

Fort Pierce Utility Authority

Right-Of-Way Permit Status:

A Right-of-Way Permit is not required for this project.

DRI Status:

This project is not a DRI.

Historical/Archeological Resources:

No information has been received that indicates the presence of archaeological or historical resources or that the proposed activities could cause adverse impacts to archaeological or historical resources.

DCA/CZM Co[illegible]A.ency Review:

The District has not received a finding of inconsistency from the Florida Department of Environmental Protection or other commenting agencies regarding the provisions of the federal Coastal Zone Management Plan.

Third Party Interest:

No third party has contacted the District with concerns about this application.

Enforcement:

There has been no enforcement activity associated with this application.

STAFF RECOMMENDATION:

The Staff recommends that the following be issued :

Conceptual approval with authorization for construction and operation of Phase 1 of a surface water management system serving a 23.74 acre commercial project known as Interstate Business Park.

Based on the information provided, District rules have been adhered to.

Staff recommendation is for approval subject to the attached General and Special Conditions.

DRAFT
Subject to Governing Board Approval

STAFF REVIEW:

NATURAL RESOURCE MANAGEMENT DIVISION APPROVAL

ENVIRONMENTAL EVALUATION

Melinda Parrott

SUPERVISOR

Melinda Parrott

DIVISION DIRECTOR :

Anita R. Bain

DATE: 3/22/07

SURFACE WATER MANAGEMENT DIVISION APPROVAL

ENGINEERING EVALUATION

Glen J. Gareau, P.E.

SUPERVISOR

Hugo A. Carter, P.E.

DIVISION DIRECTOR :

Anthony M. Waterhouse, P.E.

DATE: 3/23/07

abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

SPECIAL CONDITIONS

1. The conceptual phase of this permit shall expire on April 12, 2009.
   The construction phase of this permit shall expire on April 12, 2012.
2. Operation of the surface water management system shall be the responsibility of the permittee.
3. Discharge Facilities:

   1-9" W X 12" H SHARP CRESTED weir with crest at elev. 16' NGVD 29.
   1-4" dia. CIRCULAR ORIFICE with invert at elev. 13' NGVD 29.

   Receiving body : NSLRWCD Canal No. 40
   Control elev · 13 feet NGVD 29.
4. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.
5. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.
6. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.
7. Lake side slopes shall be no steeper than 4.1 (horizontal:vertical) to a depth of two feet below the control elevation. Side slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth, unless shown on the plans.
8. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.
9. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
10. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.
11. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.
12. Minimum building floor elevation: BASIN: Site - 19.00 feet NGVD 29.
13. Minimum road crown elevation: Basin: Site - 17.00 feet NGVD 29.
14. All commercial/industrial parcels shall provide a minimum dry pre-treatment volume of 1/2 inch of runoff prior to discharge into the master surface water management system.
15. The work within the Kings Highway right of way is being authorised as a modification of SFWMD permit No 56-01432-P (app. No. 070305-2). No work shall occur within the Kings Highway right-of-way other than the construction of the outfall culvert until the FDOT permit, and an easment for the proposed improvements located on the adjacent property are provided to the District.
16. Tne permittee (SIX KINGS, L.L.C) has stated they will retain ownership of the property including all

SPECIAL CONDITIONS

parcels/phases and will be responsible for operation and maintenance of all components of the water management system as the sole owner. Prior to the sale of any portion of the property the permit must be modified to include all appropriate easements and an operating entity approved by the District in accordance within Section 9.0 (Operating Entity Requirements) of the Basis of Review.

40E-4.321 Duration of Permits.

(1) Unless revoked or otherwise modified the duration of an environmental resource permit issued under this chapter or Chapter 40E-40, F.A.C., is as follows:

(a) For a conceptual approval, two years from the date of issuance or the date specified as a condition of the permit, unless within that period an application for an individual or standard general permit is filed for any portion of the project. If an application for an environmental resource permit is filed, then the conceptual approval remains valid until final action is taken on the environmental resource permit application. If the application is granted, then the conceptual approval is valid for an additional two years from the date of issuance of the permit. Conceptual approvals which have no individual or standard general environmental resource permit applications filed for a period of two years shall expire automatically at the end of the two year period.

(b) For a conceptual approval filed concurrently with a development of regional impact (DRI) application for development approval (ADA) and a local government comprehensive plan amendment, the duration of the conceptual approval shall be two years from whichever one of the following occurs at the latest date:

1. The effective date of the local government's comprehensive plan amendment,

2. The effective date of the local government development order,

3. The date on which the District issues the conceptual approval, or 4. The date on which the District issues a final order pertaining to the resolution of any Section 120.57, F.S., administrative proceeding or other legal appeals.

(c) For an individual or standard general environmental resource permit, the construction phase authorizing construction, removal, alteration or abandonment of a sys-tem shall expire five years from the date of issuance or such amount of time as made a condition of the permit.

(d) For an individual or standard general environmental resource permit, the operational phase of the permit is perpetual for operation and maintenance.

(e) For a noticed general permit issued pursuant to Chapter 40E-400, F.A.C., five years from the date the notice of intent to use the permit is provided to the District.

(2)(a) Unless prescribed by special permit condition, permits expire automatically according to the timeframes indicated in this rule. If application for extension is made by electronic mail at the District's e-Permitting website or in writing pursuant to subsection (3), the permit shall remain in full force and effect until:

1. The Governing Board takes action on an application for extension of an individual permit, or

2. Staff takes action on an application for extension of a standard general permit.

(b) Installation of the project outfall structure shall not constitute a vesting of the permit.

(3) The permit extension shall be issued provided that a permittee files a written request with the District showing good cause prior to the expiration of the permit. For the purpose of this rule, good cause shall mean a set of extenuating circumstances outside of the control of the permittee. Requests for extensions, which shall include documentation of the extenuating circumstances and how they have delayed this project, will not be accepted more than 180 days prior to the expiration date.

(4) Substantial modifications to Conceptual Approvals will extend the duration of the Conceptual Approval for two years from the date of issuance of the modification. For the purposes of this section, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different water resource or environ-mental impacts which require a detailed review.

(5) Substantial modifications to individual or standard general environmental resource permits issued pursuant to a permit application extend the duration of the permit for three years from the date of issuance of the modification. Individual or standard general environmental resource permit modifications do not extend the duration of a conceptual approval.

(6) Permit modifications issued pursuant to paragraph 40E-4.331(2)(b), F.A.C.(letter modifications) do not extend the duration of the permit.

(7) Failure to complete construction or alteration of the surface water management system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization in order to continue construction unless a permit extension is granted.

Specific Authority 373.044, 373.113, 668.003, 668.004, 668.50 FS. Law Implemented373.413, 373.416, 373.419, 373.426, 668.003, 668.004, 668.50 FS. History-New 9-3-81,Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-86, 4-20-94, 10-3-95,5-28-00, 10-1-06.

6.0 **Review of Historical Aerial Photographs**

A review of aerial photographs from 1968, 1972, 1980, 1983, 1986, 1991, 1992, 1994, 1997, 2000, and 2003 indicates that the Site had been a citrus grove from before 1968 until the early to mid 1990's. The packing house was constructed in the 1980's. Most of the general area was in citrus. Interstate 95 was in site development in 1980 and completed by 1983.

7.0 **Site History**

According to the St. Lucie County Property Appraisers Office, the property is owned by Stephen L. Craig, Trustee and Christopher H. Cook, Trustee.

The Chain of title is as follows:

DATE	*INSTRUMENT*	*GRANTOR*	*GRANTEE*
July 1, 1951	*QCD*	*Harriet White McCarthy & Alfred L. McCarthy*	*Herbert Pulitzer, Jr.*
February 27, 1980	*WD*	*Herbert Pulitzer, Jr.*	*Edmund M. Radke and Michael B. Kane, III*
May 19, 1986	*WD*	*Edmund M. Radke and Michael B. Kane, III*	*Stephen L. Craig, Trustee under the Trust Agreement dated May 17, 1986 and Christopher H. Cook, Trustee under the Trust Agreement dated May 17, 1986*

There was no indication from the title search that any former land use of the property was environmentally impacting.

A review of the historical cross-reference directories was not conducted because the Site was a grove and later undeveloped.

Site History

1.0 INTRODUCTION

1.1 GENERAL

This report contains the results of a subsurface exploration conducted for the proposed King's Landing Commercial Center located at 2496 S. Kings Highway in Fort Pierce, St. Lucie County, Florida. Please note, this is a preliminary report only, based upon limited exploration to answer specific questions posed by you. This report has not been prepared to meet the needs of design professional, contractors, or any other parties, and the use of this report by them without the guidance of UES may lead to erroneous assumptions, faulty conclusions and other problems. This report has been divided into the following sections:

- SCOPE OF SERVICES - Defines what services were completed
- FINDINGS - Describes what was encountered
- RECOMMENDATIONS - Describes what we encourage you to do
- LIMITATIONS - Describes the restrictions inherent in this report
- SUMMARY - Reviews the material in this report
- APPENDICES - Presents support materials referenced in this report.

1.2 PROJECT DESCRIPTION

The proposed project consists of the planning and development of four office/warehouses, four storage/warehouses, a 1.9 acre lake; and eight, 1 to 1.3 acre lots. The subject site is located on King's Highway, north of Okeechobee Road in Forth Pierce, Florida. A general location map of the project area appears in Appendix A: Site Location Map.

UES received copies of the general project site layout indicating the locations of the proposed site improvements in relation to property boundaries. This plan was used in preparing the subsurface exploration and preliminary geotechnical report.

Specific structural loading information was not available at the time this report was prepared. It is anticipated that each proposed single-story structure will be built with conventional concrete masonry type construction, with pre-fabricated metal bar joists and metal roof decking. It was also anticipated that the structures and pavements would be supported at or near existing grade.

The preliminary recommendations are based upon the above considerations. If any of this information is incorrect or if any changes are anticipated, UES should be informed so that the recommendations could be reviewed.

2.0 SCOPE OF SERVICES

2.1 PURPOSE

The purposes of this preliminary exploration were:

- to explore and evaluate the subsurface conditions at the site with special attention to potential geotechnical considerations that may affect the proposed design, construction, and serviceability of the proposed improvements; and
- to provide preliminary geotechnical engineering recommendations for groundwater control, foundation and pavement design, and site preparation.

This report presents an evaluation of site conditions on the basis of traditional geotechnical procedures for site characterization. The recovered samples were not examined, either visually or analytically, for chemical composition or environmental hazards. UES would be pleased to perform these services, if you desire.

2.2 FIELD EXPLORATION

The subsurface conditions at the site were explored with a total of eighteen (18) soil borings. The borings (designated as B1 through B8) were advanced to the depth of 20 feet while performing the Standard Penetration Test (SPT). The remaining borings (designated as AB1 through AB10) were advanced to depths of approximately 10 feet with the use of continuous flight augers. The approximate locations of the soil borings are presented in Appendix B: Boring Location Plan. Our drilling crew located the borings based upon estimated distances and relationships to obvious landmarks. Consider the indicated locations and depths to be approximate.

The SPTs were performed according to the procedures of ASTM D-1586; however, continuous sampling was used to detect slight variations in the soil profile at shallow depths. The basic procedure for the SPT is as follows: A standard split-barrel sampler is driven into the soil by a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler one foot, after seating six inches, is designated the penetration resistance, or N-value; this value is an index to soil strength and consistency.

The auger borings were advanced to a depth of 10 feet below existing grade, according to the procedures of ASTM D-1452. We performed the auger borings by advancing a solid stem auger into the soil to the required depth. We evaluated the soil type by visually examining the cuttings recovered from the auger.

2.3 EXFILTRATION TEST RESULTS

The exfiltration tests were performed by advancing a casing to a depth of 6 feet, cleaning the interior of the casing of soil cuttings and residual material and conducting a constant head test as outlined by the South Florida Water Management District (SFWMD). The collected test data was then used in an empirical relationship to estimate the Hydraulic Conductivity or "K"-value. Test results will be sent under separate cover.

2.4 LABORATORY TESTING

The soil samples recovered from the soil test borings were returned to the laboratory where a member of our geotechnical staff visually examined them and reviewed the field descriptions. These soil samples will be held in our laboratory for your inspection for 60 days and then discarded, unless we are otherwise notified.

Tests were performed to aid in classifying the soils and to help evaluate the general engineering characteristics of the site soils. The tests performed included three #200 wash analyses and one Atterberg Limits determinations. See Appendix B: Boring Logs, Key to Boring Logs, for further data and explanations.

3.0 FINDINGS

3.1 SURFACE CONDITIONS

A Universal Engineering Sciences representative performed a visual site inspection of the subject property to gain a "hands-on" familiarity with the project area. The site was an orchard which has recently been cleared. One house and an apartment garage structure are also present on site.

We examined U.S.G.S. topographic quadrangle maps and the USDA Soil Conservation Service Soil Survey of St. Lucie County for relevant information about the site. A review of the St. Lucie County Soil Survey indicates that the surficial soils found on-site are generally classified as Winder sand, depressional. This poorly drained, nearly level soil is in depressional areas. Typically, the subsurface layer is black sand 1 inch thick. The subsurface is sand 9 inches thick. It is grayish brown in the upper 2 inches and light brownish gray in the lower 7 inches. The subsoil is gray sandy clay loam to a depth of 25 inches. The next layer is sandy loam to a depth to a depth of 67 inches. It is light gray in the upper 7 inches, light olive gray in the next 10 inches, and gray in the lower 19 inches. The underlying material, to a depth of 80 inches or more, is greenish gray sandy clay loam overlying sandy loam. The water table is within a depth of 40 inches for most of the rest of the year. Only for short dry periods in dry seasons is the water table below a depth of 40 inches.

3.2 SUBSURFACE CONDITIONS

The boring locations and detailed subsurface conditions are illustrated in Appendix B: Boring Location Plan and Boring Logs. The classifications and descriptions shown on the logs are generally based upon visual characterizations of the recovered soil samples and a limited number of laboratory tests. Also, see Appendix B: Key to Boring Logs, for further explanation of the symbols and placement of data on the Boring Logs.

Table 1: General Soil Profile, summarizes the soil conditions encountered.

TABLE 1: GENERAL SOIL PROFILE

Typical Depths Below Grade* (feet)	Soil Description
0 - 4	Very loose to loose, light brown to dark gray sand, silty sand, clayey sand, sandy clay [SP, SM, SC, CL]
4 - 13	Very loose to medium dense, light gray to gray silty sand, clayey sand, sandy clay, traces of shell fragments [SM, SC, CL]
13 -20**	Very loose to medium dense, gray sand with shell fragments, sandy clay, silty sand [SP, CL, SM]

* Depth measured in feet below existing grade
** Boring Termination

Groundwater was encountered in the bore holes at depths ranging from 3½ to 6½ feet below the existing land surface at the time of exploration. The fluctuation can most likely be attributed to differences in the overall site topography.

Notable features encountered within the general soil profile during the subsurface exploration were the presence of very loose layers of silty sand, clayey sand, and sandy clay from the ground surface to 5 feet below the existing land surface (bls). The sandy clay, clayey sand layer encountered in boring locations B5, B6, B7, AB1, AB3, and AB4 from approximately 1 to 5 feet in depth may adversely affect the bearing capacity of the soil and cause excessive settlements.

These isolated layers of clayey sand should be delineated during the final geotechnical exploration or before construction with either shallow test pits or a small auger boring exploration program. These services should be performed by a Universal or a licensed geotechnical engineer or their designated representative. After the extent of the unsuitable material is determined, they should be removed and replaced with good quality structural fill as described in the site preparation section of this report.

The very loose soil conditions from 1 to 2½ feet bls in boring locations B1, B2, B5, and B7 must be explored during the final geotechnical subsurface exploration study. The final geotechnical study should be implemented once the building locations are set and must include a settlement analysis for each building using the specific structural loading data for each building. The very loose soil conditions are a geotechnical constraint for the proposed structures.

If any organic soils are encountered during construction activities, including excavation of footings, they should be excavated, removed, and replaced according to the recommendations included in this report, and UES should be contacted to evaluate their affect on the proposed construction.

4.0 RECOMMENDATIONS

4.1 GENERAL

The following preliminary recommendations are made based upon a review of the attached soil test data, understanding of the proposed construction, and experience with similar projects and subsurface conditions. Once structural loadings, building location, and grading plans are finalized, a final geotechnical exploration and engineering report must be prepared for each site improvement and building.

Additionally, if subsurface conditions are encountered during construction which were not encountered in the borings, report those conditions immediately to UES for observation and recommendations. In this section of the report, detailed recommendations are presented for groundwater control, building foundations, pavements, site preparation, and construction related services.

4.2 GROUNDWATER CONTROL

The groundwater table will fluctuate seasonally depending upon local rainfall. The rainy season in South Florida is normally between May and October. Based upon the review of U.S.G.S. data, St. Lucie County Soils Survey, and regional hydrogeology, the best estimate for the seasonal high groundwater table is approximately 1½ to 4½ feet below existing grade. While any established drainage will influence the depth to groundwater, it should be noted that the shallow layers of silty to clayey sands will most likely cause a "perched" or "ponded" groundwater condition after periods of heavy or prolonged rainfall. The existing and estimated seasonal high groundwater table at each location appears in Appendix B. Boring Logs.

It should be noted the estimated seasonal high groundwater levels do not provide any assurance that groundwater levels will not exceed these estimated levels during any given year in the future. If the rainfall intensity and duration, or total rainfall quantities, exceed the normally anticipated rainfall quantities, groundwater levels may exceed the seasonal high estimates. It is recommended that positive drainage be established and maintained on the site during construction. UES further recommends permanent measures be constructed to maintain positive drainage from the site throughout the life of the project.

UES recommends all foundation and pavement designs incorporate the seasonal high groundwater conditions.

4.3 BUILDING FOUNDATIONS

Based on the limited subsurface soil data collected to date, it appears that the proposed single-story buildings may be supported on conventional, shallow spread foundations or a thickened edge monolithic slab sized to exert a maximum allowable net soil bearing pressure of 2,500 pounds per square foot (psf). However, a more comprehensive final geotechnical exploration and engineering analysis must be completed for each structure, utilizing specific structural loading information.

Net bearing pressure is defined as the soil bearing pressure at the foundation bearing level in excess of the natural overburden pressure at that level. The foundations should be designed based on the maximum load which could be imposed by all loading conditions. All shallow foundations should be embedded at least 1.5 feet below lowest adjacent grade (finished surrounding grade, for example).

Further, maintain minimum foundation widths of 16 and 24 inches for strip and square footings, respectively, even though the maximum allowable soil bearing pressure may not be developed in all cases. We estimate the foundations will have a minimum factor of safety of two against bearing capacity failure.

Post-construction settlements of the structure will be influenced by several interrelated factors, including: (1) subsurface stratification and strength/compressibility characteristics; (2) footing size, bearing level, applied loads, and resulting bearing pressures beneath the foundations; and (3) site preparation and earthwork construction techniques used by the contractor. Our settlement estimates for the structure are based on the use of site preparation/earthwork construction techniques as recommended above and in Section 4.5 of this report. Any deviation from these recommendations could result in an increase in the estimated post-construction settlements of the structure.

Assuming all soils are properly prepared and using the recommended maximum bearing pressure, maximum structural loads and the field data (which were correlated to geotechnical strength and compressibility characteristics of the subsurface soils), it is estimated that total post construction settlements of the structure will be 1 inch or less.

Differential settlements result from differences in applied bearing pressures and variations in the compressibility characteristics of the subsurface soils. If the recommended site preparation and earthwork construction techniques outlined above and in Section 4.5 are followed, differential settlements of ½ inch or less should be anticipated.

4.4 PAVEMENTS

4.4.1 GENERAL

UES recommends using a flexible pavement section on this project in areas where light autos, pickup trucks and smaller delivery vehicles will travel. Flexible pavements combine the strength and durability of several layer components to produce an appropriate and cost-effective combination of available materials. In the dumpster pad areas and for any tractor trailer delivery, access and pit areas, we recommend using rigid concrete pavement made with Type 1, Portland Cement.

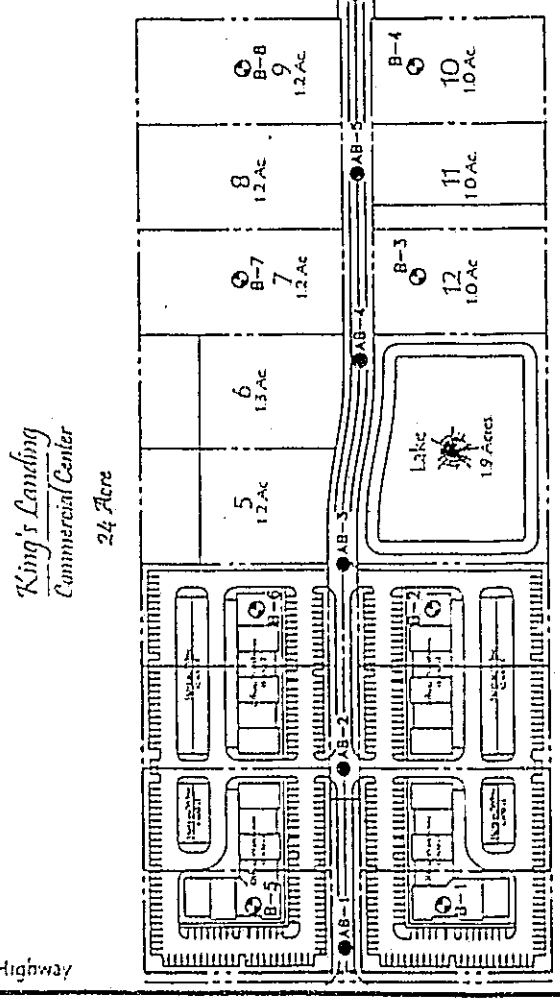
4.4.2 RIGID PAVEMENTS

UES recommends using rigid (concrete) pavement for durability, strength and longer life in the heavy-duty traffic areas and for the dumpster pads. Concrete pavement is a rigid pavement resulting in much lighter load transfer to subgrade soils than flexible (asphalt) pavement. Rigid pavement may be constructed of unreinforced Portland cement concrete providing a minimum 28-day compressive strength of 4,000 psi. In addition, the concrete should provide a minimum 28-day flexural strength (modulus of rupture) of 600 psi, based on the 3rd point loading of concrete beam samples. Portland cement should be Type I. Pavement thickness should be 7 inches.

It is recommended that subgrade materials for concrete pavements be compacted in place according to the requirements in the "Site Preparation" subsection of this report. Pavement sections should be constructed only over stable and smooth subgrades. Rutting of subgrades from concrete trucks and other traffic should be repaired prior to placement of concrete. The subgrade should be thoroughly wetted immediately prior to concrete placement to minimize absorption of moisture from the concrete during curing.

Control joints for crack control should be closely spaced, between 8 to 12 feet apart. Control joints should be provided in a uniform square or rectangular pattern. The joints should be submitted for review and approved prior to construction. Control joints should be sawed as soon as the concrete can withstand traffic, and concrete surface and aggregate raveling can be prevented.

One of the most critical influences on the pavement performance in South Florida is the relationship between the pavement subgrade and the seasonal high groundwater level. It is recommended that the seasonal high groundwater and the bottom of the rigid pavement be separated by at least 18 inches.



UNIVERSAL
ENGINEERING SCIENCES

GEOTECHNICAL EXPLORATION SERVICES
KINGS LANDING
FORT PIERCE, ST. LUCIE COUNTY, FLORIDA

BORING LOCATION MAP

DRAWN BY: A.G.A.	DATE: 3/11/05	CHECKED BY: PR	DATE: 3/11/05
SCALE: 1"=300'	PROJECT NO: 68001-001-02	REPORT NO: 9621	PAGE NO: B-1

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO	55C01-001-02
REPORT NO	9621
PAGE:	B-2

PROJECT: Preliminary Geotechnical Exploration - Kings Landing
2496 S. Kings Highway
Fort Pierce, Florida

CLIENT: Elite General Contractor & Remodeling, Inc.

LOCATION: See Remarks Below

REMARKS

BORING DESIGNATION: B1 SHEET: 1 of
SECTION: TOWNSHIP: RANGE:

G.S. ELEVATION (ft):
WATER TABLE (ft): 4.6
DATE OF READING: 3/24/2005
EST. W.S.W.T. (ft): 2.6

DATE STARTED: 3/24/05
DATE FINISHED: 2/25/05
DRILLED BY: UES (Lake North)
TYPE OF SAMPLING: SPT

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						Brown sand with traces of roots [SP]						
		2-1-1	2	▽		Very loose, light brown sand with traces of silt [SP]						
		1-2-3	5			Loose, grayish brown sand with silt [SP-SM]						
5		5-4-4	8	▼		Loose, gray silty sand with shell fragments [SP]						
		2-3-4	7			Stiff to medium stiff, gray silty clay with sand [CL]						
		3-4-5	9									
10		2-2-3	5			Loose, gray sand trace shell fragments [SP]						
15		6-6-4	10			Medium dense, gray sand [SP]						
20		5-11-13	24			SPT Soil Boring Terminated at 20 Feet in Depth						

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO	68001-03*-02
REPORT NO	9621
PAGE.	B-3

PROJECT: Preliminary Geotechnical Exploration - Kings Landing
2496 S. Kings Highway
Fort Pierce, Florida

CLIENT: Elite General Contractor & Remodeling, Inc.

LOCATION: See Remarks Below

REMARKS:

BORING DESIGNATION: B2 SHEET: 1 of 1
SECTION: TOWNSHIP: RANGE:

G.S. ELEVATION (ft):
WATER TABLE (ft): 4.1
DATE OF READING: 3/31/2005
EST. W.S.W.T. (ft): 2.1

DATE STARTED: 3/31/05
DATE FINISHED: 3/31/05
DRILLED BY: UES (Lake Worth)
TYPE OF SAMPLING: SPT

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						Brown sand with traces of roots (SP)						
		1-1-2	3	▽		Very loose to loose, gray sand with silt (SP-SM)						
		2-2-3	5	▼								
5		2-3-2	5			Loose, gray sand with silt and traces of shell fragments (SP-SM)						
		4-3-4	7			Loose gray, silty sand (SM)						
		3-3-4	7									
		4-8-8	16			Medium dense, gray sand with silt and traces of cemented sand (SP-SM)						
10												
						Loose, gray sand with traces of shell fragments (SP)						
15		3-3-6	9									
						Medium dense, light gray sand (SP)						
20		6-7-8	15			SPT Soil Boring Terminated at 20 Feet in Depth						

BI 3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.	58001-001-02
REPORT NO.	9621
PAGE:	B-5

PROJECT: Preliminary Geotechnical Exploration - Kings Landing
2496 S. Kings Highway
Fort Pierce, Florida

CLIENT: Elite General Contractor & Remodeling, Inc.

LOCATION See Remarks Below

REMARKS

BORING DESIGNATION: B4 SHEET: 1 of 1
SECTION: TOWNSHIP: RANGE:

G.S. ELEVATION (ft):
WATER TABLE (ft): 4.9
DATE OF READING: 3/31/2005
EST. W.S.W.T. (ft): 2.9

DATE STARTED: 3/31/05
DATE FINISHED: 3/31/05
DRILLED BY: UES (Lake Worth)
TYPE OF SAMPLING: SPT

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						Light brown sand with silt (SP-SM)						
						.....loose						
		2-2-4	6									
						Loose, light brown silty sand (SM)						
		2-3-3	6									
						Loose, gray silty sand with traces of shell fragments (SM)						
5		3-4-3	7									
						Loose, gray clayey sand (SC)						
		2-3-6	9									
		4-4-4	8			.....medium dense with traces of shell fragments						
10		5-5-7	12									
						Medium stiff, dark gray clay with sand (CL)						
15		3-2-3	5									
						Loose, dark gray clayey sand (SC)						
20		2-2-3	5			SPT Soil Boring Terminated at 20 Feet in Depth						

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO	63001-001-02
REPORT NO	9621
PAGE	B-6

PROJECT: Preliminary Geotechnical Exploration - Kings Landing
2496 S. Kings Highway
Fort Pierce, Florida

CLIENT: Elite General Contractor & Remodeling, Inc.

LOCATION: See Remarks Below

REMARKS:

BORING DESIGNATION: B5 SHEET: 1 of 1
SECTION: TOWNSHIP: RANGE:

G.S. ELEVATION (ft):
WATER TABLE (ft): 3.6
DATE OF READING: 3/31/2005
EST. W.S.W.T. (ft): 1.6

DATE STARTED: 3/31/05
DATE FINISHED: 3/31/05
DRILLED BY: UES (Lake Worth)
TYPE OF SAMPLING: SPT

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						Brown silty sand [SM]						
						.....very loose						
		1-1-1	2									
						Very loose, sandy clay [CL]						
		1-2-2	4									
5		2-1-2	3				58					
						Loose, brown silty sand [SM]						
		3-4-5	9									
		3-4-4	8									
						Loose, gray clayey sand [SC]						
10		3-3-3	6									
						Loose, gray silty sand [SM]						
15		4-3-3	6									
						Loose, gray sand [SP]						
20		4-2-8	10			SPT Soil Boring Terminated at 20 Feet in Depth						

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO	55001.001.02
REPORT NO.	9621
PAGE:	B-7

PROJECT: Preliminary Geotechnical Exploration - Kings Landing
2496 S. Kings Highway
Fort Pierce, Florida

BORING DESIGNATION: B6 SHEET 1 of 1
SECTION: TOWNSHIP: RANGE

CLIENT: Elite General Contractor & Remodeling, Inc.

LOCATION: See Remarks Below

REMARKS

G.S. ELEVATION (ft):
WATER TABLE (ft): 4.1
DATE OF READING: 3/31/2005
EST. W.S.W.T. (ft): 2.1

DATE STARTED: 3/31/05
DATE FINISHED: 3/31/05
DRILLED BY: UES (Lake Worth)
TYPE OF SAMPLING: SPT

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						Brown to light brown clayey sand [SC]						
						.....loose						
		2-3-2	5	▽		.....very loose						
		3-2-2	4	▼								
5		3-3-2	5									
						Loose, brown silty sand [SM]						
		3-4-3	7									
						Loose, gray clayey sand [SC]						
		3-3-3	6			.....medium dense						
10		4-7-7	14									
						.....traces of shell fragments						
15		5-5-4	9									
						Medium dense, gray sand with shell fragments [SP]						
20		16-13-12	25			SPT Soil Boring Terminated at 20 Feet in Depth						

BT3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO	63001.001.02
REPORT NO.	5621
PAGE.	B-8

PROJECT: Preliminary Geotechnical Exploration - Kings Landing
2496 S. Kings Highway
Fort Pierce, Florida

CLIENT: Elite General Contractor & Remodeling, Inc.

LOCATION: See Remarks Below

REMARKS:

BORING DESIGNATION: B7 SHEET: 1 of 1
SECTION: TOWNSHIP: RANGE:

G.S. ELEVATION (ft):
WATER TABLE (ft): 4.3
DATE OF READING: 4/1/2005
EST. W.S.W.T. (ft): 2.3

DATE STARTED: 4/1/05
DATE FINISHED: 4/1/05
DRILLED BY: UES (Lake Worth)
TYPE OF SAMPLING: SPT

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						Brown sand (SP)						
						.....very loose						
		1-1-2	3	▽								
						Loose, brown clayey sand (SC)						
		2-2-3	5									
				▼		Very loose, brown silty sand (SM)						
5		1-1-2	3									
						Loose to very loose, gray clayey sand (SC)						
		1-2-3	5									
		3-2-2	4									
						Medium stiff, green clay (CL)						
10		2-3-3	6									
						Loose, gray sand (SP)						
15		3-2-3	5									
						Medium dense, gray sand with shell fragments (SP)						
20		14-12-13	25			SPT Soil Boring Terminated at 20 Feet in Depth						

B13

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO	55001-001-02
REPORT NO.	9621
PAGE.	B-9

PROJECT: Preliminary Geotechnical Exploration - Kings Landing
2496 S. Kings Highway
Fort Pierce, Florida

CLIENT: Elite General Contractor & Remodeling, Inc.

LOCATION: See Remarks Below

REMARKS

BORING DESIGNATION: B8 SHEET: 1 of 1
SECTION: TOWNSHIP: RANGE:

G.S. ELEVATION (ft):
WATER TABLE (ft): 4.6
DATE OF READING: 4/1/2005
EST. W.S.W.T. (ft): 2.6

DATE STARTED: 4/1/05
DATE FINISHED: 4/1/05
DRILLED BY: UES (Lake Worth)
TYPE OF SAMPLING: SPT

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						Light brown sand [SP]						
						.....loose						
		2-3-2	5	▽								
						Very loose, brown silty sand [SM]						
		2-2-2	4	▼		.....loose						
5												
		2-3-5	8				22					
						Loose, gray clayey sand [SC]						
		5-4-4	8									
		3-4-5	9			.....medium dense						
10		6-5-7	12									
						Medium dense, gray silty sand [SM]						
15		7-8-6	14									
						Medium dense, gray sand [SP]						
20		2-6-6	12			SPT Soil Boring Terminated at 20 Feet in Depth						

GLB

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO	68001-001-02
REPORT NO	6821
PAGE	5-10

PROJECT: Preliminary Geotechnical Exploration - Kings Landing
2496 S. Kings Highway
Fort Pierce, Florida

CLIENT: Elite General Contractor & Remodeling, Inc.

LOCATION: See Remarks Below

REMARKS:

BORING DESIGNATION: AB1 SHEET 1 of 1
SECTION: TOWNSHIP: RANGE:

G.S. ELEVATION (ft):
WATER TABLE (ft): 3.8
DATE OF READING: 3/24/2005
EST. W.S.W.T. (ft): 1.8

DATE STARTED: 3/24/05
DATE FINISHED: 3/24/05
DRILLED BY: UES (Lake Worth)
TYPE OF SAMPLING: AUGER

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						Dark gray clayey sand [SC]						
				▽								
				▼								
5						Gray sand [SP]	13		30	16		
10						Auger Boring Terminated at 10 Feet in Depth						

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO	55001-001-02
REPORT NO	9621
PAGE:	B-11

PROJECT: Preliminary Geotechnical Exploration - Kings Landing
2496 S. Kings Highway
Fort Pierce, Florida

CLIENT: Elite General Contractor & Remodeling, Inc.

LOCATION: See Remarks Below

REMARKS:

BORING DESIGNATION: AB2 SHEET 1 of 1
SECTION: TOWNSHIP: RANGE:

G.S. ELEVATION (ft):
WATER TABLE (ft): 5.1
DATE OF READING: 3/24/2005
EST. W.S.W.T. (ft): 3.1

DATE STARTED: 3/24/05
DATE FINISHED: 3/24/05
DRILLED BY: UES (Lake Worth)
TYPE OF SAMPLING: AUGER

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						Dark gray brown silty sand (SM)						
						Light brown slightly silty sand (SP-SM)						
				▽								
						Tan silty clayey sand (SM)						
5				▼								
						Gray clay (CL)						
10						Auger Boring Terminated at 10 Feet in Depth						

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Gino Francavilla
Kings Highway Commerce Park, LLC.
27 Pennock Lane, Suite 205
Jupiter, FL 33458

Subject: Report of Preliminary Subsurface Exploration and Geotechnical Recommendations 40-Acre Site, Kings Highway at White Road, Fort Pierce, Florida

Dear Client;

Allterra Engineering & Testing respectfully submits this report of preliminary subsurface exploration for the subject project site. Allterra's services have been performed to meet certain requirements of chapter 18 of the 2004 edition of the Florida Building Code and local amendments. This report is Allterra's instrument-of-service provided for your sole reliance and use. Third parties may read this report for information purposes only.

Project and Scope

The project is the development of the subject site into 19 commercial building lots ranging from approximately 1.2 to 2.6 acres in size. Allterra has not been provided detailed design load information for the buildings. For purposes of this report, Allterra assumed wall and column loads would not exceed 4000 PLF and 40,000 pounds, respectively. An approximate 4-acre lake is also proposed for the southeast quadrant of the site. Allterra was tasked with performing on-site exfiltration tests and exploratory borings in support of the permitting and design process.

Site Description

The project site is approximately 1630 feet (east-west) by aprxoimately1270 feet (north-south) in plan area. It is bounded on the north by White Road, on the east and south by vacant pasture, and on the west by Kings Highway and Florida Masters Packing, Inc. (approximately 750 feet by 400 feet). At the time of Allerra's field work, the site was an abandoned citrus grove and heavily overgrown with trees and bushes. Ground topography was characterized by alternating row mounds and drainage swales across most of the site.

Summary of Field Work

Allterra mobilized personnel and equipment to the project site on 18 September 2006 to perform exploratory borings and field permeability tests. A Field Test Location Plan is attached to this report for the readers' reference.

Exploratory borings included five 15-foot soil-test borings (designated with the prefix B) and eight 10-foot auger borings (designated with the prefix A). Penetration tests were performed in the soil-test borings by driving a nominal 2-inch diameter steel sampler with blows of a 140-pound hammer free-

falling 30 inches. Auger borings were drilled to ascertain the continuity of subsurface soil strata across the project site. Copies of the boring logs are attached to this report for the reader's reference.

Allterra performed five *open-hole falling-head* field permeability tests (designated with the prefix K) in accordance with technical guidance published by the South Florida Water Management District (*Design of Exfiltration Trenches to Meet SFWMD Regulatory Criteria* dated October 1982, pp 15-16). Copies of the permeability test data are attached to this report for the reader's reference.

Preliminary Findings

With the exception of four borings (A-5, A-7, A-8 and B-5) in the southeast quarter of the site, Allterra encountered generally comparable subsurface conditions at most boring locations. The typical subsurface profile can be described as:

- *Topsoil* sampled as dark gray, medium to fine sand with occasional roots from ground surface to approximately 6 inches below ground surface, underlain by
- *Loose,* dark gray to gray to light brown, medium to fine sand to 3 to 5 feet below ground surface (ft-bgs), underlain by
- *Firm,* gray, medium to fine with occasional marl to 12 to 15 ft-bgs, underlain by
- *Very firm,* gray, marly, medium to fine sand to 15 ft-bgs.

The typical subsurface profile encountered by A-5, A-7, A-8 and B-5 in the southeast quarter of the site can be described as:

- *Topsoil* sampled as dark gray, medium to fine sand with occasional roots from ground surface to approximately 6 inches below ground surface, underlain by
- *Loose,* gray to light brown, medium to fine sand to 7 to 8 feet below ground surface (ft-bgs), underlain by
- *Soft to firm,* gray, medium to fine sandy marl to 9 to 11 ft-bgs, underlain by
- *Firm,* gray medium to fine sand to 15 ft-bgs.

Groundwater was encountered at approximately 5 to 6 ft-bgs at the time of borings. The depth to groundwater may vary at other times due to changes in hydrological conditions. According to the *Soil Survey of the St. Lucie County Area* (issued March 1980 by the USDA Soil Conservation Service), site soil is mapped as Winder Sand (depressional). This soil, under natural conditions, is typically characterized by occasional flooding and seasonal high water table within 10 inches of ground surface for 2 to 4 months of the year.

Hydraulic conductivity calculated from Allterra's field permeability tests are summarized in the following table.

Location	Area	Depth to Groundwater	Hydraulic Conductivity
K-1	Northwest quarter	6 ft-bgs	0.3 x10^{-5} CFS/ft^2-ft
K-2	Northeast quarter	3 ft-bgs	0.1 x10^{-5} CFS/ft^2-ft
K-3	Center	6 ft-bgs	0.5 x10^{-5} CFS/ft^2-ft
K-4	Southwest quarter	5 ft-bgs	0.5 x10^{-5} CFS/ft^2-ft
K-5	Southeast quarter	3½ ft-bgs	0.6 x10^{-5} CFS/ft^2-ft

Notes: ft-bgs *means* feet below ground surface
CFS/ft^2-ft *means* cubic feet per second per square foot of area per foot of head

Preliminary Conclusions

Subsurface soil density appears acceptable for supporting the proposed commercial buildings on a shallow foundation system subject to proper implementation of this report's recommendations. Allterra's borings did not encounter problematic soils such as muck, peat or soft silt.

Subsurface soils encountered in the proposed lake-area borings (A-7 and A-8) are acceptable for structural fill when placed and compacted in accordance with this report's recommendations. De-watering lake excavations may provide a fill material near its optimum moisture content. This would reduce effort necessary to achieve density standards during construction of building pads or roadways. These soils may require stabilization where used for pavement sub-grade.

Preliminary Recommendations

Site Preparation. Allterra recommends:

- Clear and grub all trees, bushes and roots from building areas and properly waste.
- Strip any remaining top soil or organic soil from building areas and properly waste.
- Remove any remaining soft or organic sediment from drainage swales and properly waste.
- Rough grade building areas to cut down row mounds and fill drainage swales.
- Compact the building areas with a heavy (12 to 20 ton), smooth-drum, vibratory roller to densify subsurface soils and prepare the surface. The roller should cover the area with six passes in mutually perpendicular directions.
- Perform field density testing to verify that the near-surface sub-grade achieves 95 percent of the soil's maximum dry density as determined by the Modified Proctor compaction test (ASTM D-1557).

Additional Borings. After the project is cleared and graded, Allterra recommends performing subsurface explorations for individual structures for foundation-design purposes. The number and depth of borings for specific structures will depend upon their geometry and design loads. Upon completion of the additional borings, a geotechnical report may be issued for each structure

Fill. Where fill is needed to achieve a construction-ready grade for structures, Allterra recommends:

- Place and compact fill in a controlled manner at or near optimum moisture content. Cohesionless soils can be placed in 12-inch to 15-inch lifts and compacted to at least 95 percent of the Modified Proctor maximum dry density by multiple passes of a heavy, smooth-drum, vibratory roller. For fill consisting of marly sand or sandy marl, lifts shall not exceed 8-inches (loose measure) and shall be compacted statically.
- Perform field density tests on each lift of fill to verify it achieves at least 95 percent of its Modified Proctor maximum dry density.
- Once the building area has been prepared, the contractor must maintain its condition throughout the construction process.

Slope Stability. Allterra recommends cut or fill slopes be constructed no steeper than 2.5 horizontal to 1 vertical (2.5H:1V) to achieve reasonable stability. For the typical site soils on a 2.5H:1V slope, Allterra estimates a factor-of-safety of approximately 1.5.

Allowable Bearing Pressure. Subject to successful implementation of the Site Preparation and Fill recommendations of this report, Allterra recommends an allowable bearing pressure of 2500 PSF for preliminary design of conventional shallow footings or monolithic slabs-on-grade. Footing surfaces

shall be kept firm, level, and free of standing water, debris, and detritus through the placement of concrete.

Settlement. Subject to this report's recommendations for Site Preparation, Fill, and Allowable Bearing Pressure, Allterra estimates total and differential soil settlements of ¾ and ½ inch, respectively, for footings bearing 18 inches below ground surface under the assumed design loads. The reaction of the new construction to these potential soil settlements may depend upon the structural rigidity of the design. The structural designer should be advised of the settlement estimates in order to assess the ability of the new construction to tolerate them. If the settlements and structural reactions are considered too severe, other types of foundations may have to be considered. The estimated settlements may be reduced to ½ inch total and differential by the addition of 3 feet of well-compacted granular (non-cohesive) fill to building pads.

Pavements. Sub-grade and base-course layers shall be adequately elevated above the wet-season water table. To prepare in-situ soils for pavement sub-grade, Allterra recommends they be compacted to at least 98 percent of the Modified Proctor maximum dry density (AASHTO T-180). Stabilizers (aggregate or sludge, for examples) may be blended with sub-grade soils to improve the design LBR to 40 or FBV to 75. For base course, Allterra recommends clean aggregate (LBR 100) compacted to at least 98 percent of the Modified Proctor maximum dry density. Base course and surface course thicknesses will be determined by the structure designer considering material qualities and project traffic loads. Allterra recommends performing field density tests to validate acceptability of prepared sub-grades and base courses.

Qualification

Allterra has based it recommendations upon certain client-provided information and interpretation of data obtained at discrete points within the limits of exploration. It is possible that conditions may vary between boring locations or beyond the limits of the boring array. Project designs may also change. If additional information about the project or site is discovered that does not appear to conform to the conditions presented in this report, Allterra reserves the right to review the new information and modify its conclusions and/or recommendations where appropriate.

Closing

Thank you for engaging Allterra to perform this subsurface exploration. Please call the undersigned if you have questions about this report or need other services.

Yours truly,
Allterra Engineering & Testing

Wendell K. Rodgers, PE
Principal Engineer
FL Lic. No. 55960

Attachments

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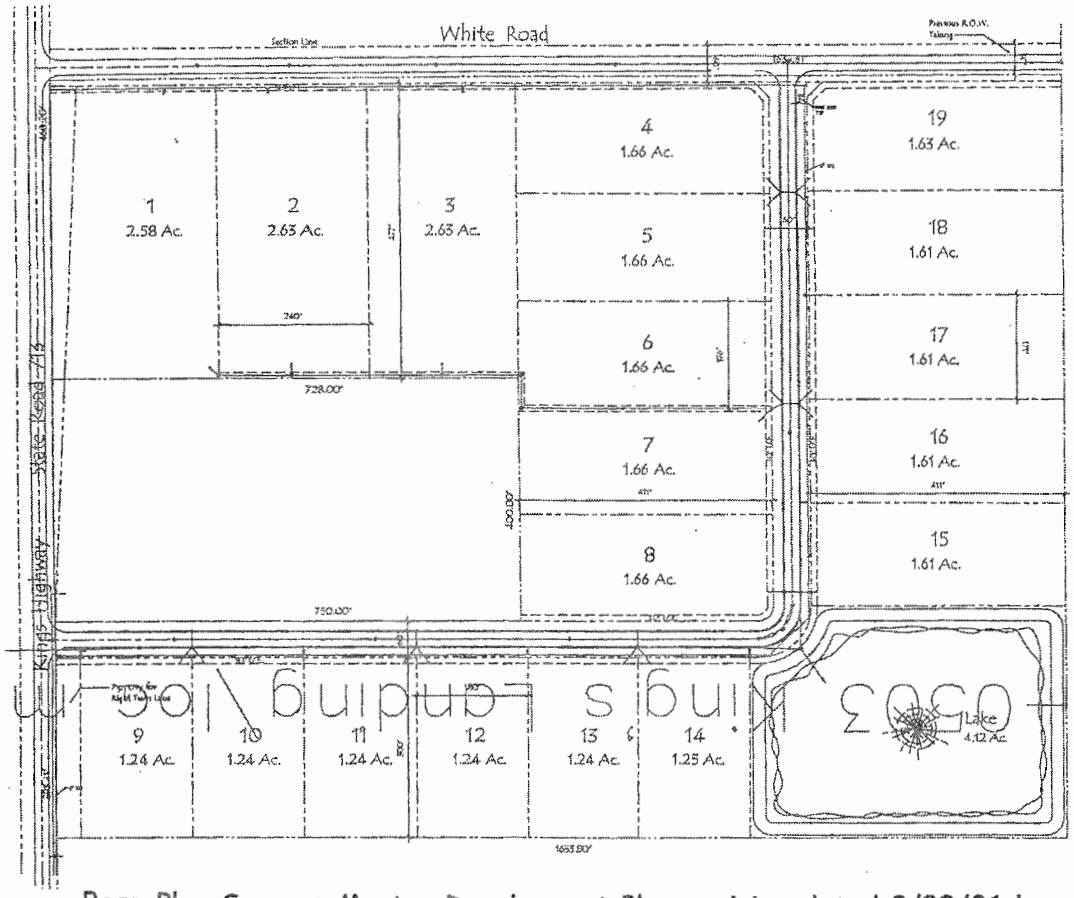
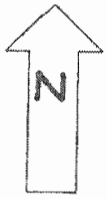


Base Plan Source: Master Development Plan revision dated 3/30/06 by Gentile Holloway O'Mahoney & Associates, Inc.



PROPOSED SITE DEVELOPMENT PLAN

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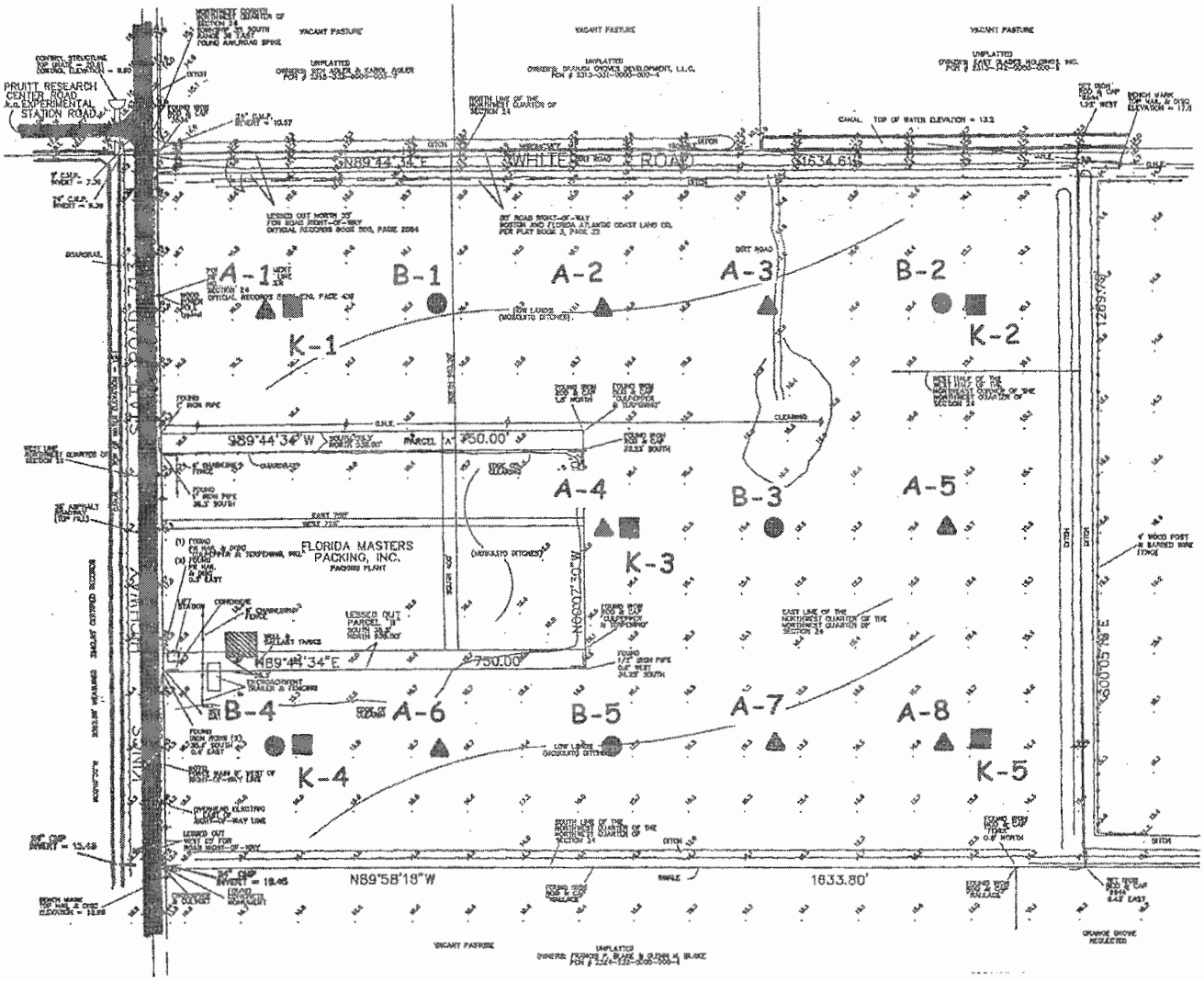

Base Plan Source: Boundary Survey dated 6/13/05 by Dearlove & Associates

N

Legend

- ● Approximate Location of Soil-Test Boring
- ▲ Approximate Location of Auger Boring
- ■ Approxmate Location of Exfiltration Test

FIELD TEST LOCATION PLAN

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PROJECT Preliminary Subsurface Exploration - 40 Acre Site - Ft. Pierce, Florida

LOCATION B - 1 (Approximate) **BORING NO.** 1

7001 WHITE ROAD

DEPTH		DESCRIPTION OF MATERIAL	Sample No	Blows Per Foot	DEPTH
1	0"-6"	Dark Grey Medium Fine Sand, trace of roots (topsoil)		1-1	1
2	6"-1'	Dark Grey Medium Fine Sand		1-2	2
3	1'-2'	Light Brown Medium Fine Sand		2-2	3
4				2-3	4
5	2'-4.5'	Light Brown and Grey Medium Fine Sand (Orange Tint), slight trace of marl		3-5	5
6				4-5	6
7				5-4	7
8				6-7	8
9	4.5'-9'	Grey Medium Fine Sand, some marl		7-9	9
10				9-9	10
11	9'-11'	Grey Medium Fine Sand		4-6	11
12				7-9	12
13				8-11	13
14				10-13	14
15	11'-15'	Grey Medium Fine Sand, some marl		12-14	15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26
27					27
28					28
29					29
30					30
31					31
32					32
33					33
34					34
35					35
36					36
37					37
38					38
39					39
40					40
41					41
42					42
43					43
44					44
45					45
46					46
47					47
48					48
49					49
50					50

CLIENT Giardina di Villa Palma, L.C. **JOB NO.** 06-367

DRILLER DG/KS **WATER TABLE** 6' **DATE** 9/18/06

TEST DATA In general accordance with ASTM D-1586

These Soil Boring Tests are Representative of and Apply to the Exact Location and Depth of the Boring.
AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS OR EXTRACTS FROM OR REGARDING OUR REPORTS IS RESERVED PENDING OUR WRITTEN APPROVAL.

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PROJECT Preliminary Subsurface Exploration - 40 Acre Site - Ft. Pierce, Florida

LOCATION B - 2 (Approximate) **BORING NO.** 2

7001 WHITE ROAD

DEPTH		DESCRIPTION OF MATERIAL	Sample No	Blows Per Foot	DEPTH
1	0"-6"	Dark Grey Medium Fine Sand, trace of roots (topsoil)		1-1	1
2	6"-2'	Brown Medium Fine Sand		1-3	2
3	2'-3.5'	Grey and Light Brown Medium Fine Sand (Orange Tint), trace of marl		4-4	3
4				5-4	4
5				4-5	5
6				3-4	6
7				4-6	7
8				7-6	8
9	3.5'-9'	Light Grey Medium Fine Sand		6-6	9
10				7-5	10
11				3-6	11
12				9-11	12
13				10-11	13
14				12-14	14
15				13-15	15
16	9'-15'	Grey Medium Fine Sand, some marl			16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26
27					27
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31					31
32					32
33					33
34					34
35					35
36					36
37					37
38					38
39					39
40					40
41					41
42					42
43					43
44					44
45					45
46					46
47					47
48					48
49					49
50					50

CLIENT Giardina di Villa Palma, L.C. **JOB NO.** 06-367

DRILLER DG/KS **WATER TABLE** 3' **DATE** 9/18/06

TEST DATA In general accordance with ASTM D-1586

These Soil Boring Tests are Representative of and Apply to the Exact Location and Depth of the Boring.
AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS OR EXTRACTS FROM OR REGARDING OUR REPORTS IS RESERVED PENDING OUR WRITTEN APPROVAL.

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PROJECT Preliminary Subsurface Exploration - 40 Acre Site - Ft. Pierce, Florida

LOCATION B - 3 (Approximate) **BORING NO.** 3

7001 WHITE ROAD

DEPTH		DESCRIPTION OF MATERIAL	Sample No	Blows Per Foot	DEPTH
1	0'-1'	Dark Grey Medium Fine Sand, some roots (topsoil)		1-1	1
2	1'-2'	Brown Medium Fine Sand, slight trace of marl		2-3	2
3				4-4	3
4	2'-4'	Light Brown Medium Fine Sand		5-7	4
5				6-6	5
6				2-3	6
7	4'-6'	Grey Medium Fine Sand, trace of marl and shell		4-7	7
8				6-9	8
9				9-6	9
10				6-7	10
12				3-7	12
13	6'-14'	Grey Medium Fine Sand		7-8	13
14	14'-15'	Grey Medium Fine Sand, trace of marl		9-12	14
15				13-11	15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26
27					27
28					28
29					29
30					30
31					31
32					32
33					33
34					34
35					35
36					36
37					37
38					38
39					39
40					40
41					41
42					42
43					43
44					44
45					45
46					46
47					47
48					48
49					49
50					50

CLIENT Giardina di Villa Palma, L.C. JOB NO. 06-367

DRILLER DG/KS WATER TABLE 6' DATE 9/18/06

TEST DATA In general accordance with ASTM D-1586

These Soil Boring Tests are Representative of and Apply to the Exact Location and Depth of the Boring.
AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS OR EXTRACTS FROM

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PROJECT Preliminary Subsurface Exploration - 40 Acre Site - Ft. Pierce, Florida

LOCATION B - 4 (Approximate) **BORING NO.** 4

7001 WHITE ROAD

DEPTH		DESCRIPTION OF MATERIAL	Sample No	Blows Per Foot	DEPTH
1	0'-1'	Dark Grey Medium Fine Sand, slight trace of roots (topsoil)		1-1	1
2	1'-2.5'	Light Brown Medium Fine Sand		1-1	2
3	2.5'-3.5'	Brown Medium Fine Sand (Orange Tint), trace of marl		3-4	3
4				4-6	4
5	3.5'-5'	Brown Medium Fine Sand (Orange Tint)		7-7	5
6				2-2	6
7				3-5	7
8				7-6	8
9	5'-9'	Grey Medium Fine Sand		8-9	9
10				10-12	10
11	9'-11'	Brown Medium Fine Sand		4-6	11
12				7-7	12
13	11'-14'	Brown Medium Fine Sand, some marl		6-9	13
14	14'-15'	Brown Medium Fine Sand		9-6	14
15				6-6	15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26
27					27
28					28
29					29
30					30
31					31
32					32
33					33
34					34
35					35
36					36
37					37
38					38
39					39
40					40
41					41
42					42
43					43
44					44
45					45
46					46
47					47
48					48
49					49
50					50

CLIENT Giardina di Villa Palma, L.C. **JOB NO.** 06-367

DRILLER DG/KS **WATER TABLE** 5' **DATE** 9/18/06

TEST DATA In general accordance with ASTM D-1586

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ENGINEERING & TESTING
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PROJECT Preliminary Subsurface Exploration - 40 Acre Site - Ft. Pierce, Florida

LOCATION B - 5 (Approximate) **BORING NO.** 5

7001 WHITE ROAD

DEPTH		DESCRIPTION OF MATERIAL	Sample No	Blows Per Foot	DEPTH
1	0'-1'	Dark Grey Medium Fine Sand, some roots (topsoil)		1-1	1
2				1-2	2
3	1'-3'	Light Brown Medium Fine Sand		2-2	3
4	3'-4'	Brown Medium Fine Sand (Orange Tint)		2-3	4
5				3-3	5
6	4'-6'	Grey Medium Fine Sand, trace of marl, slight trace of shell		2-2	6
7				3-6	7
8	6'-8'	Grey Medium Fine Sand		0-2	8
9				2-4	9
10	8'-11'	Grey Medium Fine Sand (Cohesive), some marl		2-1	10
11				0-1	11
12				2-2	12
13	11'-15'	Grey Medium Fine Sand		3-6	13
14				7-5	14
15				5-9	15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26
27					27
28					28
29					29
30					30
31					31
32					32
33					33
34					34
35					35
36					36
37					37
38					38
39					39
40					40
41					41
42					42
43					43
44					44
45					45
46					46
47					47
48					48
49					49
50					50

CLIENT Giardina di Villa Palma, L.C. JOB NO. 06-367

DRILLER DG/KS WATER TABLE 5' DATE 9/18/06

TEST DATA In general accordance with ASTM D-1586

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REPORT OF AUGERS

PROJECT Preliminary Subsurface Exploration - 40 Acre Site - Ft. Pierce, Florida
CLIENT Giardina di Villa Palma, L.C.
SAMPLED BY DG/KS DATE 9/18/06 JOB NO. 06-367

LOCATION	DEPTH	DESCRIPTION	*WATER TABLE
7001 WHITE ROAD			
A - 1	0"-6"	Dark Grey Medium Fine Sand, some roots (topsoil)	
	6"-1.5'	Light Brown Medium Fine Sand	
	1.5'-3'	Brown Medium Fine Sand, trace of marl	
	3'-5'	Tan Medium Fine Sand	
	5'-10'	Grey Medium Fine Sand (Brown Tint), some marl	6'
A - 2	0"-6"	Dark Grey Medium Fine Sand, trace of roots (topsoil)	
	6"-1.5'	Brown Medium Fine Sand	
	1.5'-2'	Light Brown Medium Fine Sand	
	2'-3'	Light Brown Medium Fine Sand (Orange Tint), slight trace of marl	
	3'-4.5'	Grey Medium Fine Sand, trace of marl, slight trace of shell	
	4.5'-9'	Light Grey Medium Fine Sand	
	9'-10'	Brown Medium Fine Sand	6'
A - 3	0"-6"	Dark Grey Medium Fine Sand, trace of roots (topsoil)	
	6"-2'	Light Brown Medium Fine Sand, slight trace of marl	
	2'-3.5'	Brown Medium Fine Sand (Orange Tint)	
	3.5'-6'	Grey Medium Fine Sand, some marl	
	6'-8'	Light Grey Medium Fine Sand	
	8'-10'	Grey Medium Fine Sand, trace of marl	5'

(ALL LOCATIONS APPROXIMATE)

* Immediate Water Table

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REPORT OF AUGERS

PROJECT Preliminary Subsurface Exploration - 40 Acre Site - Ft. Pierce, Florida
CLIENT Giardina di Villa Palma, L.C.
SAMPLED BY DG/KS **DATE** 9/18/06 **JOB NO.** 06-367

LOCATION	DEPTH	DESCRIPTION	*WATER TABLE
7001 WHITE ROAD			
A - 4	0'-1'	Brown Medium Fine Sand, trace of roots (topsoil)	
	1'-3'	Light Brown Medium Fine Sand, trace of marl	
	3'-4'	Brown Medium Fine Sand (Orange Tint)	
	4'-6'	Grey Medium Fine Sand, trace of marl	
	6'-9'	Grey Medium Fine Sand	
	9'-10'	Light Grey Medium Fine Sand	5'
A - 5	0'-1'	Brown Medium Fine Sand	
	1'-2.5'	Light Brown Medium Fine Sand	
	2.5'-3.5'	Brown Medium Fine Sand, trace of marl	
	3.5'-6'	Grey Medium Fine Sand, trace of marl, slight trace of shell	
	6'-7'	Grey Medium Fine Sand	
	7'-10'	Grey Medium Fine Sand (Cohesive), some marl, slight trace of shell	3.5'
A - 6	0"-6"	Dark Grey Medium Fine Sand, trace of roots (topsoil)	
	6"-1'	Dark Grey Medium Fine Sand	
	1'-2.5'	Light Brown Medium Fine Sand, slight trace of marl	
	2.5'-3.5'	Brown Medium Fine Sand (Orange Tint)	
	3.5'-5'	Grey Medium Fine Sand, slight trace of marl and shell	
	5'-8'	Grey Medium Fine Sand	
	8'-10'	Grey Medium Fine Sand, trace of marl	5'

(ALL LOCATIONS APPROXIMATE)

* Immediate Water Table

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REPORT OF AUGERS

PROJECT Preliminary Subsurface Exploration - 40 Acre Site - Ft. Pierce, Florida
CLIENT Giardina di Villa Palma, L.C.
SAMPLED BY DG/KS DATE 9/18/06 JOB NO. 06-367

LOCATION	DEPTH	DESCRIPTION	*WATER TABLE
7001 WHITE ROAD			
A - 7	0"-6"	Dark Grey Medium Fine Sand, some roots (topsoil)	
	6"-1'	Dark Grey Medium Fine Sand	
	1'-3.5'	Light Brown Medium Fine Sand	
	3.5'-5'	Light Brown Medium Fine Sand, trace of marl	
	5'-7'	Grey Medium Fine Sand	
	7'-9'	Grey Medium Fine Sand (Cohesive), some marl, slight trace of shell	
	9'-10'	Grey Medium Fine Sand	2.5'
A - 8	0"-6"	Dark Grey Medium Fine Sand, some roots (topsoil)	
	6"-1'	Dark Grey Medium Fine Sand	
	1'-3.5'	Light Brown Medium Fine Sand	
	3.5'-5'	Light Brown Medium Fine Sand, trace of marl	
	5'-7'	Grey Medium Fine Sand	
	7'-9'	Grey Medium Fine Sand (Cohesive), some marl, slight trace of shell	
	9'-10'	Grey Medium Fine Sand	5'

(ALL LOCATIONS APPROXIMATE)

* Immediate Water Table

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FIELD PERMEABILITY TEST DATA

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REPORT OF FALLING-HEAD OPEN-HOLE TEST **JOB NO.** 06-367

PROJECT Preliminary Subsurface Exploration - 40 Acre Site - 7001 WHITE ROAD - Ft. Pierce, Florida
CLIENT Giardina di Villa Palma, L.C.
NUMBER OF SAMPLES 1 **SOURCE** In Place Material
TESTED BY DG/KS **DATE** 9/18/06 **REPORTED TO** Client
INTENDED USE Hydraulic Conductivity
SPECIFICATIONS GOVERNING South Florida Water Management District

LOCATION	DEPTH	DESCRIPTION
K - 1 (Approximate)	0"-6"	Dark Grey Medium Fine Sand, some roots (topsoil)
	6"-2'	Brown Medium Fine Sand
	2'-4'	Brown Medium Fine Sand, trace of marl
	4'-6'	Grey Medium Fine Sand, some marl

WATER TABLE

6' *(Estimated for Calculation Purposes)*

DEPTH OF HOLE

6'

DIAMETER x LENGTH OF CASING

6" X 5'

HYDRAULIC CONDUCTIVITY

$K = 0.3 \times 10^{-5}$ CFS/FT.^{2} - FT. HEAD

TIME INTERVAL (in seconds)	DROP (in inches)
15	1 1/2"
30	2"
45	2 1/4"
1'00	2 1/2"
1'15	2 3/4"
1'30	2 3/4"
1'45	2 3/4"
2'00	2 3/4"
2'15	2 3/4"
2'30	2 3/4"
2'45	2 3/4"
3'00	2 3/4"
3'15	2 3/4"
3'30	2 3/4"
3'45	2 3/4"
4'00	3"
4'15	3"
4'30	3"
4'45	3"
5'00	3"

Sincerely,
ALLTERRA ENGINEERING & TESTING

WENDELL K. RODGERS, P.E.
President

WKR/bm

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REPORT OF FALLING-HEAD OPEN-HOLE TEST JOB NO. 06-367

PROJECT Preliminary Subsurface Exploration - 40 Acre Site - 7001 WHITE ROAD - Ft. Pierce, Florida
CLIENT Giardina di Villa Palma, L.C.
NUMBER OF SAMPLES 1 **SOURCE** In Place Material
TESTED BY DG/KS **DATE** 9/18/06 **REPORTED TO** Client
INTENDED USE Hydraulic Conductivity
SPECIFICATIONS GOVERNING South Florida Water Management District

LOCATION	DEPTH	DESCRIPTION
K - 2 (Approximate)	0"-6"	Dark Grey Medium Fine Sand, trace of roots (topsoil)
	6"-1'	Dark Grey Medium Fine Sand
	1'-2.5'	Brown Medium Fine Sand
	2.5'-4'	Grey and Light Brown Medium Fine Sand (Orange Tint), slight trace of marl
	4'-6'	Grey Medium Fine Sand, trace of marl

WATER TABLE

3' *(Estimated for Calculation Purposes)*

DEPTH OF HOLE

6'

DIAMETER x LENGTH OF CASING

6" X 5'

HYDRAULIC CONDUCTIVITY

$K = 0.1 \times 10^{-5}$ CFS/FT.^{2} - FT. HEAD

TIME INTERVAL (in seconds)	DROP (in inches)
15	1/4"
30	1/2"
45	1/2"
1'00	1/2"
1'15	1/2"
1'30	1/2"
1'45	1/2"
2'00	3/4"
2'15	3/4"
2'30	3/4"
2'45	3/4"
3'00	1"
3'15	1"
3'30	1"
3'45	1"
4'00	1"
4'15	1"
4'30	1"
4'45	1"
5'00	1 1/4"

Sincerely,
ALLTERRA ENGINEERING & TESTING

WENDELL K. RODGERS, P.E.
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REPORT OF **FALLING-HEAD OPEN-HOLE TEST** JOB NO. 06-367

PROJECT Preliminary Subsurface Exploration - 40 Acre Site - 7001 WHITE ROAD - Ft. Pierce,
CLIENT Giardina di Villa Palma, L.C. Florida
NUMBER OF SAMPLES 1 SOURCE In Place Material
TESTED BY DG/KS DATE 9/18/06 REPORTED TO Client
INTENDED USE Hydraulic Conductivity
SPECIFICATIONS GOVERNING South Florida Water Management District

LOCATION	DEPTH	DESCRIPTION
K - 3 (Approximate)	0'-1'	Brown Medium Fine Sand, some roots (topsoil)
	1'-1.5'	Brown Medium Fine Sand
	1.5'-3'	Light Brown Medium Fine Sand, trace of marl
	3'-4.5'	Brown Medium Fine Sand (Orange Tint), trace of marl
	4.5'-6'	Light Grey Medium Fine Sand, trace of marl, slight trace of shell

WATER TABLE

6' *(Estimated for Calculation Purposes)*

DEPTH OF HOLE

6'

DIAMETER x LENGTH OF CASING

6" X 5'

HYDRAULIC CONDUCTIVITY

$K = 0.5 \times 10^{-5}$ CFS/FT.^{2} - FT. HEAD

TIME INTERVAL (in seconds)	DROP (in inches)
15	1"
30	1 1/4"
45	1 1/2"
1'00	1 3/4"
1'15	2"
1'30	2 1/4"
1'45	2 1/2"
2'00	2 3/4"
2'15	3"
2'30	3 1/4"
2'45	3 1/4"
3'00	3 1/2"
3'15	3 1/2"
3'30	3 3/4"
3'45	4"
4'00	4 1/4"
4'15	4 1/2"
4'30	4 3/4"
4'45	4 3/4"
5'00	5"

Sincerely,
ALLTERRA ENGINEERING & TESTING

WENDELL K. RODGERS, P.E.
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WKR/bm

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REPORT OF **FALLING-HEAD OPEN-HOLE TEST** JOB NO. 06-367

PROJECT Preliminary Subsurface Exploration - 40 Acre Site - 7001 WHITE ROAD - Ft. Pierce,
CLIENT Giardina di Villa Palma, L.C. Florida
NUMBER OF SAMPLES 1 SOURCE In Place Material
TESTED BY DG/KS DATE 9/18/06 REPORTED TO Client
INTENDED USE Hydraulic Conductivity
SPECIFICATIONS GOVERNING South Florida Water Management District

LOCATION	DEPTH	DESCRIPTION
K - 4 (Approximate)	0"-6"	Dark Grey Medium Fine Sand, trace of roots (topsoil)
	6"-1'	Brown Medium Fine Sand
	1'-2.5'	Light Brown Medium Fine Sand, slight trace of marl
	2.5'-4'	Brown Medium Fine Sand (Orange Tint)
	4'-6'	Grey Medium Fine Sand, trace of marl, slight trace of shell

WATER TABLE

5' *(Estimated for Calculation Purposes)*

DEPTH OF HOLE

6'

DIAMETER x LENGTH OF CASING

6" X 5'

HYDRAULIC CONDUCTIVITY

$K = 0.5 \times 10^{-5}$ CFS/FT.^{2} - FT. HEAD

TIME INTERVAL (in seconds)	DROP (in inches)
15	1/4"
30	1/2"
45	1/2"
1'00	3/4"
1'15	1"
1'30	1 1/4"
1'45	1 3/4"
2'00	1 3/4
2'15	2"
2'30	2"
2'45	2 1/4"
3'00	3"
3'15	3 1/2"
3'30	3 1/2"
3'45	3 3/4"
4'00	4"
4'15	4 1/2"
4'30	4 1/2"
4'45	4 3/4"
5'00	5"

Sincerely,
ALLTERRA ENGINEERING & TESTING

WENDELL K. RODGERS, P.E.
President

WKR/bm

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REPORT OF **FALLING-HEAD OPEN-HOLE TEST** JOB NO. 06-367

PROJECT Preliminary Subsurface Exploration - 40 Acre Site - 7001 WHITE ROAD - Ft. Pierce,
CLIENT Giardina di Villa Palma, L.C. Florida
NUMBER OF SAMPLES 1 **SOURCE** In Place Material
TESTED BY DG/KS **DATE** 9/18/06 **REPORTED TO** Client
INTENDED USE Hydraulic Conductivity
SPECIFICATIONS GOVERNING South Florida Water Management District

LOCATION	DEPTH	DESCRIPTION
K - 5 (Approximate)	0'-1'	Dark Grey Medium Fine Sand, some roots (topsoil)
	1'-3'	Light Brown Medium Fine Sand (Orange Tint)
	3'-4'	Brown Medium Fine Sand, trace of marl
	4'-5'	Grey Medium Fine Sand, trace of marl
	5'-6'	Grey Medium Fine Sand, trace of marl and shell

WATER TABLE

3.5' *(Estimated for Calculation Purposes)*

DEPTH OF HOLE

6'

DIAMETER x LENGTH OF CASING

6" X 5'

HYDRAULIC CONDUCTIVITY

$K = 0.6 \times 10^{-5}$ CFS/FT.^{2} - FT. HEAD

TIME INTERVAL (in seconds)	DROP (in inches)
15	1/2"
30	1"
45	1 1/4"
1'00	1 1/2"
1'15	1 3/4"
1'30	2 1/4"
1'45	2 1/2"
2'00	2 3/4"
2'15	3"
2'30	3 1/4"
2'45	3 1/2"
3'00	3 3/4"
3'15	4 1/4"
3'30	4 3/4"
3'45	5"
4'00	5 1/4"
4'15	5 3/4"
4'30	5 3/4"
4'45	6"
5'00	6 1/4"

Sincerely,
ALLTERRA ENGINEERING & TESTING

WENDELL K. RODGERS, P.E.
President

WKR/bm

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O'ROURKE
ENGINEERING & PLANNING

TRAFFIC ANALYSIS

FOR

Kings Highway Commerce Park
Concurrency

Prepared for:

Mr. Ken Morin
Kings Highway Development Partners, LLC
4923 W. Cypress St.
Tampa, FL 33607

Prepared by:

O'Rourke Engineering & Planning
22 SE Seminole Street
Stuart, Florida 34994
772-781-7918

March 11, 2021
SR21021.0

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:3/11/2021 License #: 42684

O'ROURKE
ENGINEERING & PLANNING

March 11, 2021

Mr. Ken Morin
Kings Highway Development Partners, LLC
4923 W. Cypress St.
Tampa, FL 33607

Re: Kings Highway Commerce Park

Dear Mr. Morin:

O'Rourke Engineering & Planning has completed the analysis of the proposed development located east of Kings Highway and south of White Road in Ft. Pierce, 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

C6 – Concurrency Report – Kings Highway Commerce Park – 2.12.21

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APPENDIX B: St. Lucie County 2019/2020 Level of Service Report and FDOT 2020 Quality Level of Service
APPENDIX C: Other Project Data/Growth Rate/Historical AADT
APPENDIX D: Link Analysis Data/Historical AADT
APPENDIX E: Intersection Analysis Data & Signal Warrant
APPENDIX F: Driveway Analysis Data

INTRODUCTION

O'Rourke Engineering & Planning was retained to prepare a traffic analysis for the proposed development consisting of warehousing and office located east of Kings Highway and south of White Road in Ft. Pierce, St. Lucie County, Florida. The purpose of this report is to determine the projects 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:

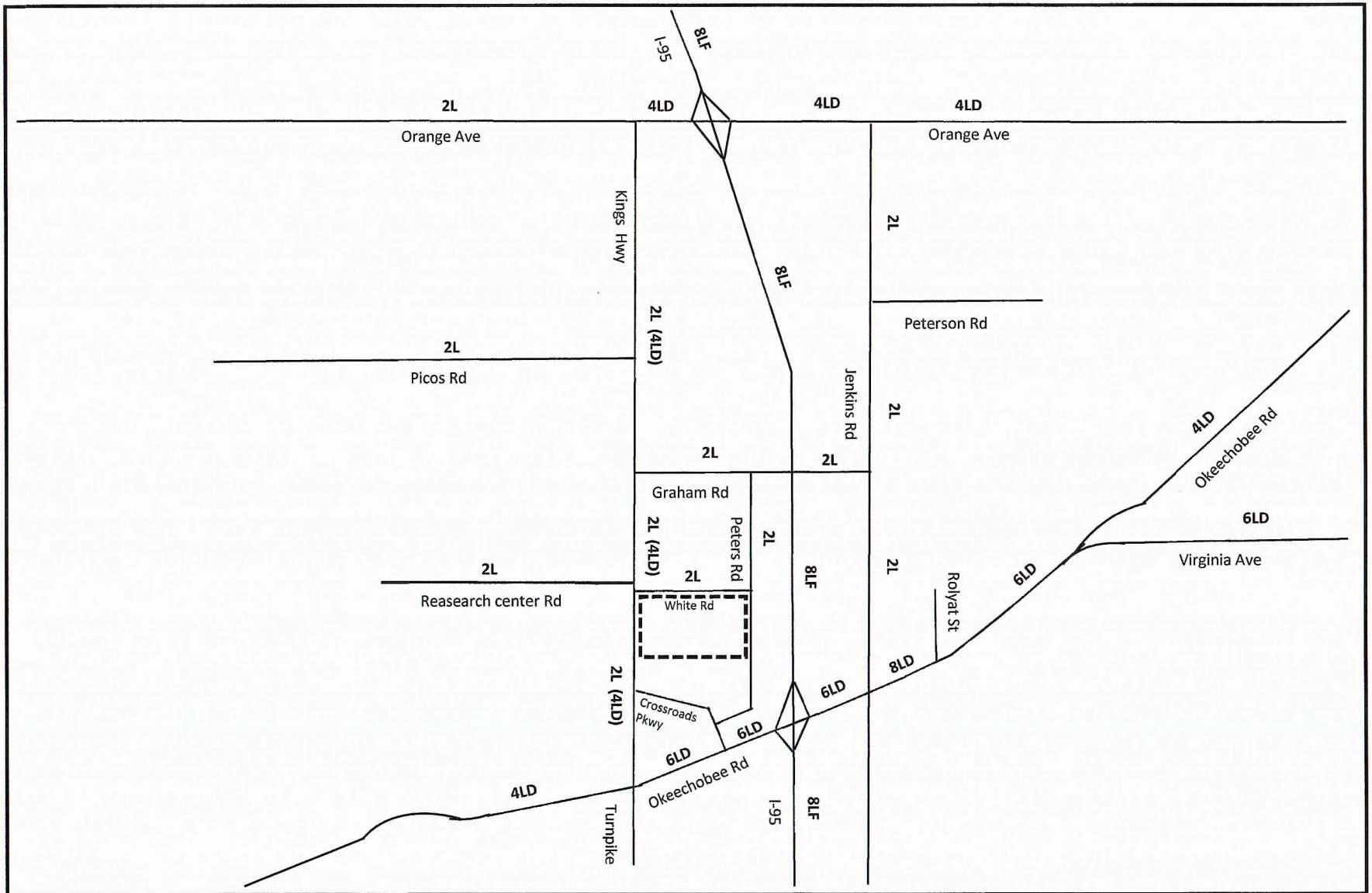
- summary of the project
- summary of existing lane geometries
- summary of the existing traffic volumes
- assessment of project traffic
- determination of impact area
- summary of buildout cumulative traffic volumes
- summary of levels of service with the project traffic added

Each of these steps is outlined herein.

PROJECT DESCRIPTION

The proposed development located east of Kings Highway and south of White Road in Ft. Pierce, St. Lucie County, Florida, will consist of 1,770,000 square feet of warehouse and 130,000 square feet of office. The site is currently vacant. The project location is shown in **Figure 1**.

Appendix A includes the project site plan.



NTS

O'ROURKE ENGINEERING & PLANNING

22 Seminole Street
Stuart, Fl, 34994

Job Number: SR20121.0 | Date: 2/12/2021

Legend

= Project Location

2L = Existing Lanes
(4LD) = Committed Lanes

Figure 1

Project Location

Kings Highway Commerce Park

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.

- Peters Road is a two-lane local road with a general north/south alignment.
- S. Jenkins Road is a two-lane arterial with a north/south alignment.
- Graham Road is a two-lane local roadway with an east/west alignment.
- 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.
- Orange Avenue is a four-lane divided arterial with an east/ west alignment.
- 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.

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. The service volumes were developed based on the functional classification contained in the County Comprehensive Plan and the St. Lucie County Traffic Counts and Level of Service Report. The 2020 FDOT Quality Level of Service and St. Lucie TPO 2019/2020 Level of Service Report were used to establish capacity. These documents are included in **Appendix B.**

PROJECT TRAFFIC

To estimate future traffic generated by the development, the ITE Trip Generation, 10th Edition trip rates for Warehouse (Land Use Code 150) and Office (Land Use Code 710) were 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 4,108 new daily trips. There will be 452 AM peak hour trips with 362 entering the project and 90 trips exiting the project. The project will generate 486 new PM peak hour trips. There will be 115 trips entering the project and 371 trips exiting the project in the PM peak hour.

Table 1 - Trip Generation -Kings Highway Commerce Park

Table 1a: Daily

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Net New Trips		
					In	Out	In	Out	Total
General Office	710	130,000	Sft	T=9.74(X)	50%	50%	633	633	1,266
Warehousing	150	1,770,000	Sft	T = 1.58(X) + 45.54	50%	50%	1,421	1,421	2,842
TOTALS							**2,054**	**2,054**	**4,108**

Source: ITE 10th 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
General Office	710	130,000	Sft	T = 1.16(X)	86%	14%	130	21	151
Warehousing	150	1,770,000	Sft	T = 0.17(X)	77%	23%	232	69	301
TOTALS							**362**	**90**	**452**

Source: ITE 10th 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
General Office	710	130,000	Sft	T = 1.15(X)	16%	84%	24	126	150
Warehousing	150	1,770,000	Sft	T = 0.19(X)	27%	73%	91	245	336
TOTALS							**115**	**371**	**486**

Source: ITE 10th 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 several links.

OTHER PROJECT TRAFFIC/GROWTH RATE

Existing traffic volumes were grown using a 4-year area wide historical growth rate of 2.25%. Other project data includes committed traffic from 39 Acre Residential Development, Kings Center, Village of Sunset Lakes, Mariner Cove, Bent Creek, Celebration Pointe, Whispering Oaks, St. Lucie Commerce Center, Walsh Crossroads, Project Hurricane, and the Treasure Coast Research Park.

Details of the background traffic and growth rate are included in **Appendix C.**

LINK ANALYSIS / REVIEW

The project is significant on several links, these links were analyzed further to ensure they will meet concurrency. **Table 3a and 3b** summarizes the results of the link analysis. As shown, all roadways will operate at acceptable levels of service at project buildout. Jenkins Road exceeds the theoretical capacity, a detailed analysis using ArtPlan was used to demonstrate concurrency.

The detailed analysis is included in **Appendix D.**

INTERSECTION ANALYSIS/SIGNAL WARRANT

The intersection of White Road at Kings Highway was analyzed for the AM and PM peak hours using HCS for unsignalized intersections. As part of the Kings Highway widening project, Research Center Road and White Road will be aligned. The intersection will operate at a level of service C at project build out. A signal warrant for the intersection was also conducted using the 8-hour, 4-hour and peak hour warrants. At project buildout the intersection of Kings Highway and White Road would satisfy the 8-hour, 4-hour, and peak hour signal warrants at 70%.

The intersection data and signal warrant are shown in **Appendix E.** The LOS results are included in the next section of the report.

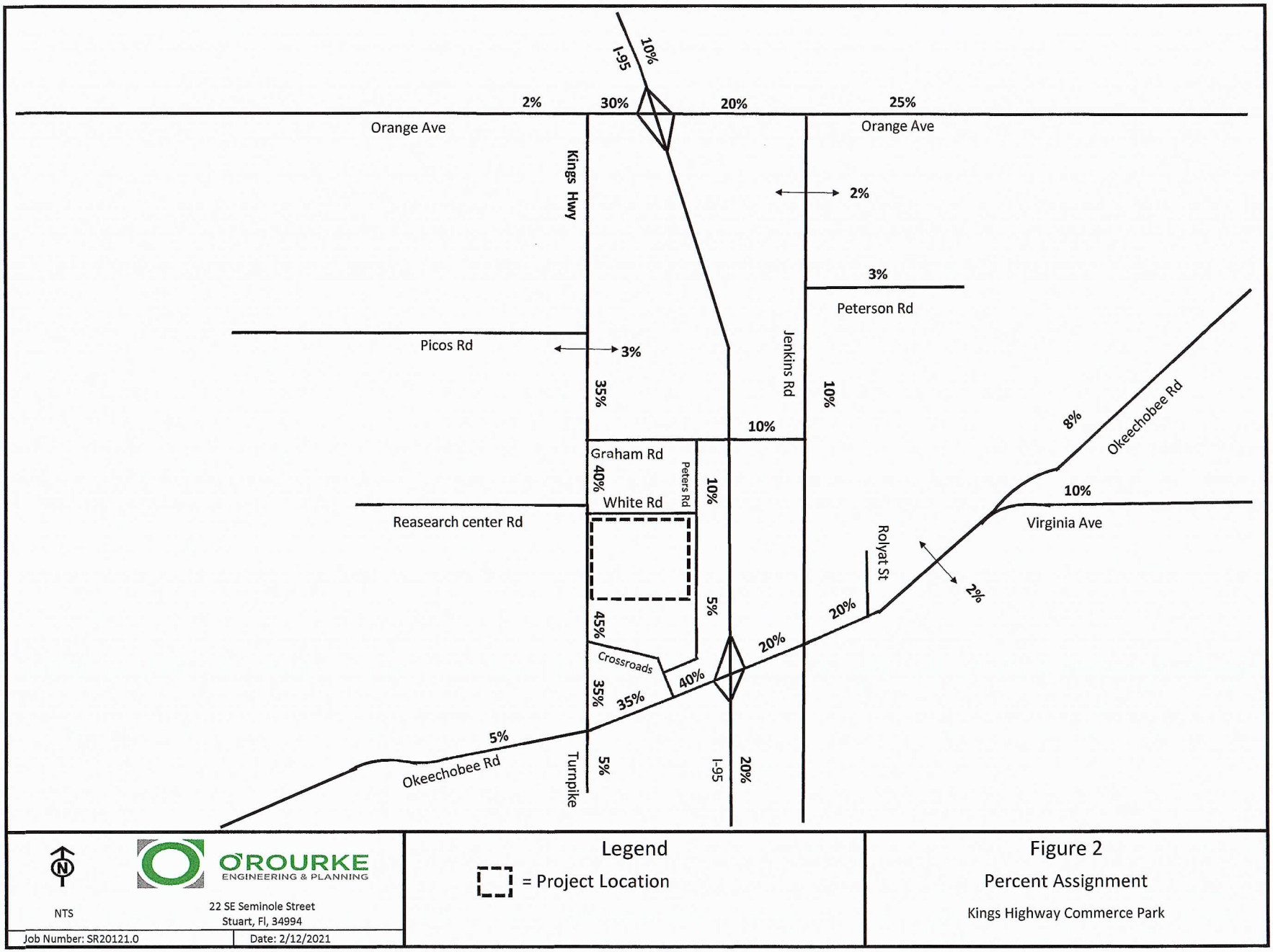

I-95
10%
2%
30%
20%
25%
Orange Ave
Orange Ave
Kings Hwy
2%
3%
Peterson Rd
Picos Rd
3%
35%
Jenkins Rd
10%
10%
Graham Rd
40%
Peters Rd
10%
White Rd
Reasearch center Rd
8%
Okeechobee Rd
10%
Virginia Ave
Rolyat St
2%
20%
5%
45%
20%
Crossroads
40%
35%
35%
5%
Okeechobee Rd
Turnpike
5%
I-95
20%
NTS
O'ROURKE
ENGINEERING & PLANNING
22 SE Seminole Street
Stuart, Fl, 34994
Job Number: SR20121.0
Date: 2/12/2021
Legend
= Project Location
Figure 2
Percent Assignment
Kings Highway Commerce Park

TABLE 2a - Project Percent Impact - AM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)[2]	Peak Hour Service Capacity (E+C)[1]	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment
Peters Rd	Crossroads Pkwy	White Rd	NB	IN	YES	920	18	1.96%	5%
	Crossroads Pkwy	White Rd	SB	OUT	NO	920	5	0.54%	5%
	White Rd	Graham Rd	NB	OUT	NO	920	9	0.98%	10%
	White Rd	Graham Rd	SB	IN	YES	920	36	3.91%	10%
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	NB	IN	YES	1800	163	9.06%	45%
	Okeechobee Rd	Crossroads Pkwy	SB	OUT	NO	1800	41	2.28%	45%
	Crossroads Pkwy	Project Entrance	NB	IN	YES	1800	163	9.06%	45%
	Crossroads Pkwy	Project Entrance	SB	OUT	YES	1800	41	2.28%	45%
	Project Entrance	Graham Rd	NB	OUT	YES	1800	36	2.00%	40%
	Project Entrance	Graham Rd	SB	IN	YES	1800	145	8.06%	40%
	Graham Rd	Picos Rd	NB	OUT	NO	1800	32	1.78%	35%
	Graham Rd	Picos Rd	SB	IN	YES	1800	127	7.06%	35%
	Picos Rd	Orange Ave	NB	OUT	NO	1800	29	1.61%	32%
	Picos Rd	Orange Ave	SB	IN	YES	1800	116	6.44%	32%
Graham Rd	Kings Hwy	Jenkins Rd	EB	OUT	NO	630	9	1.43%	10%
	Kings Hwy	Jenkins Rd	WB	IN	YES	630	36	5.71%	10%
Virginia Ave	Okeechobee Rd	Hartman Rd	EB	OUT	NO	3020	9	0.30%	10%
	Okeechobee Rd	Hartman Rd	WB	IN	NO	3020	36	1.19%	10%
Orange Ave	Jenkins Rd	Hartman Rd	EB	OUT	NO	2000	23	1.15%	25%
	Jenkins Rd	Hartman Rd	WB	IN	YES	2000	91	4.55%	25%
	I-95	Jenkins Rd	EB	IN	YES	2000	72	3.60%	20%
	I-95	Jenkins Rd	WB	OUT	NO	2000	18	0.90%	20%
	Kings Hwy	I - 95	EB	OUT	NO	2000	27	1.35%	30%
	Kings Hwy	I - 95	WB	IN	YES	2000	109	5.45%	30%
	Campbell Rd	Kings Hwy	EB	IN	NO	1070	7	0.65%	2%
	Campbell Rd	Kings Hwy	WB	OUT	NO	1070	2	0.19%	2%
Jenkins Rd	Graham Rd	Peterson Rd	NB	OUT	NO	630	9	1.43%	10%
	Graham Rd	Peterson Rd	SB	IN	YES	630	36	5.71%	10%
	Peterson Rd	Orange Ave	NB	OUT	NO	920	9	0.98%	10%
	Peterson Rd	Orange Ave	SB	IN	YES	920	36	3.91%	10%
Okeechobee Rd	McCarty Rd	Florida Turnpike	EB	IN	NO	1810	18	0.99%	5%
	McCarty Rd	Florida Turnpike	WB	OUT	NO	1810	5	0.28%	5%
	Florida Turnpike	Kings Hwy	EB	IN	NO	2010	18	0.90%	5%
	Florida Turnpike	Kings Hwy	WB	OUT	NO	2010	5	0.25%	5%
	Kings Hwy	I - 95	EB	OUT	NO	4170	36	0.86%	40%
	Kings Hwy	I - 95	WB	IN	YES	4170	145	3.48%	40%
	I - 95	Jenkins Rd	EB	OUT	NO	4240	18	0.42%	20%
	I - 95	Jenkins Rd	WB	IN	NO	4240	72	1.70%	20%
	Jenkins Rd	McNeil Ave	EB	OUT	NO	4040	18	0.45%	20%
	Jenkins Rd	McNeil Ave	WB	IN	NO	4040	72	1.78%	20%
I-95	Midway Rd	Okeechobee Rd	NB	IN	NO	7320	72	0.98%	20%
	Midway Rd	Okeechobee Rd	SB	OUT	NO	7320	18	0.25%	20%
	Orange Ave	Indrio Rd	NB	OUT	NO	7320	9	0.12%	10%
	Orange Ave	Indrio Rd	SB	IN	NO	7320	36	0.49%	10%

(1) FDOT 2020 Service Capacity Tables & St. Lucie TPO

(2) According to the Guidelines prepared by the TPO and modified by the City and County

Two-Way: 452
Net In: 362
Net Out: 90

TABLE 2b - Project Percent Impact - PM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)[2]	Peak Hour Service Capacity (E+C)[1]	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment
Peters Rd	Crossroads Pkwy	White Rd	NB	IN	NO	920	6	0.65%	5%
	Crossroads Pkwy	White Rd	SB	OUT	YES	920	19	2.07%	5%
	White Rd	Graham Rd	NB	OUT	YES	920	37	4.02%	10%
	White Rd	Graham Rd	SB	IN	NO	920	12	1.30%	10%
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	NB	IN	NO	1800	52	2.89%	45%
	Okeechobee Rd	Crossroads Pkwy	SB	OUT	YES	1800	167	9.28%	45%
	Crossroads Pkwy	Project Entrance	NB	IN	YES	1800	52	2.89%	45%
	Crossroads Pkwy	Project Entrance	SB	OUT	YES	1800	167	9.28%	45%
	Project Entrance	Graham Rd	NB	OUT	YES	1800	148	8.22%	40%
	Project Entrance	Graham Rd	SB	IN	YES	1800	46	2.56%	40%
	Graham Rd	Picos Rd	NB	OUT	YES	1800	130	7.22%	35%
	Graham Rd	Picos Rd	SB	IN	NO	1800	40	2.22%	35%
	Picos Rd	Orange Ave	NB	OUT	YES	1800	119	6.61%	32%
	Picos Rd	Orange Ave	SB	IN	NO	1800	37	2.06%	32%
Graham Rd	Kings Hwy	Jenkins Rd	EB	OUT	YES	630	37	5.87%	10%
	Kings Hwy	Jenkins Rd	WB	IN	NO	630	12	1.90%	10%
Virginia Ave	Okeechobee Rd	Hartman Rd	EB	OUT	NO	3020	37	1.23%	10%
	Okeechobee Rd	Hartman Rd	WB	IN	NO	3020	12	0.40%	10%
Orange Ave	Jenkins Rd	Hartman Rd	EB	OUT	YES	2000	93	4.65%	25%
	Jenkins Rd	Hartman Rd	WB	IN	NO	2000	29	1.45%	25%
	I-95	Jenkins Rd	EB	OUT	YES	2000	74	3.70%	20%
	I-95	Jenkins Rd	WB	IN	NO	2000	23	1.15%	20%
	Kings Hwy	I - 95	EB	OUT	YES	2000	111	5.55%	30%
	Kings Hwy	I - 95	WB	IN	NO	2000	35	1.75%	30%
	Campbell Rd	Kings Hwy	EB	IN	NO	1070	2	0.19%	2%
	Campbell Rd	Kings Hwy	WB	OUT	NO	1070	7	0.65%	2%
Jenkins Rd	Graham Rd	Peterson Rd	NB	OUT	YES	630	37	5.87%	10%
	Graham Rd	Peterson Rd	SB	IN	NO	630	12	1.90%	10%
	Peterson Rd	Orange Ave	NB	OUT	YES	920	37	4.02%	10%
	Peterson Rd	Orange Ave	SB	IN	NO	920	12	1.30%	10%
Okeechobee Rd	McCarty Rd	Florida Turnpike	EB	IN	NO	1810	6	0.33%	5%
	McCarty Rd	Florida Turnpike	WB	OUT	NO	1810	19	1.05%	5%
	Florida Turnpike	Kings Hwy	EB	IN	NO	2010	6	0.30%	5%
	Florida Turnpike	Kings Hwy	WB	OUT	NO	2010	19	0.95%	5%
	Kings Hwy	I - 95	EB	OUT	YES	4170	148	3.55%	40%
	Kings Hwy	I - 95	WB	IN	NO	4170	46	1.10%	40%
	I - 95	Jenkins Rd	EB	OUT	NO	4240	74	1.75%	20%
	I - 95	Jenkins Rd	WB	IN	NO	4240	23	0.54%	20%
	Jenkins Rd	Virginia Ave	EB	OUT	NO	4040	74	1.83%	20%
	Jenkins Rd	Virginia Ave	WB	IN	NO	4040	23	0.57%	20%
I-95	Midway Rd	Okeechobee Rd	NB	IN	NO	7320	23	0.31%	20%
	Midway Rd	Okeechobee Rd	SB	OUT	NO	7320	74	1.01%	20%
	Orange Ave	Indrio Rd	NB	OUT	NO	7320	37	0.51%	10%
	Orange Ave	Indrio Rd	SB	IN	NO	7320	12	0.16%	10%

(1) FDOT 2020 Service Capacity Tables & St. Lucie TPO

(2) According to the Guidelines prepared by the TPO and modified by the City and County

Two-Way: 486
Net In: 115
Net Out: 371

TABLE 3a - Link Analysis - AM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	AADT 2017	D Factor	2017 Peak Hour Directional Volumes	Growth Rate (2)	2023 AM Peak Hour + Growth	AM Peak Hour Committed Projects Directional	2023 Growth + Committed Peak Direction	Peak Hour Service Capacity (1)	Project Volume Peak Direction	Total Traffic (Peak Direction)	% Project of Capacity- Peak Hour	Does Project Satisfy Concurrency?	Project Percent Assignment
Peters Rd	Crossroads Pkwy	White Rd	NB	IN	YES	2000 (4)	0.562	100 (4)	2.25%	107	23	130	920	18	148	1.96%	YES	5%
	White Rd	Graham Rd	SB	IN	YES	2000 (4)	0.438	78 (4)	2.25%	83	13	96	920	36	132	3.91%	YES	10%
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	NB	IN	YES	8234	0.562	361	2.25%	413	38	451	1800	163	614	9.06%	YES	45%
	Crossroads Pkwy	Project Entrance	NB	IN	YES	8234	0.562	361	2.25%	413	38	451	1800	163	614	9.06%	YES	45%
	Crossroads Pkwy	Project Entrance	SB	OUT	YES	8324	0.438	281	2.25%	321	14	335	1800	41	376	2.28%	YES	45%
	Project Entrance	Graham Rd	NB	OUT	YES	8234	0.562	361	2.25%	413	38	451	1800	36	487	2.00%	YES	40%
	Project Entrance	Graham Rd	SB	IN	YES	8234	0.438	281	2.25%	321	14	335	1800	145	480	8.06%	YES	40%
	Graham Rd	Picos Rd	SB	IN	YES	8216	0.438	315	2.25%	360	14	374	1800	127	501	7.06%	YES	35%
	Picos Rd	Orange Ave	SB	IN	YES	8216	0.438	315	2.25%	360	45	405	1800	116	521	6.44%	YES	32%
Graham Rd	Kings Hwy	Jenkins Rd	WB	OUT	YES	3733	0.509	255	2.25%	291	0	291	630	9	300	1.43%	YES	10%
Orange Ave	Jenkins Rd	Hartman Rd	WB	IN	YES	14189	0.509	764	2.25%	873	68	941	2000	91	1032	4.55%	YES	25%
	I-95	Jenkins Rd	EB	IN	YES	14009	0.491	737	2.25%	842	145	987	2000	72	1059	3.60%	YES	20%
	Kings Hwy	I - 95	WB	IN	YES	18112	0.562	780	2.25%	891	144	1035	2000	109	1144	5.45%	YES	30%
Jenkins Rd	Graham Rd	Peterson Rd	SB	IN	YES	10500 (3)	0.509	593 (3)	2.25%	634	101	735	630	36	771	5.71%	YES (5)	10%
	Peterson Rd	Orange Ave	SB	IN	YES	10500 (3)	0.509	593 (3)	2.25%	634	123	757	920	36	793	3.91%	YES	10%
Okeechobee Rd	Kings Hwy	I - 95	WB	OUT	YES	24585	0.562	1063	2.25%	1215	33	1248	4170	145	1393	3.48%	YES	40%

(1) St. Lucie County 2019/2020 Traffic Counts and LOS Report
(2) Area wide growth rate calculated from FDOT Historical AADT
(3) 2020 Count
(4) Estimated Existing 2020 Traffic
(5) Detailed Analysis used to demonstrate Concurrency

Two-Way:	452
Net In:	362
Net Out:	90
Years Grown:	6

TABLE 3b - Link Analysis - PM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	AADT 2017	D Factor	2017 Peak Hour Directional Volumes	Growth Rate (2)	2023 PM Peak Hour + Growth	PM Peak Hour Committed Projects Directional	2023 Growth + Committed Peak Direction	Peak Hour Service Capacity (1)	Project Volume Peak Direction	Total Traffic (Peak Direction)	% Project of Capacity- Peak Hour	Does Project Satisfy Concurrency?	Project Percent Assignment
Peters Rd	Crossroads Pkwy	White Rd	SB	OUT	YES	2000 (4)	0.562	100 (4)	2.25%	107	24	131	920	19	150	2.07%	YES	5%
	White Rd	Graham Rd	NB	OUT	YES	2000 (4)	0.438	78 (4)	2.25%	83	13	96	920	37	133	4.02%	YES	10%
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	SB	OUT	YES	8234	0.562	369	2.25%	422	43	465	1800	167	632	9.28%	YES	45%
	Crossroads Pkwy	Project Entrance	NB	IN	YES	8234	0.438	288	2.25%	329	38	367	1800	52	419	2.89%	YES	45%
	Crossroads Pkwy	Project Entrance	SB	OUT	YES	8234	0.562	369	2.25%	422	43	465	1800	167	632	9.28%	YES	45%
	Project Entrance	Graham Rd	NB	OUT	YES	8234	0.438	288	2.25%	329	38	367	1800	148	515	8.22%	YES	40%
	Project Entrance	Graham Rd	SB	IN	YES	8234	0.562	369	2.25%	422	43	465	1800	46	511	2.56%	YES	40%
	Graham Rd	Picos Rd	NB	OUT	YES	8216	0.438	303	2.25%	346	38	384	1800	130	514	7.22%	YES	35%
	Picos Rd	Orange Ave	NB	OUT	YES	8216	0.438	303	2.25%	346	114	460	1800	119	579	6.61%	YES	32%
Graham Rd	Kings Hwy	Jenkins Rd	EB	IN	YES	3733	0.509	243	2.25%	278	0	278	630	37	315	5.87%	YES	10%
Orange Ave	Jenkins Rd	Hartman Rd	EB	OUT	YES	14189	0.509	710	2.25%	811	79	890	2000	93	983	4.65%	YES	25%
	I-95	Jenkins Rd	EB	OUT	YES	14009	0.509	905	2.25%	1034	163	1197	2000	74	1271	3.70%	YES	20%
	Kings Hwy	I - 95	EB	OUT	YES	18112	0.562	786	2.25%	898	96	994	2000	111	1105	5.55%	YES	30%
Jenkins Rd	Graham Rd	Peterson Rd	NB	OUT	YES	10500 (3)	0.509	569 (3)	2.25%	608	96	704	630	37	741	5.87%	YES (5)	10%
	Peterson Rd	Orange Ave	NB	OUT	YES	10500 (3)	0.509	569 (3)	2.25%	608	177	785	920	37	822	4.02%	YES	10%
Okeechobee Rd	Kings Hwy	I - 95	EB	IN	YES	24585	0.562	1086	2.25%	1241	51	1292	4170	148	1440	3.55%	YES	40%

(1) St. Lucie County 2019 Traffic Counts and LOS Report
(2) Area wide growth rate calculated from FDOT Historical AADT
(3) 2020 Count
(4) Estimated Existing 2020 Traffic
(5) Detailed Analysis used to demonstrate Concurrency

Two-Way:	486
Net In:	115
Net Out:	371
Years Grown:	6

DRIVEWAY ANALYSIS

The project will have a total of 5 driveways. Driveway 1 will be a directional access driveway on Kings Highway with right-in/left-in/right-out access. Driveways 2, 3, and 4 will be full access driveways located on White Road. Driveway 5 will be a full access driveway located on Peters Road. **Figure 3** shows the driveway volumes for the AM and PM peak hours. These driveways were analyzed using HCS. The analysis shows all 5 driveways will operate at an acceptable level of service at project buildout.

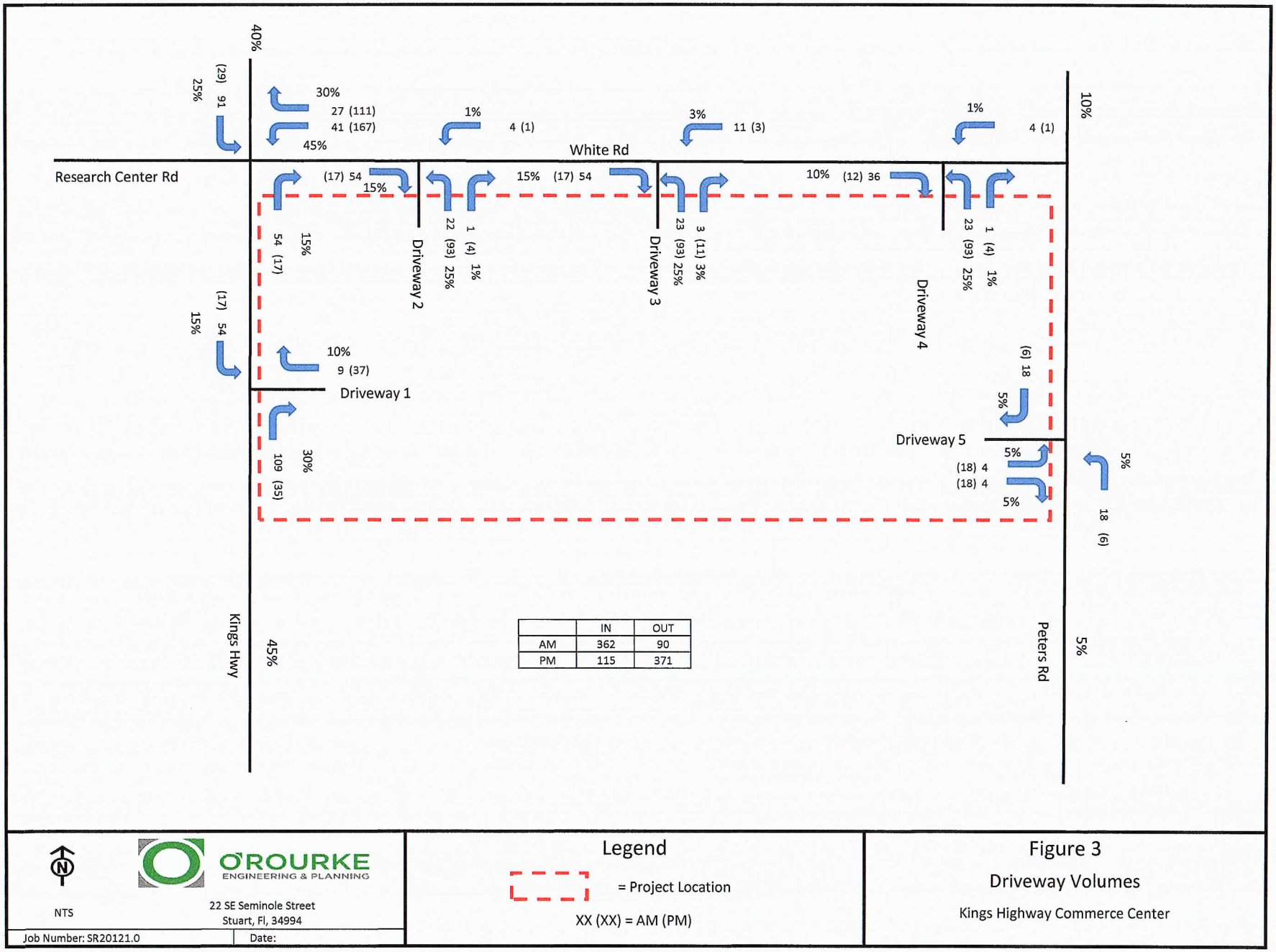
Table 4 summarizes the results. The driveway analysis is shown in **Appendix F.**

Table 4: Intersection Analysis Results

Intersection	2023 with Project			
	AM		PM	
	Delay (s)	LOS	Delay (s)	LOS
Kings Highway & White Road	EB - 14.4 WB - 16.4	EB - B WB - C	EB - 13.8 WB - 28.6	EB - B WB - D
Kings Highway & Driveway 1	10.1	B	10.1	B
White Road & Driveway 2	9.6	A	10.6	B
White Road & Driveway 3	9.2	A	9.7	A
White Road & Driveway 4	8.9	A	9.1	A
Peters Road & Driveway 5	9.6	A	9.6	A

CONCLUSION

With 452 net new AM peak hour trips and 486 net new PM peak hour trips, all links and intersections operate at acceptable levels of service with the existing roadway network. Therefore, the project meets the requirements for concurrency.



NTS

O'ROURKE ENGINEERING & PLANNING

22 SE Seminole Street
Stuart, Fl, 34994

Job Number: SR20121.0

Date:

Legend

= Project Location

XX (XX) = AM (PM)

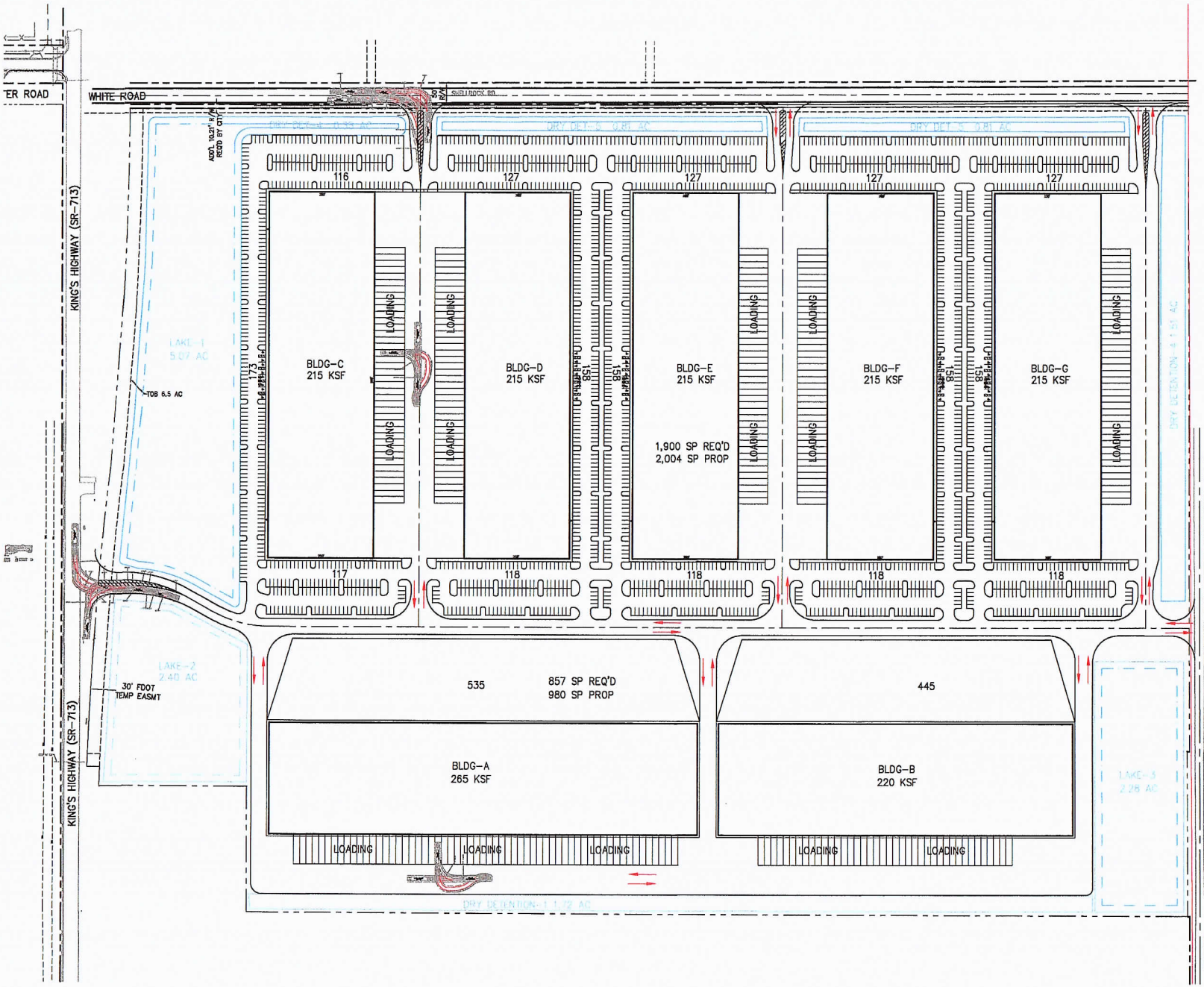
Figure 3

Driveway Volumes

Kings Highway Commerce Center

APPENDIX A

SITE PLAN



AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

100' 0 50' 100' 200'

SCALE: 1" = 100'

LOT AREA 108 AC
BLDG AREA 1,560,000 SF
WAREHOUSE 1,460,000 SF
OFFICE 100,000 SF
PARKING REQ'D 2,767 SP
PROP 2,984 SP

Jeff H. Iravani, Inc.
Consulting Engineers
1934 COMMERCE LANE, SUITE 5
JUPITER, FLORIDA 33458
TEL: (561) 575-6030
FAX: (561) 575-6088
JHI@bellsouth.net

Kings Highway Development Partners, LLC
Fort Pierce, Florida

CONCEPTUAL SITE PLAN

DATE 07-13-2006
SCALE 1" = 100'
DESIGNED BY JHI
DRAWN BY JLT

SEAL

JOB NO. 0605-939
SHEET NO. CSP-2

APPENDIX B

ST. LUCIE COUNTY 2019/2020 LEVEL OF SERVICE REPORT
&
FDOT 2020 QUALITY LEVEL OF SERVICE

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
GEORGIA AVE	OKEECHOBEE RD to 17TH ST	667	4,700	2020	750	290	C	0.784	262	C	0.708
GEORGIA AVE	17TH ST to 13TH ST	508	4,733	2019	600	264	C	0.880	268	C	0.893
GEORGIA AVE	13TH ST to 7TH ST	506	2,169	2019	600	134	C	0.447	137	C	0.457
GEORGIA AVE	7TH ST to US 1	504	1,938	2019	600	122	C	0.407	135	C	0.450
GILSON RD	MARTIN C.L. to BECKER RD	111	11,000	2019	710	949	F	1.249	954	F	1.255
GILSON RD	BECKER RD to LAKERIDGE DR	111	11,000	2019	540	949	F	1.636	954	F	1.645
GLADES CUT-OFF RD	RANGE LINE RD to RESERVE BLVD	668	2,833	2017	1,070	200	B	0.526	252	B	0.663
GLADES CUT-OFF RD	RESERVE BLVD to COMMERCE CENTER DR	119	3,585	2016	1,070	332	B	0.874	332	B	0.874
GLADES CUT-OFF RD	CARLTON RD to RANGE LINE RD	668	2,833	2017	390	200	B	0.909	252	C	0.646
GLADES CUT-OFF RD	COMMERCE CENTER DR to MIDWAY RD	940279	2,770	2017	920	210	C	0.241	192	C	0.221
GLADES CUT-OFF RD	MIDWAY RD to JENKINS RD	115	12,500	2020	790	669	D	0.847	687	D	0.870
GLADES CUT-OFF RD	JENKINS RD to SELVITZ RD	113	6,600	2020	830	370	C	0.474	385	C	0.494
GRAHAM RD	KINGS HWY to JENKINS RD	669	3,733	2017	630	255	C	0.425	243	C	0.405
GREEN RIVER PKWY	MARTIN C.L. to CHARLESTON DR	319	4,759	2018	1,070	337	B	0.887	332	B	0.874
GREEN RIVER PKWY	CHARLESTON DR to MELALEUCA BLVD	319	4,759	2018	1,070	337	B	0.887	332	B	0.874
GREEN RIVER PKWY	MELALEUCA BLVD to WALTON RD	319	4,759	2018	1,070	337	B	0.887	332	B	0.874
HARTMAN RD	OKEECHOBEE RD to PETERSON RD	670	5,867	2017	750	388	D	0.517	357	C	0.965
HARTMAN RD	PETERSON RD to DELAWARE AVE	670	5,867	2017	540	388	D	0.719	357	D	0.661
HARTMAN RD	DELAWARE AVE to ORANGE AVE	670	5,867	2017	790	388	C	0.995	357	C	0.915
HEADER CANAL RD	OKEECHOBEE RD to ORANGE AVE	121	560	2019	670	46	B	0.209	56	B	0.255
HILLMOOR DR	US 1 to LENNARD RD	671	5,900	2019	790	306	C	0.785	389	C	0.997
I-95	GATLIN BLVD to ST LUCIE WEST BLVD	941901	79,065	2017	4,580	4,048	C	0.884	3,657	C	0.798
I-95	ST LUCIE WEST BLVD to MIDWAY RD	941904	63,486	2017	4,580	3,571	C	0.780	3,079	B	0.916
I-95	MIDWAY RD to OKEECHOBEE RD	941902	75,846	2017	4,580	4,578	C	10	3,717	C	0.812
I-95	OKEECHOBEE RD to ORANGE AVE	941903	45,500	2009	7,320	1,822	B	0.405	1,894	B	0.421

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Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
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I-95	ORANGE AVE to INDRIO RD	941905	43,452	2017	7,320	2,090	B	0.464	1,924	B	0.428
INDIAN RIVER DR	CITRUS AVE to ORANGE AVE	945029	5,228	2017	750	311	C	0.841	356	C	0.962
INDIAN RIVER DR	ORANGE AVE to AVENUE A	940003	5,888	2017	750	344	C	0.930	335	C	0.905
INDIAN RIVER DR	AVENUE D to SEAWAY DR	940004	5,971	2017	790	349	C	0.895	411	D	0.520
INDIAN RIVER DR	AVENUE A to AVENUE D	940004	5,971	2017	540	349	D	0.646	411	D	0.761
INDRIO RD	PRIVATE RD to I-95 W RAMP	940128	951	2017	1,080	69	B	0.168	75	B	0.183
INDRIO RD	I-95 W RAMP to I-95 E RAMP	940128	951	2017	3,240	69	B	0.038	75	B	0.041
INDRIO RD	I-95 E RAMP to KOBLEGARD RD	940038	10,455	2017	3,240	598	B	0.330	629	B	0.348
INDRIO RD	KOBLEGARD RD to JOHNSTON RD	940038	10,455	2017	700	598	C	0.906	629	C	0.953
INDRIO RD	JOHNSTON RD to EMERSON AVE	940038	10,455	2017	880	598	C	0.720	629	C	0.758
INDRIO RD	EMERSON RD to SEMINOLE RD	940281	9,876	2017	920	595	C	0.684	501	C	0.576
INDRIO RD	SEMINOLE RD to KINGS HWY	940281	9,876	2017	790	595	D	0.753	501	D	0.634
INDRIO RD	KINGS HWY to SLASH PINE TRL	114	6,600	2020	790	422	D	0.534	413	D	0.523
INDRIO RD	SLASH PINE TRL to US 1	114	6,600	2020	920	422	C	0.485	413	C	0.475
INDRIO RD	US 1 to OLD DIXIE HWY	672	917	2016	750	64	C	0.173	86	C	0.232
JENNINGS RD	US 1 to LENNARD RD	673	4,600	2016	2,100	304	C	0.151	248	C	0.123
JENKINS RD	EDWARDS RD to OKEECHOBEE RD	133	10,500	2020	880	549	C	0.661	553	C	0.666
JENKINS RD	OKEECHOBEE RD to GRAHAM RD	131	10,500	2020	920	593	C	0.682	569	C	0.654
JENKINS RD	GRAHAM RD to PETERSON RD	131	10,500	2020	630	593	C	0.988	569	C	0.948
JENKINS RD	PETERSON RD to ORANGE AVE	131	10,500	2020	920	593	C	0.682	569	C	0.654
JOHNSTON RD	ANGLE RD to L20	674	2,600	2016	1,070	176	B	0.463	171	B	0.450
JOHNSTON RD	L20 to MEADOWOOD DR	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	MEADOWOOD DR to OLD JOHNSTON RD	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	OLD JOHNSTON RD to INDRIO RD	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	INDRIO RD to RUSSOS RD	135	9,600	2020	1,070	544	C	0.716	545	C	0.717

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JOHNSTON RD	RUSSOS RD to INDIAN RIVER C.L.	135	9,600	2020	1,070	544	C	0.716	545	C	0.717
JUANITA AVE	53RD ST to 25TH ST	122	2,432	2017	750	157	C	0.424	143	C	0.386
JUANITA AVE	25TH ST to US 1	120	3,321	2017	750	185	C	0.500	182	C	0.492
KEEN RD	ANGLE RD to JUANITA AVE	129	2,885	2019	630	174	C	0.290	203	C	0.338
KEEN RD	JUANITA AVE to ST LUCIE BLVD	129	2,885	2019	630	174	C	0.290	203	C	0.338
KINGS HWY	OKEECHOBEE RD to CROSSROADS PKWY	940757	8,234	2017	830	361	C	0.435	369	C	0.445
KINGS HWY	CROSSROADS PKWY to GRAHAM RD	940757	8,234	2017	660	361	C	0.547	369	C	0.559
KINGS HWY	GRAHAM RD to PICOS RD	940076	8,216	2017	660	405	C	0.614	389	C	0.589
KINGS HWY	PICOS RD to ORANGE AVE	940076	8,216	2017	830	405	C	0.488	389	C	0.469
KINGS HWY	ORANGE AVE to ANGLE RD	940077	16,792	2017	870	885	D	0.962	890	D	0.967
KINGS HWY	ANGLE RD to ST LUCIE BLVD	940751	11,394	2017	830	627	C	0.755	630	C	0.759
KINGS HWY	ST LUCIE BLVD to INDRIO RD	940006	13,481	2017	830	836	D	0.950	786	C	0.947
KITTERMAN RD	OLEANDER AVE to US 1	124	3,402	2018	750	224	C	0.605	203	C	0.549
KITTERMAN RD	US 1 to LENNARD EXT	678	2,250	2017	750	128	C	0.346	130	C	0.351
KIRBY LOOP RD	EDWARDS RD to 35TH ST	677	4,479	2016	630	296	C	0.493	362	C	0.603
LENNARD RD	US 1 to MARIPOSA AVE	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	MARIPOSA AVE to MELALEUCA BLVD	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	MELALEUCA BLVD to JENNINGS RD	325	18,500	2019	1,630	953	D	0.585	984	D	0.604
LENNARD RD	JENNINGS RD to HILLMOOR DR	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	HILLMOOR DR to TIFFANY AVE	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	TIFFANY AVE to WALTON RD	323	5,765	2016	1,710	301	C	0.391	305	C	0.396
LENNARD RD	WALTON RD to S OF SAVANNA CLUB BLVD	679	4,455	2016	790	390	C	10	381	C	0.977
LYNGATE DR	VETERANS MEMORIAL PKWY to MORNINGSIDE BLVD	306	9,400	2020	920	588	C	0.676	626	C	0.720
LYNGATE DR	MORNINGSIDE BLVD to US 1	306	9,400	2020	920	588	C	0.676	626	C	0.720
MARIPOSA AVE	LENNARD RD to HALLAHAN ST	166	6,400	2019	880	485	C	0.584	686	C	0.827

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OHIO AVE	SUNRISE BLVD to COLONIAL RD	686	4,250	2017	540	252	C	0.933	246	C	0.911
OHIO AVE	COLONIAL RD to US 1	686	4,250	2017	750	252	C	0.681	246	C	0.665
OKEECHOBEE RD	OKEECHOBEE C.L. to BLUEFIELD RD	687	10,500	2020	1,010	540	B	0.535	528	B	0.523
OKEECHOBEE RD	BLUEFIELD RD to CARLTON RD	687	10,500	2020	1,270	540	B	0.425	528	B	0.416
OKEECHOBEE RD	CARLTON RD to SNEED RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	IDEAL HOLDING RD to HEADER CANAL RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	SNEED RD to IDEAL HOLDING RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	HEADER CANAL RD to MIDWAY RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	MIDWAY RD to SHINN RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	SHINN RD to MCCARTY RD	940195	6,025	2017	1,810	327	B	0.181	327	B	0.181
OKEECHOBEE RD	MCCARTY RD to FLORIDA'S TURNPIKE	940025	7,551	2017	1,810	378	B	0.209	391	B	0.216
OKEECHOBEE RD	FLORIDA'S TURNPIKE to KINGS HWY	940025	7,551	2017	2,010	378	C	0.188	391	C	0.195
OKEECHOBEE RD	KINGS HWY to CROSSROADS PKWY	940748	21,250	2017	4,170	960	C	0.230	1,013	C	0.243
OKEECHOBEE RD	CROSSROADS PKWY to I-95	940106	24,585	2017	4,170	1,063	C	0.255	1,086	C	0.260
OKEECHOBEE RD	I-95 to JENKINS RD	940029	30,244	2017	4,240	1,976	C	0.474	1,709	C	0.410
OKEECHOBEE RD	JENKINS RD to MCNEIL RD	940029	30,244	2017	4,040	1,976	C	0.498	1,709	C	0.430
OKEECHOBEE RD	MCNEIL RD to VIRGINIA AVE	940742	28,870	2017	3,170	1,580	C	0.511	1,649	C	0.534
OKEECHOBEE RD	VIRGINIA AVE to HARTMAN RD	688	12,500	2020	2,100	687	C	0.342	727	C	0.362
OKEECHOBEE RD	HARTMAN RD to 35TH ST	688	12,500	2020	1,630	687	C	0.941	727	C	0.996
OKEECHOBEE RD	35TH ST to 33RD ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	33RD ST to 25TH ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	25TH ST to GEORGIA AVE	690	13,500	2020	1,630	777	D	0.477	738	D	0.453
OKEECHOBEE RD	GEORGIA AVE to DELAWARE AVE	690	13,500	2020	1,710	777	D	0.454	738	C	0.958
OLD DIXIE HWY	US 1 to SR A1A NORTH	691	5,150	2017	790	400	D	0.506	363	C	0.931
OLD DIXIE HWY	SR A1A NORTH to ST LUCIE BLVD	948521	1,383	2017	750	65	C	0.176	65	C	0.176

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OLD DIXIE HWY	ST LUCIE BLVD to INDRIO RD	227	2,041	2016	790	150	C	0.385	116	C	0.297
OLD DIXIE HWY	INDRIO RD to INDIAN RIVER C.L.	948523	1,227	2017	870	57	C	0.069	57	C	0.069
OLEANDER AVE	BEACH AVE to KITTERMAN RD	692	2,900	2017	540	175	C	0.648	193	C	0.715
OLEANDER AVE	KITTERMAN RD to MIDWAY RD	141	6,498	2017	750	406	D	0.541	426	D	0.568
OLEANDER AVE	MIDWAY RD to WEATHERBEE RD	139	7,100	2020	750	388	D	0.517	421	D	0.561
OLEANDER AVE	WEATHERBEE RD to BELL AVE	139	7,100	2020	540	388	D	0.719	421	D	0.780
OLEANDER AVE	BELL AVE to FARMER'S MARKET RD	240	12,500	2020	540	671	F	1.157	647	F	1.116
OLEANDER AVE	FARMER'S MARKET RD to EDWARDS RD	240	12,500	2020	750	671	D	0.895	647	D	0.863
OLEANDER AVE	EDWARDS RD to WISTERIA AVE	505	10,000	2020	750	611	D	0.815	554	D	0.739
OLEANDER AVE	WISTERIA AVE to GARDENIA AVE	505	10,000	2020	540	611	F	1.053	554	E	0.955
OLEANDER AVE	GARDENIA AVE to VIRGINIA AVE	505	10,000	2020	790	611	D	0.773	554	D	0.701
OLEANDER AVE	VIRGINIA AVE to SUNRISE BLVD	503	4,561	2019	600	259	C	0.863	270	C	0.900
ORANGE AVE	OKEECHOBEE C.L. to SNEED RD	144	4,780	2019	390	300	C	0.769	293	C	0.751
ORANGE AVE	SNEED RD to HEADER CANAL RD	144	4,780	2019	390	300	C	0.769	293	C	0.751
ORANGE AVE	SHINN RD to CAMPBELL RD	940144	2,722	2017	380	149	B	0.355	149	B	0.355
ORANGE AVE	CAMPBELL RD to KINGS HWY	940144	2,722	2017	1,070	149	B	0.355	149	B	0.355
ORANGE AVE	KINGS HWY to I-95	940041	18,112	2017	2,000	780	C	0.388	786	C	0.391
ORANGE AVE	I-95 to JENKINS RD	940035	14,009	2017	2,000	962	C	0.479	905	C	0.450
ORANGE AVE	JENKINS RD to HARTMAN RD	940028	14,189	2017	2,000	764	C	0.380	710	C	0.353
ORANGE AVE	HARTMAN RD to ANGLE RD	940028	14,189	2017	2,000	764	C	0.380	710	C	0.353
ORANGE AVE	ANGLE RD to 25TH ST	940151	10,749	2013	1,710	847	D	0.495	985	D	0.576
ORANGE AVE	25TH ST to 17TH ST	945040	13,196	2017	1,630	690	C	0.945	757	D	0.464
ORANGE AVE	17TH ST to 13TH ST	945040	13,196	2017	1,710	690	C	0.896	757	C	0.983
ORANGE AVE	13TH ST to 10TH ST	945040	13,196	2017	370	690	D	0.920	757	E	0.946
ORANGE AVE	10TH ST to 7TH ST	940155	8,760	2017	300	443	D	0.738	509	D	0.848

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US 1	AVENUE H to OLD DIXIE HWY	715	33,500	2020	2,000	1,766	C	0.925	1,742	C	0.912
US 1	OLD DIXIE HWY to AVENUE O	940123	22,051	2017	2,000	1,530	C	0.801	1,196	C	0.626
US 1	AVENUE O to SR A1A NORTH	940123	22,051	2017	2,100	1,530	C	0.761	1,196	C	0.595
US 1	SR A1A NORTH to JUANITA AVE	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	JUANITA AVE to ST LUCIE BLVD	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	ST LUCIE BLVD to 25TH ST	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	25TH ST to INDRIO RD	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	INDRIO RD to TURNPIKE FEEDER RD	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
US 1	TURNPIKE FEEDER RD to INDIAN RIVER C.L.	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
VETERANS MEMORIAL PKWY	PORT ST LUCIE BLVD to LYNGATE DR	329	14,500	2019	2,100	779	C	0.388	817	C	0.406
VETERANS MEMORIAL PKWY	LYNGATE DR to US 1	327	14,911	2017	2,100	756	C	0.376	804	C	0.400
VILLAGE GREEN DR	US 1 to WALTON RD	716	9,600	2017	2,100	619	C	0.308	575	C	0.286
VILLAGE GREEN DR	WALTON RD to TIFFANY AVE	717	4,633	2017	920	249	C	0.286	235	C	0.270
VIRGINIA AVE	35TH ST to 25TH ST	940032	21,557	2017	3,020	1,111	C	0.378	1,083	C	0.368
VIRGINIA AVE	OKEECHOBEE RD to HARTMAN RD	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	HARTMAN RD to 35TH ST	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	25TH ST to 13TH ST	940033	20,913	2017	3,020	1,093	C	0.372	1,164	C	0.396
VIRGINIA AVE	13TH ST to 11TH ST	940794	22,873	2017	3,020	1,101	C	0.374	1,101	C	0.374
VIRGINIA AVE	11TH ST to SUNRISE BLVD	940794	22,873	2017	3,170	1,101	C	0.356	1,101	C	0.356
VIRGINIA AVE	SUNRISE BLVD to OLEANDER AVE	940792	19,519	2017	3,020	1,063	C	0.362	992	C	0.337
VIRGINIA AVE	OLEANDER AVE to COLONIAL RD	940034	18,483	2017	3,170	1,043	C	0.338	1,020	C	0.330
VIRGINIA AVE	COLONIAL RD to US 1	940034	18,483	2017	3,020	1,043	C	0.355	1,020	C	0.347
VILLAGE PKWY	DISCOVERY WAY to TRADITION PKWY	718	14,000	2019	2,650	732	C	0.595	797	C	0.648
VILLAGE PKWY	BECKER RD to DISCOVERY WAY	718	14,000	2019	1,710	732	C	0.951	797	D	0.466
VILLAGE PKWY	TRADITION PKWY to WESTCLIFFE LN	719	23,000	2019	1,710	1,208	D	0.706	1,265	D	0.740

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* Volumes shown were adjusted using FDOT Seasonal Factors

* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)

*** Counts with an ID format of 6 digits have data extracted from FDOT count stations.**

TABLE 7 Generalized **Peak Hour Directional** Volumes for Florida's Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding directional volumes in this table by 1.2

BICYCLE MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

PEDESTRIAN MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
2	2,230	3,100	3,740	4,080
3	3,280	4,570	5,620	6,130
4	4,310	6,030	7,490	8,170
5	5,390	7,430	9,370	10,220
6	6,380	8,990	11,510	12,760

Urbanized

Lanes	B	C	D	E
2	2,270	3,100	3,890	4,230
3	3,410	4,650	5,780	6,340
4	4,550	6,200	7,680	8,460
5	5,690	7,760	9,520	10,570

Freeway Adjustments

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	580	890	1,200	1,610
2	Divided	1,800	2,600	3,280	3,730
3	Divided	2,700	3,900	4,920	5,600

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
1	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1]Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/

APPENDIX C

OTHER PROJECT DATA/GROWTH RATE

AM APPROVED PROJECTS

| Road Name | From | To | Creekside % | Creekside Daily | Creekside Two-Way Trips | Creekside In or Out | Creekside In/Out % | Creekside Directional In/Out | Creekside Directional S/W | Palm Beaches Club % | Palm Beaches Club Daily | Palm Beaches Club Two-Way Trips | Palm Beaches Club In/Out % or Out | Palm Beaches Club Directional In/Out | Palm Beaches Club Directional S/W | RDA % | RDA Daily | RDA Two-Way Trips | RDA Directional In/Out | RDA Directional S/W | 10 Acre Residential Development % | 10 Acre Residential Development Daily | 10 Acre Residential Development Two-Way Trips | 10 Acre Residential Development Directional In/Out | 10 Acre Residential Development Directional S/W | 10 Village of Samoset Sales St. Lucie County % | 10 Village of Samoset Sales St. Lucie County Daily | 10 Village of Samoset Sales St. Lucie County Two-Way Trips | 10 Village of Samoset Sales St. Lucie County Directional In/Out | 10 Village of Samoset Sales St. Lucie County Directional S/W | Mariner Cove Ft. Pierce % | Mariner Cove Ft. Pierce Daily | Mariner Cove Ft. Pierce Two-Way Trips | Mariner Cove Ft. Pierce Directional In/Out | Mariner Cove Ft. Pierce Directional S/W | 61 Boat Creek @ 30% Complete City of Fort Pierce % | 61 Boat Creek @ 30% Complete City of Fort Pierce Daily | 61 Boat Creek @ 30% Complete City of Fort Pierce Two-Way Trips | 61 Boat Creek @ 30% Complete City of Fort Pierce Directional In/Out | 61 Boat Creek @ 30% Complete City of Fort Pierce Directional S/W | 64 Celebration Pointe @15% Complete City of Fort Pierce % | 64 Celebration Pointe @15% Complete City of Fort Pierce Daily | 64 Celebration Pointe @15% Complete City of Fort Pierce Two-Way Trips | 64 Celebration Pointe @15% Complete City of Fort Pierce Directional In/Out | 64 Celebration Pointe @15% Complete City of Fort Pierce Directional S/W | 17 Wilderness Oaks % | 17 Wilderness Oaks Daily | 17 Wilderness Oaks Two-Way Trips | 17 Wilderness Oaks Directional In/Out | 17 Wilderness Oaks Directional S/W | St. Lucie Commerce Center @25% Complete % | St. Lucie Commerce Center @25% Complete Daily | St. Lucie Commerce Center @25% Complete Two-Way Trips | St. Lucie Commerce Center @25% Complete Directional In/Out | St. Lucie Commerce Center @25% Complete Directional S/W | BHT Distribution % | BHT Distribution Daily | BHT Distribution Two-Way Trips | BHT Distribution Directional In/Out | BHT Distribution Directional S/W | Walsh Crossroads % | Walsh Crossroads Daily | Walsh Crossroads Two-Way Trips | Walsh Crossroads In/Out % or Out | Walsh Crossroads Directional In/Out | Walsh Crossroads Directional S/W | Peanut Hutchison % | Peanut Hutchison Daily | Peanut Hutchison Two-Way Trips | Peanut Hutchison Directional In/Out | Peanut Hutchison Directional S/W | SUM Daily | SUM 3 Way | SUM Directional W/E Residential | SUM Directional W/E Non-Residential | SUM Directional S/W Residential | SUM Directional S/W Non-Residential | Two Way | Directional W/E Double Count | Directional W/E Net | Directional S/W Double Count | Directional S/W Net |
|---|---|---

| PM APPROVED PROJECTS | | | 39 Acre Residential Development | | | | | 10 Village of Sunset Lakes St. Lucie County | | | | | Mariner Cove Ft. Pierce | | | | | 43 Bent Creek @ 50% Complete City of Port Pierce | | | | | 44 Celebration Pointe @25% Complete City of Port Pierce | | | | | 37 Whispering Oaks | | | | | St. Lucie Commerce Center @25% Complete | | | | | BHT Physiouition | | | | | 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 | |
|---|---|---

Historical Growth Rate Calculation

Segment	From	To	2015 AADT	2019 AADT	4 Year Historical Growth Rate
Okeechobee Blvd	I-95	McNeil Rd	28,500	33,000	3.73%
	McNeil Rd	Virginia Ave	26,500	30,500	3.58%
Jenkins Rd	Okeechobee Blvd	Orange Ave	9,600	9,200	-1.06%
Kings Hwy	Okeechobee Blvd	Graham Rd	6,300	7,600	4.80%
	Graham Rd	Orange Ave	8,400	7,000	-4.46%
Orange Ave	Kings Hwy	I-95	17,300	19,800	3.43%
	I-95	Jenkins Rd	13,600	15,300	2.99%
Virginia Ave	Okeechobee Blvd	35th St	21,000	21,000	0.00%
		Total	131,200	143,400	2.25%

*Source FDOT Historical Traffic Counts

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 0030 - SR 70/VIRGINIA AVE - E OF OKEECHOBEE RD (COUNTY 30)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	21000 C	E 10500	W 10500	9.00	51.00	7.10
2018	21500 C	E 11000	W 10500	9.00	51.30	3.60
2017	20300 C	E 10500	W 9800	9.00	50.90	3.60
2016	22500 C	E 12000	W 10500	9.00	50.90	3.60
2015	21000 C	E 11000	W 10000	9.00	51.00	3.30
2014	20400 C	E 10500	W 9900	9.00	50.80	3.90
2013	21000 C	E 10500	W 10500	9.00	50.80	3.90
2012	21000 C	E 10500	W 10500	9.00	56.80	4.50
2011	23500 C	E 11500	W 12000	9.00	57.20	4.50
2010	22000 C	E 11500	W 10500	10.32	55.40	4.50
2009	22000 C	E 11000	W 11000	10.27	57.35	5.20
2007	16900 C	E 8900	W 8000	10.31	58.74	5.20
2006	20500 C	E 11000	W 9500	10.73	65.89	5.00
2005	22000 C	E 11500	W 10500	10.80	60.70	5.00
2004	20300 C	E 10500	W 9800	10.30	57.70	5.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
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COUNTY: 94 - ST.LUCIE

SITE: 0041 - SR 68 / ORANGE AVE - W OF SR 9/I-95 (COUNTY 41)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	19800 C	E 10500	W 9300	9.00	54.30	22.40
2018	21000 C	E 10500	W 10500	9.00	55.20	22.40
2017	19000 C	E 9800	W 9200	9.00	56.20	22.40
2016	21300 C	E 11500	W 9800	9.00	57.10	25.00
2015	17300 C	E 8500	W 8800	9.00	56.30	25.00
2014	15700 S	E 8000	W 7700	9.00	54.70	16.40
2013	15500 F	E 7900	W 7600	9.00	57.20	16.40
2012	15700 C	E 8000	W 7700	9.00	57.00	16.40
2011	17900 C	E 9000	W 8900	9.00	56.50	24.40
2010	18600 C	E 9400	W 9200	11.51	57.07	24.40
2009	16300 C	E 8200	W 8100	11.11	58.68	24.40
2008	26000 C	E 13000	W 13000	11.51	54.38	22.30
2007	27000 C	E 13500	W 13500	11.51	58.16	22.30
2006	18100 C	E 8700	W 9400	10.78	56.96	22.30
2005	18800 C	E 9700	W 9100	11.10	56.60	20.90
2004	18000 C	E 9000	W 9000	11.10	60.50	20.90

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

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COUNTY: 94 - ST.LUCIE

SITE: 0035 - SR 68 / ORANGE AVE - E OF SR 9/I-95 (COUNTY 35)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	15300 C	E 7600	W 7700	9.00	51.00	16.60
2018	13100 C	E 7000	W 6100	9.00	51.30	16.60
2017	15400 C	E 7300	W 8100	9.00	50.90	10.80
2016	13900 C	E 6700	W 7200	9.00	50.90	10.80
2015	13600 C	E 6700	W 6900	9.00	51.00	10.80
2014	12600 F	E 6200	W 6400	9.00	50.80	10.40
2013	12600 C	E 6200	W 6400	9.00	50.80	10.40
2012	13700 C	E 6700	W 7000	9.00	56.80	10.40
2011	12900 C	E 6600	W 6300	9.00	57.20	16.30
2010	13800 C	E 6800	W 7000	10.32	55.40	16.30
2009	12200 C	E 6000	W 6200	10.27	57.35	16.30
2008	13200 C	E 6600	W 6600	10.45	58.06	9.70
2007	15100 C	E 7500	W 7600	10.31	58.74	16.60
2006	12800 C	E 6300	W 6500	10.73	65.89	10.20
2005	13000 C	E 6700	W 6300	10.80	60.70	10.20
2004	12700 C	E 6500	W 6200	10.30	57.70	10.20

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

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COUNTY: 94 - ST.LUCIE

SITE: 0742 - SR 70/OKEECHOBEE RD - SW OF SR 70/VIRGINIA AVE (COUNTY 742)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	30500 C	E 14500	W 16000	9.00	51.00	4.60
2018	31500 C	E 16500	W 15000	9.00	51.30	4.60
2017	31500 C	E 15500	W 16000	9.00	50.90	12.00
2016	26000 C	E 15500	W 10500	9.00	50.90	12.00
2015	26500 C	E 11500	W 15000	9.00	51.00	12.00
2014	30000 C	E 15000	W 15000	9.00	50.80	6.10
2013	27000 C	E 12500	W 14500	9.00	50.80	3.80
2012	33000 C	E 16500	W 16500	9.00	56.80	3.80
2008	32500 C	E 16500	W 16000	10.45	58.06	6.70
2007	31500 C	E 15000	W 16500	10.31	58.74	7.40
2006	35500 C	E 18500	W 17000	10.73	65.89	5.00
2005	32500 C	E 16500	W 16000	10.80	60.70	5.70
2004	30000 C	E 15500	W 14500	10.30	57.70	5.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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COUNTY: 94 - ST.LUCIE

SITE: 0029 - SR 70 / OKEECHOBEE RD - E OF SR 9/I-95 (COUNTY 29)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	33000 C	E 17000	W 16000	9.00	51.00	11.00
2018	31000 C	E 15000	W 16000	9.00	51.30	4.70
2017	34500 C	E 17500	W 17000	9.00	50.90	12.30
2016	28500 F	E 14000	W 14500	9.00	50.90	12.30
2015	28500 C	E 14000	W 14500	9.00	51.00	12.30
2014	25500 F	E 14000	W 11500	9.00	50.80	4.90
2013	25500 C	E 14000	W 11500	9.00	50.80	4.90
2012	28000 C	E 14000	W 14000	9.00	56.80	4.90
2011	30500 C	E 15500	W 15000	9.00	57.20	10.90
2010	30500 C	E 15500	W 15000	10.32	55.40	10.90
2009	26500 C	E 13000	W 13500	10.27	57.35	10.90
2008	29500 C	E 15500	W 14000	10.45	58.06	6.70
2007	33000 C	E 17000	W 16000	10.31	58.74	5.20
2006	31000 C	E 16000	W 15000	10.73	65.89	16.00
2005	26500 C	E 13500	W 13000	10.80	60.70	16.00
2004	28000 C	E 14000	W 14000	10.30	57.70	16.00

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

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COUNTY: 94 - ST.LUCIE

SITE: 0757 - SR 713 / KINGS HWY - N OF SR 70/OKEECHOBEE RD (COUNTY 757)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	7600 C	N 3700	S 3900	9.00	54.30	23.40
2018	13600 C	N 6500	S 7100	9.00	55.20	23.90
2017	12800 C	N 6100	S 6700	9.00	56.20	23.90
2016	6400 C	N 3100	S 3300	9.00	57.10	23.90
2015	6300 C	N 3000	S 3300	9.00	56.30	26.90
2014	9100 C	N 3900	S 5200	9.00	54.70	46.50
2013	6000 C	N 3000	S 3000	9.00	57.20	17.40
2012	5400 C	N 2700	S 2700	9.00	57.00	17.40
2011	6200 C	N 3200	S 3000	9.00	56.50	22.90
2010	13500 C	N 6800	S 6700	11.51	57.07	22.90
2009	8000 C	N 4000	S 4000	11.11	58.68	22.90
2008	7400 C	N 3500	S 3900	11.51	54.38	23.20
2007	8900 C	N 4400	S 4500	11.51	58.16	25.50
2006	7300 C	N 3600	S 3700	10.78	56.96	25.50
2005	7900 C	N 3900	S 4000	11.10	56.60	18.10
2004	7200 C	N 3500	S 3700	11.10	60.50	18.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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COUNTY: 94 - ST.LUCIE

SITE: 0076 - SR 713/KINGS HWY - S OF SR 68/ORANGE AVE (COUNTY 76)

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2019	7000 C	N	3500	S	3500	9.00	54.30	22.80
2018	9700 C	N	4600	S	5100	9.00	55.20	22.80
2017	9500 C	N	4700	S	4800	9.00	56.20	22.80
2016	9600 C	N	4600	S	5000	9.00	57.10	32.40
2015	8400 C	N	4100	S	4300	9.00	56.30	32.40
2014	7900 C	N	3800	S	4100	9.00	54.70	19.90
2013	7200 C	N	3400	S	3800	9.00	57.20	14.20
2012	7100 C	N	3400	S	3700	9.00	57.00	14.20
2011	8000 C	N	3900	S	4100	9.00	56.50	17.20
2010	8900 C	N	4400	S	4500	11.51	57.07	17.20
2009	8000 C	N	3800	S	4200	11.11	58.68	17.20
2008	10600 C	N	5200	S	5400	11.51	54.38	11.20
2007	11100 C	N	5400	S	5700	11.51	58.16	7.90
2006	10600 C	N	5300	S	5300	10.78	56.96	17.30
2005	9900 C	N	4800	S	5100	11.10	56.60	17.30
2004	9400 C	N	4600	S	4800	11.10	60.50	17.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 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
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

- Administration
  - Airport
  - Legislative Affairs
  - Port of Fort Pierce
  - TCERDA
    - Sunshine Kitchen
    - Sunshine Kitchen Tenants
  - Tourism
  - Citizens Academy
  - Innovation and Performance
  - National Community Survey
  - Strategic Plan
  - State and Federal Awards

Treasure Coast Research Park



St. Lucie County is actively sowing the seeds of the future by creating a Research, Education and Development Park (Research Park) in Fort Pierce, Florida. It currently comprised of 356 acres with future additions bringing the total acreage to more than 1,000 acres.

The St. Lucie Board of County Commissioners and the University of Florida collectively created this agriculturally-and-biotechnologically-focused Research Park on Florida's east coast. The county created Treasure Coast Education and Research Development Authority, comprised of local agricultural experts, real estate investors, financial advisors and educators, to help manage and develop the park.

The Research and Biotech Park is anchored by the USDA's 170,000-square-foot Horticultural Research Laboratory and the 90,000-square-foot University of Florida's Institute of Food and Agricultural Sciences' Research and Education Center. The Treasure Coast Research Park is home to more than 200 multi-disciplinary researchers, scientists, educators and staff.

The Sunshine Kitchen, a 10,000-square-foot facility, located inside the Research Park, is a professionally equipped, commercial kitchen and research lab designed to help entrepreneurs in the development of commercially viable food ventures.

With over three square miles of land, the park is planned for 3.3 million square feet of research and advanced manufacturing development and 800 acres of agricultural test fields. Since its formation in 2005, the Treasure Coast Education and Research & Development Authority (TCERDA) has guided the planning and operation of the Park.

In recent years, the county has invested millions in state and federal grants to make sure the park has the infrastructure it needs to be shovel ready for expansion. The Research Park is located at off Kings Highway and Pruitt Road in Fort Pierce.

For more information contact TCERDA Coordinator Regina McCants at 772-467-3107 or McCantsRe@stlucieco.org.

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	2/17/2021 11:00:15 AM	**From**	Orange Ave	**Modal Analysis**	Auto Only
Agency	O'Rourke Engineering & Planning	**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\SOR2\Documents\Projects\St. Lucie County\JHI Acreage\Artplan Analysis\Jenkins Rd - AM - SB.xap				
User Notes	SB - AM Peak Hour				

Arterial Data

K	0.09	**PHF**	0.95	**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	160	0.18	3	2	45	9	Yes	Protected	2	470	0.16	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)	10824	10500	793	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)	384	3018	0.023	54.02	D	0.51	35.08	B

Arterial Length	2.0614	Weighted g/C	0.18	FFS Delay	63.97	Threshold Delay	0.00	Auto Speed	35.08	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	510	840	***	***	***
2	1050	1640	***	***	***
3	1680	2460	***	***	***
4	2280	3300	***	***	***
*	510	840	***	***	***
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	2/17/2021 11:00:15 AM	**From**	Okeechobee Rd	**Modal Analysis**	Auto Only
Agency	O'Rourke Engineering & Planning	**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\SOR2\Documents\Projects\St. Lucie County\JHI Acreage\Artplan Analysis\Jenkins Rd - PM - NB.xap				
User Notes	NB - PM Peak Hour				

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	90	0.25	3	1	37	26	Yes	ProtPerm	1	275	0.16	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)	10824	10500	822	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)	304	1246	0.976	47.76	D	0.92	36.18	B

Arterial Length	2.0614	Weighted g/C	0.25	FFS Delay	57.51	Threshold Delay	0.00	Auto Speed	36.18	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	510	840	***	***	***
2	1050	1640	***	***	***
3	1680	2460	***	***	***
4	2280	3300	***	***	***
*	510	840	***	***	***
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

HCS7 Two-Way Stop-Control Report

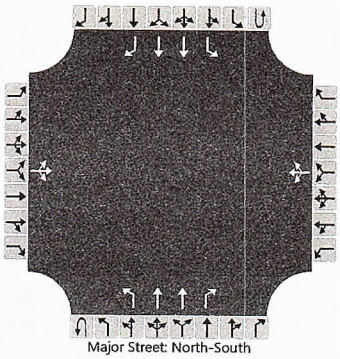
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/15/2021
Analysis Year	2023
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Buildout

Site Information

Intersection	Kings Hwy & White Rd
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Kings Hwy
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	2	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		10	0	10		41	0	27	0	20	458	54	0	91	477	20
Percent Heavy Vehicles (%)		3	3	3		10	10	10	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										No				No		
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.70	6.70	7.10		4.16				4.16		
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		3.60	4.10	3.40		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			21				72			21				96		
Capacity, c (veh/h)			402				387			1033				1019		
v/c Ratio			0.05				0.18			0.02				0.09		
95% Queue Length, Q_{95} (veh)			0.2				0.7			0.1				0.3		
Control Delay (s/veh)			14.4				16.4			8.6				8.9		
Level of Service (LOS)			B				C			A				A		
Approach Delay (s/veh)		14.4				16.4				0.3				1.4		
Approach LOS		B				C										

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HCS7 Two-Way Stop-Control Report

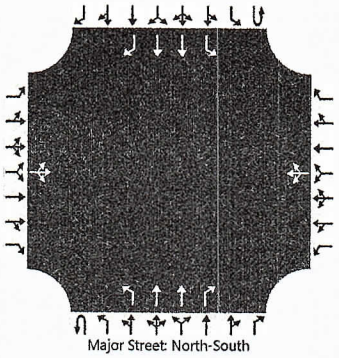
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/15/2021
Analysis Year	2023
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Buildout

Site Information

Intersection	Kings Hwy & White Rd
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Kings Hwy
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	2	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		20	0	20		167	0	111	0	10	485	17	0	29	475	10
Percent Heavy Vehicles (%)		3	3	3		10	10	10	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										No				No		
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.70	6.70	7.10		4.16				4.16		
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		3.60	4.10	3.40		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			42				293			11				31		
Capacity, c (veh/h)			452				436			1044				1028		
v/c Ratio			0.09				0.67			0.01				0.03		
95% Queue Length, Q_{95} (veh)			0.3				4.8			0.0				0.1		
Control Delay (s/veh)			13.8				28.6			8.5				8.6		
Level of Service (LOS)			B				D			A				A		
Approach Delay (s/veh)		13.8				28.6				0.2				0.5		
Approach LOS		B				D										

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Table 1: Major Approach Volumes

Time	NB/SB Volumes 2019 Existing	NB/SB Volumes 2023 Background	NB/SB Committed Project Volumes (1)	NB/SB Project Volumes	Total 2023 Volume
6-7 AM	618	676	33	68	777
7-8 AM	701	766	52	96	914
8-9 AM	647	707	48	92	847
9-10 AM	602	658	37	82	777
10-11 AM	583	637	40	84	761
11-12 PM	686	750	45	105	900
12-1 PM	701	766	49	122	937
1-2 PM	681	744	47	95	886
2-3 PM	662	724	51	95	870
3-4 PM	768	839	60	123	1022
4-5 PM	813	889	66	114	1069
5-6 PM	730	798	63	104	965
6-7 PM	475	519	44	34	597
7-8 PM	290	317	30	16	363
8-9 PM	260	284	27	10	321
9-10 PM	198	216	20	10	246

Source: FDOT Hourly Volume 2019 - Kings Hwy (Station 0076)

(1) Includes traffic from Walsh Kings Crossing, Village of Sunset Lakes, Whispering Oaks, Bent Creek, Celebration Pointe, and BHT Distribution

Table 2: Daily Trip Generation

Land Use	Directional Split		Net External Trips		
	In	Out	In	Out	Total
General Office	50%	50%	633	633	1,266
Warehousing	50%	50%	1,421	1,421	2,842
TOTALS			**2,054**	**2,054**	**4,108**

Source: ITE 10th Edition Trip Generation Rates

Table 3: Minor Approach Volumes

Hourly	Percent of Daily Traffic				External Volumes JHI Acraege		Lefts		Rights		Project Hurricane Rights	Total WB Volume (1)
	Office	Warehouse	Auto Service Center	Single-Family Housing	Office	Warehouse	Office 45%	Warehouse 45%	Office 30.0%	Warehouse 30.0%	15.0%	
6-7 AM	2.2%	6.3%	0.1%	3.8%	14	90	6	41	4	27	0	63
7-8 AM	7.0%	7.3%	5.7%	6.7%	44	104	20	47	13	31	24	101
8-9 AM	8.8%	6.0%	9.3%	6.2%	56	85	25	38	17	26	39	104
9-10 AM	5.4%	6.5%	9.0%	4.3%	34	92	15	41	10	28	38	94
10-11 AM	5.9%	6.5%	9.7%	4.8%	37	92	17	41	11	28	41	98
11-12 PM	8.4%	7.6%	10.0%	5.2%	53	108	24	49	16	32	42	118
12-1 PM	10.4%	8.6%	9.4%	5.5%	66	122	30	55	20	37	40	134
1-2 PM	8.2%	6.6%	9.3%	6.0%	52	94	23	42	16	28	39	107
2-3 PM	7.5%	7.0%	8.8%	6.6%	47	99	21	45	14	30	37	107
3-4 PM	7.4%	10.0%	7.0%	7.2%	47	142	21	64	14	43	30	129
4-5 PM	10.1%	7.8%	10.2%	9.0%	64	111	29	50	19	33	43	127
5-6 PM	10.4%	6.6%	7.7%	8.8%	66	94	30	42	20	28	32	112
6-7 PM	2.4%	2.7%	2.3%	7.2%	15	38	7	17	5	11	10	37
7-8 PM	1.7%	0.9%	0.8%	5.2%	11	13	5	6	3	4	3	16
8-9 PM	1.0%	0.6%	0.6%	4.7%	6	9	3	4	2	3	3	11
9-10 PM	1.0%	0.7%	0.0%	3.4%	6	10	3	5	2	3	0	11

(1) 50% of External Right Trips used in Total

COUNTY: 94
STATION: 0076
DESCRIPTION: SR 713/KINGS HWY - S OF SR 68/ORANGE AVE (COUNTY 7
START DATE: 02/12/2019
START TIME: 2345

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	18	6	9	9	42	11	10	10	6	37	79
0100	11	9	15	15	50	8	8	3	11	30	80
0200	2	12	6	6	26	14	7	7	9	37	63
0300	5	10	7	5	27	7	10	16	10	43	70
0400	5	14	8	18	45	14	24	17	29	84	129
0500	15	34	33	28	110	31	39	42	53	165	275
0600	52	74	89	85	300	52	72	94	100	318	618
0700	91	81	100	90	362	81	76	101	81	339	701
0800	86	88	80	55	309	93	91	63	91	338	647
0900	70	76	63	70	279	93	88	57	85	323	602
1000	59	61	80	82	282	78	65	79	79	301	583
1100	87	85	95	103	370	62	98	81	75	316	686
1200	101	76	91	82	350	77	93	91	90	351	701
1300	101	78	78	78	335	94	81	81	90	346	681
1400	80	75	81	89	325	71	96	74	96	337	662
1500	98	93	77	118	386	67	92	98	125	382	768
1600	88	116	95	85	384	89	111	103	126	429	813
1700	102	91	98	71	362	109	99	92	68	368	730
1800	70	69	63	57	259	67	70	44	35	216	475
1900	37	52	35	48	172	32	36	31	19	118	290
2000	33	39	42	29	143	36	44	14	23	117	260
2100	29	31	28	16	104	21	17	24	32	94	198
2200	19	24	14	27	84	19	10	6	12	47	131
2300	16	14	11	9	50	6	14	14	23	57	107
24-HOUR TOTALS:					5156					5193	10349

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	730	364	730	366	730	730
P.M.	1545	417	1615	449	1615	847
DAILY	1545	417	1615	449	1615	847

GENERATED BY SPS 5.0.53P

State of Florida Department of Transportation

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Stuart** | Engineer: **James Kemp**
County: **89 – Martin** | Date: **February 15, 2021**
District: **Four**

Major Street: **Kings Highway** | Lanes: **2** | Major Approach Speed: **50**
Minor Street: **White Road** | Lanes: **1** | Minor Approach Speed: **35**

MUTCD Electronic Reference to Chapter 4: http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf

Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)? ☑ Yes ☐ No
2. Is the intersection in a built-up area of an isolated community with a population < 10,000? ☐ Yes ☑ No

"70%" volume level **may** be used if Question 1 **or** 2 above is answered "Yes" ☑ 70% ☑ 100%

WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied for eight hours. ☐ Yes ☑ No

Warrant 1 is also satisfied if both Condition A and Condition B are "80%" satisfied (should only be applied after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems). ☐ Yes ☑ No

Condition A - Minimum Vehicular Volume

Condition A is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

100% Satisfied: ☐ Yes ☑ No
80% Satisfied: ☐ Yes ☑ No
70% Satisfied: ☐ Yes ☑ No

Number of Lanes for moving traffic on each approach		Vehicles per hour on major-street (total of both approaches)			Vehicles per hour on minor-street (one direction only)		
Major	Minor	100%[a]	80%[b]	70%[c]	100%[a]	80%[b]	70%[c]
1	1	500	400	350	150	120	105
2 or more	1	600	480	420	150	120	105
2 or more	2 or more	600	480	420	200	160	140
1	2 or more	500	400	350	200	160	140

[a] Basic Minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

Street	Eight Highest Hours							
	7:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
Major	914	900	937	886	870	1,022	1,069	965
Minor	101	118	134	107	107	129	127	112

Existing Volumes

State of Florida Department of Transportation

TRAFFIC SIGNAL WARRANT SUMMARY

Condition B - Interruption of Continuous Traffic

Condition B is intended for application where Condition A is not satisfied and the traffic volume on a major street is so heavy that traffic on the minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

Applicable:	☑ Yes	☐ No
100% Satisfied:	☐ Yes	☑ No
80% Satisfied:	☑ Yes	☐ No
70% Satisfied:	☑ Yes	☐ No

Number of Lanes for moving traffic on each approach		Vehicles per hour on major-street (total of both approaches)			Vehicles per hour on minor-street (one direction only)		
Major	**Minor**	**100%[a]**	**80%[b]**	**70%[c]**	**100%[a]**	**80%[b]**	**70%[c]**
1	1	750	600	525	75	60	53
2 or more	1	900	720	630	75	60	53
2 or more	2 or more	900	720	630	100	80	70
1	2 or more	750	600	525	100	80	70

[a] Basic Minimum hourly volume

[b] Used for combination of Conditions A and B after adequate trial of other remedial measures

[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

Eight Highest Hours								
Street	**7:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**
Major	914	900	937	886	870	1,022	1,069	965
Minor	101	118	134	107	107	129	127	112

Existing Volumes

State of Florida Department of Transportation

Form 750-020-01
TRAFFIC ENGINEERING
10/15

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Stuart**
County: **89 – Martin**
District: **Four**

Engineer: **James Kemp**
Date: **February 15, 2021**

Major Street: **Kings Highway** Lanes: **2** Major Approach Speed: **50**
Minor Street: **White Road** Lanes: **1** Minor Approach Speed: **35**

MUTCD Electronic Reference to Chapter 4: http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf

Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)? ☑ Yes ☐ No
2. Is the intersection in a built-up area of an isolated community with a population < 10,000? ☐ Yes ☑ No

"70%" volume level **may** be used if Question 1 **or** 2 above is answered "Yes" ☑ Yes ☐ No

WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

If all four points lie above the appropriate line, then the warrant is satisfied.

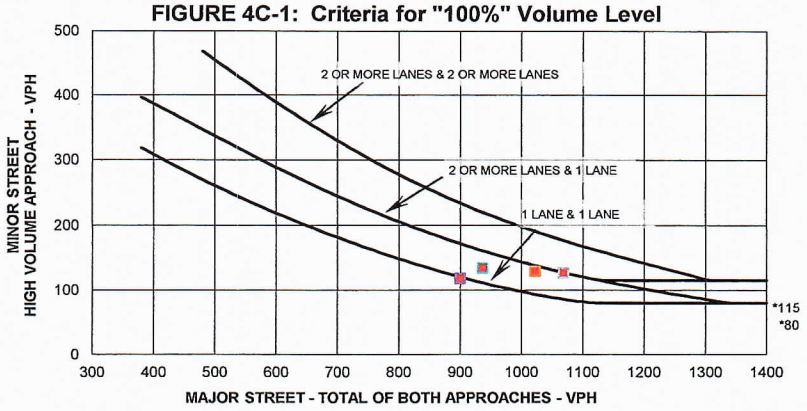
Applicable: ☑ Yes ☐ No
Satisfied: ☑ Yes ☐ No

Plot four volume combinations on the applicable figure below.

100% Volume Level

Four Highest Hours	Volumes	
	Major Street	Minor Street
11:00 AM	900	118
12:00 PM	937	134
3:00 PM	1022	129
4:00 PM	1069	127

FIGURE 4C-1: Criteria for "100%" Volume Level



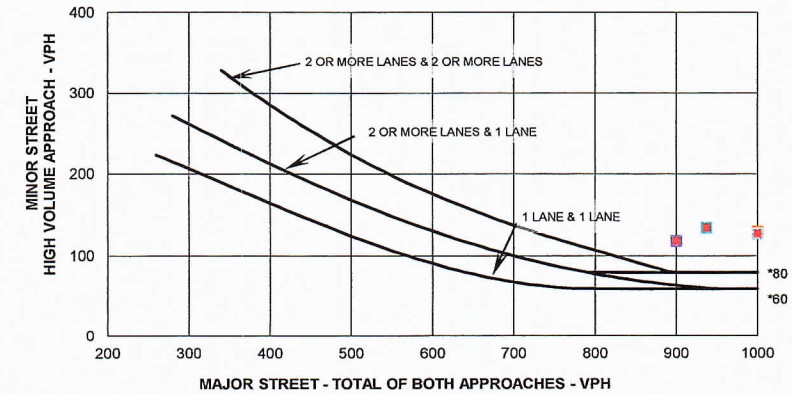
** Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

70% Volume Level

Four Highest Hours	Volumes	
	Major Street	Minor Street
11:00 AM	900	118
12:00 PM	937	134
3:00 PM	1022	129
4:00 PM	1069	127

FIGURE 4C-2: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

State of Florida Department of Transportation

Form 750-020-01
TRAFFIC ENGINEERING
10/15

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Stuart**
County: **89 – Martin**
District: **Four**

Engineer: **James Kemp**
Date: **February 15, 2021**

Major Street: **Kings Highway** Lanes: **2** Major Approach Speed: **50**
Minor Street: **White Road** Lanes: **1** Minor Approach Speed: **35**

MUTCD Electronic Reference to Chapter 4: http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf

Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)? ☑ Yes ☐ No
2. Is the intersection in a built-up area of an isolated community with a population < 10,000? ☐ Yes ☑ No

"70%" volume level **may** be used if Question 1 **or** 2 above is answered "Yes" ☑ 70% ☑ 100%

WARRANT 3 - PEAK HOUR

*If all three criteria are fulfilled **or** the plotted point lies above the appropriate line, then the warrant is satisfied.*

Applicable: ☑ Yes ☐ No
Satisfied: ☑ Yes ☐ No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour 100% Volume		
Time	Major Vol.	Minor Vol.
3:00 PM	1022	129

Peak Hour 70% Volume		
Time	Major Vol.	Minor Vol.
3:00 PM	1022	129

Criteria

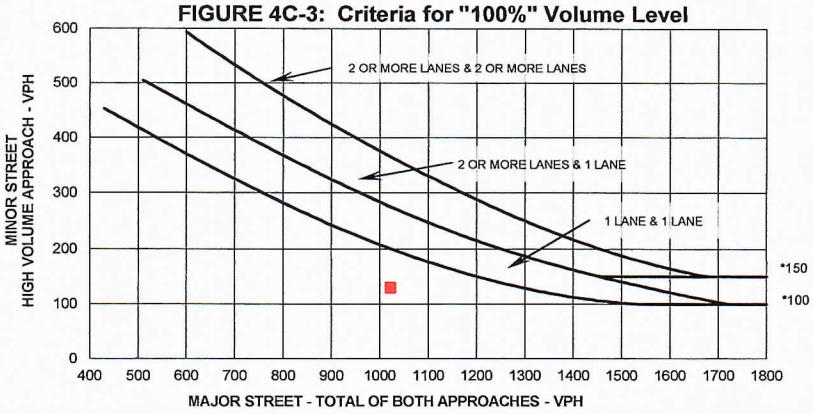
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*	2.1	
Fulfilled?: ☐ Yes ☑ No		

2. Volume on Minor Approach One-Direction *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*	129	
Fulfilled?: ☑ Yes ☐ No		

3. Total Intersection Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,151
Fulfilled?: ☑ Yes ☐ No		

Plot volume combination on the applicable figure below.

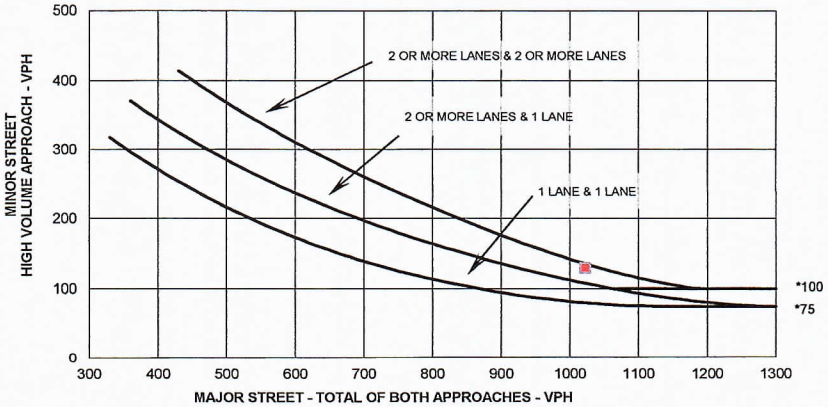
FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

APPENDIX F

DRIVEWAY ANALYSIS

HCS7 Two-Way Stop-Control Report

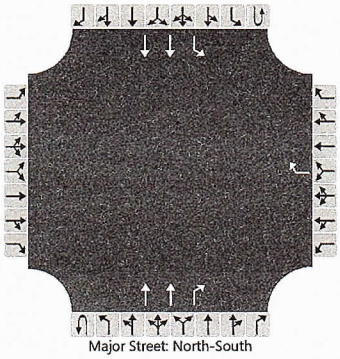
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Buildout

Site Information

Intersection	Kings Hwy & DW 1
Jurisdiction	St. Lucie County
East/West Street	Driveway 1
North/South Street	Kings Highway
Peak Hour Factor	0.92
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	0	1	0	0	2	1	0	1	2	0
Configuration								R			T	R		L	T	
Volume (veh/h)								9			503	109	0	54	464	
Percent Heavy Vehicles (%)								3					3	3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					No				No							
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)								6.9						4.1		
Critical Headway (sec)								6.96						4.16		
Base Follow-Up Headway (sec)								3.3						2.2		
Follow-Up Headway (sec)								3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								10						59		
Capacity, c (veh/h)								721						913		
v/c Ratio								0.01						0.06		
95% Queue Length, Q_{95} (veh)								0.0						0.2		
Control Delay (s/veh)								10.1						9.2		
Level of Service (LOS)								B						A		
Approach Delay (s/veh)					10.1								1.0			
Approach LOS					B											

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HCS7 Two-Way Stop-Control Report

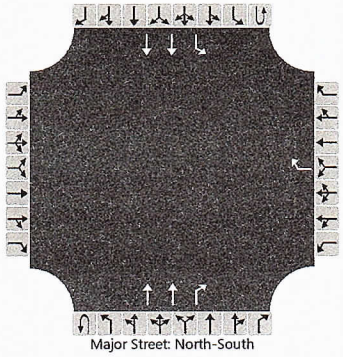
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Buildout

Site Information

Intersection	Kings Hwy & DW 1
Jurisdiction	St. Lucie County
East/West Street	Driveway 1
North/South Street	Kings Highway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	2	1	0	1	2	0
Configuration								R			T	R		L	T	
Volume (veh/h)								37			465	35	0	17	625	
Percent Heavy Vehicles (%)								3					3	3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No					No					
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)								6.9						4.1		
Critical Headway (sec)								6.96						4.16		
Base Follow-Up Headway (sec)								3.3						2.2		
Follow-Up Headway (sec)								3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								40						18		
Capacity, c (veh/h)								744						1015		
v/c Ratio								0.05						0.02		
95% Queue Length, Q_{95} (veh)								0.2						0.1		
Control Delay (s/veh)								10.1						8.6		
Level of Service (LOS)								B						A		
Approach Delay (s/veh)						10.1								0.2		
Approach LOS						B										

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HCS7 Two-Way Stop-Control Report

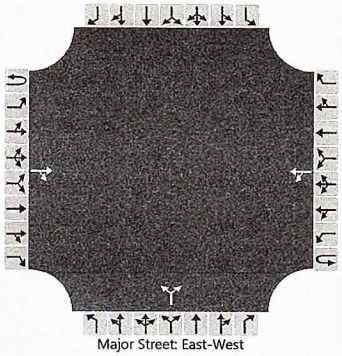
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Buildout

Site Information

Intersection	White Rd & DW 2
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Driveway 2
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			90	54		4	46			22		1				
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)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						4					25					
Capacity, c (veh/h)						1417					803					
v/c Ratio						0.00					0.03					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.5					9.6					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					0.6				9.6							
Approach LOS									A							

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HCS7 Two-Way Stop-Control Report

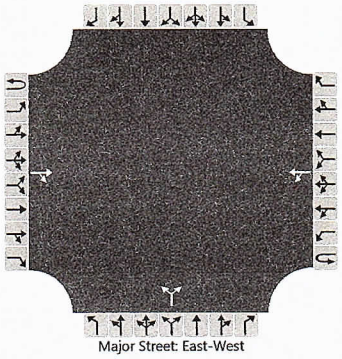
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Buildout

Site Information

Intersection	White Rd & DW 2
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Driveway 2
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			29	17		1	186			93		4				
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)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						1					105					
Capacity, c (veh/h)						1550					749					
v/c Ratio						0.00					0.14					
95% Queue Length, Q_{95} (veh)						0.0					0.5					
Control Delay (s/veh)						7.3					10.6					
Level of Service (LOS)						A					B					
Approach Delay (s/veh)					0.0				10.6							
Approach LOS									B							

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HCS7 Two-Way Stop-Control Report

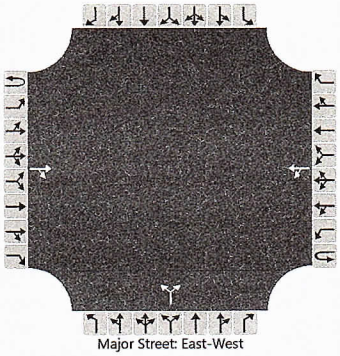
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Buildout

Site Information

Intersection	White Rd & DW 3
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Driveway 3
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			37	54		11	27			23		3				
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)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						12					28					
Capacity, c (veh/h)						1488					876					
v/c Ratio						0.01					0.03					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.4					9.2					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					2.2				9.2							
Approach LOS									A							

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HCS7 Two-Way Stop-Control Report

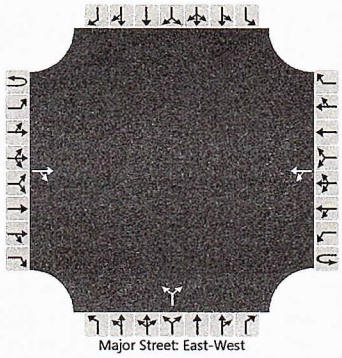
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Buildout

Site Information

Intersection	White Rd & DW 3
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Driveway 3
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			16	17		3	94			93		11				
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)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						3					113					
Capacity, c (veh/h)						1569					871					
v/c Ratio						0.00					0.13					
95% Queue Length, Q_{95} (veh)						0.0					0.4					
Control Delay (s/veh)						7.3					9.7					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					0.2				9.7							
Approach LOS									A							

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HCS7 Two-Way Stop-Control Report

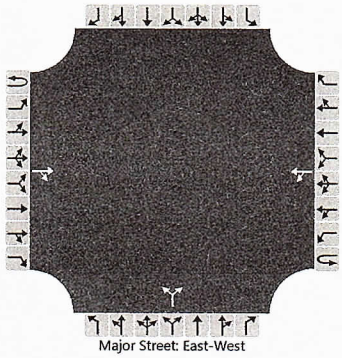
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Buildout

Site Information

Intersection	White Rd & DW 4
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Driveway 4
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			4	36		4	15			23		1				
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)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						4					26					
Capacity, c (veh/h)						1559					959					
v/c Ratio						0.00					0.03					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.3					8.9					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					1.6				8.9							
Approach LOS									A							

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HCS7 Two-Way Stop-Control Report

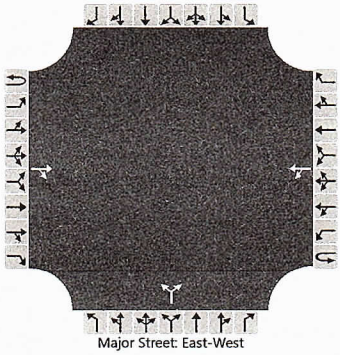
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Buildout

Site Information

Intersection	White Rd & DW 4
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Driveway 4
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			15	12		1	4			93		4				
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)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						1					105					
Capacity, c (veh/h)						1577					985					
v/c Ratio						0.00					0.11					
95% Queue Length, Q_{95} (veh)						0.0					0.4					
Control Delay (s/veh)						7.3					9.1					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					1.5				9.1							
Approach LOS									A							

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HCS7 Two-Way Stop-Control Report

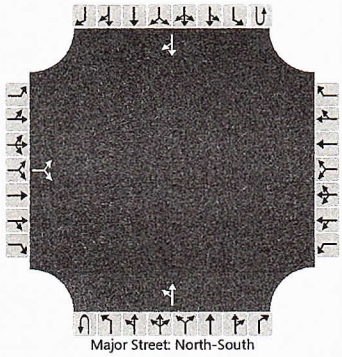
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Buildout

Site Information

Intersection	Peters Rd & DW 5
Jurisdiction	St. Lucie County
East/West Street	Driveway 5
North/South Street	Peters Road
Peak Hour Factor	0.92
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	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		4		4						18	107				107	18
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)			9							20						
Capacity, c (veh/h)			793							1442						
v/c Ratio			0.01							0.01						
95% Queue Length, Q_{95} (veh)			0.0							0.0						
Control Delay (s/veh)			9.6							7.5						
Level of Service (LOS)			A							A						
Approach Delay (s/veh)		9.6								1.2						
Approach LOS		A														

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HCS7 Two-Way Stop-Control Report

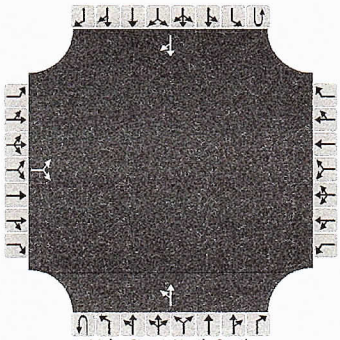
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Buildout

Site Information

Intersection	Peters Rd & DW 5
Jurisdiction	St. Lucie County
East/West Street	Driveway 5
North/South Street	Peters Road
Peak Hour Factor	0.92
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	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		18		18						6	107				107	6
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)			39							7						
Capacity, c (veh/h)			820							1458						
v/c Ratio			0.05							0.00						
95% Queue Length, Q_{95} (veh)			0.2							0.0						
Control Delay (s/veh)			9.6							7.5						
Level of Service (LOS)			A							A						
Approach Delay (s/veh)		9.6								0.4						
Approach LOS		A														

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Property Identification

Site Address: 2306 KINGS HWY
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-211-0002-000-3
Jurisdiction: Fort Pierce

Use Type: 6000
Account #: 14254
Map ID: 23/24N
Zoning: General Co

Ownership

Australian Properties LLC
PO Box 14049
Fort Pierce, FL 34979



Legal Description

24 35 39 S 400 FT OF N 938.20 FT OF E 750 FT OF W 775 FT- LESS THAT PART FOR RD R/W MPDAF: FROM NW COR OF SEC, TH S 00 07 03 E ALG W SEC LI 538.44 FT, TH N 89 52 57 E 25 FT TO POB; TH N 89 44 39 E 95.42 FT TO CURVE CONC W, R OF 8,468 FT, TH SLY ALG ARC 401.48 FT, TH S 89 44 39 W 62.37 FT, TH N 00 07 03 W 400 FT TO POB- (6.151 AC - 267,938 SF) (OR 2650-1994)

Current Values

Just/Market Value:	$423,800
Assessed Value:	$274,488
Exemptions:	$0
Taxable Value:	$274,488

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	6.15
Land Size (SF):	267,938

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	150	160

Sources/links:

Sale History

Date:	Aug 29, 2006
Book/Page:	2650 / 1994
Sale Code:	XX00
Deed:	WD
Grantor:	MBK Masters Inc
Price:	$1,250,000
Date:	Sep 14, 1993
Book/Page:	0859 / 0867
Sale Code:	XX01
Deed:	CT
Grantor:	HAFFIELD CITRUS INC
Price:	$498,700

Date:	Nov 7, 1989
Book/Page:	0662 / 2394
Sale Code:	XX00
Deed:	WD
Grantor:	William A Wright
Price:	$400,000
Date:	Sep 1, 1983
Book/Page:	0410 / 2479
Sale Code:	XX00
Deed:	CV
Grantor:	
Price:	$231,500

Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$423,800
Just/Market:	$423,800
Ag Credit:	$149,312
Save Our Homes or 10% Cap:	$0
Assessed:	$274,488
Exemption(s):	$0
Taxable:	$274,488

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2017	0054	6.151	North St. Lucie Water Management District	$113.79

Start Year	AssessCode	Units	Description	Amount
2017	0041	58.6	Fort Pierce Stormwater Charge	$4,043.40

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office .

Historical Values

Year	Just/Market	Assessed	Exemptions	Taxable
2020	$423,800	$274,488	$0	$274,488
2019	$423,800	$274,488	$0	$274,488
2018	$423,800	$274,488	$0	$274,488

Permits

Number	Issue Date	Description	Amount	Fee
C94-03649	Jul 18, 1994	Additions to existing construction	$20,000	$20,000
BP16-2804	Oct 31, 2016	Demolition	$51,200	$0
BP18-0820	Mar 8, 2018	Fence	$9,700	$0
BP18-1016	Oct 25, 2018	Electric	$2,475	$0

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Property Identification

Site Address: 2421 PETERS RD
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-241-0002-000-6
Jurisdiction: Saint Lucie County

Use Type: 0100
Account #: 14262
Map ID: 23/24N
Zoning: RS-2 - Cou

Ownership

Grady Sapp (LF EST)
2421 Peters RD
Fort Pierce, FL 34945



Legal Description

24 35 39 N 1/2 OF NE 1/4 OF SE 1/4 OF NW 1/4-LESS S 60 FT OF E 125 FT AND LESS E 30 FT- (4.64 AC)(OR 718-2723: 2981-2561; 3688-925)

Current Values

Just/Market Value:	$401,400
Assessed Value:	$401,400
Exemptions:	$401,400
Taxable Value:	$0

Property taxes are subject to change upon change of ownership.

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- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	1,404
Gross Sketched Area (SF):	2,004
Land Size (acres):	4.64
Land Size (SF):	202,118.4

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	150	160

Sources/links:

Sale History

Date:	Nov 6, 2014
Book/Page:	3688 / 0925
Sale Code:	0114
Deed:	WD
Grantor:	Sapp Grady
Price:	$100

Date:	Apr 11, 1990
Book/Page:	0718 / 2723
Sale Code:	XX01
Deed:	WD
Grantor:	Sapp Lounette
Price:	$100

Building Information (1 of 2)

Finished Area: 1,404 SF

Gross Sketched Area: 1,404 SF

Exterior Data

View:
Building Type: HC-
Grade: C-
Story Height: 1 Story

Roof Cover: Fibrglss Shg
Year Built: 1983
Effective Year: 1983
No. Units: 1

Roof Structure: Gable
Frame:
Primary Wall: CB Stucco
Secondary Wall:

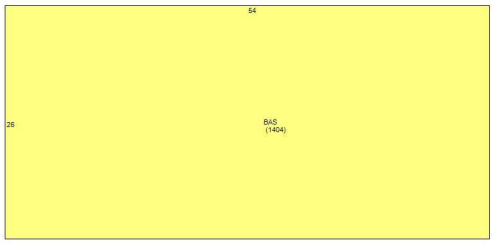
Interior Data

Bedrooms: 3
Full Baths: 1
Half Baths: 0
A/C %: 100%

Electric: MAXIMUM
Heat Type: FrcdHotAir
Heat Fuel: ELEC
Heated %: 100%

Primary Int Wall:
Avg Hgt/Floor: 0
Primary Floors: Carpet
Sprinkled %: 0%





Building Information (2 of 2)

Finished Area: 0 SF

Gross Sketched Area: 600 SF

Exterior Data

View:
Building Type: DGAR
Grade: DG
Story Height: 1 Story

Roof Cover: Fibrglss Shg
Year Built: 1999
Effective Year: 1999
No. Units: 0

Roof Structure: Gable
Frame:
Primary Wall: Wood/Sheath
Secondary Wall:

Interior Data

Bedrooms: 0
Full Baths: 0
Half Baths: 0
A/C %: %

Electric:
Heat Type:
Heat Fuel:
Heated %: %

Primary Int Wall:
Avg Hgt/Floor: 0
Primary Floors:
Sprinkled %: %

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Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$76,600
Land:	$324,800
Just/Market:	$401,400
Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$401,400
Exemption(s):	$401,400
Taxable:	$0

Current Year Exemption Value Breakdown

Tax Year	Grant Year	Code	Description	Amount
2020	2006	0500	Homestead Exemption	$25,000
Tax Year	Grant Year	Code	Description	Amount
2020	2008	0550	Homestead Exemption over $ 50,000	$0
Tax Year	Grant Year	Code	Description	Amount
2020	2006	2200	Paraplegic,Blind,Confined to Wheel Chair	$376,400

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2009	2009	12	County Solid Waste	$276.14
Start Year	AssessCode	Units	Description	Amount
2013	0054	4.64	North St. Lucie Water Management District	$85.84

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office .

Historical Values

Year	Just/Market	Assessed	Exemptions	Taxable
2020	$401,400	$401,400	$401,400	$0
2019	$396,900	$396,391	$396,391	$0
2018	$389,000	$389,000	$389,000	$0

Permits

Number	Issue Date	Description	Amount	Fee
C05010518	Jan 12, 2005	Roof	$5,210	$0

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Property Identification

Site Address: 7001 WHITE RD
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-210-0000-000-6
Jurisdiction: Fort Pierce

Use Type: 6000
Account #: 14251
Map ID: 23/24N
Zoning: General Co

Ownership

Kings Hwy Commerce Park LLC
18860 Loxahatchee River RD
Jupiter, FL 33458

Legal Description

24 35 39 NW 1/4 OF NW 1/4-LESS S 400 FT OF N 938.20 FT OF E 750 FT OF W 775 FT- AND W 1/2 OF W 1/2 OF NE 1/4 OF NW 1/4-LESS W 25 FT AND LESS N 35 FT AND LESS ADDL RD R/W AS IN OR 3917-899- (39.02 AC - 1,699,711 SF) (OR 2382-1143)



Current Values

Just/Market Value:	$2,487,525
Assessed Value:	$10,731
Exemptions:	$0
Taxable Value:	$10,731

Property taxes are subject to change upon change of ownership.

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- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	39.02
Land Size (SF):	1,699,711

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	150	160

Sources/links:

Sale History

Date:	Sep 14, 2005
Book/Page:	2382 / 1143
Sale Code:	XX00
Deed:	WD
Grantor:	Craig Steven L
Price:	$4,600,000
Date:	May 1, 1986
Book/Page:	0500 / 2004
Sale Code:	XX00
Deed:	CV
Grantor:	
Price:	$771,700

Date:	Feb 1, 1980
Book/Page:	0326 / 1420
Sale Code:	XX00
Deed:	CV
Grantor:	
Price:	$200,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



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Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$2,487,525
Just/Market:	$2,487,525
Ag Credit:	$2,476,794
Save Our Homes or 10% Cap:	$0
Assessed:	$10,731
Exemption(s):	$0
Taxable:	$10,731

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2016	0054	39.02	North St. Lucie Water Management District	$721.87

Start Year	AssessCode	Units	Description	Amount
2017	0041	106.1	Fort Pierce Stormwater Charge	$7,320.90

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office .

Historical Values

Year	Just/Market	Assessed	Exemptions	Taxable
2020	$2,487,525	$10,731	$0	$10,731
2019	$2,487,525	$10,731	$0	$10,731
2018	$2,487,525	$10,731	$0	$10,731

Permits

Number	Issue Date	Description	Amount	Fee
200441	Dec 7, 2004	Property Off '04 Fire List St Lucie Co Fire Dept	$30,000	$0

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

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Property Identification

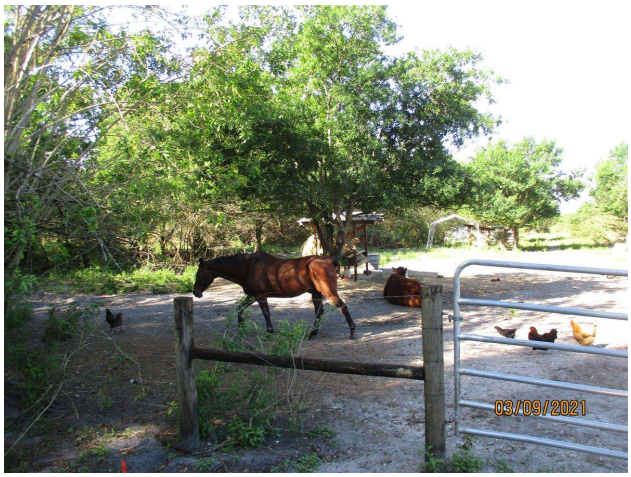
Site Address: 2496 S KINGS HWY
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-232-0000-000-4
Jurisdiction: Fort Pierce

Use Type: 6000
Account #: 14257
Map ID: 23/24N
Zoning: General Co

Ownership

Kings Highway Commercial South LLC

18860 Loxahatchee River RD
Jupiter, FL 33458



Legal Description

24 35 39 N 1/2 OF S 1/2 OF NW 1/4-LESS E 1118.54 FT AND LESS W 25 FT AND THE N 60 FT OF THE W 1088.54 FT OF THE E 1118.54 FT OF THE S ½ OF N ½ OF S ½ OF NW 1/4 - LESS ADDL RD R/W MPDAF: FROM W 1/4 COR OF SEC, TH N 00 07 03 W 1296.38 FT, TH N 89 52 57 E 25 FT TO POB; TH S 89 58 23 E 28.42 FT TO CURVE CONC E, R OF 8,308 FT, TH SELY ALG ARC 308.79 FT, TH N 89 52 57 E 30.02 FT TO CURVE CONC E, R OF 8,278 FT, TH SELY ALG ARC 45.13 FT, TH S 89 49 51 E 343.82 FT, TH S 00 07 03 E 295 FT, TH N 89 49 54 W 383.80 FT, TH N 00 07 03 W 648.28 FT TO POB- (19.624 AC - 854,821 SF) (OR 3487-76)

Current Values

Just/Market Value:	$1,251,030
Assessed Value:	$5,397
Exemptions:	$0
Taxable Value:	$5,397

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	19.62
Land Size (SF):	854,821

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	150	160

Sources/links:

Sale History

Date:	Feb 12, 2013
Book/Page:	3487 / 0076
Sale Code:	0002
Deed:	WD
Grantor:	Southern Specialty Properties LLC
Price:	$363,500

Date:	Jun 11, 2012
Book/Page:	3402 / 2041
Sale Code:	0112
Deed:	SP
Grantor:	Bank of America NA (TR)
Price:	$220,000

Date:	Nov 8, 2011
Book/Page:	3339 / 0352
Sale Code:	0112
Deed:	CT
Grantor:	Interstate Business Center LLC
Price:	$100

Date:	Feb 20, 2009
Book/Page:	3116 / 1769
Sale Code:	0111
Deed:	QC
Grantor:	Kirco Acquistions LLC
Price:	$100

Date:	Jul 17, 2006
Book/Page:	2618 / 1609
Sale Code:	XX00
Deed:	WD
Grantor:	Six Kings LLC
Price:	$6,000,000

Date:	Apr 29, 2005
Book/Page:	2233 / 2350
Sale Code:	XX00
Deed:	WD
Grantor:	Blake Glenn M
Price:	$2,640,000

Date:	Feb 25, 2000
Book/Page:	1282 / 194
Sale Code:	XX01
Deed:	TR
Grantor:	Wolf William L
Price:	$526,300

Date:	Apr 2, 1999
Book/Page:	1215 / 2035
Sale Code:	XX04
Deed:	WD
Grantor:	William L Wolf
Price:	$70,000

Date:	Aug 23, 1994
Book/Page:	0916 / 2154
Sale Code:	XX02
Deed:	WD
Grantor:	William L Wolf
Price:	$100

Date:	Jul 7, 1992
Book/Page:	0798 / 1462
Sale Code:	XX01
Deed:	WD
Grantor:	
Price:	$100

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:

Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



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Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$1,251,030
Just/Market:	$1,251,030
Ag Credit:	$1,245,633
Save Our Homes or 10% Cap:	$0
Assessed:	$5,397
Exemption(s):	$0
Taxable:	$5,397

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2016	0054	19.624	North St. Lucie Water Management District	$363.04

Start Year	AssessCode	Units	Description	Amount
2017	0041	53.4	Fort Pierce Stormwater Charge	$3,684.60

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office □.

Historical Values

Year	Just/Market	Assessed	Exemptions	Taxable
2020	$1,251,030	$5,397	$0	$5,397
2019	$1,251,030	$5,397	$0	$5,397
2018	$1,251,030	$5,397	$0	$5,397

Permits

Number	Issue Date	Description	Amount	Fee
DM2005153	Jul 12, 2006	Demolition	$20,000	$260
DM2006197	Dec 4, 2006	Demolition	$10,000	$130
DM200727	Mar 23, 2007	Demolition	$3,000	$130

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

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Property Identification

Site Address: S KINGS HWY
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-241-0004-000-0
Jurisdiction: Saint Lucie County

Use Type: 6000
Account #: 153212
Map ID: 23/24N
Zoning: RS-2 - Cou

Ownership

Great American RV Prop LLC

%Bud Wynne
547 Wash Roberts Ln
McMinnville, TN 37110



Legal Description

24 35 39 W 455.58 FT OF E 1118.54 FT OF N 1/2 OF S 1/2 OF NW 1/4 AND W 1088.54 FT OF E 1118.54 FT OF S 264.18 FT OF S 1/2 OF N 1/2 OF S 1/2 OF NW 1/4 OF SEC (10.29 AC) (OR 1798-2252)

Current Values

Just/Market Value:	$668,850
Assessed Value:	$2,830
Exemptions:	$0
Taxable Value:	$2,830

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	10.29
Land Size (SF):	448,232

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	150	160

Sources/links:

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Property Identification

Site Address: 2371 PETERS RD
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-214-0002-000-2
Jurisdiction: Saint Lucie County

Use Type: 0100
Account #: 14256
Map ID: 23/24N
Zoning: RS-2 - Cou

Ownership

RV Development LLC
%Bud Wynne
547 Wash Roberts Ln
McMinnville, TN 37110

Legal Description

24 35 39 FROM SE COR OF NE 1/4 OF NW 1/4 RUN N 100 FT, TH W 30 FT FOR POB, TH CONT W 208.71 FT, TH N 208.71 FT, TH E 208.71 FT, TH S 208.71 FT TO POB (1.00 AC) (OR 1959-2516)



Current Values

Just/Market Value:	$152,000
Assessed Value:	$126,578
Exemptions:	$0
Taxable Value:	$126,578

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Taxes for this parcel: SLC Tax Collector's Office
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Total Areas

Finished/Under Air (SF):	1,450
Gross Sketched Area (SF):	1,690
Land Size (acres):	1
Land Size (SF):	43,560

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	150	160

Sources/links:

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Property Identification

Site Address: 2315 PETERS RD
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-214-0001-000-5
Jurisdiction: Saint Lucie County

Use Type: 0100
Account #: 14255
Map ID: 23/24N
Zoning: RS-2 - Cou

Ownership

R V Development Llc

%Bud Wynne
547 Wash Roberts Ln
McMinnville, TN 37110



Legal Description

24 35 39 FROM INTERIOR 1/4 SEC COR RUN N ALG E LI OF NW 1/4 1790.5 FT, TH W 25 FT FOR POB, TH RUN W 155 FT, TH N 150 FT, TH E 155 FT, TH S 150 FT TO POB (0.53 AC) (OR 1828-2808)

Current Values

Just/Market Value:	$57,800
Assessed Value:	$45,786
Exemptions:	$0
Taxable Value:	$45,786

Property taxes are subject to change upon change of ownership.

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Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	1,962
Gross Sketched Area (SF):	2,738
Land Size (acres):	0.53
Land Size (SF):	23,086.8

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	150	160

Sources/links:

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

Property Identification

Site Address: 2261 PETERS RD
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-211-0001-000-6
Jurisdiction: Saint Lucie County

Use Type: 6000
Account #: 14253
Map ID: 23/24N
Zoning: RS-2 - Cou

Ownership

RV Development LLC

%Bud Wynne
547 Wash Roberts Ln
McMinnville, TN 37110

Legal Description

24 35 39 E 3/4 OF NE 1/4 OF NW 1/4-LESS TRACT 150 FT X 155 FT AS IN DBK 206-141 AND IN OR 492-1228 AND LESS TRACT 208.71 FTX 208.71 FT AS IN DBK 207-165 AND LESS N 35 FT AND LESS E 25 FT- (26.91 AC) (OR 1868-2876 thru 2879 ERROR IN LEGAL)



Current Values

Just/Market Value:	$1,634,000
Assessed Value:	$83,735
Exemptions:	$0
Taxable Value:	$83,735

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Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	1,946
Gross Sketched Area (SF):	4,707
Land Size (acres):	26.91
Land Size (SF):	1,172,199.6

Building Design Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	150	160

Sources/links:

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Construction Plans & Specifications
For
Kings Highway Commerce Park

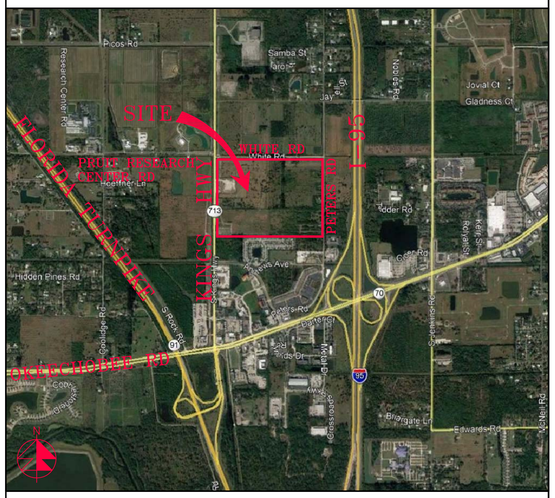
Section 24 Township 35S Range 39E

Fort Pierce, Florida

Developer

Kings Highway Developement Partners, LLC
4923 W. Cypress Street
Tampa, Florida 33607

Aerial



Vicinity Map

Drawing Index

C-1	Cover Sheet
~~C2-C10~~	~~Pavement Marking Plans~~
C11-C19	Grading, Paving, & Drainage Plans
~~C20-C28~~	~~Water & Wastewater Plans~~
C-29	Grading, Paving, & Drainage Details
C-30	Grading, Paving, & Drainage Details
C-31	Grading, Paving, & Drainage Details
~~C-32~~	~~Water & Wastewater Details~~
~~C-33~~	~~Water & Wastewater Details~~
~~C-34~~	~~Water & Wastewater Details~~
~~C-35~~	~~Lift Station Details~~
~~C-36~~	~~Lift Station Details~~
C-37	Pollution Prevention Plan
~~C-38~~	~~Truck Routing Plan~~
C-39	Property Line Sections

REVISIONS

Jeff H. Iravani, Inc.
Consulting Engineers
1934 COMMERCE LANE SUITE 5
JUPITER, FLORIDA 33458
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FAX: (561) 575-6088
JHI@bellsouth.net
www.JHIinc.com

Kings Highway Commerce Park
Fort Pierce, Florida

Cover Sheet

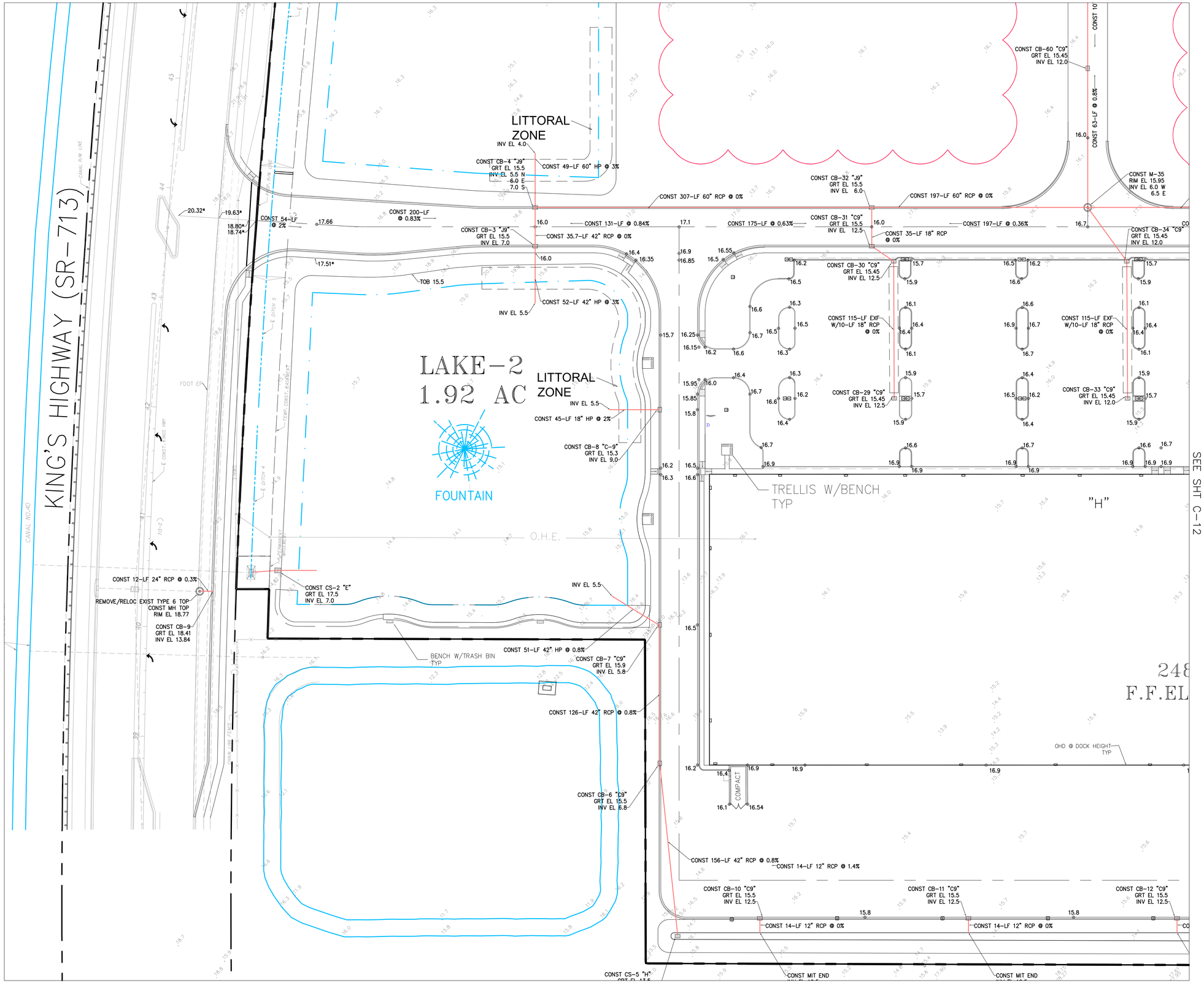
JOB NO.	DRAWN BY	DESIGNED BY	SCALE	DATE
2101-1355	CLJ	JHI	NA	01/22/21

SEAL

FR # 6986

SHEET NO.
C-1

SEE SHT C-14



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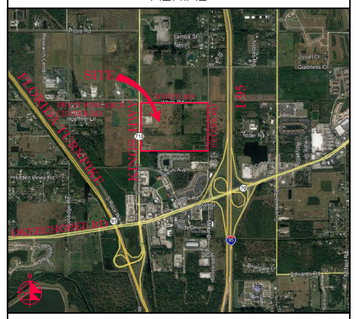

VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

40' 0 20' 40' 80'

SCALE: 1" = 40'

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TEL: (561) 575-6030
FAX: (561) 575-6088
JHI@bellsouth.net

Kings Highway Commerce Park

Fort Pierce, Florida

Grading, Paving & Drainage Plan

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
C-11

SEE SHT C-16

SEE SHT C-11

SEE SHT C-13

CONST CB-60 "C9"
GRT EL 15.45
INV EL 12.0

CONST 107-

CONST 63-LF @ 0.8%

CONST M-35
RIM EL 15.95
INV EL 6.0 W
6.5 E

CONST 243-LF 54" RCP @ 0%

CONST CB-39 "J9"
GRT EL 15.5
INV EL 6.5

CONST 185-LF 54" RCP @ 0%

CONST CB-42 "J9"
GRT EL 16.25
INV EL 6.5

CONST 197-LF 54" RCP @ 0%

CONST CB-45 "J9"
GRT EL 15.5
INV EL 6.5

CONST 104-LF 54" RCP @ 0%

CONST CB-48 "J9"
GRT EL 15.5
INV EL 6.5

CONST 231-LF 54" RCP @ 0%

CONST CB-52 "C9"
GRT EL 15.45
INV EL 6.5 W
7.0 E

0.36%

CONST 243-LF @ 0.3%

CONST 35-LF 18" RCP
@ 0%

CONST CB-34 "C9"
GRT EL 15.45
INV EL 12.0

CONST CB-38 "C9"
GRT EL 15.45
INV EL 12.5

CONST 286-LF @ 0.38%

CONST 62-LF 18" RCP
@ 0%

CONST CB-41 "C9"
GRT EL 15.45
INV EL 12.5

CONST 153-LF @ 0.65%

CONST 153-LF @ 0.65%

CONST 35-LF 18" RCP
@ 0%

CONST CB-47 "C9"
GRT EL 16.3
INV EL 12.5

CONST 181-LF @ 0.61%

CONST 35-LF 18" RCP
@ 0%

CONST CB-51 "C9"
GRT EL 15.45
INV EL 12.5

CONST CB-37 "C9"
GRT EL 15.45
INV EL 12.5

CONST 0-LF 18" RCP
@ 0%

CONST 115-LF EXF
W/10-LF 18" RCP
@ 0%

CONST 115-LF EXF
W/10-LF 18" RCP
@ 0%

CONST 115-LF EXF
W/10-LF 18" RCP
@ 0%

CONST 90-LF @ 0.33%

CONST CB-43 "C9"
GRT EL 15.5
INV EL 12.7

CONST CB-44 "C9"
GRT EL 15.5
INV EL 12.7

CONST 115-LF EXF
W/10-LF 18" RCP
@ 0%

CONST CB-33 "C9"
GRT EL 15.45
INV EL 12.0

CONST CB-36 "C9"
GRT EL 15.45
INV EL 12.5

CONST CB-40 "C9"
GRT EL 15.45
INV EL 12.5

CONST 269-LF @ 0.4%

CONST CB-46 "C9"
GRT EL 15.5
INV EL 12.5

"A"

"H"

"L"

BLDG-A
PH-I
265 KSF
17 KSF OFFICE
248 KSF WAREHOUSE
F.F.EL 17.5 FT, NAVD MIN

OHD @ DOCK HEIGHT
TYP

CONST 132-LF @ 0.38%

CONST CB-15 "C9"
GRT EL 16.2
INV EL 13.0

CONST CB-16 "C9"
GRT EL 16.2
INV EL 12.9

CONST 139-LF @ 0.72%

COMPACT

COMPACT

CONST CB-12 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-13 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-14 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-17 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-18 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-19 "C9"
GRT EL 15.5
INV EL 12.5

12" RCP @ 0%

CONST 14-LF 12" RCP @ 0%

CONST 14-LF 12" RCP @ 0%

CONST 14-LF 12" RCP @ 0%

CONST 14-LF 12" RCP @ 0%

CONST 14-LF 12" RCP @ 0%

BTM EL 12.5

DRY DETENTION-8 1.49 AC

CONST MIT END

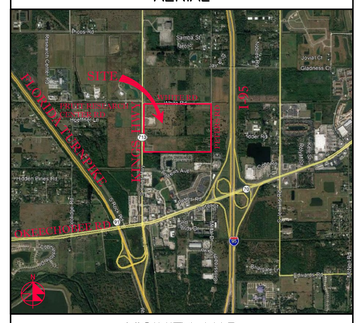
CONST MIT END

CONST MIT END

CONST MIT END

CONST MIT END

AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

40' 0 20' 40' 80'

SCALE: 1" = 40'

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Kings Highway Commerce Park

Fort Pierce, Florida

Grading, Paving & Drainage Plan

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
C-12

SEE SHT C-18

SEE SHT C-12

CONST CB-48 "J9"
GRT EL 15.5
INV EL 6.5

CONST 231-LF 54" RCP @ 0%

CONST 35-LF 18" RCP @ 0%

CONST 181-LF @ 0.61%

CONST CB-52 "C9"
GRT EL 15.45
INV EL 6.5 W
7.0 E

CONST 35-LF 18" RCP @ 0%

CONST CB-51 "C9"
GRT EL 15.45
INV EL 12.5

CONST CB-50 "C9"
GRT EL 15.45
INV EL 12.5

CONST 227-LF 48" RCP @ 0%

CONST 225-LF @ 0.33%

CONST CB-55 "J9"
GRT EL 15.5
INV EL 7.0

CONST 35-LF 18" RCP @ 0%

CONST CB-54 "C9"
GRT EL 16.3
INV EL 12.5

CONST 192-LF 48" RCP @ 0%

CONST 198-LF @ 0.38%

CONST CB-59 "C9"
GRT EL 15.5
INV EL 7.0

CONST 35-LF 18" RCP @ 0%

CONST CB-58 "C9"
GRT EL 15.45
INV EL 12.5

CONST 128-LF @ 0.86%

CONST CB-57 "C9"
GRT EL 16.3
INV EL 12.5

CONST 331-LF 48" RCP @ 0%

CONST 102-LF @ 0.35%

CONST 61-LF 42" RCP @ 0.6%

CONST CB-27 "C9"
GRT EL 16.3
INV EL 7.0

CONST 35-LF 48" RCP @ 0.6%

CONST 101-LF @ 0.64%

CONST CB-28 "C9"
GRT EL 16.32
INV EL 6.8

CONST 40-LF @ 2%

CONST CS-26 "H"
GRT EL 12.5
INV EL 7.0

CONST 59-LF 48" HP @ 3%

INV EL 5.0

LITTORAL ZONE

CONST 115-LF EXF W/10-LF 18" RCP @ 0%

CONST CB-46 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-49 "C9"
GRT EL 15.45
INV EL 12.5

CONST CB-53 "C9"
GRT EL 16.3
INV EL 12.5

CONST CB-56 "C9"
GRT EL 16.3
INV EL 12.5

CONST CB-25 "C9"
GRT EL 15.5
INV EL 6.2

INV EL 5.0

CONST 61-LF 18" HP @ 2%

"A"

"E"

"F"

BLDG-B
PH-I
220 KSP
14 KSF OFFICE
207 KSF WAREHOUSE
F.F.EL 17.5 FT, NAVD MIN

LAKE-3
2.30 AC

FOUNTAIN

CONST CB-22 "C9"
GRT EL 15.5
INV EL 12.5

CONST 143-LF 18" RCP @ 0%

COMB-VCL

CONST CB-18 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-19 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-20 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-21 "C9"
GRT EL 15.5
INV EL 12.5

CONST CB-23 "C9"
GRT EL 15.5
INV EL 12.5

CONST 14-LF 12" RCP @ 0%

CONST MIT END
INV EL 12.5

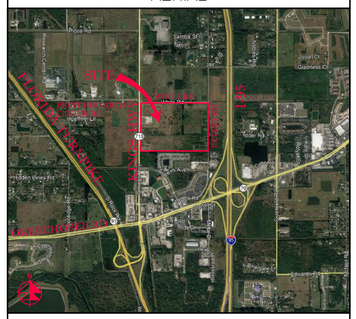
CONST CS-24 "H"
GRT EL 13.0

CONST 60-LF 36" HP @ 0.8%

20' LME

PETERS ROAD

AERIAL



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40' 0 20' 40' 80'

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JUPITER, FLORIDA 33458
TEL: (561) 575-6030
FAX: (561) 575-6088
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Kings Highway Commerce Park

Fort Pierce, Florida

Grading, Paving & Drainage Plan

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 40'	01-22-2021

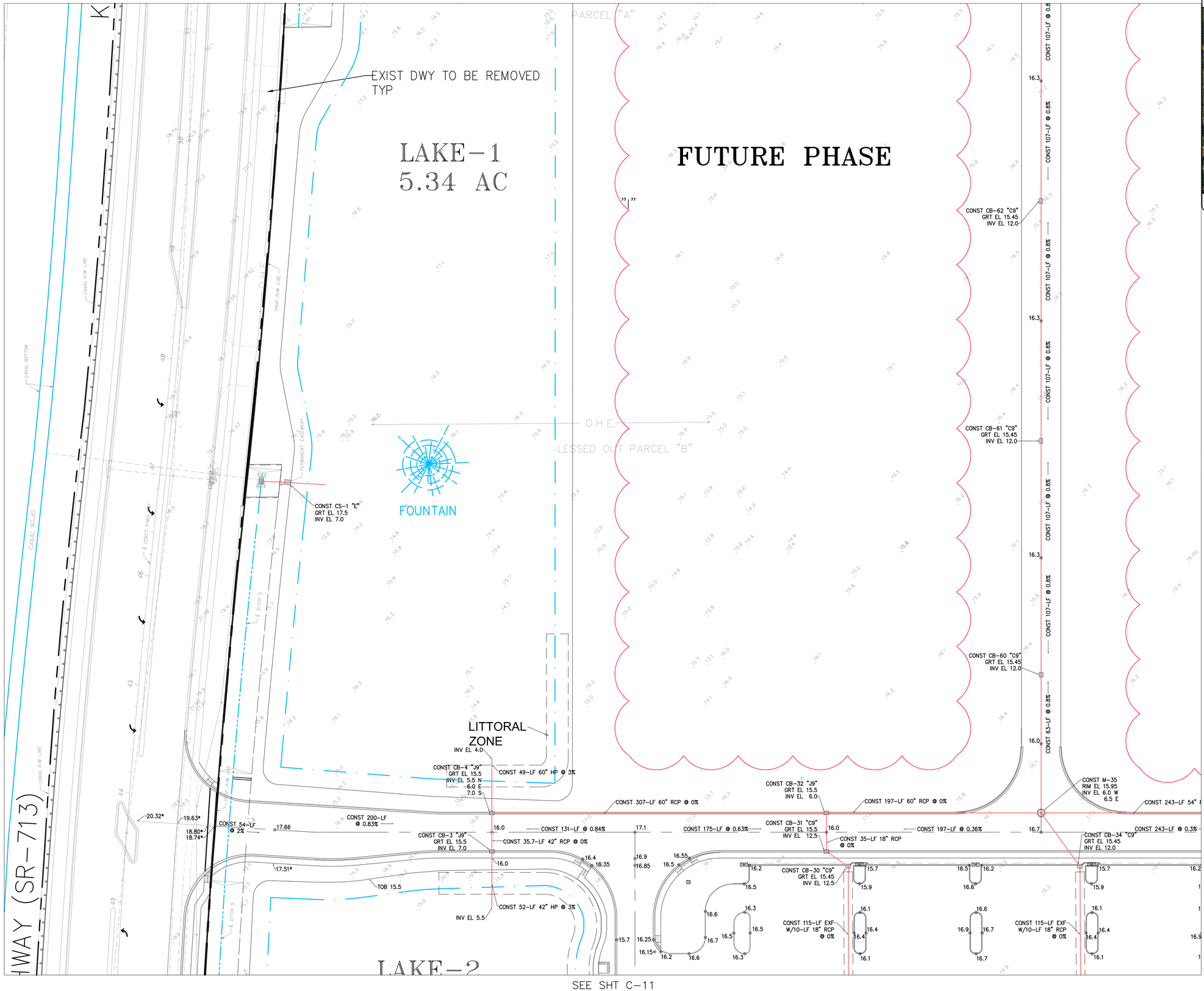
SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
C-13

SEE SHT C-15



SEE SHT C-11

SEE SHT C-16

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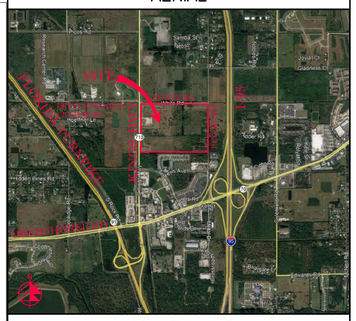

VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

40' 0 20' 40' 80'

SCALE: 1" = 40'

NOTES:

1. GRT EL OF TYPE-9 INLETS ARE AT THE GUTTER FLOWLINE.
2. TYPE "C-9" STRUCTURES SHALL BE TYPE "C" BOX WITH TYPE "9" GRATE PER FDOT INDEX 425-052.
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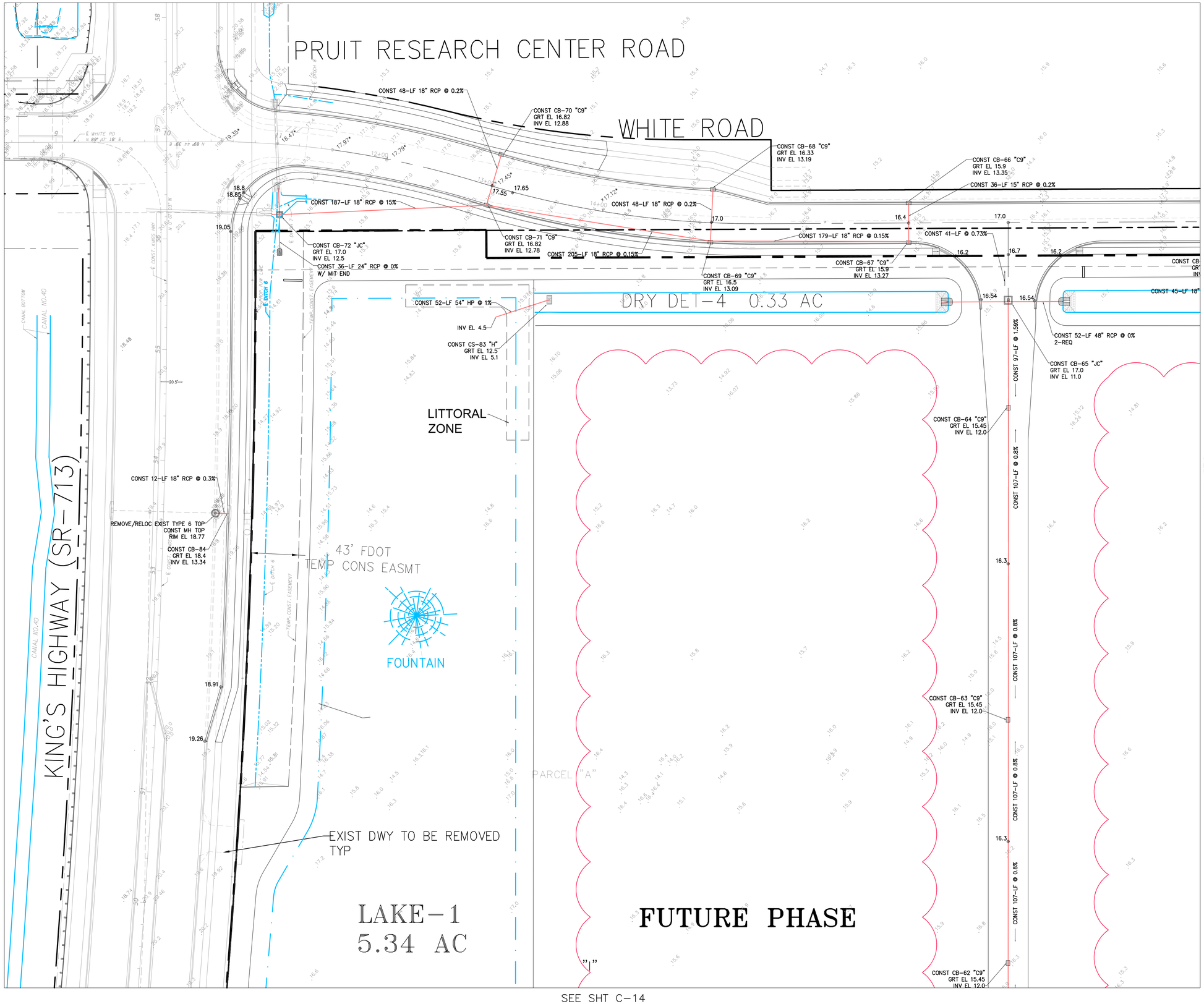

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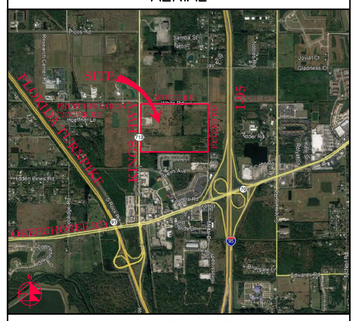

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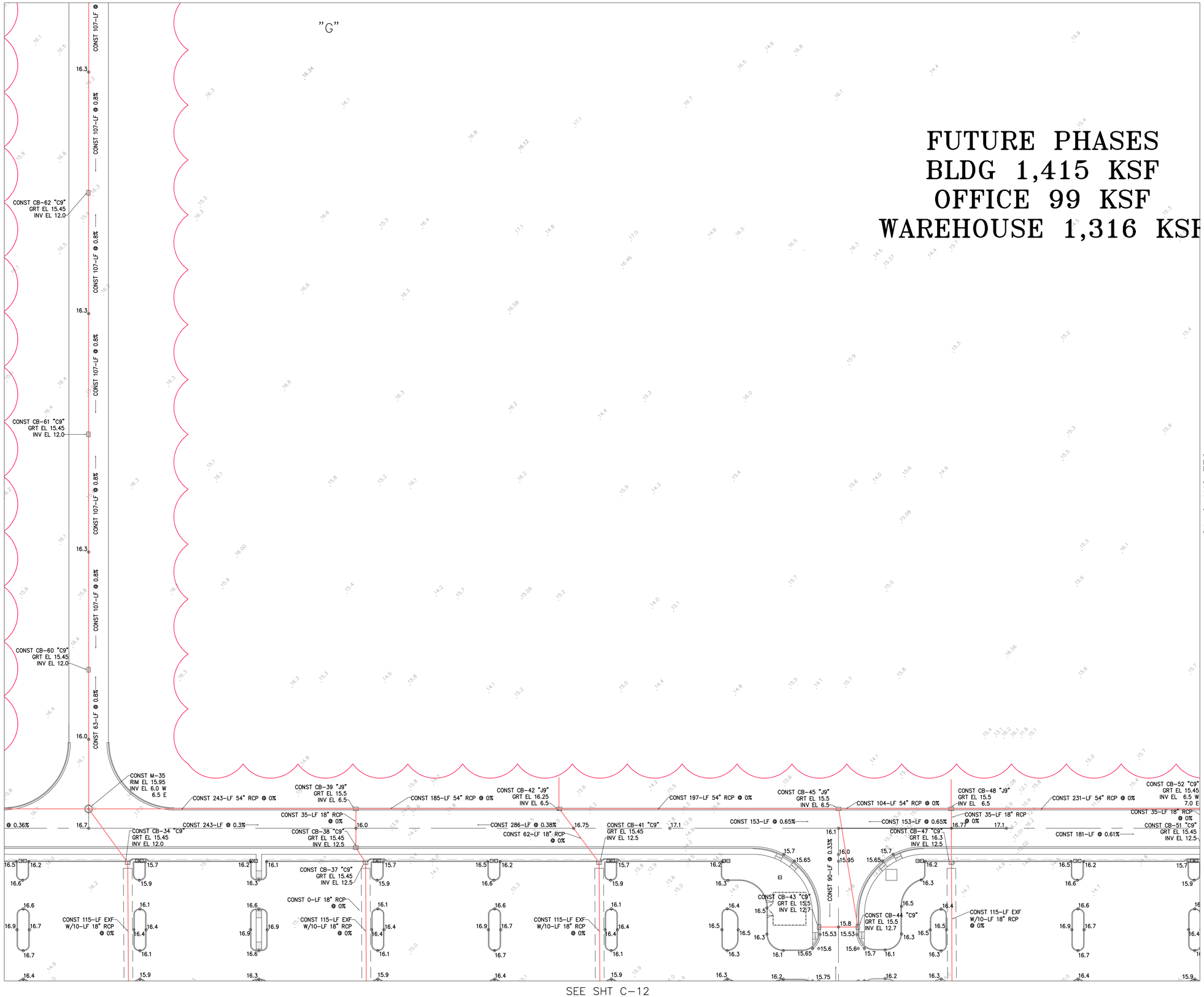

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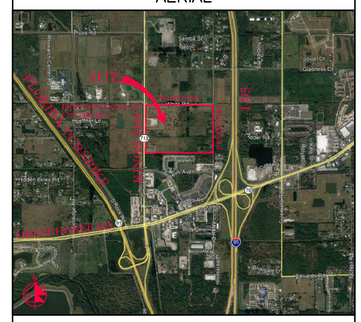

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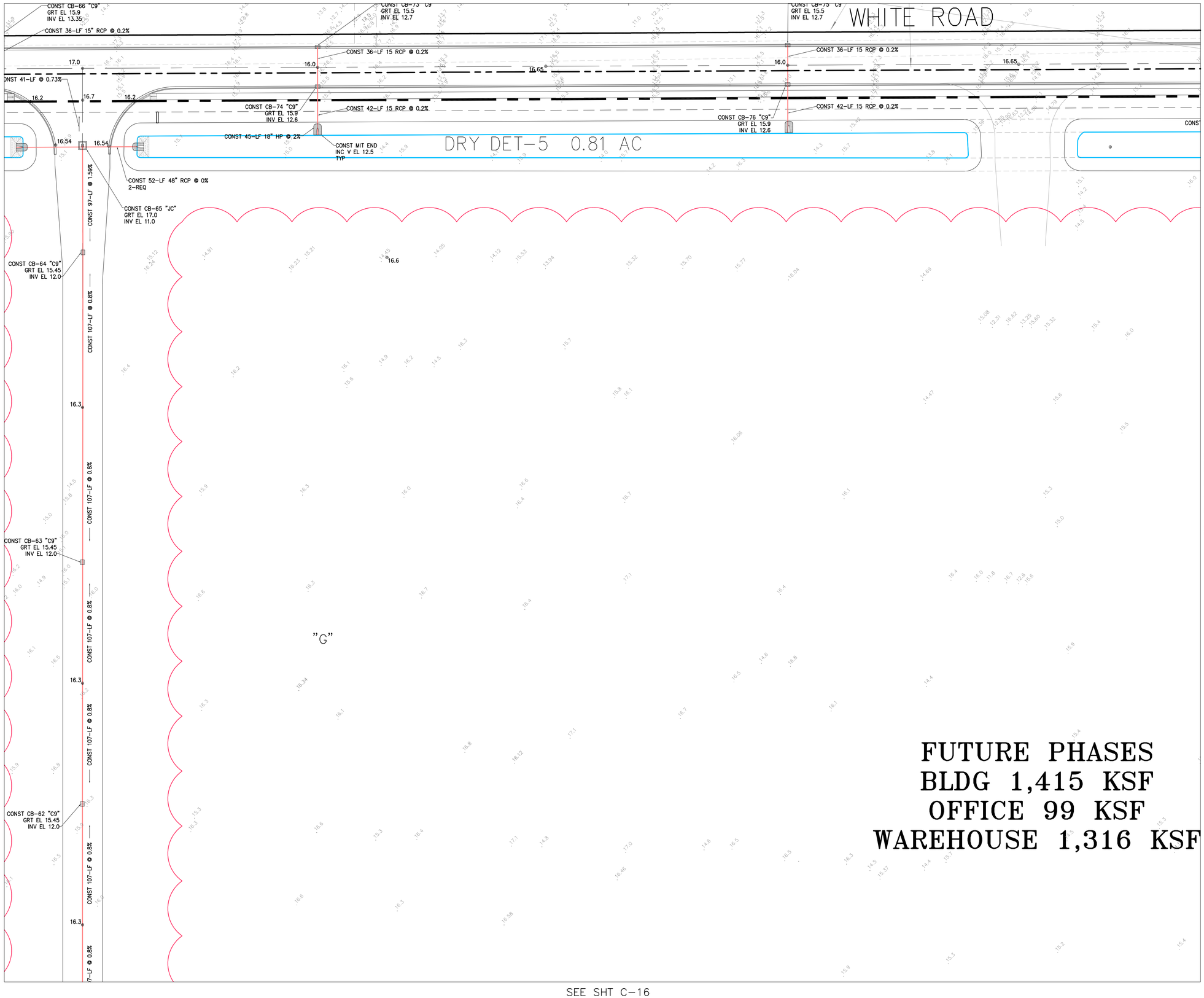

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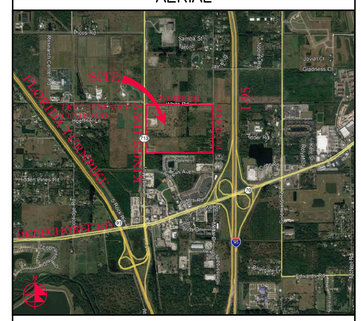

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SEE SHT C-16

TURE PHASES
DG 1,415 KSF
FICE 99 KSF
HOUSE 1,316 KSF

"D"

DRY DETENTION-7 1.35 AC

"C"

CONST CS-28 "H"
GRT EL 12.5
INV EL 7.0

CONST 61-LF 42" RCP @ 0.6%

CONST CB-27 "C9"
GRT EL 16.3
INV EL 7.0

CONST 40-LF @ 2%

CONST 35-LF 48" RCP @ 0.6%

CONST 101-LF @ 0.64%

CONST CB-28 "C9"
GRT EL 16.32
INV EL 6.8

CONST 59-LF 48" HP @ 3%

INV EL 5.0

LITTORAL
ZONE

CONST CB-48 "J9"
RT EL 15.5
V EL 6.5

CONST 231-LF 54" RCP @ 0%

CONST 35-LF 18" RCP
@ 0%

CONST 181-LF @ 0.61%

CONST CB-52 "C9"
GRT EL 15.45
INV EL 6.5 W
7.0 E

CONST 35-LF 18" RCP
@ 0%

CONST CB-51 "C9"
GRT EL 15.45
INV EL 12.5

CONST 227-LF 48" RCP @ 0%

CONST 225-LF @ 0.33%

CONST CB-55 "J9"
GRT EL 15.5
INV EL 7.0

CONST 35-LF 18" RCP
@ 0%

CONST CB-54 "C9"
GRT EL 16.3
INV EL 12.5

CONST 192-LF 48" RCP @ 0%

CONST 198-LF @ 0.38%

CONST CB-59 "C9"
GRT EL 15.5
INV EL 7.0

CONST 35-LF 18" RCP
@ 0%

CONST CB-58 "C9"
GRT EL 15.45
INV EL 12.5

CONST 331-LF 48" RCP @ 0%

CONST 128-LF @ 0.86%

CONST CB-57 "C9"
GRT EL 16.3
INV EL 12.5

CONST 102-LF @ 0.35%

CONST CB-50 "C9"
GRT EL 15.45
INV EL 12.5

CONST 115-LF EXF
W/10-LF 18" RCP
@ 0%

CONST 115-LF EXF
W/10-LF 18" RCP
@ 0%

CONST 115-LF EXF
W/10-LF 18" RCP
@ 0%

CONST 115-LF EXF
W/10-LF 18" RCP
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CONST CB-49 "C9"
GRT EL 15.45

CONST CB-53 "C9"

SEE SHT C-13

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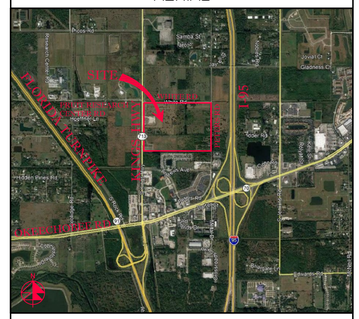

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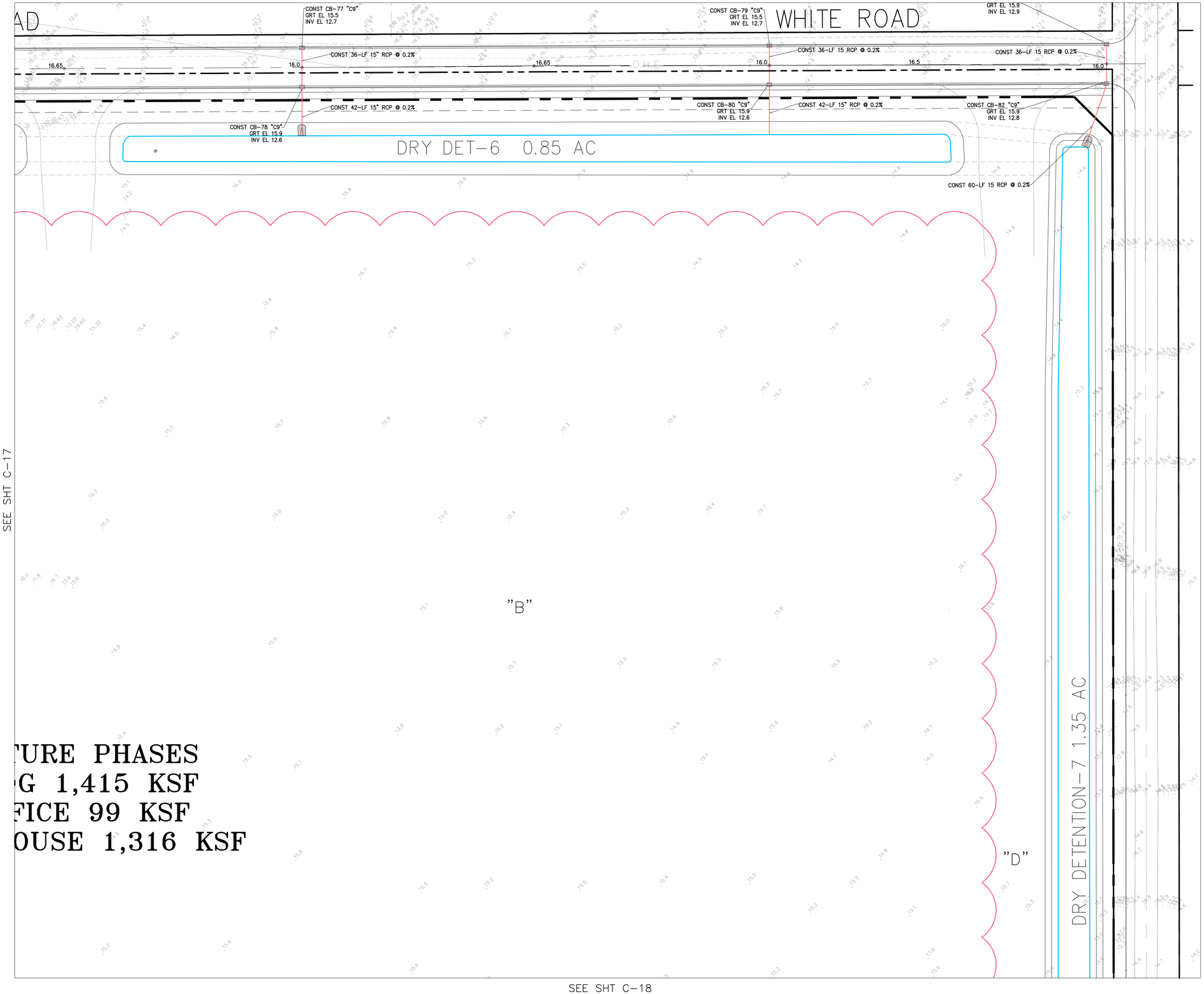

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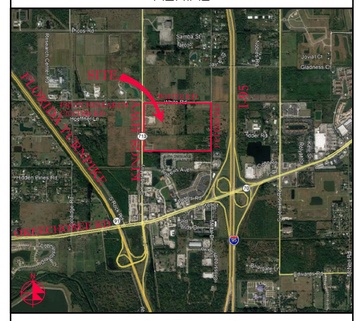

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12. ALL CATCH BASINS LOCATED IN E/F-CURB SHALL HAVE USF 6168 FRAME & GRATE.
13. ALL CATCH BASINS AND MANHOLES SHALL HAVE TURBIDITY CONTROL BARRIERS PER DETAIL DURING THE CONST PHASE OF THE PROJECT.
14. CONTRACTOR SHALL CONSTRUCT SILT FENCE AT P/L.
15. ACCESSIBLE ROUTES INCL SW'S, HANDICAP RAMPS & DET WARNINGS SHALL CONFORM TO 2010 US DOJ "STD'S FOR ACCESSIBLE DESIGN", FBC CHAPTER 11, & FDOT INDEX 522-002.
16. CONTRACTOR SHALL PROTECT ALL INLETS & SITE PERIMETERS DURING CONSTRUCTION PER FLORIDA STORMWATER, ERROSION, & SEDIMENTATION CONTROL INSPECTORS MANUAL.
17. PAVT SHALL BE ¼" ABOVE THE INLET GRATE & E/F-CURB
18. ALL D-CURBS SHALL TERMINATE WITH 2' TAPER.
19. CATCH BASINS TYPES "C" & "E" REFER TO FDOT INDEX 425-052.
20. ALL SIDEWALKS ON ROW MUST BE 3,000 PSI CLASS 1 CONCRETE W/ STABILIZED SUBGRADE, SEE DETAILS.
21. ADS HP STORM PIPE MAY BE SUBSTITUTED FOR RCP PIPE PENDING EOR APPROVAL. CONTRACTOR TO PROVIDE AN ALTERNATE BID FOR ADS PIPE.

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Kings Highway Commerce Park

Fort Pierce, Florida

Grading, Paving & Drainage Plan

DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1"= 40'	01-22-2021

SEAL

COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

SHEET NO.
C-19

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING ABOVE GROUND, UNDERGROUND, AND ON THE SURFACE STRUCTURES AND UTILITIES AGAINST THE CONSTRUCTION OPERATION THAT MAY CAUSE DAMAGE TO SAID FACILITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED TESTS TO BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 24 HOURS PRIOR TO ANY REQUIRED INSPECTIONS AND SHALL SUPPLY ALL EQUIPMENT NECESSARY FOR INSPECTION AND/OR TEST.
4. THE CONTRACTOR SHALL GIVE ADEQUATE NOTIFICATION TO ALL AFFECTED UTILITY OWNERS FOR REMOVAL, RELOCATION AND ALTERATION OF THEIR EXISTING FACILITIES.
5. WHERE ENCOUNTERED, UNSUITABLE MATERIAL SHALL BE REMOVED TO A DEPTH AN AREA DETERMINANT BY THE ENGINEER AND BACKFILLED WITH CLEAN GRANULAR SAND OR SELECT MATERIAL APPROVED BY THE ENGINEER. BACKFILLING SHALL BE IN LAYERS NOT GREATER THAN 8" THICKNESS AND COMPACTED TO 100 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO T99-C. FILL UNDER BUILDING SHALL BE PLACED IN ACCORDANCE WITH SOIL ENGINEER'S RECOMMENDATIONS.
6. ALL WORK SHALL BE PERFORMED IN A WORKMANSHIP MANNER AND SHALL MEET WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL REGULATIONS AND/OR CODES, INCLUDING OSHA.
7. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND/OR LICENSES TO COMMENCE CONSTRUCTION.
8. ALL CONCRETE SHALL DEVELOP A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI OR OTHERWISE NOTED.
9. ALL REINFORCING STEEL SHALL CONFORM TO ASTM-615 AND HAVE A TENSILE STRENGTH OF 60,000 PSI OR OTHERWISE NOTED.
10. THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FORM THE DATE THAT PROJECT HAS BEEN ACCEPTED. ALL FAULTY CONSTRUCTION AND/OR MATERIALS DURING FORESAID PERIOD SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

DRAINAGE

1. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED AS PER DETAIL AND IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. PIPE TRENCH SHALL BE DRY WHILE PIPE IS BEING LAID AND TO BE BEDDED PER DETAIL AND IN CONFORMANCE WITH SECTION 430, FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
3. PIPE TRENCHES TO EXCAVATED AND BACKFIELD IN ACCORDANCE WITH SECTION 125, FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
4. THE FOLLOWING PIPES SHALL CONFORM WITH THE APPROPRIATE FOLLOWING SECTIONS OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION:
   1. REINFORCED CONCRETE PIPE (RCP) – SECTIONS 430 AND 941
   2. CORRUGATED ALUMINUM PIPE (CAP) – SECTIONS 430 AND 945
   3. CORRUGATED STEEL PIPE (CMP) – SECTIONS 430 AND 943
5. ALL CORRUGATED PIPES SHALL BE INSTALLED WITH MAXIMUM LENGTHS IN ORDER TO MINIMIZE JOINTS.
6. ALL CONNECTION BANDS, FOR CORRUGATED PIPES, SHALL BE CORRUGATED, LAP-TYPE, IN CONFORMANCE WITH AASHTO M-196, AND TO BE MADE WATER-TIGHT BY USING A GASKET AT LEAST SIX (6) INCHES WIDE BY 3/4" THICK.
7. HDPE PIPE MATERIALS:
   HDPE PIPES 12" THROUGH 36" NOMINAL DIAMETER:
   TYPE "S" SMOOTH INTERIOR PIPE IN CONFORMACE WITH AASHTO M294.
   NOTE: CORRUGATIONS SHALL BE ANNULAR CONFIGURATION ONLY.
   HDPE PIPES 42" AND 48" NOMINAL DIAMETER:
   TYPE "D" SMOOTH INTERIOR, SMOOTH EXTERIOR PIPE IN CONFORMANCE MP46-95 TYPE "D".
8. ALL SOD LAID WITHIN SLOPES OF BERMS, DRAINAGE SWALES, AND RETENTION AREAS SHALL BE PINNED PER ENGINEERS DIRECTION.
9. ALL PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.
10. ALL ROOF DRAINS AND YARD DRAINS SHALL BE CONNECTED TO STRUCTURES BY THE UNDERGROUND CONTRACTOR.

ROADWAY

1. SUBGRADE SHALL BE AS SHOWN ON SECTION.
2. BASE SHALL BE AS SHOWN ON SECTION, HAVE A MINIMUM LBR 100 AND TO BE COMPACTED TO 98 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTOT-180.
3. PRIME COAT SHALL BE APPLIED AT THE RATE OF .15 GALLON PER SQ. YARD. WHERE REQUIRED, TACK SHALL BE APPLIED AT THE RATE OF . .08 GALLON PER SQUARE YARD.
4. THE CONTRACTOR IS TO SUBMIT ALL REQUIRED TESTS ON SUBGRADE, BASE AND SURFACE COURSE MATERIAL PRIOR TO ANY REQUEST FOR PAYMENT.
5. IF ANY TEST FAILS TO MEET THEIR SPECIFICATIONS, THE CONTRACTOR, AT HIS EXPENSE, SHALL CORRECT ALL DEFICIENT WORK AND SUBMIT TEST RESULTS INDICATING COMPLIANCE WITH THESE SPECIFICATIONS PRIOR TO ANY REQUEST FOR PAYMENT.
6. ALL UNDERGROUND UTILITIES WITHIN ROADWAY CONSTRUCTION SHALL BE INSTALLED PRIOR TO ROAD CONSTRUCTION.
7. ALL ROADWAY CONSTRUCTION AND MATERIAL SHALL CONFORM TO THE APPLICABLE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
8. ALL CURBING, AND RAISED SIDEWALK IF SHOWN, SHALL BE CONSTRUCTED PRIOR TO ASPHALT PAVING.

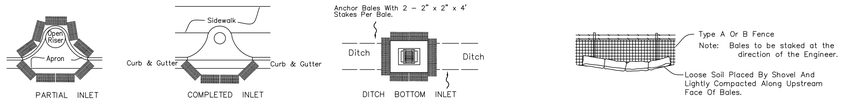
CONSTRUCTION INSPECTION CHECKPOINTS

ROADWAY: THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR INSPECTION AT THE FOLLOWING CHECKPOINTS:

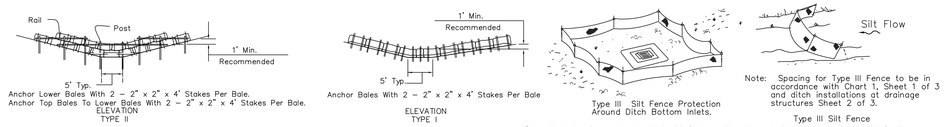
1. PRIOR TO ANY DEVIATION FROM THE APPROVED GRADING, PAVING, AND DRAINAGE PLANS.
2. PRIOR TO BACK FILLING OF TRENCHES CONTAINING HYDRAULIC CONDUITS, SO THAT JOINTS MAY BE INSPECTED.
3. UPON COMPLETION OF THE SUBGRADE COMPACTION.
4. AT THE TIME OF DELIVERY OF BASE MATERIAL.
5. UPON COMPLETION OF THE BASE AND PRIOR TO PRIMING
6. IMMEDIATELY PRIOR TO AND DURING THE FIRST APPLICATION OF THE MIXES WEARING SURFACE.
7. UPON COMPLETION OF CONSTRUCTION A FINAL INSPECTION MAY BE MADE WITH THE CONTRACTOR.

STRIPING

1. ALL PAVEMENT STRIPING SHALL BE TRAFFIC PAINT IN ACCORDANCE WITH FDOT INDEX 17346. STRIPING FOR PEDESTRIAN CROSSING AND STOP BARS SHALL BE THERMOPLASTIC IN ACCORDANCE WITH FDOT INDEX 17346.



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



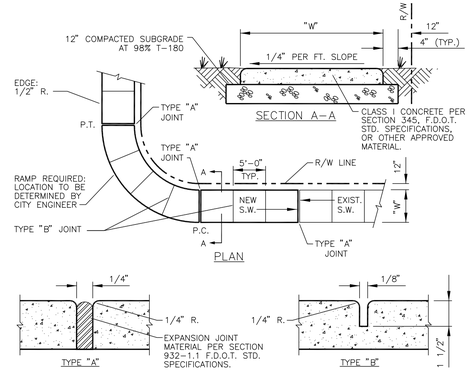
Application and Spacing: The use of Types I & II bale barriers should be limited to the conditions outlined in Chart 1, Sheet 1 of 3, Index No. 102, FDOT standard specifications.

BARRIER FOR UNPAVED DITCHES

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS
8" MIN EMBEDMENT

BALED HAY OR STRAW BARRIERS AND SILT FENCES



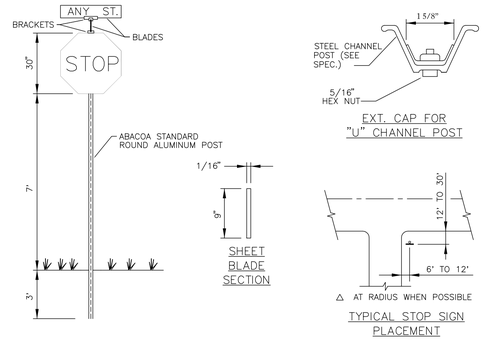
SIDEWALK JOINT

TABLE OF SIDEWALK THICKNESS – "T"	
RESIDENTIAL AREAS	4"
WITHIN 10' OF CROSS-STREETS, AT DRIVEWAYS & OTHER AREAS	6"
TABLE OF SIDEWALK WIDTHS – "W"	
SINGLE-FAMILY AREAS	4'*
MULTI-FAMILY AREAS	5'
OTHER AREAS AS SPECIFIED BY THE LAND DEVELOPMENT REGULATIONS.	

* MINIMUM.

TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
"A"	P.C. AND P.T. OF CURVES, JUNCTION OF EXISTING & NEW SIDEWALKS & EVERY 30'
"B"	5'-0" CENTER TO CENTER ON SIDEWALKS SCORED DURING PLACEMENT OR SAWCUT WITHIN 24 HOURS OF PLACEMENT
"A"	WHERE SIDEWALK ABUTS CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES

SIDEWALK CONSTRUCTION DETAIL

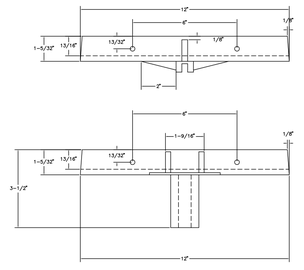


GENERAL SPECIFICATIONS

FLAT BLADE: ALCOA #86054.6063-T6 ALLOY ETCHED, DEGREASED WITH #1200 ALODINE FINISH WITH #2277 GREEN SCOTCHLITE BACKGRAOUND OR EQUAL DIMENSIONS – 9" & 12" MIN H., 24".30" OR 36" L.
LETTER: NAME – 6" & 9" SERIES 'B' #2270 SCOTCHLITE (SILVER) OR EQUAL – SUFFIX – 4.5" SERIES AS ABOVE.
BRACKETS: SEE DETAILS
POST: STEEL FLANGED CHANNEL POST WITH BAKED GREEN ALKYD FINISH PER A.S.T.M. – A – 123 WITHOUT ANCHOR PLATES.
STOP SIGN: R1-1 MUTCD – 30"x30" (HIGH INTENSITY)
LOCATION: ONE PER INTERSECTION AS INDICATED ON THE PLANS.
POLICY: 9" BLADE WITH 6" LETTERS FOR TWO LANE ROADS WITH A SPEED LIMIT UNDER 45 MPH.
12" BLADES WITH 9" LETTERS:
–THOROUGHFARE ROADS FOUR LANES OR WIDER
–TWO LANE ROADS WITH A POSTED SPEED LIMIT 45 MPH OR MORE.

DIMENSION TOL.	2.00	3.00
'A' ±	3/32"	1-15/32" 1-7/8"
'B' ±	1/8"	3-1/16" 3-1/2"
'C' ±	1/16"	1-9/32" 1-5/16"
'D' ±	1/32"	3/16" 7/32"

STREET SIGN/STOP SIGN DETAIL



A- ALL DIMENSIONS AND SPECIFICATIONS CONTAINED IN DRAWINGS

B- MATERIALS: ALUMINUM HIGH STRENGTH ALLOY 380 ASTM B95-60T. HARDWARE SHALL BE SMOOTHLY FINISHED AND PRECISION MACHINED TO FIT STANDARD FLAT BLADE SECTION. ALLOWING CLEARANCE FOR REFLECTIVE FACING ACCORDING TO REQUIREMENTS

C- POST TO SIGN BRACKET: THEY SHALL BE ATTACHED FIRMLY ON STANDARD ROUND TUBING OR U-CHANNEL POSTS BY MEANS OF (2) 5/16" DIAMETER HEX HEAD SCREWS

D- SIGN TO SIGN BRACKET: THEY SHALL BE 90 OR 45 DEGREE TYPE WITH MINIMUM REQUIREMENTS EQUAL TO THE POST TO SIGN BRACKET

REVISIONS

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Fort Pierce, Florida

PAVING, GRADING, & DRAINAGE DETAILS

DATE	SCALE	DESIGNED BY	DRAWN BY	JOB NO.
01/22/2021	NA	JHI	CLJ	2101-1355

SEAL

COA # 6986

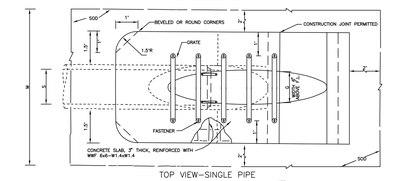
SHEET NO.
C-29

	D	X	A	B	C	E	F	G	M SINGLE PIPE	M DOUBLE PIPE	M TRIPLE PIPE	M QUAD PIPE	N	GRATE STANDARD WEIGHT PIPE
15"	2'-7"	2'-2"	6'-09"	6'-36"	4'-03"	8"	1'-22"	6'-83"	7'-21"	8'-20"	13'-31"	1'-19"	1'-6"
18"	2'-10"	2'-5"	6'-52"	7'-48"	4'-03"	8"	1'-41"	6'-83"	7'-70"	10'-06"	14'-42"	1'-31"	1'-6"
24"	3'-5"	2'-8"	7'-18" Δ	9'-11"	7'-03" Δ1	11"	1'-74"	6'-92"	8'-92"	12'-33"	15'-75"	1'-59"	1'-6"
30"	4'-1"	2'-10"	9'-25"	11'-95"	9'-03"	1'-3"	2'-00"	8'-08"	10'-33"	14'-58"	18'-83"	1'-79"	1'-6"

Δ 6.42'
◇ 10.40'

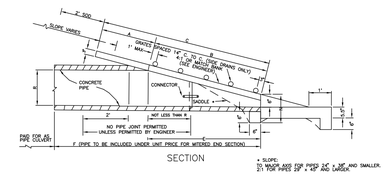
Δ 6.25' DIMENSIONS PERMITTED TO ALLOW USE OF 8' STANDARD PIPE LENGTHS.
◇ 10.10' DIMENSIONS PERMITTED TO ALLOW USE OF 12' STANDARD PIPE LENGTHS.

Δ◇ CONCRETE SLAB SHALL BE DEEPENED TO FORM BRIDGE ACROSS CROWN OF PIPE. SEE SECTION BELOW.



TOP VIEW–SINGLE PIPE

NOTE:
1. GRATE SHALL BE UTILIZED ONLY FOR CROSS DRAIN UNDER PUBLIC RIGHT OF WAY.

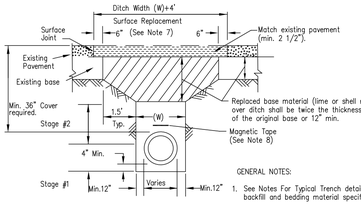


SECTION

* SLOPE:
TO MATCH ADD FOR PIPES 24" & 30" AND SMALLER.
2:1 FOR PIPES 36" & 42" AND LARGER.

MITERED END DETAIL

SEE LATEST FDOT ROADWAY & TRAFFIC DESIGN STANDARDS MANUAL
SIDE DRAIN MITERED END SECTION FOR SINGLE AND MULTIPLE ROUND CONCRETE PIPE



DENSITY PROCEDURES:

The backfill for the first and second stages shall be placed in 6" layers (compacted thickness) and shall be compacted to 100% of maximum density as determined by AASHTO T-99.

Stage #1

The contractor shall provide adequate compacted fill beneath the haunches of the pipe, using mechanical tamps suitable for this purpose. This compaction applies to the material placed beneath the haunches of the pipe and above any bedding required.

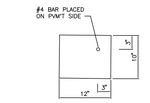
Stage #2

The contractor shall obtain a well compacted bed and fill along the sides of the pipe and to a point indicating the top of sub-grade material.

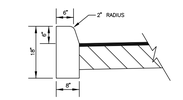
GENERAL NOTES:

1. See Notes For Typical Trench detail for backfill and bedding material specifications.
2. Base material shall be placed in 6" layers and each layer compacted to 98% of maximum density per AASHTO T-180.
3. Asphalt concrete pavement joints shall be mechanically sawed (butt joints only).
4. Surface material will be consistent with the existing surface. The affected area shall be restored to equal or better condition.
5. The developer/contractor shall be responsible for compliance regarding any additional specifications as required by the property owner. (FDOT, County, City, etc.....)
6. Excavatable "Flowable Fill" with ultimate compressive strength between 50 and 150 psi may be used to substitute for the backfill and base materials.
7. Pavement overlay on both sides of the cut maybe required per owner specification.
8. Magnetic Tape is required for all Potable Water Mains and all PVC/HDPE Force Mains and Reclaimed Water Mains. (See Trenching Detail for installation instructions).
9. The contractor shall be compliant with applicable trench safety regulations (OSHA, etc.)

PIPE INSTALLATION UNDER EXISTING PAVEMENT – OPEN CUT



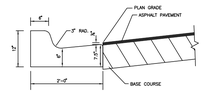
TYPE 'C' CURB



NOTES:
1. SEE F.D.O.T. INDEX NO. 300 FOR ADDITIONAL INFORMATION.
2. CONCRETE TO BE A MINIMUM OF 3000 PSI CONCRETE AT 28 DAYS
3. CURB TO BE IN PLACE PRIOR TO SURFACE COURSE BEING PLACED.
4. SAWCUTS TO BE MADE AT 10' O.C. THROUGHOUT CURB CONST.

TYPE "D" CURB

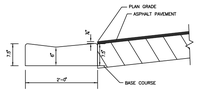
NOT TO SCALE



NOTE:
1. INSTALL CURB IN ACCORDANCE WITH F.D.O.T. INDEX NO. 300
2. CURB TO BE IN PLACE PRIOR TO SURFACE COURSE BEING PLACED.

TYPE "F" CURB

NOT TO SCALE

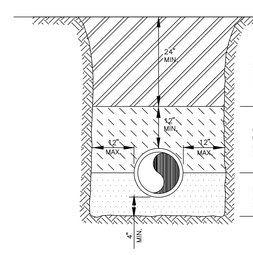


NOTE:
1. INSTALL CURB IN ACCORDANCE WITH F.D.O.T. INDEX NO. 300
2. CURB TO BE IN PLACE PRIOR TO SURFACE COURSE BEING PLACED.

DROP CURB

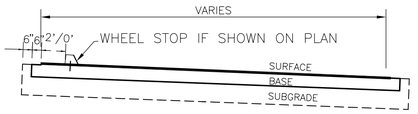
NOT TO SCALE

CURB DETAILS



NOTES:
1. BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8"-7/8" SIZING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED.
2. THE PIPE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
3. THE PIPE SHALL BE PLACED IN A DRY TRENCH.
4. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK, AND DEBRIS.
5. DENSITY TESTS ARE REQUIRED IN 1 FOOT LIFTS ABOVE THE PIPE AT INTERVALS OF 400' MAXIMUM, OR AS DIRECTED BY THE INSPECTOR.

TYPICAL TRENCH DETAIL



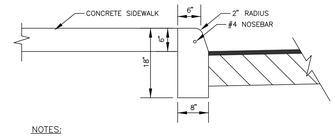
FLEXIBLE PAVEMENT
SURFACE: 2" TYPE S-1/S-3 ACSC
BASE: 8" LIMEROCK / COQUINA ROCK COMP MIN LBR 100
SUBGRADE: 12" COMP
COMP: COMPACTED TO 98% MAX D.D. AASHTO T-180

CONC SLAB
SURFACE: 6" 3KSI W/6X6 W1.4XW1.4 WWM OR FIBER MESH W/1.5" SAW-CUTS @ 12' MAX O.C. E.W.
SAW CUT SLAB DIM'S PROPORTION SHALL BE 1.5:1MIN
ALL JOINTS SHALL BE IN ACCORD W/ FDOT INDEX 305
BASE: 6" LIMEROCK / COQUINA ROCK COMP MIN LBR 100
SUBGRADE: 12" COMP

CONCRETE SPECIFICATIONS

1. ALL CONCRETE SHALL REACH COMP STRENGTH OF 3,000 PSI MIN IN 28 DAYS. MIX DESIGN SHALL INCLUDE MINIMUM CEMENT CONTENT OF 470 LBS OF PORTLAND CEMENT TYPE II PER ASTM C-150 & 120 LB OF FLY ASH /AE PER CY AND ADMIXTURES SHALL CONFORM TO ASTM C-494. WATER/CEMENT=0.5 MAX.
2. SLUMP AND CYLINDER TESTS (ASTM C-31) SHALL BE MADE BY AN INDEPENDENT TESTING LABORATORY. PROVIDE 4 TESTS WITH EACH CONCRETE POUR AND/OR EACH 50 YD OF CONCRETE PLACED. SLUMP @ POUR SHALL BE 5 IN MAX. (6" FOR PUMP MIX). NO WATER IS TO BE ADDED ON THE JOB SITE.
3. CONTRACTOR SHALL SUBMIT THE MIX DESIGN TO ENGINEER FOR REVIEW.

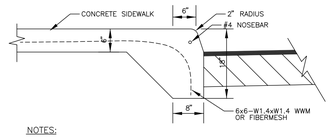
PAVEMENT TYP SECTION



NOTES:
1. SEE F.D.O.T. INDEX NO. 300 FOR ADDITIONAL INFORMATION.
2. CONCRETE TO BE A MINIMUM OF 3000 PSI CONCRETE AT 28 DAYS
3. CURB TO BE IN PLACE PRIOR TO SURFACE COURSE BEING PLACED.
4. SAWCUTS TO BE MADE AT 10' O.C. THROUGHOUT CURB CONST.
5. SIDEWALK TO BE POURED AFTER CURB CONSTRUCTION
6. SEE SIDEWALK DETAIL FOR JOINT PLACEMENT

RAISED SIDEWALK W/ CURB

NOT TO SCALE



NOTES:
1. SEE F.D.O.T. INDEX NO. 300 FOR ADDITIONAL INFORMATION.
2. CONCRETE TO BE A MINIMUM OF 3000 PSI CONCRETE AT 28 DAYS
3. SEE SIDEWALK DETAIL FOR JOINT PLACEMENT

MONOLITHIC RAISED SIDEWALK

NOT TO SCALE

SIDEWALK DETAILS

REVISIONS

Jeff H. Iravani, Inc.
Consulting Engineers
1934 COMMERCE LANE, SUITE 5
JUPITER, FLORIDA 33458
TEL: (561) 575-6030
FAX: (561) 575-6088
JHI@bellsouth.net

Kings Highway Commerce Park
Fort Pierce, Florida

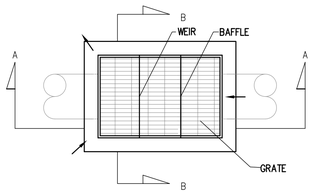
PAVING, GRADING, & DRAINAGE DETAILS

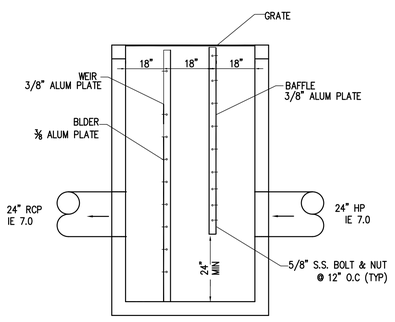
DATE	SCALE	DESIGNED BY	DRAWN BY	JOB NO.
01/22/2021	NA	JHI	CLJ	2101-1355

SEAL

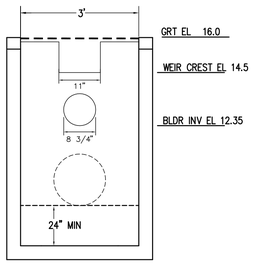
CDA # 6986

SHEET NO.
C-30



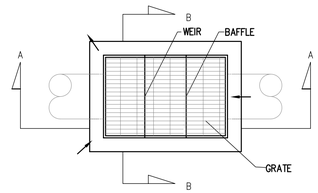


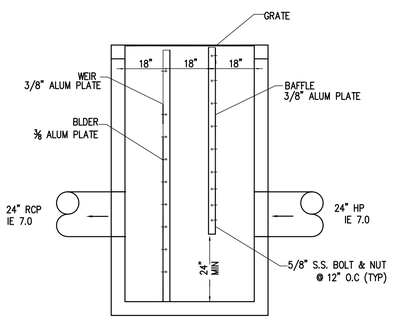
SECTION A–A



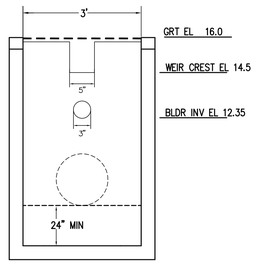
SECTION B–B

CS–1 TYPE "E" CONTROL STRUCTURE



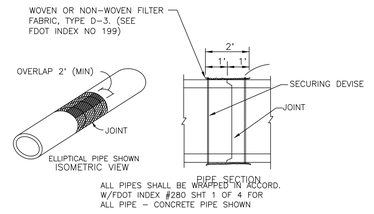


SECTION A–A



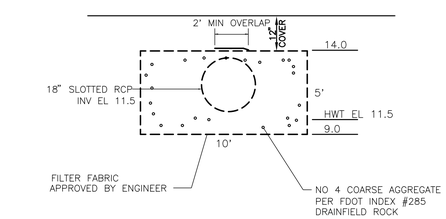
SECTION B–B

CS–2 TYPE "E" CONTROL STRUCTURE



ALL PIPES SHALL BE WRAPPED IN ACCORD. W/FDOT INDEX #280 SHT 1 OF 4 FOR ALL PIPE – CONCRETE PIPE SHOWN

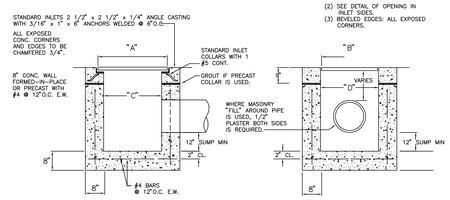
FILTER FABRIC JACKET



EXFILTRATION TRENCH

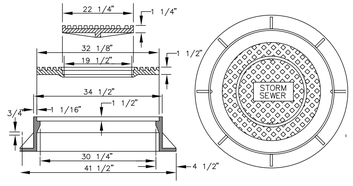
MAX. C.F.S.	TYPE INLET	"A"	"B"	"C"	"D"	GRATE APPROX. WT.
15.66	B	3'–4"	3'–0"	2'–0"	3'–1"	530 LBS.
23.49	D	4'–4"	3'–0"	4'–1"	3'–1"	580 LBS.
30.23	E	5'–4"	4'–4"	5'–0"	3'–6"	655 LBS.
58.20	H	9'–4"	6'–8"	9'–0"	6'–7"	725 LBS.

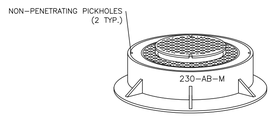
NOTES:(1) GRATES TO BE CAST IRON WITH ONE (1) SHOP COAT OF RED LEAD PAINT AND WITH A FIELD COAT TO MEET FDOT STANDARD SPECIFICATIONS, LATEST EDITION.
(2) SEE DETAIL OF OPENING IN INLET SIDES.
(3) BEVELED EDGES: ALL EXPOSED CORNERS.



INLET DETAILS

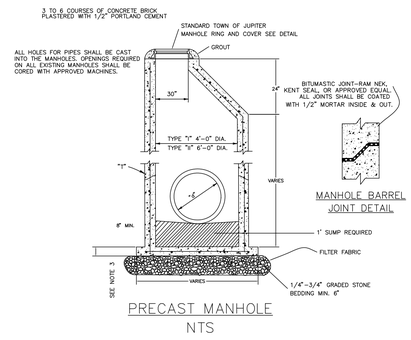
N.T.S.





NOTES:
1. U.S.F. #230–AB–M MANHOLE RING & DOUBLE COVER. APPROX. TOTAL WEIGHT 605 POUNDS.
2. MANHOLE COVER SHALL BE IMPRINTED WITH "STORM SEWER" AND WITH NOTE "CONFINED SPACE".
3. PAVED AREAS – SET FRAMES AT FINISH GRADE, UNPAVED AREAS – SET FRAMES AT FINISH GRADE + 0.15'.

MANHOLE FRAME AND RING DETAIL



MANHOLE BARREL JOINT DETAIL

PRECAST MANHOLE
NTS

NOTES:
1. MANHOLE SHALL CONFORM TO ASTM C478 WITH 4000 PSI CONCRETE.
2. CONE SECTION MAY BE EITHER CONCENTRIC OR ECCENTRIC.
3. BASE SHALL BE A MINIMUM OF 8" AND PRECAST WITH BOTTOM SECTION
4. ONE GAGE #5 @ 12" CTRS. BOTH WAYS, IN CENTER 1/3 OF CONCRETE WALL.
5. MANHOLES TO BE LINED WITH A MINIMUM OF 4" OF BRICK WALL WITH CLAY BRICK AND PORTLAND TYPE II CEMENT.
6. WALL THICKNESS "I" SHALL BE A MINIMUM OF 8".
7. FOR ADDITIONAL INFORMATION AND CLARIFICATION CONCERNING MANHOLE AND INLET CONSTRUCTION DETAILS AND SPECIFICATIONS, REFER TO FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (STANDARD INDEX MANUAL) LATEST EDITION.

STORM SEWER PRECAST MANHOLE

REVISIONS

Jeff H. Iravani, Inc.
Consulting Engineers
1934 COMMERCE LANE, SUITE 5
JUPITER, FLORIDA 33458
TEL: (561) 575–6030
FAX: (561) 575–6088
JHI@bellsouth.net

Kings Highway Commerce Park
Fort Pierce, Florida

PAVING, GRADING, & DRAINAGE DETAILS

DATE	SCALE	DESIGNED BY	DRAWN BY	JOB NO.
01/22/2021	NA	JHI	CLJ	2101–1355

SEAL

CDA # 6986

SHEET NO.

C–31

PRUIT RESEARCH CENTER ROAD

WHITE ROAD

WHITE ROAD

WHITE ROAD

DIRT ROAD

DRY DET-4 0.33 AC

DRY DET-5 0.81 AC

DRY DET-6 0.85 AC

CONST SILT FENCE TYP

KING'S HIGHWAY (SR-713)

LITTORAL ZONE

43' FDOT TEMP CONS EASMT

FOUNTAIN

LAKE-1
5.34 AC

FUTURE PHASE

FUTURE PHASES
BLDG 1,415 KSF
OFFICE 99 KSF
WAREHOUSE 1,316 KSF

DRY DETENTION-7 1.35 AC

FOUNTAIN

LITTORAL ZONE

20'X50' CONSTRUCTION ENTRANCE
12" DEEP #4 FDOT AGGREGATE

LAKE-2
1.92 AC

LITTORAL ZONE

FOUNTAIN

TRELLIS W/BENCH TYP

BENCH W/TRASH BIN TYP

BLDG-A
PH-I
265 KSF
17 KSF OFFICE
248 KSF WAREHOUSE
F.F.EL 17.5 FT, NAVD MIN

BLDG-B
PH-I
220 KSF
14 KSF OFFICE
207 KSF WAREHOUSE
F.F.EL 17.5 FT, NAVD MIN

CONST SILT FENCE TYP

LITTORAL ZONE

LAKE-3
2.30 AC

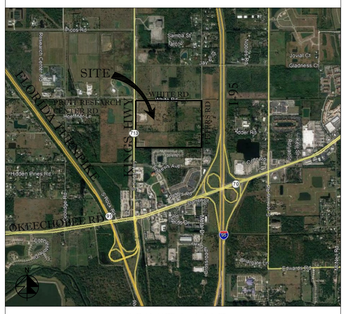
FOUNTAIN

PETERS ROAD

DRY DETENTION-8 1.49 AC

CONST SILT FENCE TYP

AERIAL



VICINITY MAP

SECTION 24, TWP 35S, RGE 39E

N

100' 0 50' 100' 200'

SCALE: 1" = 100'

REVISIONS

Jeff H. Iravani, Inc.
Consulting Engineers
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JHI@bellsouth.net

Kings Highway Commerce Park

Fort Pierce, Florida

Pollution Prevention Plan

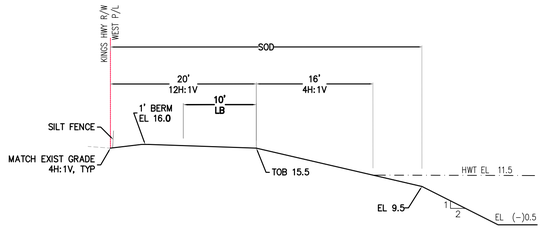
DRAWN BY	DESIGNED BY	SCALE	DATE
DDI	JHI	1" = 100'	01-22-2021

SEAL

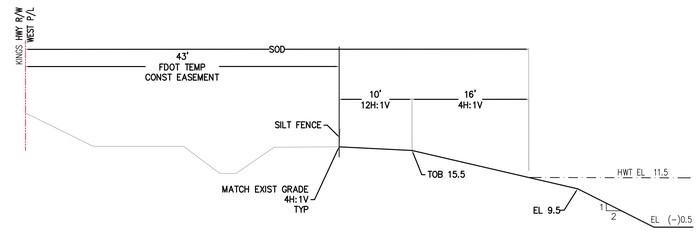
COA# 6986
JEFF H. IRAVANI 33155

JOB NO.
2101-1355

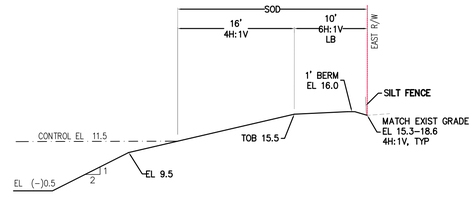
SHEET NO.
C-37



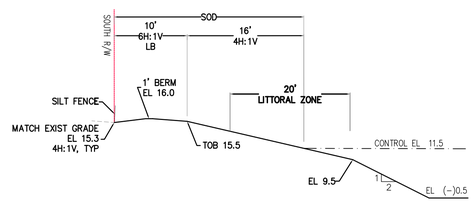
LAKE-1 SECTION
@ WEST P/L



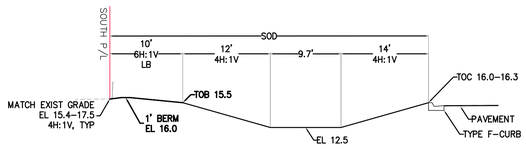
LAKE-1 SECTION
@ WEST P/L



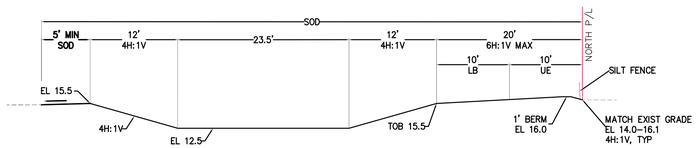
LAKE-3 SECTION
@ EAST P/L



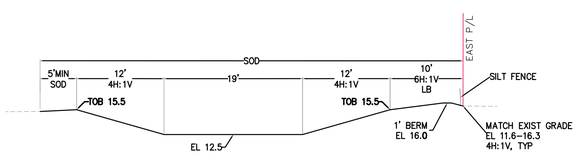
LAKE-3 SECTION
@ SOUTH P/L



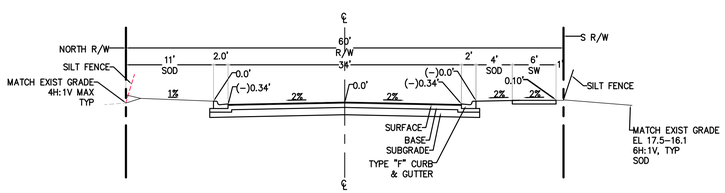
DETENTION @ SOUTH P/L



DETENTION @ NORTH P/L



DETENTION @ EAST P/L



PAVEMENT SECTION:

SURFACE: 2" TYPE S ACSC
BASE: 8" LIMEROCK / COQUINA ROCK
SUBGRADE: 12" COMPACTED
COMP: COMPACTED TO 98% MAX D.D. AASHTO T-180

WHITE ROAD
TYPICAL SECTION

REVISIONS

Jeff H. Iravani, Inc.
Consulting Engineers
1934 COMMERCE LANE, SUITE 5
JUPITER, FLORIDA 33458
TEL: (561) 575-6030
FAX: (561) 575-6088
JHI@bellsouth.net

Kings Highway Commerce Park
Fort Pierce, Florida

SECTIONS

DATE	SCALE	DESIGNED BY	DRAWN BY	JOB NO.
01/22/2021	NA	JHI	CLJ	2101-1.355

SEAL

FR # 6986

SHEET NO.
C-39

Technical Review Committee **3. h.**

Meeting Date: 05/20/2021

REQUESTED ACTION

Site Plan and Conditional Use - Ft. Pierce Self Storage - 481 Ohio Avenue

LOCATION

481 Ohio Avenue

RESPONSIBLE STAFF

Vennis Gilmore, Planner

RECOMMENDATION

TBD

Attachments

TRC Memo Packet

Form Review

Form Started By: Vennis Gilmore Started On: 05/06/2021 03:50 PM

Final Approval Date: 05/06/2021

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO: TECHNICAL REVIEW COMMITTEE

FROM: VENNIS GILMORE, PLANNER

RE: TECHNICAL REVIEW PROJECT# 21-07000004

MEETING DATE: MAY 20, 2021

Site Plan, Design Review, & Conditional Use – Fort Pierce Self Storage – 481 Ohio Avenue

The above referenced **Minor Site Plan, Design Review, Conditional Use Applications** are being submitted for your review and comments. The request seeks to construct five (5) self-storage buildings totaling 31,200 sq. ft. and associated paved aisles on approximately 2.6 acres. The subject site is zoned General Commercial Zone (C-3) with a Future Land Use of General Commercial (GC). Per City Code Section 125-313. – Major and minor site plan application; a major site plan application is required. Per City Code Section 125-314. – Design Review; a Design Review application is required. Per City Code Section 125-187. – Allowed Uses; a Conditional Use application is required. The subject site location has approximately a total of approximately 2.6 acres.

Please review and provide two copies of comments on the project. Please send all comments to the following emails vgilmore@cityoffortpierce.com, arosenthal@cityoffortpierce.com, or through interoffice mail to the Planning Department. If you have comments please respond in a timely manner before the date of the Technical Review Committee Meeting.

Please do not hesitate to contact me should you require any additional information at 772-467-3741.

Thank you.

Vennis Gilmore, Planner

Velcon Engineering & Surveying, LLC
590 NW Peacock Blvd., Suite 8, Port St. Lucie, FL, 34986
Ph: 772 / 879-0477

February 26, 2021

Jennifer Hofmeister – Planning Director
City of Fort Pierce Planning Department
100 North US 1, Fort Pierce, FL 34950

Re: Fort Pierce Self Storage
South of Ohio Avenue and West of S US Hwy 1
S15, T35S, R 40E
Property ID # 2415-311-0003-030-5, 2415-311-0003-000-6, 2415-312-0001-010-8
Application for Site Plan Development & Design Review

Dear Ms. Hofmeister,

This project proposes the construction of five (5) self storage buildings totaling 31,200 sq. ft. and associated paved drive aisles on 2.6 acres in the city of Fort Pierce. No office area or employees are proposed as access will be via keypad or access cards. The site is comprised of three parcels which currently have a Future Land Use of GC General Commercial with a zoning of C-3 General Commercial. The project is located adjacent to general commercial to the east and south and medium residential to the west and southwest. The following items are attached in support of subject application:

1. Application for Development Review
2. Warranty Deed
3. Unity of Title
4. Letter of Authorization
5. Property Card
6. General Location Map
7. Environmental Impact Report
8. Traffic Impact Report
9. Application for Design Review
10. Narrative
11. Elevation
12. Existing Photographs
13. Neighboring Context Photographs
14. Floor Plan
15. Boundary & Topographical Survey
16. Site Plan
17. Storm Drainage Plan
18. Landscaping Plan

Velcon Engineering & Surveying, LLC
590 NW Peacock Blvd., Suite 8, Port St. Lucie, FL, 34986
Ph: 772 / 879-0477

Please schedule the project for review by the TRC. Should you have any questions, please do not hesitate to contact me at 772-879-0477.

Sincerely,

M. Randall Rodgers, P.E.

Attachments
cc: File 18-1030 (w/ att)

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

DEVELOPMENT REVIEW

Property address or Location: South of Ohio Avenue & 225 ft West of US -1, Fort Pierce, FL 34950

Parcel ID #(s): 2415-312-0001-010-8 ; 2415-311-0003-000-6 ; 2415-311-0003-030-5

Project description: The project proposes construction of a self storage facility that includes 31,200 sq. ft of storage units associated paved parking.

Celebration Pointe Property Development, LLC	M. Randall Rodgers, P.E. - Velcon Engineering & Surveying LLC
Property Owner(s)	**Applicant/Representative, Title, Company**
380 Creekstone Court	590 NW Peacock Blvd., Suite 8
Street Address	Street Address
Longwood FL 32779	Port St. Lucie FL 34986
City State Zip	City State Zip
(407) 921-6991	772 879-0477
Phone Number	Phone Number
redfishtony@hotmail.com	randyr@velcongroup.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Applicant (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein. The undersigned consents to inspection and photographing of the subject property by the Planning staff for purposes of consideration of this Application and/or presentation to the Planning Board and City Commission.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY St Lucie

The foregoing instrument was acknowledged before me this 24th day of February, 2021, by Antonio Huerta who is personally known to me or has produced _____ as identification.

Susan Wilson

Signature of Notary

(seal)

Notary Public State of Florida
Susan Wilson
My Commission GG 143129
Expires 09/14/2021

INTAKE MEETINGS ARE REQUIRED FOR ALL SUBMITTALS. CALL (772) 467-3729

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic District	Historic Designation
				Contributing Individual Non-Contributing None

Pre-Application Meeting Date_____

Intake Planner_____

Planner Assigned_____

Approved By_____ Date _____

Comments_____

Fees_____ Control #_____ B. Permit #_____

Intake Date Stamp

❑ DEVELOPMENT REVIEW

General Information

- ❑ Incomplete application packets cannot be accepted.
- ❑ Site Plan approval is valid for one (1) year following City Commission approval. In order to maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date, and building permits must be maintained until site plan is completed, per plans, or approval shall lapse.

Choose Application Type:

Application Type		
■ Site Plan	■ Conditional Use with New Const.	❑ Major Amendment
❑ Conceptual Development Plan		❑ Minor Amendment

Site Information:

Non-Residential: Proposed Sq. Ft.: 31,200 Residential: Proposed Units: 0

Surrounding Uses: *(i.e. single family home, retail, industrial, etc.)*

North	South	East	West
Commercial General & Residential	Commercial General & Residential	Commercial General	Residential

Application Outlook



Site Plan submittal requirements:

Submit one (1) original & thirteen (13) hard copies and one (1) CD of the following. Additional copies will be required of subsequent submittals.

- ☒ Complete notarized application
- ☒ Warranty Deed
- ☒ SLC Property Record Card
- ☒ Statements of ownership & control of proposed development. Statement describing in detail: character & intended use.
- ☒ General location map (see Section 22-58.d.2)
- ☒ Survey (see Section 22-58.d.3)
- ☒ Site Plan (see Section 22-58.d.4)
- ☒ Landscaping Plan (see Section 22-187)
- ☒ Storm Drainage Plan (see Section 22-58.d.6)
- ☒ Environmental Impact Report
- ☒/A Beach/Dune System protection plan, if applicable (see Section 22-58.d.7)
- ☒/A Lighting Plan (see Section 22-58.d.8)
- ☒ Design Review submittals (see Design Review application)
- ☒ Traffic Impact Report
- ☒ Concurrency Review submittals (see Concurrency Review application)

Fort Pierce Self Storage
Project Narrative

This project proposes to build 31,200 SF or self-storage. The site is comprised of three parcels which are currently have a Future Land Use of GC General Commercial with a zoning of C-3 General Commercial. The site will include self-storage buildings, paved driveways, stormwater improvements, and landscaping.

The project is located adjacent to general commercial to the east and south and medium residential to the west and southwest.

We understand the site plan approval will have to be accompanied with a conditional use approval and are prepared to submit both applications for concurrent review.

Below is a location map of the site.





Elevation











5014 US-1



5014 US-1



6070 US-1



6070 US-1



5221 OKEECHOBEE RD



5221 OKEECHOBEE RD



3125 US-1



3125 US-1



2448 N US-1



2448 N US-1



4892 OKEECHOBEE RD



4892 OKEECHOBEE RD



1412 S US-1



1601 S US-1



1463 S US-1



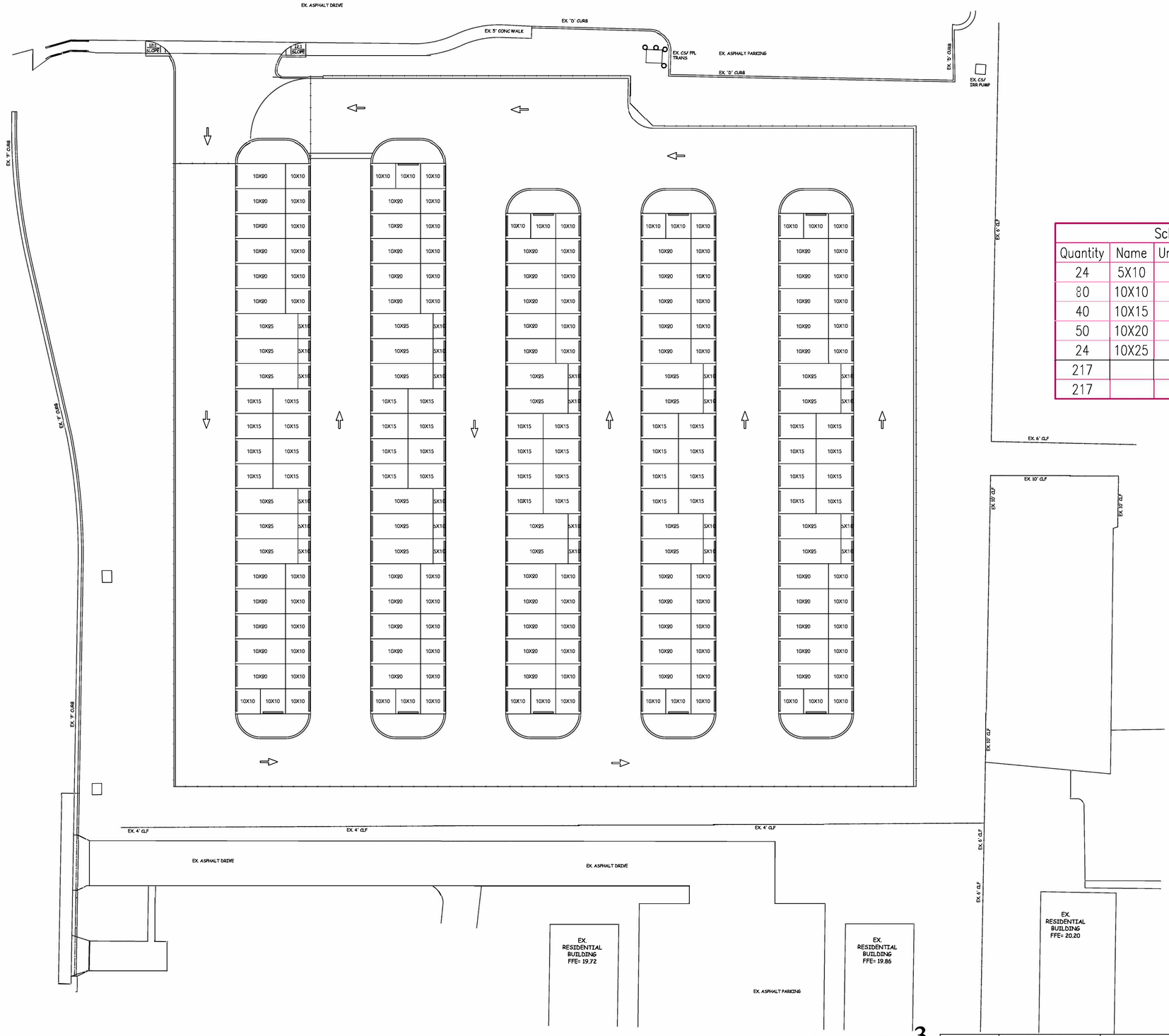
1717 US-1



1600 US-1



1603 US-1



Schedule Table				
Quantity	Name	Unit SF	Type	Total SF
24	5X10	50	Ext. Access	1200
80	10X10	100		8000
40	10X15	150		6000
50	10X20	200		10000
24	10X25	250		6000
217				31200
217				31200

NOTE:
THIS IS A CONCEPTUAL SITE DESIGN ONLY AND IS SUBJECT TO ALL APPLICABLE LOCAL REGULATIONS, CODE PROVISIONS, ENGINEERING REQUIREMENTS AND SITE CONDITIONS. THIS WAS PREPARED WITH THE SITE INFORMATION AND MATERIALS PROVIDED TO BETCO, INC. ANY VARIATIONS OF ACTUAL SITE CONDITIONS, PROPERTY SIZE OR ADDITIONAL REQUIREMENTS WILL AFFECT THE FINAL FINISHED PROJECT. THESE VARIATIONS WILL AFFECT THE FINAL PROJECT COSTS AND MATERIALS. THESE VARIATIONS ARE NOT THE RESPONSIBILITY OF BETCO, INC. REVIEW THESE PLANS CAREFULLY.

STORAGE^3

115 South Lane Street - Apt. B

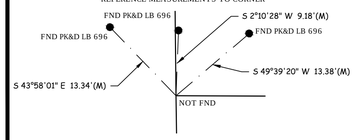
Blissfield, MI 49228

DATE: 10/21/2020
DRAWN BY: SJ
SCALE: 1" = 20'

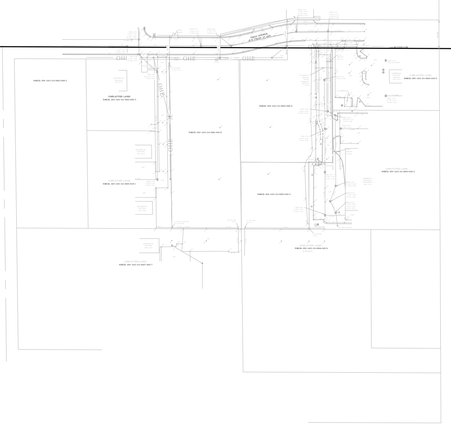
BETCO
P.O. BOX 1650 STATESVILLE, NC 28687
(800) 654-7813

PROJECT NAME: Fort Pierce Self Storage
PROJECT ADDRESS: Fort Pierce, FL
OWNER:
SHEET TITLE: Floor Plan
DRAWING NUMBER: 1
D:\SA DRIVE\BETCO\2020\10.01.20 BIG FORT PIERCE-1\10.01.20 BIG FORT PIERCE-1.DWG

SECTION 15 W 1/4 CORNER
REFERENCE MEASUREMENTS TO CORNER



SECTION DETAIL



NORTH LINE OF THE NE 1/4 OF THE SW 1/4

S 89°45'35" E 2642.70' (C)

SECTION 15 W 1/4 CORNER
CERTIFIED CORNER RECORD
DOCUMENT #0047404
NOT FND
(SEE DETAIL ABOVE TO
RE-ESTABLISH 1/4 CONNER)

SECTION 15 N 1/4 CORNER
CERTIFIED CORNER RECORD
DOCUMENT #0003341
FND 1" IP NO ID IN CUT OUT

SECTION 15 1/4 CORNER
NOT FND

N 0°40'34" W 2650.24' (M)
WEST SECTION LINE

N 0°56'53" W 2638.77' (C)
N 0°56'53" W 5277.53' (M)

N 89°59'16" E 2655.06' (M)
SOUTH SECTION LINE

SECTION 15 SW CORNER
CERTIFIED CORNER RECORD
DOCUMENT #093999
FND 5/8" R&C RLS 2391

SECTION 15 S 1/4 CORNER
CERTIFIED CORNER RECORD
DOCUMENT #094000
FND MAG&D LB 6557

NORTH

LEGAL DESCRIPTION:

PARCEL IDENTIFICATION NUMBER: 2415-311-0003-030-5:

COMMENCE AT THE NORTHWEST COMER OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 15, TOWNSHIP 35 SOUTH, RANGE 40 EAST; THENCE RUN NORTH 90°00'00" EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) FOR A DISTANCE OF 691.85 FEET; THENCE RUN SOUTH 00°22'54" EAST ALONG A LINE THAT IS PARALLEL WITH U.S. HIGHWAY NO. 1 FOR A DISTANCE OF 240.00 FEET; THENCE RUN NORTH 90°00'00" WEST ALONG A LINE THAT IS PARALLEL WITH THE NORTH LINE OF SAID NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) FOR A DISTANCE OF 50.35 FEET TO THE POINT OF BEGINNING. THENCE RUN SOUTH 00°22'54"EAST ALONG A LINE THAT IS PARALLEL WITH U.S. HIGHWAY NO. 1 FOR A DISTANCE OF 140.00 FEET; THENCE RUN NORTH 90°00'00" WEST ALONG A LINE THAT IS PARALLEL WITH THE NORTH LINE OF SAID NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 114) FOR A DISTANCE OF 142.00 FEET; THENCE RUN NORTH 00°22'54" WEST ALONG A LINE THAT IS PARALLEL WITH U.S. HIGHWAY NO. 1 FOR A DISTANCE OF 140.00 FEET; THENCE RUN NORTH 90°00'00" EAST ALONG A LINE THAT IS PARALLEL WITH THE SAID NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) FOR A DISTANCE OF 142.00 FEET TO THE POINT OF BEGINNING.

PARCEL IDENTIFICATION NUMBER: 2415-312-0001-010-8:

THE EAST 145.51 FEET OF THE WEST 495.51 FEET OF THE NORTH 380.01 FEET OF THE NORTHEAST 114 OF THE SOUTHWEST 1/4 OF SECTION 15, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ALL LYING IN ST. LUCIE COUNTY, FLORIDA; LESS AND EXCEPT ALL EASEMENTS AND RIGHTS-OF-WAY OF RECORD.

PARCEL IDENTIFICATION NUMBER: 2415-311-0003-000-6:

BEING A PART OF THE NORTH 380 FEET OF THE NE 1/4 OF THE SW 1/4 OF SECTION 15, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, LYING WEST OF U.S. HIGHWAY NO. 1, BEING MORE FULLY DESCRIBED AS FOLLOWS: THE WEST 192.35 FEET OF THE EAST 417.35 FEET (AS MEASURED FROM THE WEST RIGHT-OF-WAY OF U.S. HIGHWAY NO. 1) OF THE NORTH 380 FEET LESS AND EXCEPT THE SOUTH 140 FEET THEREFROM. SUBJECT TO ALL EASEMENTS AND RIGHTS-OF-WAY OF RECORD.

ADDRESS: OHIO AVENUE
FORT PIERCE, FL

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.

ELEVATIONS ARE IN FEET AND RELATED TO "NGS" BENCHMARK "D 401" HAVING A PUBLISHED ELEVATION = 23.51 (FEET) NAVD 1988. ALL OTHER ELEVATION ARE RELATIVE THERETO.

BEARINGS SHOWN HEREON ARE BASED UPON AN ASSUMED MERIDIAN, ALONG THE SOUTH RIGHT OF WAY LINE OF OHIO AVENUE, HAVING AN ASSUMED BEARING OF S 89°45'35" E. ALL OTHER BEARINGS ARE RELATIVE THERETO..

PROPERTY LIES IN F.I.R.M. ZONE "X", AS SHOWN ON PANEL 12111C0187 J, DATED 2/16/12. 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.

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 RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

THE EXPECTED USE OF THE SURVEY AND MAP IS COMMERCIAL.

25 FOOT JOG IN RIGHT IN WAY LINE OF OHIO SHOWN ON TAX MAP AND CONFIRMED BY ST. LUCIE COUNTY.

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.

LEGAL DESCRIPTION FROM WARRANTY DEED RECORDED IN OFFICIAL RECORD BOOK 3715, PAGE 1920, ST. LUCIE COUNTY PUBLIC RECORDS.

TOTAL LOTS CONTAIN 115,948 SQUARE FEET.

BOUNDARY & TOPOGRAPHICAL SURVEY FIELD DATE: 09-05-18.

CERTIFIED TO: FORT PIERCE SELF STORAGE

ROBERT F. KEMERSON
PROFESSIONAL SURVEYOR AND MAPPER
STATE OF FLORIDA (PSM)#6285

VELCON ENGINEERING & SURVEYING, LLC
CERTIFICATE OF AUTHORIZATION NO. LB 8206
702 S.W. PORT ST. LUCIE BLVD.
PORT ST. LUCIE, FLORIDA 34953
PHONE (772) 879-0477
Web Site: www.velcongroup.com
VELCON ENGINEERING & SURVEYING

BOUNDARY & TOPOGRAPHICAL SURVEY
PREPARED FOR
FORT PIERCE SELF STORAGE

REVISIONS | DATE: | BY:

DRAWN BY: G SANTOIEMMA
APPROVED BY: R. KEMERSON
SCALE: 1" = 150'
DATE: 09/07/18
FIELD BOOK/PAGES: PLANS

JOB NUMBER: 18-1030

SHEET: 1 OF 3

N:\Projects\2018\18-1030 Fort Pierce Self Storage\Surveying\18-1030 BNDY.dwg, SECTION TIE IN, 1/9/2019 8:44:36 AM, Velcon Group, Inc., (772)879-0477

POC
NORTHWEST CORNER OF THE NORTHEAST QUATER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 15, TOWNSHIP 35 SOUTH, RANGE 40 EAST

NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4)

N 90°00'00" E 691.85'(D)
S 89°45'35" E 691.85'(M)

FND P&D NO ID (HELD)

(FALLS ON CALCULATED POSITION)

FND 4X4 CM NO ID BLOCK CORNER

(FALLS ON CALCULATED POSITION)
FND 1/2" IP NO ID BLOCK CORNER

325.00'(TM)
S 89°45'35" E 325.00'(M)

S 89°45'35" E 317.90'(REFERENCE SURVEY)

R/W LINE PER SKETCH OF SURVEY PERFORMED BY ALTON A. REGISTER & ASSOCIATES. DATED 10-11-56.

OHIO AVENUE
(R/W VARIES 34 ASP)

60.00'

50.00'

1/4 SECTION LINE

SET 5/8" R&C LB 8206

S 89°45'35" E 247.44'(C)
BEARING BASIS

S 89°45'35" E
93.90'(C)

S 00°16'15" E
25.10'(C)

12 UE ORB 569 PG 2785

36

36 INGRESS/ EGRESS & ACCESS EASEMENT ORB 2639 PG 44

S 00°22'54" E 240.00'(D)
S 00°16'15" E 240.00'(M)

S 00°16'15" E (M)

PARCEL ID# 2415-312-0002-000/2

UNPLATTED LAND
PARCEL ID# 2415-312-0001-000/5

PARCEL ID# 2415-311-0003-000/6

PARCEL ID# 2415-311-0003-010/9

N 0°48'43" W 355.00'(C)
N 0°43'58" W 352.16'(M) TO FND 1/2" IP

NORTH 380.01'

PARCEL ID# 2415-312-0001-010/8

WEST 192.35'

EAST 417.35'

WEST R/W LINE OF U.S. HIGHWAY NO. 1

15 UE ORB 606 PG 1468

POB

SET PK NO ID

N 90°00'00" E 142.00'(D)

FND 5/8" IR NO ID
N 0.15, E 0.12

N 90°00'00" W 50.35'(D)
N 89°34'26" W 50.23'(M)

PARALLEL WITH THE NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4)

UNPLATTED LAND
PARCEL ID# 2415-311-0003-020/2

UNPLATTED LAND
PARCEL ID# 2415-312-0001-020/1

EAST 145.51'

WEST 495.51'

N 0°22'54" W 140.00'(D)

S 00°22'54" E 140.00'(D)
S 00°16'15" E 140.00'(M)

PARCEL ID# 2415-311-0003-030/5

PARALLEL WITH THE NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4)

N 90°00'00" W 142.00'(D)
N 88°21'30" W 142.87'(M)

S 0°46'27" E 609.67'(M)
612.00'(TM)

S 0°47'40" E 659.73'(M)

FND 1/2" IP NO ID
N 2.8', W 0.52'

FND 1/2" IP NO ID
N 3.5', W 0.81'

SET 5/8" R&C LB 8206

SET 5/8" R&C LB 8206

N 89°45'35" W 287.85'(C)
N 89°11'59" W 288.40'(M) TO FND 1/2" IP

FND 5/8" IR NO ID
3.9' N OF CALCULATED POSITION

UNPLATTED LAND
PARCEL ID# 2415-311-0004-010/6
(VACANT)

UNPLATTED LAND
PARCEL ID# 2415-312-0007-000/7

FND 5/8" IR NO ID
BLOCK CORNER

FND P&D PCP 2391
0.20' W OF CALCULATED
1/4- 1/4 LINE

FND 5/8" R&C C&T
ON WEST R/W LINE
2.2' N OF CALCULATED POSITION

FND 5/8" R&C C&T
ON WEST R/W LINE
2.0' N OF CALCULATED POSITION

NORTH

VELCON ENGINEERING & SURVEYING, LLC
CERTIFICATE OF AUTHORIZATION NO. LB 8206
702 S.W. PORT ST. LUCIE BLVD.
PORT ST. LUCIE, FLORIDA 34953
PHONE (772) 879-0477
Web Site: www.velcongroup.com
VELCON
ENGINEERING & SURVEYING

BOUNDARY & TOPOGRAPHICAL SURVEY PREPARED FOR FORT PIERCE SELF STORAGE

REVISIONS	DATE:	BY:
ADD R/W DIMENSIONS	10-11-18	GJS

DRAWN BY: G SANTOIEMMA
APPROVED BY: R. KEMERSON
SCALE: 1" = 40'
DATE: 09/07/18
FIELD BOOK/PAGES PLANS

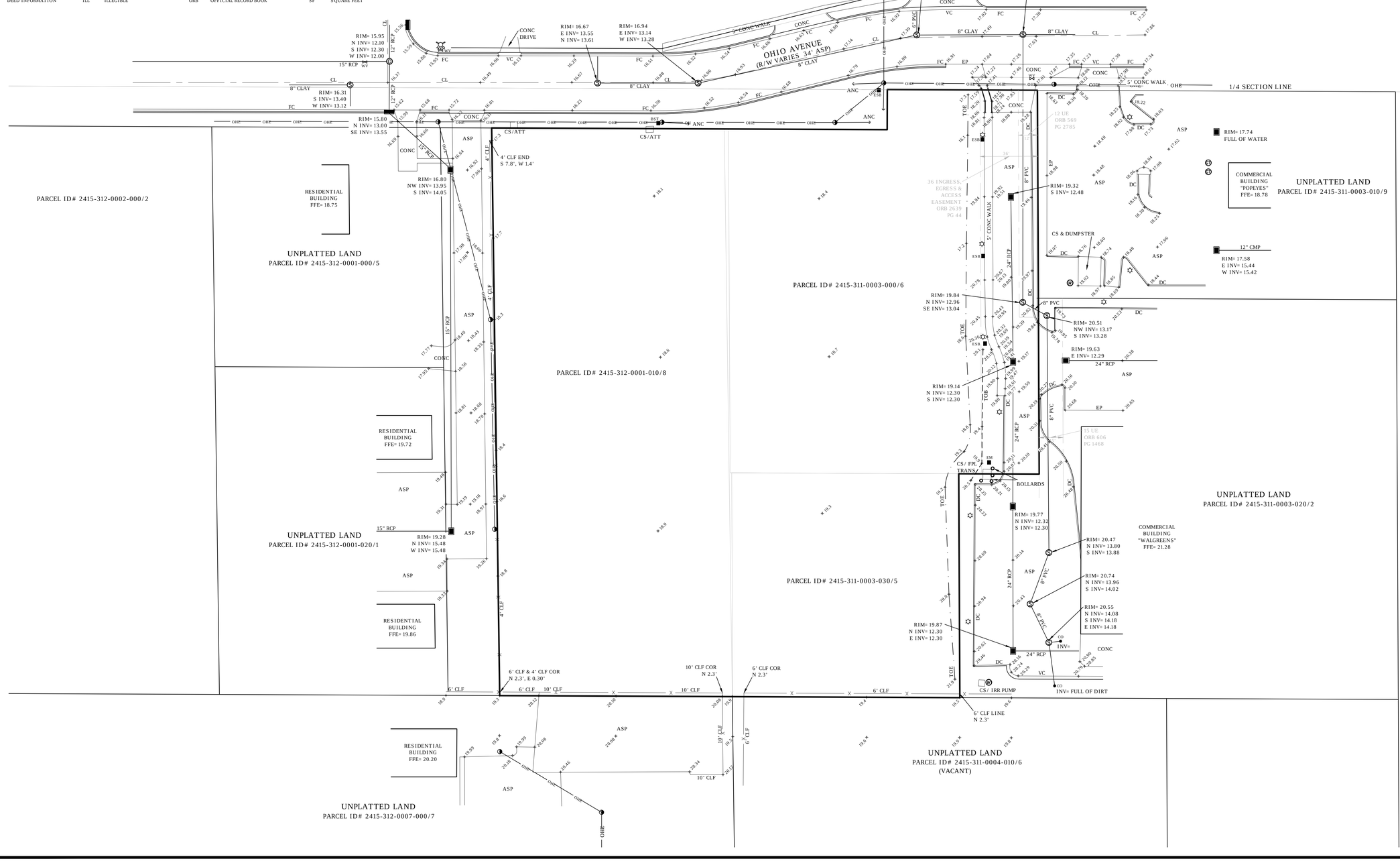
JOB NUMBER: 18-1030

SHEET: 2 OF 3

ABBREVIATIONS LEGEND

A/C	AIR CONDITIONING	DC	"D" CURB	INT	INTERSECTION	P/C	PROPERTY CORNER	SHP	SHIP SPIKE OR BOLT
AC	ACRE	D.E.	DRAINAGE EASEMENT	INV	INVERT	P/L	PROPERTY LINE	SLCR	ST LUCIE COUNTY RECORDS
AL	ALUMINUM	DI	DROP INLET	IP	IRON PIPE	P	PLAT	SLP	STREET LIGHT SUPPORT POLE
ANC	ANCHOR	DIA	DIAMETER	IP&P	IRON PIPE & PLUG	PAVE	PAVEMENT	S.S.	SANITARY SEWER
AP	ANCHOR POLE	DIP	DUCTILE IRON PIPE	IR	IRON ROD	PB	PLAT BOOK	SPC	STATE PLANE COORDINATES
APRX	APPROXIMATE	DMH	DRAINAGE MANHOLE	IRR	IRRIGATION	PC	POINT OF CURVATURE	ST	SEPTIC TANK
ASP	ASPHALT	DUE	DRAINAGE & UTILITY EASEMENT	IV	IRRIGATION VALVE	PCC	POINT OF COMPOUND CURVATURE	STD	STANDARD
BE	BUFFER EASEMENT	EC	EDGE OF CONCRETE	ICV	IRRIGATION CONTROL VALVE	PCO	PRESSURE CLEAN OUT (SANITARY)	STU	STORY
BFP	BACK FLOW PREVENTOR	ECP	ELECTRICAL CONTROL PANEL	IW	IRRIGATION WELL	PCP	PERMANENT CONTROL POINT	SV	SANITARY VALVE
BLDG	BUILDING	EL	ELEVATION	L	LENGTH	PF	PLASTIC FENCE	SWL	SWALE
BLK	BLOCK	ELEC	ELECTRIC	LB	LICENSED BUSINESS	PG	PAGE	TA	TOP OF ASPHALT
BM	BENCHMARK	ELEV	ELEVATION	LFST	LIFT STATION	PI	POINT OF INTERSECTION	TM	TAX MAP
BOC	BACK OF CURB	EM	ELECTRIC METER	LME	LAKE MAINTENANCE EASEMENT	PRKG	PARKING	TMH	TELEPHONE MANHOLE
BP	BRICK PAVERS	ENC	ENCROACHMENT	LOC	LOCATION	PK&D	PARKER KALON NAIL AND DISK	TOB	TOP OF BANK
BOW	BACK OF WALK	EOW	EDGE OF WATER	LP	LIGHT POLE	PK/TT	**PARKER KALON NAIL** AND TIN TAB	TOE	TOE OF SLOPE
BRG	BEARING	EP	EDGE OF PAVEMENT	LS	LICENSED SURVEYOR	PLS	PROFESSIONAL LAND SURVEYOR	TP	TRAVERSE POINT
BW	BARBED WIRE	ESB	ELECTRIC SERVICE BOX	M	MEASURED	POB	POINT OF BEGINNING	TR	TELEPHONE RISER
C&G	CURB AND GUTTER	ESMT	EASEMENT	MAX	MAXIMUM	POC	POINT OF COMMENCEMENT	TRANS	TRANSFORMER
C&T	CULPEPPER & TERPENING	EX.	EXISTING	MB	MAIL BOX	PP	POWER POLE	TSB	TRAFFIC SIGNAL BOX
C/O	CUT OUT	EXT	EXTENDED	MEAS	MEASURED	PRC	POINT OF REVERSE CURVATURE	TT	TIN TAB
C	CALCULATED	FNC	FENCE	MES	MITERED END SECTION	PRO	PRORATED DISTANCE	TWP	TOWNSHIP
CATV	CABLE TELEVISION BOX	FC	"F" CURB	MH	MAN HOLE	PROP	PROPOSED	TYP	TYPICAL
CB	CATCH BASIN	FDC	FIRE DEPARTMENT CONNECTION	MHWL	MEAN HIGH WATER LINE	PRM	PERMANENT REFERENCE MONUMENT	U/C	UNDER CONSTRUCTION
CBS	CONCRETE BLOCK STRUCTURE	FECRR	FLORIDA EAST COAST RAILROAD	MIN	MINIMUM	PSM	PROFESSIONAL SURVEYOR & MAPPER	U.E.	UTILITY EASEMENT
CHD	CHORD	FFE	FINISHED FLOOR ELEVATION	MN	MAGNETIC NAIL	PSWL	PLASTIC SWALE	UP	UTILITY POLE
CI	CURB INLET	FH	FIRE HYDRANT	MAG&D	MAGNETIC NAIL & DISK	PT	POINT OF TANGENCY	UR	UTILITY RISER
CL	CENTERLINE	FND	FOUND	MIT	MITERED END	P.U.E.	PRIVATE UTILITY EASEMENT	UW	UNDER WATER
CLF	CHAIN LINK FENCE	FOC	FACE OF CURB	MW	MONITORING WELL	PVC	POLYVINYL CHLORIDE	VC	VALLEY CURB
CM	CONCRETE MONUMENT	FOW	FACE OF WALK	M&B	METES AND BOUNDS	R/C	ROD AND CAP	VLT	VAULT
CMP	CORRUGATED METAL PIPE	FPL	FLORIDA POWER & LIGHT	N&D	NAIL AND DISK	R/W	RIGHT-OF-WAY	WD	WOOD
CO	CLEAN OUT	GA	GREEN AREA	N	NAIL	R	RADIUS	WL	WATER LINE
COR	CORNER	GMH	GAS MANHOLE	NA	NON-APPLICABLE	RCP	REINFORCED CONCRETE PIPE	WM	WATER METER
CONC	CONCRETE	GND	GROUND	NAVD	NORTH AMERICAN VERTICAL DATUM	RFL	ROOF LINE	WP	WELL POINT
CONST	CONSTRUCTION	GRD	GRINDER	NGVD	NATIONAL GEODETIC VERTICAL DATUM	RGE	RANGE	WPP	WOOD POWER POLE
COV	COVERED	HC	HEADER CURB	NO	NUMBER	RLS	REGISTERED LAND SURVEYOR	WS	WATER SERVICE
CE	COVERED ENTRY	HCP	HANDI-CAP	NTS	NOT TO SCALE	RP	RADIUS POINT	WV	WATER VALVE
COVP	COVERED PORCH	HDPE	HIGH DENSITY POLYETHYLENE	O/A	OVERALL	RR	RAILROAD		
CPP	CONCRETE POWER POLE	HGW	HOG WIRE	O/S	OFFSET	RRS	RAILROAD SPIKE		
CPPIPE	CORRUGATED PLASTIC PIPE	HW	HEADWALL	OE	OVERHEAD EASEMENT	S/W	SIDEWALK		
CS	CONCRETE SLAB	HYD	HYDRANT	OHE	OVERHEAD ELECTRIC	SMH	SANITARY SEWER MANHOLE		
Δ	DELTA ANGLE	ICV	IRRIGATION CONTROL VALVE	OHU	OVERHEAD UTILITY	SBT	SOUTHERN BELL TELEPHONE		
D/F	DRAIN FIELD	ID	IDENTIFICATION	OR	OFFICIAL RECORD	SEC	SECTION		
D	DEED INFORMATION	ILL	ILLEGIBLE	ORB	OFFICIAL RECORD BOOK	SF	SQUARE FEET		

18.0 — SPOT ELEVATION



VELCON ENGINEERING & SURVEYING, LLC
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FORT PIERCE SELF STORAGE

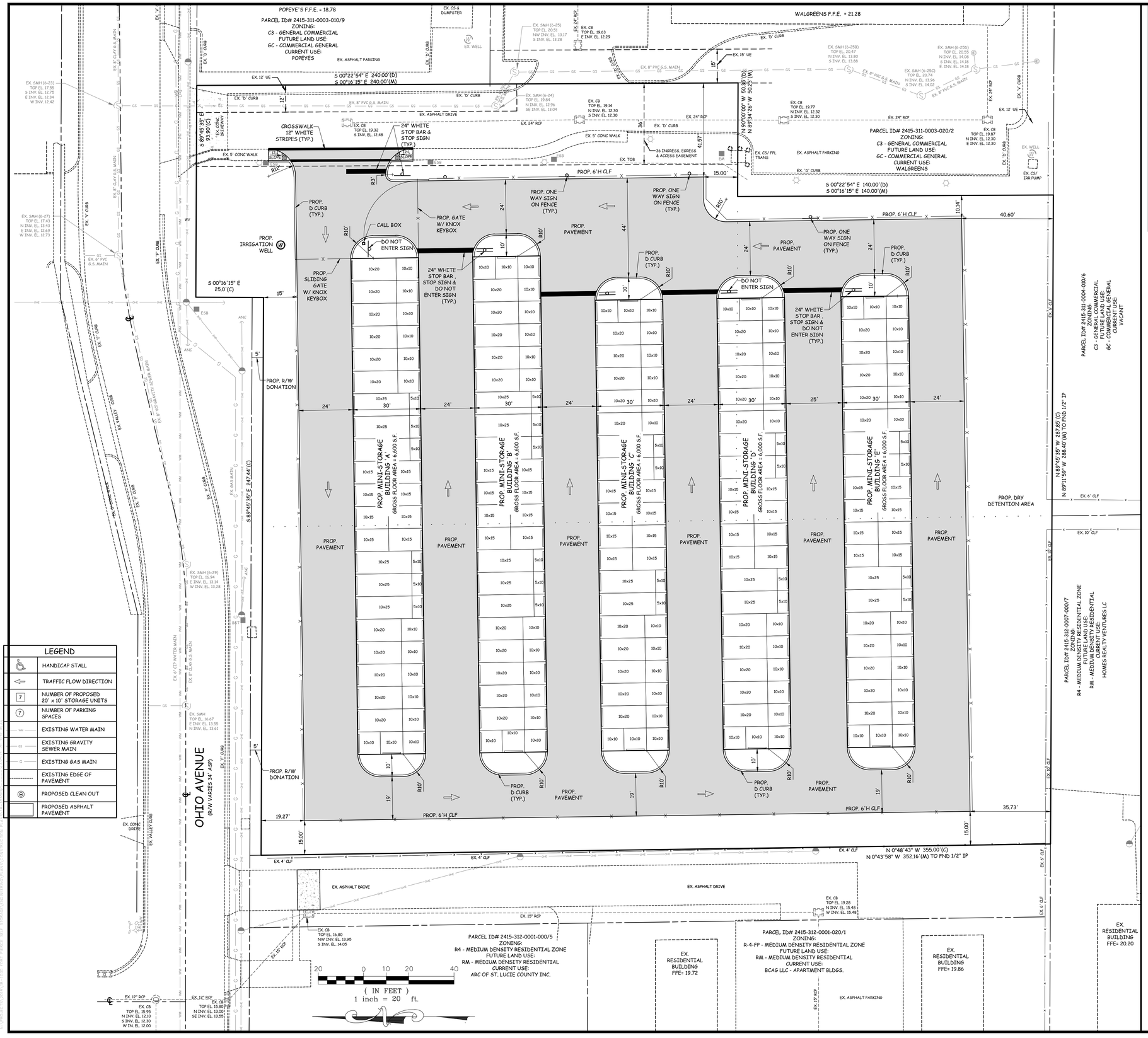
REVISIONS	DATE:	BY:

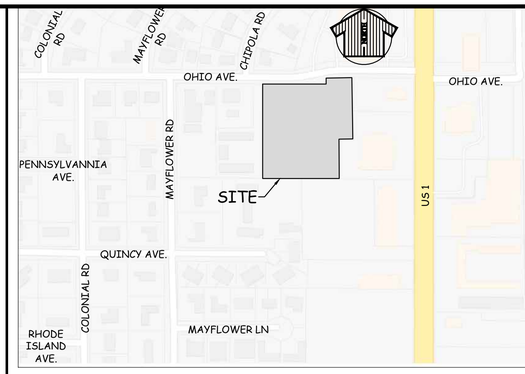
DRAWN BY: G SANTOIEMMA
APPROVED BY: R. KEMERSON
SCALE: 1" = 30'
DATE: 09/07/18
FIELD BOOK/PAGES: PLANS

JOB NUMBER: 18-1030

SHEET: 3 OF 3

N:\Projects\2018\18-1030 Fort Pierce Self Storage\Surveying\18-1030 BNDY.dwg, LOCATIONS, 1/9/2019 8:45:14 AM, Velcon Group, Inc., (772)879-0477





LOCATION MAP
N.T.S.

LEGAL DESCRIPTION:

PARCEL IDENTIFICATION NUMBER: 2415-311-0003-030-5-LEGAL DESCRIPTION:

COMMENCE AT THE NORTHWEST COMER OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 15, TOWNSHIP 35 SOUTH, RANGE 40 EAST; THENCE RUN NORTH 90°00'00" EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) FOR A DISTANCE OF 691.85 FEET; THENCE RUN SOUTH 00°22'54" EAST ALONG A LINE THAT IS PARALLEL WITH U.S. HIGHWAY NO. 1 FOR A DISTANCE OF 240.00 FEET; THENCE RUN NORTH 90°00'00" WEST ALONG A LINE THAT IS PARALLEL WITH THE NORTH LINE OF SAID NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 114) FOR A DISTANCE OF 50.35 FEET TO THE POINT OF BEGINNING; THENCE RUN SOUTH 00°22'54"EAST ALONG A LINE THAT IS PARALLEL WITH U.S. HIGHWAY NO. 1 FOR A DISTANCE OF 140.00 FEET; THENCE RUN NORTH 90°00'00" WEST ALONG A LINE THAT IS PARALLEL WITH THE NORTH LINE OF SAID NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 114) FOR A DISTANCE OF 142.00 FEET; THENCE RUN NORTH 00°22'54" WEST ALONG A LINE THAT IS PARALLEL WITH U.S. HIGHWAY NO. 1 FOR A DISTANCE OF 140.00 FEET; THENCE RUN NORTH 90°00'00" EAST ALONG A LINE THAT IS PARALLEL WITH THE SAID NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) FOR A DISTANCE OF 142.00 FEET TO THE POINT OF BEGINNING.

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BEING A PART OF THE NORTH 380 FEET OF THE NE 1/4 OF THE SW 1/4 OF SECTION 15, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, LYING WEST OF U.S. HIGHWAY NO. 1, BEING MORE FULLY DESCRIBED AS FOLLOWS: THE WEST 192.35 FEET OF THE EAST 417.35 FEET (AS MEASURED FROM THE WEST RIGHT-OF-WAY OF U.S. HIGHWAY NO. 1) OF THE NORTH 380 FEET LESS AND EXCEPT THE SOUTH 140 FEET THEREFROM. SUBJECT TO ALL EASEMENTS AND RIGHTS-OF-WAY OF RECORD.

DEVELOPER:
Yo No Se LLC
2701 INDUSTRIAL AVENUE 3
FORT PIERCE, FL 34946
PH: 407-921-6991

SITE ADDRESS:
OHIO AVENUE
FORT PIERCE, FL

PARCEL IDENTIFICATION NUMBERS:
2415-312-0001-010/8
2415-311-0003-000/6
2415-311-0003-030/5

PROPERTY CLASSIFICATIONS:

PARCEL ID: 2415-311-0003-000/6, 2415-311-0003-030/5 & 2415-312-0001-010/8
CURRENT ZONING : C3 - GENERAL COMMERCIAL
FUTURE LAND USE: GC - COMMERCIAL GENERAL

BUILDING SETBACKS:

	REQUIRED
FRONT:	25 FEET
REAR/SIDE:	10 FEET
REAR/SIDE: (ABUTTING RESIDENTIAL DISTRICT)	15 FEET

PARKING CALCULATIONS:
NO PARKING REQUIRED

DRAINAGE STATEMENT:
THE PROJECT WILL BE SERVED BY SITE GRADING, INLETS AND CULVERTS THAT DIRECTS STORM WATER TO THE DRY DETENTION AREA ALONG THE SOUTH SIDE OF THE SITE PRIOR TO A CONTROLLED DISCHARGE TO THE EXISTING STORM INLET LOCATED JUST WEST OF THE PROJECT ON THE SOUTH SIDE OF OHIO AVENUE. CITY OF FT. PIERCE AND SFWMD CRITERIA FOR WATER QUALITY AND QUANTITY TREATMENT WILL BE PROVIDED.

UTILITY PROVIDERS:

POTABLE WATER	= N/A - NONE PROPOSED
WASTEWATER	= N/A - NONE PROPOSED
IRRIGATION	= WELL

CONSTRUCTION SCHEDULE:

CONSTRUCTION START:	-
CONSTRUCTION COMPLETION:	180 DAYS

PROJECT NOTES:
1. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.
2. THIS PROJECT WILL COMPLY WITH THE CITY OF FORT PIERCE CODE OF ORDINANCES, CHAPTER 17 AND CHAPTER 22.

PROP. SITE DATA:

TOTAL PROJECT AREA	115,948 S.F.	2.662 AC	100.00%
IMPERVIOUS AREA			
PROP. BUILDINGS	31,200 S.F.	0.716 AC	26.91%
PROP. PAVEMENT / WALKS	48,506 S.F.	1.114 AC	41.83%
EX. PAVT. / WALKS (TO REMAIN)	6,324 S.F.	0.145 AC	5.45%
TOTAL IMPERVIOUS	86,030 S.F.	1.975 AC	74.20%
TOTAL PERVIOUS	29,918 S.F.	0.687 AC	25.80%

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VELCON
ENGINEERING & SURVEYING, LLC.
590 NW PEACOCK BLVD, SUITE #8
PORT ST. LUCIE, FL 34986
PHONE: (772) 879-0477
FBPE C.O.A. # 32222

REVISIONS:

BY:	DATE:	COMMENT:

PROJECT:
FORT PIERCE SELF STORAGE
CITY OF FORT PIERCE, FLORIDA

CLIENT:
Yo No Se LLC

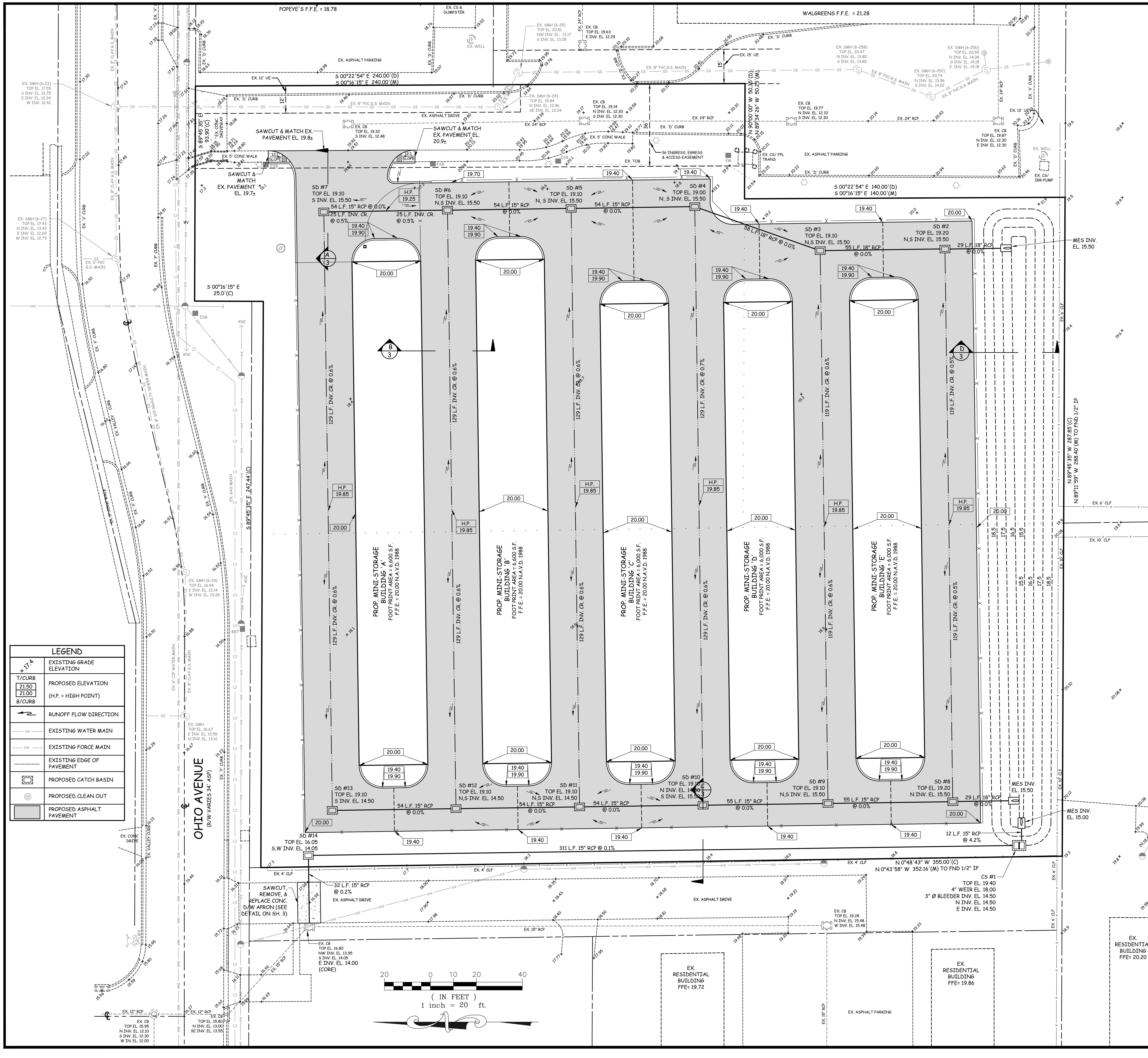
M. RANDALL RODGERS, PE
FLORIDA LICENSE No. 68212
12/8/20

PROJECT No.: 18-1030
DRAWN BY: RP
CHECKED BY: RR
DATE: 12/8/2020
CAD I.D.: 18-1030ENG

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
01

Printed on Tuesday, December 08, 2020, 2:39 PM by CAD/02



GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE SITE PRIOR TO BIDDING WORK AND SHALL TAKE INTO CONSIDERATION ANY OMISSIONS, UNDERGROUND UTILITIES, OR OTHER ITEMS AFFECTING THE INSTALLATION OF PAVING, DRAINAGE, AND UTILITIES. SHOULD UNCHARTED OR INCORRECTLY CHARTED UTILITIES OR OTHER ITEMS BE ENCOUNTERED DURING CONSTRUCTION, CONSULT ENGINEER OF RECORD IMMEDIATELY FOR DIRECTIONS. REPAIR DAMAGED UTILITIES OR OTHER ITEMS TO SATISFACTION OF UTILITY OWNER AND ENGINEER OF RECORD.
2. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL REGULATIONS, CODES, AND ORDINANCES, INCLUDING OSHA AND FDOT SPECIFICAIONS, LASTEST EDITION UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER IN WRITING.
3. LOCATION AND SIZES OF ALL EX. UTILITIES ARE APPROXIMATE ONLY. CONTRACTOR IS RESPONSIBLE FOR EXACT FIELD LOCATION AND SIZES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION TO ALLOW FOR PIPE RECONFIGURATION IF NEEDED. THE CONTRACTOR SHALL CONTACT ALL AFFECTED UTILITIES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
4. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCING WORK.
5. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
6. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS / LICENSES PRIOR TO COMMENCING WORK.
7. THE CONTRACTOR SHALL KEEP COPIES OF ALL PERMITS, PLANS, AND SPECIFICATIONS ON SITE DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED TESTING TO BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL SUPPLY DENSITY TESTS TO ENGINEER OF RECORD ON ALL SUB GRADE AND BASE. TESTS SHALL BE PREPARED IN ACCORDANCE WITH AASHTO T-180 METHOD AT ALL AREAS OF DISTURBED ASPHALT & PIPE TRENCHING.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY DAMAGE RESULTING FROM HIS OPERATIONS, TO EXISTING PAVEMENT, SWALES, ETC.
10. THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE THAT PROJECT HAS BEEN ACCEPTED. ALL FAULTY CONSTRUCTION AND/OR MATERIALS THAT OCCUR DURING AFORESAID PERIOD SHALL BE CORRECTED AT THE CONTRACTORS'S EXPENSE AND IN A TIMELY MANNER.
11. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF THE STATE, COUNTY AND CITY AUTHORITIES REGARDING CLOSING OR RESTRICTING THE USE OF PUBLIC STREETS OR HIGHWAYS.
12. THE CONTRACTOR SHALL GIVE ADEQUATE NOTIFICATION TO ALL AFFECTED UTILITY OWNERS FOR REMOVAL, RELOCATION AND ALTERATION OF THEIR EXISTING FACILITIES.
13. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO ANY REQUIRED INSPECTIONS AND SHALL SUPPLY ALL EQUIPMENT NECESSARY FOR INSPECTIONS AND/OR TESTING.
14. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AS-BUILT SURVEYS CERTIFIED BY A LICENSED SURVEYOR UPON COMPLETION OF CONSTRUCTION AND SCHEDULE A FINAL INSPECTION WITH THE ENGINEER OF RECORD.
15. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHOULD NOTIFY THE COUNTY SURVEYOR WITHOUT DELAY BY TELEPHONE.
16. IF HARDPAN IS ENCOUNTERED WITHIN RETENTION AREA OR SWALES, IT SHALL BE REMOVED AND REPLACED WITH A GRANULAR MATERIAL.
17. IF MUCK OR ANY OTHER UNSUITABLE MATERIAL IS ENCOUNTERED, THE MATERIAL SHALL BE COMPLETELY REMOVED AND BACK FILLED WITH A GRANULAR MATERIAL AND COMPACTED TO DENSITIES SUFFICIENT TO ACCOMMODATE THE INTENDED USE.
18. LOCATION OF STRUCTURES SHALL GOVERN AND PIPE LENGTHS MAY HAVE TO BE ADJUSTED TO ACCOMPLISH CONSTRUCTION AS SHOWN ON THESE PLANS.
19. RCP INDICATES REINFORCED CONCRETE PIPE. CMP INDICATES GALVANIZED CORRUGATED METAL PIPE. BCCMP INDICATES BITUMINOUS COATED CORRUGATED METAL PIPE. CAP INDICATES CORRUGATED ALUMINUM PIPE. CPP INDICATES CORRUGATED POLYETHYLENE PIPE (N12) MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, INC. (ADS).
20. MITERED END SECTIONS SPECIFIED ON THE PLANS SHALL BE IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 272.
21. COMPACTION REQUIREMENTS FOR PIPE BEDS SHALL BE 90% OF MAXIMUM DRY DENSITY.
22. TEMPORARY DRAINAGE SHALL BE PROVIDED DURING CONSTRUCTION TO ELIMINATE ANY FLOODING OF PRIVATE PROPERTY.
23. ALL STORM SEWER LINES AND DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AND ERODED MATERIALS DURING THE FINAL STAGES OF CONSTRUCTION.
24. ANY DRAINAGE PROBLEMS CREATED BY CONSTRUCTION, OR EXISTING BEFORE CONSTRUCTION AND NOT ALLEVIATED AS PART OF THE PROPOSED IMPROVEMENTS, SHOULD BE BROUGHT TO THE ATTENTION OF THE GOVERNING AUTHORITY AND THE ENGINEER OF RECORD.
25. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT EXISTING TREES SHOWN TO REMAIN. IF ANY TREES MARKED TO BE REMOVED CAN BE SAVED, THE CONTRACTOR SHALL SAVE SAID TREES. SHOULD ADDITIONAL TREES NEED TO BE REMOVED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO REMOVING SAID TREES.
26. IF EXCAVATED FILL MATERIAL IS REUSABLE, STOCKPILE EXCESS FOR USE IN LANDSCAPED AREAS.
27. UNUSABLE CLEARED MATERIAL SHALL BE REMOVED FROM SITE AND HAULED TO AN APPROVED DISPOSAL SITE. AS AN ALTERNATIVE, BURNING ON SITE WILL BE ALLOWED WITH PROPER PERMITS. LOCATION OF BURN SITE SHALL BE APPROVED BY OWNER.
28. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS OR BETTER. ALL EXISTING SIGNAGE, PAVEMENT MARKINGS, ABOVE GROUND APPURTENANCES, ETC. SHALL BE RESTORED IN KIND.
29. WHEN PAVEMENT IS SHOWN NEXT TO A CURB OR SIDEWALK, THE ELEVATION OF THE TOP OF CURB OR SIDEWALK IS 6" ABOVE THE PAVEMENT, UNLESS INDICATED AS FLUSH. IN SOME CASES, BOTH ELEVATIONS ARE SHOWN FOR ADDITIONAL CLARITY.
30. ALL CONCRETE SHALL DEVELOP A 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI UNLESS OTHERWISE NOTED.
31. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615 AND HAVE A TENSILE STRENGTH OF 60,000 PSI UNLESS OTHERWISE NOTED.
32. ALL WATER FLUSHED FROM MAINS SHALL BE DIRECTED AS APPROVED BY THE ENGINEER OF RECORD.
33. NO WATER OR SEWER SERVICE IS TO BE SUPPLIED, UNTIL A LETTER OF CLEARANCE IS RECEIVED FROM FDEP, IF APPLICABLE.
34. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND THE FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX #600", LATEST EDITIONS.
35. EROSION AND SEDIMENT CONTROL - CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION AND SEDIMENT CONTROL USING THE LATEST F.D.O.T. STANDARDS. BALED HAY, STRAW, AND SILTATION BARRIERS WILL BE INSTALLED WHERE NEEDED TO PREVENT SILTATION OF ADJACENT PROPERTY, PUBLIC RIGHT-OF-WAY, WETLANDS AND WATERWAYS. THESE WILL REMAIN IN PLACE UNTIL GRASSING OR SODDING HAS BEEN COMPLETED OR UNTIL SILTATION AND EROSION ARE NO LONGER A THREAT TO ADJACENT PROPERTY AND WATERWAYS.
36. ALL BERMS AND GRASSED AREAS SHALL BE SODDED AND ESTABLISHED IN ACCORDANCE WITH THE APPROPRIATE SECTIONS OF THE ABOVE REFERENCED SPECIFICATIONS UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER OF RECORD.
37. BOUNDARY AND TOPOGRAPHIC INFORMATION PREPARED BY VELCON ENGINEERING & SURVEYING, LLC DRAWING NO. 18-1030. ALL ELEVATIONS PER BENCHMARKS REFERENCED ON SURVEY.

NOTE:
MITERED END SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX #272.

NOTE:
ALL ELEVATIONS SHOWN OR REFERENCED WITHIN THESE PLANS ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D.). TO CONVERT FROM N.A.V.D. '88 TO N.G.V.D. '29, ADD 1.48' TO THE N.A.V.D. ELEVATIONS TO GET N.G.V.D. ELEVATIONS.

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590 NW PEACOCK BLVD, SUITE #8
PORT ST. LUCIE, FL 34986
PHONE: (772) 879-0477
FBPE C.O.A. # 32222

REVISIONS:

BY:	DATE:	COMMENT:

PROJECT: FORT PIERCE SELF STORAGE
CITY OF FORT PIERCE, FLORIDA

CLIENT: Yo No Se LLC

M. RANDALL RODGERS LICENSE No. 68212 STATE OF FLORIDA PROFESSIONAL ENGINEER

M. RANDALL RODGERS, PE
FLORIDA LICENSE No. 68212
2/25/21

PROJECT No.: 18-1030
DRAWN BY: RP
CHECKED BY: RR
DATE: 2/25/2021
CAD I.D.: 18-1030ENG

SHEET TITLE:
PAVING, GRADING & DRAINAGE PLAN

SHEET NUMBER:
02

Printed on Thursday, February 25, 2021, 8:35 AM by CAD107
N:\PROJECTS\2018\18-1030 FORT PIERCE SELF STORAGE\ENGINEERING\PLANS\CONSTRUCTION PLANS\18-1030ENG----->LAYOUT: 02 PAVING GRADING & DRAINAGE PLAN

PLANT LIST

SYM	QTY	BOTANICAL	COMMON	OC	SIZE
TREES					
AR	2	ACER RUBRUM	RED MAPLE TREE	as shown	10'-12'x4'-5'; 2" CAL.
ED	9	ELAEOCARPUS DECIPIENS 'STANDARD'	JAPANESE BLUEBERRY TREE	as shown	8'-10'x3'-5' S.P.; 3" CAL.
GL	10	GORDONIA IASIANTHUS	LOBLOLLY BAY	as shown	8'-10' X3'-4' SPRD.; 2" CAL.
QV	7	QUERCUS VIRGINIANA	LIVE OAK	as shown	14'-15' X 6'-7' SP.; 3" CAL.; SINGLE STRAIGHT TRUNK; WELL DEV. HEAD
TD	11	TAXODIUM DISTICHUM	BALD CYPRESS	as shown	8'-10'x3'-4'; 2" CAL.
PALMS					
SP	50	SABAL PALMETTO	CABBAGE PALM	as shown	10'-14' C.T.
SHRUBS					
BM	59	BAMBUSA MULTIPLEX	ALFONSE KARR	24"	4'-5'x2'-3'
HP	53	HAMELIA PATENS	DWARF FIRE BUSH	36"	3 GAL.; FULL PLANTS
SB	348	SPARTINA BAKERI	CORD GRASS	36"	3 GAL.; FULL PLANT
TJ	132	TRACHELOSPERMUM JASMINOIDES	CONFEDERATE JASMINE	24"	1 GAL.; FULL PLANTS
GROUND COVERS					
MC	670	MUHLENBERGIA CAPILLARIS	MUHLY GRASS	36"	1 GAL.; FULL PLANTS
SOD		BAHIA			

GENERAL NOTES

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND ALL WORK AS CALLED FOR ON THE LANDSCAPE PLANS AND IN THE SPECIFICATIONS. THE LIST OF PLANT MATERIAL QUANTITIES ACCOMPANYING THE PLANS SHALL BE USED AS A GUIDE ONLY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES AND REPORT ANY DISCREPANCIES AT THE TIME OF BIDDING.

ALL PLANT MATERIAL SHALL BE GRADED FLORIDA NO. 1 OR BETTER AS OUTLINED UNDER GRADES AND STANDARDS FOR NURSERY PLANTS, DIVISION OF PLANT INDUSTRY, STATE OF FLORIDA UNLESS OTHERWISE NOTED.

ALL PLANT BEDS SHALL BE TOP DRESSED WITH 1 1/2"-2" PREMIUM QUALITY PINE BARK MULCH. PINE BARK MULCH SHALL BE "BOLLING FOREST PRODUCTS, INC. MINI PINE BARK NUGGETS" OR EQUAL.

ALL PLANT MATERIAL SHALL BE PROPERLY PLANTED WITH FRIABLE TOPSOIL AND FERTILIZER MIXTURE CONTAINING AT LEAST 5% ORGANIC MATTER (HUMUS). FERTILIZER SHALL BE A COMPLETE BALANCED BLEND CONTAINING NITROGEN, PHOSPHOROUS AND POTASSIUM, AS WELL AS MICRONUTRIENTS MAGNESIUM, IRON, COPPER, ZINC, BORON, AND MANGANESE SULFATE.

ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF 180 DAYS.

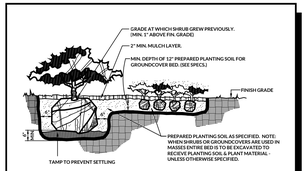
LANDSCAPE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR THE STABILITY AND PLUMB CONDITION OF ALL TREES AND SHRUBS AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY THE INSTABILITY OF ANY PLANT MATERIALS. STAKING OF TREES AND SHRUBS, IF REQUIRED, SHALL BE DONE UTILIZING A METHOD AGREED UPON BY THE LANDSCAPE ARCHITECT.

LANDSCAPE CONTRACTOR SHALL REVIEW ARCHITECTURAL PLANS TO BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUB-SURFACE UTILITIES.

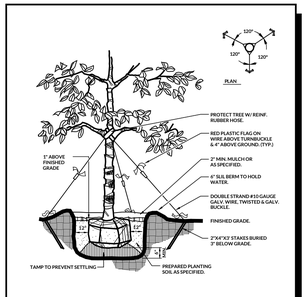
EVERY POSSIBLE SAFEGUARD SHALL BE TAKEN TO PROTECT BUILDING SURFACES, EQUIPMENT AND FURNISHINGS.

LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY WHICH MAY OCCUR AS A RESULT OF HIS NEGLIGENCE IN PROSECUTION OF THE WORK.

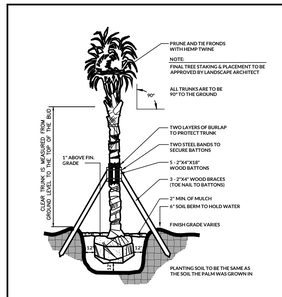
IRRIGATION:
THE IRRIGATION SYSTEM WILL PROVIDE 100% COVERAGE ON ALL LAWN AND LANDSCAPED AREAS, AND WILL MEET ALL APPLICABLE CODES.



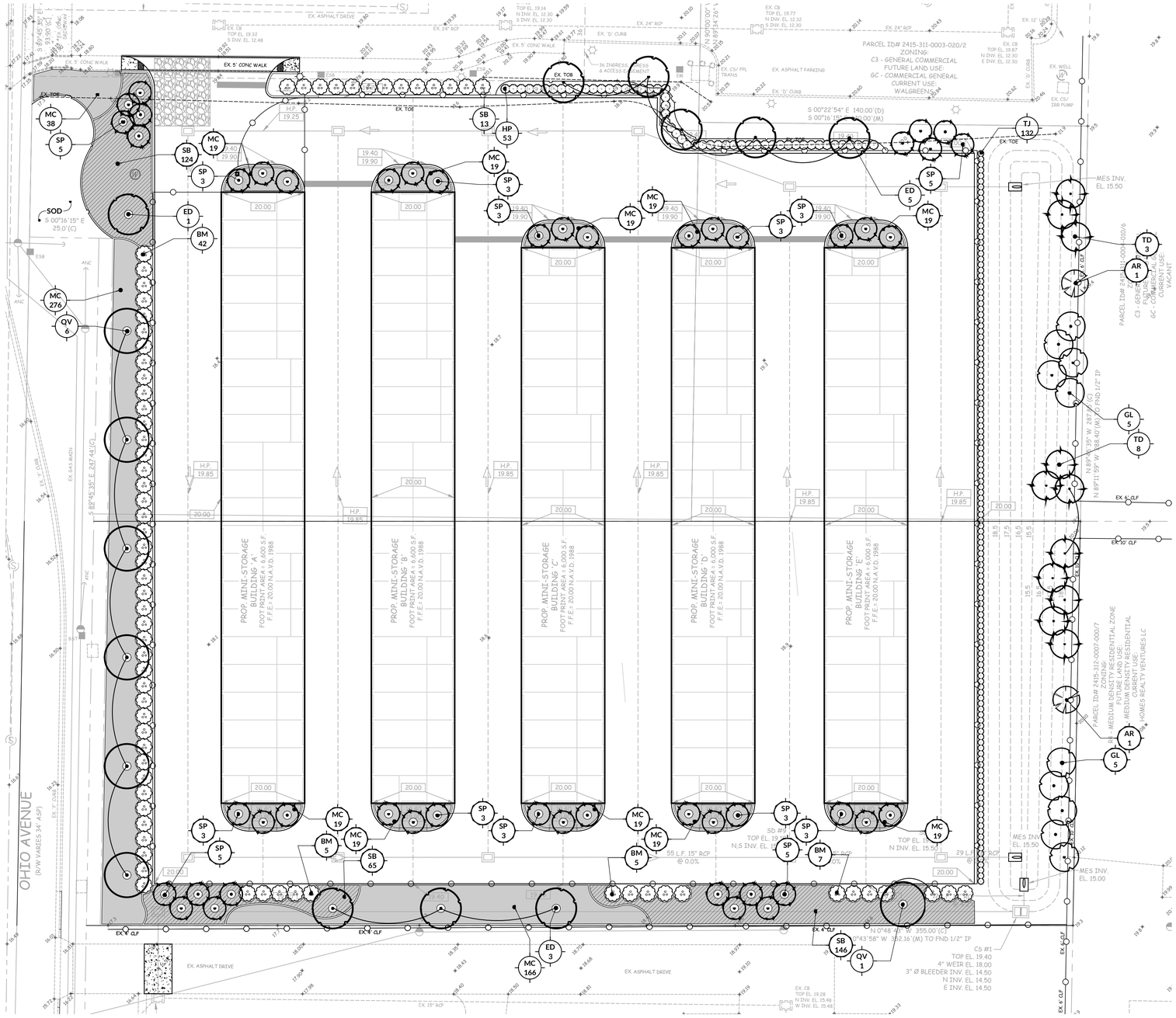
TYP. SHRUB AND GROUND COVER PLANTING DETAIL
SCALE: N.T.S.



TYP. LARGE TREE PLANTING DETAIL
SCALE: N.T.S.



TYP. PALM TREE PLANTING DETAIL
SCALE: N.T.S.



REVISIONS	BY

LANDSCAPE PLAN
FORT PIERCE SELF STORAGE
Prepared for:
City of Fort Pierce, Florida

DESIGN BY:	T. HEURTA
DRAWN BY:	R. GOOD
DATE	18 FEB 2021
SCALE	1"=20'-0"
JOB NO.	
SHEET	LA-1
OF	1 SHEETS

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 4477547 OR BOOK 4177 PAGE 752, Recorded 09/05/2018 04:14:45 PM Doc T:
$1295.00

Prepared by and Return to:
Veronika Swords, employee of
First International Title, Inc.
107 North 2nd Street
Fort Pierce, FL 34950
Our File No. 129194-41

SPECIAL WARRANTY DEED

THIS SPECIAL WARRANTY DEED is made on 29th day of August, 2018, between **Indian River State College Foundation, Inc., a Florida corporation not for profit,** having a business address at: 3209 Virginia Avenue, Fort Pierce, FL 34981
("Grantor"), and **Yo No Se, LLC, a Florida limited liability company**, having a mailing address of: 2701 Industrial Avenue 3, Fort Pierce, FL 34946 , ("Grantee"):

(Which terms "Grantor" and "Grantee shall include singular or plural, corporation or individual, and either sex, and shall include heirs, legal representatives, successors and assigns of the same)

WITNESSETH, that the said Grantor, for and in consideration of the sum of Ten Dollars, ($10.00) and other valuable considerations, receipt and sufficiency of which is hereby acknowledged has granted, bargained, sold, remised, released, conveyed and confirmed unto said "Grantee", it's successors and assigns forever, following described land, situated, lying and being in the County of **St. Lucie, Florida,** to-wit:

SEE EXHIBIT "A" FOR COPY OF ATRICLES AND BY LAWS
SEE EXHIBIT "B" FOR LEGAL DESCRIPTION

Parcel Identification Number: **2415-311-0003-000/6 AND 2515-312-0001-010/8 AND 2415-311-0003-030/5**

Subject, however, to all reservations, covenants, conditions, restrictions and easements of record and all applicable zoning ordinances and/or restrictions or requirements imposed by governmental authorities, if any.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land; and that said land is free of all encumbrances except taxes accruing subsequent to **December 31, 2017.** That it hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under Grantor, but against none other.

In Witness Whereof, Grantor has signed and sealed these presents on the date first above written.

Indian River State College Foundation, Inc.
a Florida not for profit corporation

by: _____
Ann L. Decker, Executive Director

Signed, sealed and delivered in our presence:

_____
Witness Signature
Print Name: KAREN J. CRISTALDI

_____
Witness Signature
Print Name: Veronika Swords

State of Florida
County of St. Lucie

The Foregoing Instrument Was Acknowledged before me on 8-29-2018, by Ann L. Decker, Executive Director of **Indian River State College Foundation, Inc., a Florida corporation not for profit,** who is/are personally known to me or who has/have produced a valid driver's license as identification.

_____
Notary Public

_____
(Printed Name)

My Commission expires: _____

Notary Public State of Florida
Veronika Swords
My Commission GG 221636
Expires 07/17/2022

Exhibit "A"

ARTICLES OF AMENDMENT
To
ARTICLES OF INCORPORATION
Of
INDIAN RIVER COMMUNITY COLLEGE FOUNDATION, INC.

Pursuant to the provisions of Section 617.1006, Florida Statutes, the undersigned corporation adopts the following Articles of Amendment to its Articles of Incorporation:

1. The name of the corporation is INDIAN RIVER COMMUNITY COLLEGE FOUNDATION, INC., and the document number of the corporation is 709584.

2. The name of the corporation shall be as follows:

INDIAN RIVER STATE COLLEGE FOUNDATION, INC.

3. The date of adoption of this Amendment to the Articles is June 24, 2008

4. This amendment was duly adopted by the Board of Directors of the corporation at meeting held for that purpose on June 24, 2008. The amendment was approved by the Board of Directors and the Amendment does not require member approval.

Signed this 21st day of July, 2008.

INDIAN RIVER COMMUNITY COLLEGE FOUNDATION, INC.

By: Susanne H. Clemons

SUSANNE H. CLEMONS
CHAIRMAN OF BOARD

FILED
08 JUL 23 AM 8:25
SECRETARY OF STATE
TALLAHASSEE, FLORIDA

BYLAWS OF THE
INDIAN RIVER STATE COLLEGE FOUNDATION, INC.

(As amended November 17, 2003; July 18, 2005; August 4, 2008)

ARTICLE I.

Section 1. MEETINGS.

(a) The regular business meetings of the Board of Directors shall be held at the Indian River Community College, Fort Pierce, Florida, on a bi-monthly basis.

(b) Special Meetings of the Board of Directors may be called by the Chairman of the Board of Directors or by request of a simple majority of the members.

(c) Attendance is required and recorded. Members may have two unexcused absences per year. A majority of the members shall constitute a quorum at any meeting of the Board of Directors and all questions shall be determined by a majority of the Directors voting; provided, however, a majority of all members of the Board of Directors must concur in the following:

(1) The election of members of the Board of Directors.

(2) Amendments to these bylaws.

(3) Amendments to the Articles of Incorporation.

The Chairman shall preside at all meetings of the Board of Directors and shall act as the Chief Executive Officer of this corporation, and shall do and perform such other duties as from time to time may be assigned him by the Directors.

Section 2. FIRST-VICE CHAIR.

The First-Vice Chair shall preside at all meetings of the Board of Directors in the absence of the Chairman and he shall do and perform such other duties as from time to time may be assigned him by the Board of Directors, and he shall also do and perform all duties which might or should be performed by the Chairman when the Chairman is ill, absent from the State of Florida, or otherwise incapacitated.

Section 3. SECOND-VICE CHAIR.

The Second-Vice Chair shall preside at all meetings of the Board of Directors in the absence of the Chair and the First-Vice Chair and he shall do and perform such other duties as from time to time may be assigned to him by the Board of Directors and he shall also do and perform all duties which might or should be performed by the Chairman when the Chairman and First-Vice Chair are both ill, absent from the State of Florida, or otherwise incapacitated.

Section 4. SECRETARY/TREASURER.

The Executive Director will serve as corporate secretary and treasurer of the Board of Directors as well as executive director of the IRCC Foundation, Inc. All components of the Foundation and all aspects of its operation are responsible to the Board of Directors through the Executive Director. The Board of Directors shall have the power to take action without a recommendation from the executive director and shall have the power to require the executive director to deliver to the board all data and information required by the board in the performance of its duties.

The Secretary/Treasurer shall:

AGENDA ITEM #6B

1) Advise and counsel the board of directors and seek the advice and counsel of the board. Recommendations, nominations, proposals, and reports to the board from the chair shall be recorded in the minutes or shall be made in writing, noted in the minutes, and filed in the records of the board. In the absence of such record, the recommendations, nominations, proposals, and reports shall be presumed consistent with action by the board.

2) Attend, but not vote at, all meetings of the board of directors.

3) Keep minutes of all official actions and proceedings of the board of Directors and keep such other records, including records of property held or disposed of by the board, as may be necessary to provide complete information regarding the college.

4) Act for the Board of Directors as custodian of all property. Recommend plans for contracting, receiving, purchasing, acquiring through condemnation, leasing, selling, holding, transmitting and conveying title to real and personal property. Recommend plans for holding in trust and administering real and personal property, money, and other things of value, granted, conveyed, devised, or bequeathed for the benefit of the Foundation.

5) Be responsible for administration of financial matters.

6) Leave with the board of directors and make available to the successor a complete inventory of Foundation property, together with all official records and such other records as may be needed.

7) Have or designate custody of the Foundation seal and authenticate true copies of decisions, acts, and documents when required by law, rules of the State Board of Education, or rules of the Board of Directors.

Section 5.

Wherever the masculine gender is used herein, the feminine is also included.

Section 6.

In the event of absence, inability or refusal to act of any of the officers of this corporation, the Board of Directors may appoint the necessary person or persons to perform his or their respective duties.

Escrow File No.: **129194-41**

EXHIBIT "B"

Parcel 1

Being a part of the North 380 feet of the Northeast 1/4 of the Southwest 1/4 of Section 15, Township 35 South, Range 40 East, St. Lucie County, Florida, lying west of U.S. Highway No. 1, being more fully described as follows: The West 192.35 feet of the East 417.35 feet (as measured from the West right of way of U.S. Highway No. 1) of the North 380 feet less and except the South 140 feet therefrom, less and except road right of way.

Parcel 2

Commence at the Northwest corner of the Northeast quarter (NE 1/4) of the Southwest quarter (SW 1/4) of Section 15, Township 35 South, Range 40 East, St. Lucie County, Florida; thence run North 90°00'00" East along the North line of said Northeast quarter (NE 1/4) of the Southwest quarter (SW 1/4) for a distance of 691.85 feet; thence run South 00°22'54" East along a line that is parallel with U.S. Highway No. 1 for a distance of 240.00 feet; thence run North 90°00'00" West along a line that is parallel with the North line of said Northeast Quarter (NE 1/4) of the Southwest Quarter (SW 1/4) for a distance of 50.35 feet to the Point of Beginning; thence run South 00°22'54" East along a line that is parallel with U.S. Highway No. 1 for a distance of 140.00 feet; thence run North 90°00'00" West along a line that is parallel with the North line of said Northeast quarter (NE 1/4) of the Southwest Quarter (SW 1/4) for a distance of 142.00 feet; thence run North 00°22'54" West along a line that is parallel with U.S. Highway No. 1 for a distance of 140.00 feet; thence run North 90°00'00" East along a line that is parallel with the said North line of the Northeast quarter (NE 1/4) of the Southwest quarter (SW 1/4) for a distance of 142.00 feet to the Point of Beginning.

Parcel 3

The East 145.51 feet of the West 495.51 feet of the North 380.01 feet of the Northeast 1/4 of the Southwest 1/4 of Section 15, Township 35 South, Range 40 East, St. Lucie County, Florida, less and except road right of way.

UNITY OF TITLE

BY THESE PRESENTS, YO NO SE, LLC _____ hereinafter referred to as "Owner(s)", for other good and valuable considerations, hereby agrees to restrict the use of lands more particularly described in **Exhibit "A"** attached hereto in the following manner:

1. That said property shall be considered as one plot and parcel of land and that no portion of said plot and parcel of land shall be sold, transferred, devised, or assigned separately except in its entirety as one plot or parcel of land.

2. The undersigned further agrees that this condition, restriction and limitation shall be deemed a covenant running with the land, and shall remain in full force and effect, and be binding upon the undersigned, their heirs and assigns until such time as the same may be released in writing by the City Commission for the City of Fort Pierce, Florida.

3. The undersigned further agrees that this instrument shall be recorded in the Public Records of St. Lucie County.

Signed, sealed, executed and acknowledged on the 24th day of February, 2021, in St. Lucie County, Florida.

WITNESSES:

Signature:

Scott Holmes
Name Printed

Signature:

Susan Wilson
Name Printed

OWNER(S):

By:
Signature

Antonio Huerta
Name Printed
Address: 1490 Seaway Drive, Fort Pierce, Fl 34949

By:
Signature

Name Printed
Address:

STATE OF COUNTY OF FLORIDA
COUNTY OF St. Lucie

I HEREBY CERTIFY that the foregoing instrument was acknowledged before me this 24th day of February, 2021, by Antonio Huerta. He or she ( ) is personally known to me or ( ) has produced _____ as identification.

NOTARY PUBLIC

Signature
Susan M. Wilson
Name Printed
My Commission Expires:

Notary Public State of Florida
Susan Wilson
My Commission GG 143129
Expires 09/14/2021

Exhibit "A" is the legal description of all properties to be included in this UoT

EXHIBIT A

UNITY OF TITLE FOR YO NO SE, LLC

PROPERTY 1 - 2415-312-0001-010-8

15 35 40 FROM NW COR OF NE 1/4 OF SW 1/4 RUN E 350 FT, TH S 25 FT TO S R/W OF OHIO AV AND POB, TH CONT S 355 FT, TH E 145.51 FT, TH N 355 FT, TH W 145.51 FT TO POB

PROPERTY 2 - 2415-311-0003-030-5

15 35 40 FROM NW COR OF NE 1/4 OF SW 1/4 RUN ELY ALG SEC LI 916.85 FT,TH SLY ALG SD R/W 280 FT,TH WLY 277.35 FT // TO SEC LI TO POB,TH NLY 140 FT // TO R/W US #1,TH WLY 142 FT,TH SLY 140 FT,TH ELY 142 FT TO POB (0.46 AC)

PROPERTY 3 - 2415-311-0003-000-6

15 35 40 N 240 FT OF NE 1/4 OF SW 1/4 LYG W OF US 1-LESS W 499.5 FT AND LESS E 225 FT-

Yo No Se LLC
2701 Industrial Avenue 3
Fort Pierce, FL 34946

To Whom It May Concern:

This letter authorizes Velcon Engineering & Surveying LLC. to act as agent for the purposes of obtaining permits and approvals from state and local government agencies for the property described on the attached legal description.

If you have any questions, please call me at 407-921-6991.

Sincerely,

ANTONIO HUERTA, MANAGER

Date: 12/27/2018

State of: Florida
County of: St Lucie

I HEREBY CERTIFY that the foregoing instrument was acknowledged before me this 27 day of Dec, 2018, by _____, who ( ) is personally known to me, or (X) has produced FL DL as identification.

NOTARY PUBLIC

Name Printed: Deanna M Gerhart
State of Florida at-large
My Commission expires: June 26, 2022

File: 18-1030 aut.doc

DEANNA M GERHART
MY COMMISSION #GG232255
EXPIRES: JUN 26, 2022
Bonded through 1st State Insurance

LEGAL DESCRIPTION:

PARCEL IDENTIFICATION NUMBER: 2415-311-0003-030-5

COMMENCE AT THE NORTHWEST COMER OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 15, TOWNSHIP 35 SOUTH, RANGE 40 EAST; THENCE RUN NORTH 90°00'00" EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) FOR A DISTANCE OF 691.85 FEET; THENCE RUN SOUTH 00°22'54" EAST ALONG A LINE THAT IS PARALLEL WITH U.S. HIGHWAY NO. 1 FOR A DISTANCE OF 240.00 FEET; THENCE RUN NORTH 90°00'00" WEST ALONG A LINE THAT IS PARALLEL WITH THE NORTH LINE OF SAID NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 114) FOR A DISTANCE OF 50.35 FEET TO THE POINT OF BEGINNING; THENCE RUN SOUTH 00°22'54"EAST ALONG A LINE THAT IS PARALLEL WITH U.S. HIGHWAY NO. 1 FOR A DISTANCE OF 140.00 FEET; THENCE RUN NORTH 90°00'00" WEST ALONG A LINE THAT IS PARALLEL WITH THE NORTH LINE OF SAID NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 114) FOR A DISTANCE OF 142.00 FEET; THENCE RUN NORTH 00°22'54" WEST ALONG A LINE THAT IS PARALLEL WITH U.S. HIGHWAY NO. 1 FOR A DISTANCE OF 140.00 FEET; THENCE RUN NORTH 90°00'00" EAST ALONG A LINE THAT IS PARALLEL WITH THE SAID NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) FOR A DISTANCE OF 142.00 FEET TO THE POINT OF BEGINNING.

PARCEL IDENTIFICATION NUMBER: 2415-312-0001-010-8

THE EAST 145.51 FEET OF THE WEST 495.51 FEET OF THE NORTH 380.01 FEET OF THE NORTHEAST 114 OF THE SOUTHWEST 1/4 OF SECTION 15, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ALL LYING IN ST. LUCIE COUNTY, FLORIDA; LESS AND EXCEPT ALL EASEMENTS AND RIGHTS-OF-WAY OF RECORD.

PARCEL IDENTIFICATION NUMBER: 2415-311-0003-000-6

BEING A PART OF THE NORTH 380 FEET OF THE NE 1/4 OF THE SW 1/4 OF SECTION 15, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, LYING WEST OF U.S. HIGHWAY NO. 1, BEING MORE FULLY DESCRIBED AS FOLLOWS: THE WEST 192.35 FEET OF THE EAST 417.35 FEET (AS MEASURED FROM THE WEST RIGHT-OF-WAY OF U.S. HIGHWAY NO. 1) OF THE NORTH 380 FEET LESS AND EXCEPT THE SOUTH 140 FEET THEREFROM. SUBJECT TO ALL

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

Property Identification

Site Address:	OHIO AVE
Parcel ID:	2415-312-0001-010-8
Account #:	24450
Map ID:	24/15S
Use Type:	0000
Zoning:	R4
City/County:	Fort Pierce

Ownership

Yo No Se LLC
2701 Industrial Avenue 3
Fort Pierce, FL 34946

Legal Description

15 35 40 FROM NW COR OF NE 1/4 OF SW 1/4 RUN E 350 FT, TH S 25 FT TO S R/W OF OHIO AV AND POB, TH CONT S 355 FT, TH E 145.51 FT, TH N 355 FT, TH W 145.51 FT TO POB

Current Values

Just/Market Value:	$23,900
Assessed Value:	$16,456
Exemptions:	$16,456
Taxable Value:	$0

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF



Total Areas

Finished/Under Air (SF):	0
Gross Area (SF):	0
Land Size (acres):	1.19
Land Size (SF):	51,656

Sale History

Date:	Aug 29, 2018
Book/Page:	4177 / 0752
Sale Code:	0317
Deed:	SP
Grantor:	Indian River State College Foundation Inc
Price:	$185,000
Date:	Feb 9, 2015
Book/Page:	3715 / 1920
Sale Code:	0318
Deed:	WD
Grantor:	Brinkley Property Investment
Price:	$100
Date:	Jan 1, 2009
Book/Page:	3061 / 2874
Sale Code:	0311
Deed:	WD
Grantor:	Brinkley (TR) James B

Price:	$100
Date:	Nov 23, 1991
Book/Page:	0775 / 0798
Sale Code:	XX01
Deed:	WD
Grantor:	James B Brinkley
Price:	$100
Date:	Oct 1, 1984
Book/Page:	0447 / 1694
Sale Code:	XX00
Deed:	CV
Grantor:	
Price:	$50,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Total Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: 2014	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Special Features and Yard Items

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$23,900
Just/Market:	$23,900

Current Year Exemption Value Breakdown

Tax Year	Grant Year	Code	Description	Amount
2018	2016	3000	Education	$16,456

Ag Credit:	$0
Save Our Homes or 10% Cap:	$7,444
Assessed:	$16,456
Exemption(s):	$16,456
Taxable:	$0

Current Year Special Assessment Breakdown

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office.

Historical Values

Permits

Number:	BP14-0618
Issue Date:	Mar 27, 2014
Description:	Electric
Amount:	$1,000
Fee:	$155

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

This information is believed to be correct at this time but it is subject to change and is not warranted.
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Michelle Franklin, CFA -- Saint Lucie County Property Appraiser -- All rights reserved.

Property Identification

Site Address:	S US HIGHWAY 1
Parcel ID:	2415-311-0003-030-5
Account #:	172275
Map ID:	24/15S
Use Type:	1000
Zoning:	C3
City/County:	Fort Pierce

Ownership

Yo No Se LLC
2701 Industrial Avenue 3
Fort Pierce, FL 34946

Legal Description

15 35 40 FROM NW COR OF NE 1/4 OF SW 1/4 RUN ELY ALG SEC LI 916.85 FT,TH SLY ALG SD R/W 280 FT,TH WLY 277.35 FT // TO SEC LI TO POB,TH NLY 140 FT // TO R/W US #1,TH WLY 142 FT,TH SLY 140 FT,TH ELY 142 FT TO POB (0.46 AC)

Current Values

Just/Market Value:	$43,800
Assessed Value:	$43,800
Exemptions:	$43,800
Taxable Value:	$0

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF



Total Areas

Finished/Under Air (SF):	0
Gross Area (SF):	0
Land Size (acres):	0.46
Land Size (SF):	19,880

Sale History

Date:	Aug 29, 2018
Book/Page:	4177 / 0752
Sale Code:	0317
Deed:	SP
Grantor:	Indian River State College Foundation Inc
Price:	$185,000
Date:	Feb 9, 2015
Book/Page:	3715 / 1920
Sale Code:	0318
Deed:	WD
Grantor:	Brinkley Property Investment
Price:	$100
Date:	Jan 1, 2009
Book/Page:	3061 / 2874
Sale Code:	0311
Deed:	WD
Grantor:	Brinkley (TR) James B

Price:	$100
Date:	Aug 8, 2006
Book/Page:	2639 / 0037
Sale Code:	XX01
Deed:	WD
Grantor:	Lloyd Properties Ltd
Price:	$369,300
Date:	Dec 17, 2004
Book/Page:	2141 / 1442
Sale Code:	XX00
Deed:	WD
Grantor:	Tap House Sports Grill Inc
Price:	$900,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Total Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: 2014	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Special Features and Yard Items

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$43,800
Just/Market:	$43,800

Current Year Exemption Value Breakdown

Tax Year	Grant Year	Code	Description	Amount
2018	2016	3000	Education	$43,800

Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$43,800
Exemption(s):	$43,800
Taxable:	$0

Current Year Special Assessment Breakdown

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office.

Historical Values

Permits

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

This information is believed to be correct at this time but it is subject to change and is not warranted.
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Property Identification

Site Address:	OHIO AVE
Parcel ID:	2415-311-0003-000-6
Account #:	24439
Map ID:	24/15S
Use Type:	1000
Zoning:	C3
City/County:	Fort Pierce

Ownership

Yo No Se LLC
2701 Industrial Avenue 3
Fort Pierce, FL 34946

Legal Description

15 35 40 N 240 FT OF NE 1/4 OF SW 1/4 LYG W OF US 1-LESS W 499.5 FT AND LESS E 225 FT-



Current Values

Just/Market Value:	$116,000
Assessed Value:	$116,000
Exemptions:	$116,000
Taxable Value:	$0

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Area (SF):	0
Land Size (acres):	1
Land Size (SF):	43,757

Sale History

Date:	Aug 29, 2018
Book/Page:	4177 / 0752
Sale Code:	0317
Deed:	SP
Grantor:	Indian River State College Foundation Inc
Price:	$185,000
Date:	Feb 9, 2015
Book/Page:	3715 / 1920
Sale Code:	0318
Deed:	WD
Grantor:	Brinkley Property Investment
Price:	$100
Date:	Jan 1, 2009
Book/Page:	3061 / 2874
Sale Code:	0311
Deed:	WD
Grantor:	Brinkley (TR) James B

Price:	$100
Date:	Dec 23, 1991
Book/Page:	0775 / 0802
Sale Code:	XX01
Deed:	WD
Grantor:	James B Brinkley
Price:	$100
Date:	Jul 1, 1985
Book/Page:	0472 / 0511
Sale Code:	XX00
Deed:	CV
Grantor:	
Price:	$95,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Total Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: 2014	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Special Features and Yard Items

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$116,000
Just/Market:	$116,000

Current Year Exemption Value Breakdown

Tax Year	Grant Year	Code	Description	Amount
2018	2016	3000	Education	$116,000

Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$116,000
Exemption(s):	$116,000
Taxable:	$0

Current Year Special Assessment Breakdown

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office.

Historical Values

Permits

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

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Michelle Franklin, CFA - Saint Lucie County Property Appraiser



February 22, 2019

1:2,257

0 0.0175 0.035 0.07 mi

0 0.03 0.06 0.12 km

This information is deemed to be correct at this time but it is subject to change and is not warranted.
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As Nature Intended

Phillip R. Jimrusti & Associates, Inc.
Ecological Engineers
Environmental Consultants

4085 S.W. Honey Terrace • Palm City, Florida 34990
Phone: 954-370-8870 • Fax: 772-781- 3790

March 8, 2019

Shaikha Abedin, EI
Velcon Engineering and Surveying, LLC
590 NW Peacock Blvd., Suite 8
Port St. Lucie, FL 34986

Re: Fort Pierce Self Storage
2415-311-0003-000-6
2415-311-0003-030-5
2415-312-0001-010-8

Ms. Abedin,

An *Environmental Site Visit* was conducted on three parcels of land totaling 2.65 acres located south of Ohio Avenue, west of S. US Highway 1, Section 15, Township 35 South, Range 40 East, City of Fort Pierce, St. Lucie County, Florida. The parcels were surveyed to be in substantial compliance with the St. Lucie County Resource Protection Standards (Chapter VI).

The property currently appears to be mowed and contains only a few interspersed trees. The site is bordered by a paved road on the north side, a paved road and residential development on the west side, commercial development on the east side, and residential development on the south side. The immediate area surrounding the property, with the exception of isolated areas, has been developed for residential or commercial purposes.

Vegetation observed includes mowed bahia grass (Paspalum notatum), wild sarsaparilla vine (Smilax glauca), spermacoce (spermacoce spp.), grape vine (Vitis rotundifolia), Brazilian pepper (Schinus terebinthifolius), laurel oak (Quercus laurifolia), slash pine (Pinus elliotii), and cabbage palm (Sabal palmetto).

No wildlife or evidence of wildlife, including that from the list of State and Federally protected species, rare, threatened, endangered or species of special concern was observed on the property. No portions of the property appear to be environmentally sensitive.

Sincerely,

Kristin Campbell
Associate

Velcon Engineering & Surveying, LLC
590 NW Peacock Blvd., Suite 8, Port St. Lucie, FL, 34986
Ph: 772 / 879-0477

Re: Fort Pierce Self Storage
South of Ohio Avenue
S15, T35S, R 40E
Property ID # 2415-311-0003-030-5, 2415-311-0003-000-6, 2415-312-0001-010-8

TRAFFIC STATEMENT:

THE INSTITUTE OF TRANSPORTATION ENGINEERS TRIP GENERATION, 10th EDITION CATEGORY: MINI-WAREHOUSE (151)

(AVERAGE RATES UTILIZED)	AVERAGE RATE	PROJECT UNITS	TRIPS
WEEKDAY DAILY TRIPS:	17.96 / 100 UNITS	217	39
P.M. PEAK HOUR TRIPS:	1.95 / 100 UNITS	217	5
A.M. PEAK HOUR TRIPS:	1.39 / 100 UNITS	217	3

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Design Review

Property address or Location: South of Ohio Avenue & 225 ft West of US -1, Fort Pierce, FL 34950

Parcel ID #(s): 2415-312-0001-010-8 ; 2415-311-0003-000-6 ; 2415-311-0003-030-5

Project Description: The project proposes construction of a self storage facility that includes 31,200 sq. ft of storage units and associated paved parking.

Celebration Point Property Development, LLC	M. Randall Rodgers, P.E. - Velcon Engineering & Surveying LLC
Property Owner(s)	Applicant/Representative, Title, Company
380 Creekstone Court	590 NW Peacock Blvd., Suite 8
Street Address	Street Address
Longwood FL 32779	Port St. Lucie FL 34986
City State Zip	City State Zip
(407) 921-6991	772 879-0477
Phone Number	Phone Number
redfishtony@hotmail.com	randyr@velcongroup.com
Email Address	Email Address

Property Owner(s) Acknowledgements: *- This application will not be considered complete without the signature of all property owners of record, which shall serve as an acknowledgement of the submission of this application. The property owner's signature below shall also authorize the Application (if other than the property owner) and/or Representative to act in his/her behalf for the purposes of seeking approval for the application described herein.*

Property Owner(s) Signature(s)

STATE OF FLORIDA -- COUNTY St Lucie

The foregoing instrument was acknowledged before me this 24 day of February, 2021, by

Antonio Huerta who is personally known to me or has produced

_____ as identification.

Susan Wilson

Signature of Notary

Notary Public State of Florida
Susan Wilson
My Commission GG 143129
Expires 09/14/2021
(seal)

TO BE COMPLETED BY STAFF

Zoning	Future Land Use	Total Acres	Historic Districts	Historic Designation

Pre-Application Meeting Date_____ Fees _____ Control #_____ B. Permit _____

Intake Planner_____

Planner Assigned_____

Approved_____ Date_____

Comments_____

Intake Date Stamp

Design Review Application Checklist
(City Code of Ordinances 22-59)

Submittal for Administrative Approval

a. A survey (1" = 30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of section 22-194, location of bordering streets and, if applicable, wetlands and beaches.
b. A site analysis study to include a discussion of specimen trees and other natural vegetation, access, significant topography, wetlands, buffers, setbacks, views, orientation, the surrounding built environment and other site features that may influence design elements.
c. A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis study results.
d. Context photographs of neighboring uses and architectural styles.
e. Photographs and/or drawings of architectural buildings or objects that serve as a precedent for the proposed building design. Models should be taken from local exemplary buildings, either existing or demolished. Documentation of such buildings is available in the city's planning department.
f. Photographs of all existing structures located on the property. If existing structures on the property are more than fifty (50) years of age, documentation of these structures with data from the Florida Master Site File form is also required.
g. Conceptual site plan (to scale) showing proposed location of all buildings, structures, parking areas, signs and landscaping.
h. Landscape plan, at the same scale as the site plan. The planning director or designee may request enlarged plans of detailed planting areas. Planting schedule with sizes of proposed plantings must be included.
i. Accurate color rendering of proposed signs showing dimensions, type of lettering, materials and actual color samples that demonstrates cohesiveness with the project design.
j. Exterior elevations showing architectural character, external architectural features and streetscape of the proposed development, including materials, colors, shadow lines and landscaping. The street elevation shall encompass the entire proposed project and generally identify the major elements of the adjacent two (2) properties on either side of the site. If the adjacent properties are vacant or underutilized, a diagram shall be provided that identifies the mass and form that is allowable under current zoning. If the street elevation must be drawn at such a scale as to render architectural details of the building unreadable, drawings of individual buildings at a larger scale should be provided as well.
k. Design review concurrent with conceptual development plan procedure according to subsection 22-58(e) is also available.

Submittal for Board Approval

a. A written narrative describing how the project conforms to administrative approval and design review guidelines of this section.
b. A final site plan meeting the requirements of section 22-58
c. A final site lighting plan that meets the requirements of subsection 22-58(d)(8).
d. A final landscape plan that meets the requirements of Article XII, Landscaping and Trees.
e. Final floor plans and elevation drawings (1/8" = 1'-0" minimum scale), as detailed under administrative approval, showing exterior building materials and colors with architectural sections and details to adequately describe the project.
f. A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Commercial & Residential	GC - Commercial General	C3 - General Commercial
South	Homes Realty Ventures LC, & Vacant	RM - Medium Density Residential; GC - Commercial General	R4 - Medium Density Residential; C3 - General Commercial
East	Popeyes & Walgreens	GC - Commercial General	GC - Commercial General
West	Arc of St. Lucie County INC. & BCAG LLC - Apartment Buildings	RM - Medium Density Residential	R4 - Medium Density Residential

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	C3 - General Commercial	C3 - General Commercial	31,200	2.67	X
****Proposed**					N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day 0
**Proposed Zoning/FLU	Total gallons per day
**Change in Demand	Total gallons per day

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day 0
**Proposed Zoning/FLU	Total gallons per day
**Change in Demand	Total gallons per day

C. Parks and Recreation (Residential Classifications Only): N/A
(Du x 2.6 = persons + 44,227 = population /LOS)

Park Type	LOS	Existing Population Park Demand	Proposed Population Park Demand	Change in Demand
Regional	20 acres per 1,000 people			
Urban District	5 acres per 1,000 people			
Community	2.5 acres per 1,000 people			
Neighborhood	1.36 acres per 1,000 people			

D. Public Schools (Residential Classifications Only): N/A
Single Family: (du x 0.405 = students/70% K-8/30% High)
Multi-family: (du x 0.207 = students/70% K-8/30% High)

	K-8	High
School Name		
City		
Distance		
Current Zoning/FLU Enrollment Demand		
****Proposed Zoning/FLU Enrollment Demand**		
****Change in Demand**		

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)	
Demand Analysis	Maximum
Current Zoning/FLU	0
****Proposed Zoning/FLU**	
***Change in Demand**	

F. Stormwater:
Potential increase in volume discharged due to increased impervious coverage, reduced groundwater seepage or loss of surface water storage impacting Adopted LOS of 25-year 3-day storm Pre vs. Post Runoff (Storm sewers to convey 5 year- 1 day storm event; Canals to convey 3 year – 1 day storm event)

Impact	No significant impacts are anticipated.

III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	39	5
****Proposed Zoning/FLU**		
***Change in Demand**	Trips	Trips
Impact to Capacity		

IV. Project Description

PHASING
Is this project (phase) part of a larger project? ☐ Yes ☑ No
If yes, enumerate each phase, the number of units or square footage in each phase and beginning/completion date.
Total Project: Residential Units: Single Family: Multifamily:
Non-residential (square footage):
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total)

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family					
Other (specify)					

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**
Self Storage	N/A	31,200	2.662	6/2/21	6/2/22

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. ☐ Yes ☑ No

B. 1. Does this application involve demolition or re-use of any structure(s)? ☐ Yes ☑ No
If yes, what is the size of the structure(s) to be demolished or re-used? _____
2. What is the current use of the structure to be demolished or re-used? _____
3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? ☐ Yes ☑ No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding