THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

# DEVELOPMENT REVIEW

## Property Information

Property address or Location 4101 Oleander Avenue

Parcel ID #(s) 2433-414-0001-000-4

Project description This project proposes a 32 unit apartment complex on Oleander Avenue with required parking, a garbage enclosure, public utilities and stormwater facilities to attenuate and treat stormwater.

## Application Type

☒ Site Plan ☐ Conditional Use w/New Construction ☐ Conceptual Development Plan

☐ Minor Amendment ☐ Major Amendment

## Site Information

*Non-Residential:* Proposed Sq. Ft.:_____ Site Acreage:_____

*Residential:* Proposed Units: _____ Proposed Sq. Ft.: 110,747 Site Acreage: 2.54

| | |
|---|---|
| 4101 Oleander Group LLC | Mr.Geza Szini-Sebo/ Jozsef Norbert Rau |
| **Property Owner(s)** | **Applicant/Representative, Title, Company** |
| 17555 Collins Avenue, Apt 802 | 45 Osceola Avenue |
| Street Address | Street Address |
| Sunny Isles Beach, FL 33160 | New York NY 11729 |
| City State Zip | City State Zip |
| 305-337-0183 | 631-374-7501 |
| Phone Number | Phone Number |
| gmszini@gmail.com | jozsef_rau@yahoo.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)*

**APPOINTMENTS ARE REQUIRED FOR APPLICATION SUBMITTALS**
**CALL 772.467.3737 OR E-MAIL PLANNING_DL@CITYOFFORTPIERCE.COM**
**For more information, please refer to the website:**
**https://www.cityoffortpierce.com/971/Application-Submittal-for-Technical-Revi**

*General Information*

- **Incomplete application packets will not be accepted.**
- In-take meetings are required for application submittals.
- Site plan approval is valid for one (1) year following City Commission approval. To maintain site plan approval, vertical improvements, permitted by the Building Department must commence prior to the 12-month expiration date.
- Fee Schedule - https://www.cityoffortpierce.com/DocumentCenter/View/2620/Fee-Schedule-
- Public Notice Fees - https://www.cityoffortpierce.com/DocumentCenter/View/8818/Public-Notice-Fees-

***Site Plan submittal requirements:***

***Submit one (1) original & three (3) hard copies and one (1) CD or Flash Drive of the following. Additional copies will be required of subsequent submittals.***

- ☑ Complete application
- ☑ Warranty Deed
- ☑ SLC Property Record Card
- on plan ☑ Detailed project description
- on plan ☑ General location map (see Section 125-313)
- ☑ Survey (see Section 125-313)
- ☑ Site Plan (see Section 125-313)
- ☑ Landscaping Plan (see Section 123-37)
- ☑ Conceptual Drainage Plan (see Section 125-313)
- ☑ Environmental Impact Report
- ☐ Beach/Dune System protection plan, if applicable (see Section 125-313)
- on plan ☑ Lighting Plan (see Section 125-313)
- ☑ Design Review submittals (see Design Review application)
- ☐ Traffic Impact Report
- ☑ Concurrency Review submittals (see Concurrency Review application)

**Project Narrative**

This project proposes a 32 unit multi-family residential building. The architect has provided a design intent narrative in the application package – but you can see from the attached rendering this building features lap siding in a vernacular style, complete with gables for roofline articulation as well as providing for balconies and projections, to avoid blank, flat facades.

The site is designed to preserve trees wherever possible, in the design with stormwater retention and parking. The landscaping plan has been provided and designed to meet City requirements.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

# DESIGN REVIEW

## Property Information

Property address or Location 4101 Oleander Avenue

Parcel ID #(s) 2433-414-0001-000-4

Project description This project proposes a 32 unit apartment complex on Oleander Avenue with required parking,a garbage enclosure, public utilities and stormwater facilities to attenuate and treat stormwater.

| | |
|---|---|
| 4101 Oleander Group LLC | Mr. Geza Szini-Sebo/ Jozsef Norbert Rau |
| **Property Owner(s)** | **Applicant/Representative, Title, Company** |
| 17555 Collins Avenue, Apt 802 | 45 Osceola Avenue |
| Street Address | Street Address |
| Sunny Isles Beach, FL 33160 | New York NY 11729 |
| City State Zip | City State Zip |
| 305-337-0183 | 631-374-7501 |
| Phone Number | Phone Number |
| gmszini@gmail.com | jozsef_rau@yahoo.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)*

**APPOINTMENTS ARE REQUIRED FOR APPLICATION SUBMITTALS**
**CALL 772.467.3737 OR E-MAIL PLANNING_DL@CITYOFFORTPIERCE.COM**
**For more information, please refer to the website:**
**https://www.cityoffortpierce.com/971/Application-Submittal-for-Technical-Revi**

# Design Review Application Checklist
## (City Code of Ordinances 125-314)

**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 123-66, 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 125-313 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 125-313.
c. A final site lighting plan that meets the requirements of subsection 125-313(d)(8).
d. A final landscape plan that meets the requirements of articles II and III of chapter 123.
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** | Under Development-Oleander Oaks | RM | R-4 |
| **South** | Residential | RM | R-4 |
| **East** | Multi-Family Residential | RH | R4/C2 |
| **West** | Single Family Residential | RU (County) | RS3 (County) |

| | Future Land Use | Zoning Classification | Maximum Intensity<br>Residential: Dwelling Units per Acre<br>Other: Square Footage | Total Acreage | Flood Zone |
|---|---|---|---|---|---|
| **Current** | RM | R4 | 6.5-12 du/ac | 2.54 | X |
| ****Proposed** | RM | R4 | 6.5-12 du/ac | 2.54 | 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)<br>Other: 0.125 gallons per day per square foot |
| Demand Analysis | Maximum |
| Current Zoning/FLU | Total gallons per day 8320 |
| **Proposed Zoning/FLU | Total gallons per day 8320 |
| **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)<br>Other: 0.1 gallons per day per square foot |
| Demand Analysis | Maximum |
| Current Zoning/FLU | Total gallons per day 8320 |
| **Proposed Zoning/FLU | Total gallons per day 8320 |
| **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 | 44.2 | 44.31 | 0.11 |
| **Urban District** | 5 acres per 1,000 people | 44.2 | 44.31 | 0.11 |
| **Community** | 2.5 acres per 1,000 people | 44.2 | 44.31 | 0.11 |
| **Neighborhood** | 1.36 acres per 1,000 people | 44.2 | 44.31 | 0.11 |

**D. Public Schools (Residential Classifications Only):** 34982
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** | Weatherbee | FP Central |
| **City** | Fort Pierce | Fort Pierce |
| **Distance** | 2 Miles | 2 Miles |
| **Current Zoning/FLU Enrollment Demand** | >0 | >0 |
| ****Proposed Zoning/FLU Enrollment Demand** | 5 | 2 |
| ****Change in Demand** | +5 | +2 |

| **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** | 2yards |
| ****Proposed Zoning/FLU** | 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** | Stormwater calculations will be provided to show compliance with local and state improvements. |

## III. Transportation Analysis: *Complete ITE Trip Generation Form (Attached)*

| **G. Transportation Analysis: Complete ITE Trip Generation Data Form**<br>Most recent ITE Code for use; HCM Roadway Capacity | | |
|---|---|---|
| | **AADT** | **AM/PM Peak Hour Trips** |
| **Demand Analysis** | Maximum | Maximum |
| **Current Zoning/FLU** | 10 | 2 |
| ****Proposed Zoning/FLU** | 146 | 23 |
| ***Change in Demand** | Trips | Trips |
| **Impact to Capacity** | 136 | |

## 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 | 32 | 2.54 | January 2025 | December 2025 |
| Other (specify) | | | | | |

| NON-RESIDENTIAL DATA | | | | | |
|---|---|---|---|---|---|
| **Type(s) specify** | **Phase** | **Square footage** | **Acres** | **Expecting beginning date** | **Expected completion date** |
| N/A | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

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? 1800 SF

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

# Staffan H. Lundberg Architect, LLC.

**1341 Sea Hawk Lane, Vero beach, Florida 32963**

Phone 772-538-5130

E-mail: staffanarchitect@gmail.com


11-06-2023

TO: City of Ft. Pierce
100 N. US Highway 1
Fort Pierce, FL 34950

RE: Project Name: Margaritavillas
Location: 4101 Oleander Avenue, Ft. Pirce

This letter represents our design intent for this project.

The project is surrounded by residential Development. The property to the north is a single family development under construction. To the south, east and west are existing single family homes.

The site has many old oak trees that the design has made every possible effort to preserve. To meet that challenge, the four story building became the best option.
The design is a coastal Florida vernacular with soft white stucco on the first two floors, Hardie Board siding at the top two floors with a soft blue or green color, window shutters in a darker blue or green color. Hip roofs with accent gable roofs over balconies. Roof coverings standing seam metal roof. These roofs are only at the perimeter of the roof as there are discussions of installing solar panels on the "flat" roof sections. Another Energy saving factor is to use ICF (concrete insulated panels) in the walls.

Sincerely,

Staffan H. Lundberg
Architect, LLC
FL. License NO AR 0008984

MARGARITAVILLAS

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

## Property Identification

Site Address: 4101 OLEANDER AVE
Sec/Town/Range: 33/35S/40E
Parcel ID: 2433-414-0001-000-4
Jurisdiction: Fort Pierce

Use Type: 0100
Account #: 33081
Map ID: 24/33S
Zoning: Medium Den

## Ownership

4101 OLEANDER GROUP LLC

17555 Collins AVE Apt 2006
Sunny Isles Beach, FL 33160

## Legal Description

33 35 40 N 198 FT OF S 630 FT OFE 1/2 OF NE 1/4 OF SE 1/4-LESS CANAL AND RD R/W- (2.59 AC)

## Current Values

| | |
|---|---|
| Just/Market Value: | $352,700 |
| Assessed Value: | $97,140 |
| Exemptions: | $50,000 |
| Taxable Value: | $47,140 |

**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): | 1,860 |
| Gross Sketched Area (SF): | 2,995 |
| Land Size (acres): | 2.58 |
| Land Size (SF): | 112,464 |

## Building Design Wind Speed

| Occupancy Category | I | II | III |
|---|---|---|---|
| Speed | 140 | 160 | 160 |

Sources/links:

## Sale History

| Date | Book/Page | Sale Code | Deed | Grantor | Price |
|---|---|---|---|---|---|
| Apr 26, 2023 | 4983 / 0480 | 0001 | WD | Nix Veronica | $650,000 |
| Feb 20, 2009 | 3065 / 2702 | 0001 | SPWD | Z2 Real Estate LLC | $99,000 |
| Jun 9, 2006 | 2593 / 1023 | XX00 | SPWD | Solomon William A | $520,000 |
| Aug 17, 2004 | 2052 / 0976 | XX00 | WD | Pipes (TR) (EST) Gilbert | $325,000 |
| Jan 16, 1996 | 0995 / 1457 | XX01 | QC | Pipes Gilbert | $100 |

## Building Information (1 of 2)

Finished Area: 1,860 SF

Gross Sketched Area: 2,218 SF

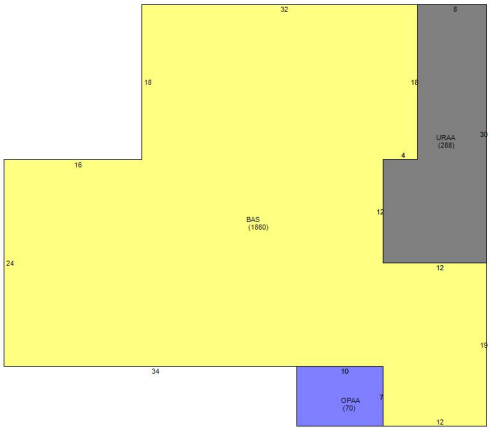
Exterior Data

| | | |
|---|---|---|
| View: | Roof Cover: Metal | Roof Structure: Flat/Shed |
| Building Type: SFAV | Year Built: 1956 | Frame: |
| Grade: SFAV-Avg | Effective Year: 1965 | Primary Wall: Conc Block |

Story Height: 1 Story | No. Units: 1 | Secondary Wall:

Interior Data

Bedrooms: 3 | Electric: AVERAGE | Primary Int Wall:
Full Baths: 1 | Heat Type: FrcdHotAir | Avg Hgt/Floor: 0
Half Baths: 1 | Heat Fuel: ELEC | Primary Floors: Hardwood
A/C %: 100% | Heated %: 100% | Sprinkled %: 0%




## Sketch Area Legend

| Sub Area | Description | Area | Fin. Area | Perimeter |
|---|---|---|---|---|
| BAS | BASE AREA | 1860 | 1860 | 218 |
| OPAA | Open Porch Attached Average | 70 | 0 | 34 |
| URAA | Utility Room Attached Average | 288 | 0 | 84 |

## Building Information (2 of 2)

Finished Area: 0 SF

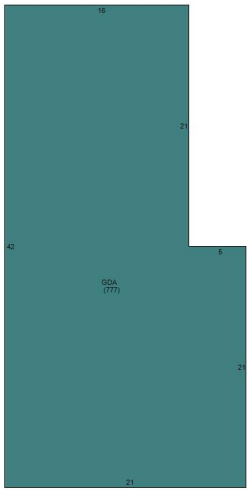
Gross Sketched Area: 777 SF

Exterior Data

View: | Roof Cover: Sheet Metal | Roof Structure: Gable
Building Type: DGAR | Year Built: 1990 | Frame:
Grade: DG | Effective Year: 1990 | Primary Wall: Wood/Sheath
Story Height: 1 Story | 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 %: % | Heated %: % | Sprinkled %: %




## Sketch Area Legend

| Sub Area | Description | Area | Fin. Area | Perimeter |
|---|---|---|---|---|
| GDA | Garage Detached Average | 777 | 0 | 126 |

## Special Features and Yard Items

| Type | Qty | Units | Year Blt |
|---|---|---|---|

## Current Year Values

Current Values Breakdown

| | |
|---|---|
| Building: | $100,800 |
| Land: | $251,900 |
| Just/Market: | $352,700 |
| Ag Credit: | $0 |
| Save Our Homes or 10% Cap: | $255,560 |
| Assessed: | $97,140 |
| Exemption(s): | $50,000 |
| Taxable: | $47,140 |

Current Year Exemption Value Breakdown

| Tax Year | Grant Year | Code | Description | Amount |
|---|---|---|---|---|
| 2023 | 2010 | 0500 | Homestead Exemption | $25,000 |

| Tax Year | Grant Year | Code | Description | Amount |
|---|---|---|---|---|
| 2023 | 2010 | 0550 | Homestead Exemption over $ 50,000 | $25,000 |

Current Year Special Assessment Breakdown

| Start Year | AssessCode | Units | Description | Amount |
|---|---|---|---|---|
| 2006 | 0041 | 1 | Fort Pierce Stormwater Charge | $69.00 |
| 2013 | 0054 | 2.58182 | North St. Lucie Water Management District | $59.38 |

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 |
|---|---|---|---|---|
| 2023 | $352,700 | $97,140 | $50,000 | $47,140 |

| | | | | |
|---|---|---|---|---|
| 2022 | $261,800 | $94,311 | $50,000 | $44,311 |
| 2021 | $145,700 | $91,565 | $50,000 | $41,565 |
| 2020 | $122,200 | $90,301 | $50,000 | $40,301 |

## Permits

| Number | Issue Date | Description | Amount | Fee |
|---|---|---|---|---|
| RF2002-141 | Dec 11, 2002 | Roof | $5,030 | $175 |
| BP09-349 | Mar 16, 2009 | Alterations/Remodeling | $1,500 | $105 |
| bp21-4594 | Sep 9, 2021 | Roof | $5,500 | $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

All information is believed to be correct at this time, but is subject to change and is provided without any warranty.
© Copyright 2024 Saint Lucie County Property Appraiser. All rights reserved.

MICHELLE R. MILLER, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 5186142 OR BOOK 4983 PAGE 480, Recorded 05/01/2023 08:49:07 AM Doc Tax: $4550.00

Prepared by and return to:
**David Djebelli, Esq.**
**Law Offices of David Djebelli, P.A. d/b/a The Closing Law Firm**
**2100 Coral Way, Suite PH 701**
**Miami, FL 33145**
**(305) 661-3908**
File Number: **22-154**

[Space Above This Line For Recording Data]

# Warranty Deed

**This Warranty Deed** made this **27th day of April, 2023** between **Veronica Nix A/K/A Mary Veronica Nix, a single woman** whose post office address is **1150 Bell Avenue, Fort Pierce, FL 34982**, grantor, and **4101 Oleander Group LLC, a Florida Limited Liability Company** whose post office address is **17555 Collins Ave Apt 2006, Sunny Isles Beach, FL 33160**, grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

**Witnesseth**, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **St. Lucie County, Florida** to-wit:

**The North 193 feet of the South 630 feet of the East 1/2 of the Northeast 1/4 of the Southeast 1/4, in Section 33, Township 35 South, Range 40 East, lying and being in St. Lucie County, Florida; LESS canal and road rights of ways.**

**Parcel Identification Number: 2433-414-0001-000-4**

**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 **12/31/2022**.

****GRANTOR SIGNATURE ON PAGE TO FOLLOW****

**In Witness Whereof**, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Witness
Printed Name: Shequita Jordan

Witness
Printed Name: Karen McCullough

Veronica Nix A/K/A Mary Veronica Nix

State of Florida

County of St. Lucie

The foregoing instrument was acknowledged before me by means of [✓] physical presence or [ ] online notarization, this 26 day of April, 2023 by Veronica Nix A/K/A Mary Veronica Nix who [ ] is personally known or [✓] has produced a driver's license as identification.

[Seal]

Notary Public
Print Name: Shequita Jordan
My Commission Expires: 11-16-2024

SHEQUITA JORDAN
Notary Public - State of Florida
Commission # HH 261322
My Comm. Expires Nov 16, 2024
Bonded through National Notary Assn.

Florida Environmental Consulting, Inc.

# Environmental Impact Report

For:

# Margareta Apartments

Prepared for:

**4101 Oleander Group, LLC**
17555 Collins Avenue
Sunny Isles, FL 33160

TIMOTHY E. MASLIN · Environmental Assessment Associate · #77283 · Certified Environmental Specialist

**7/31/2023**

Timothy E. Maslin, C.E.S. / C.E.C.
Certification #77283

FEC Job #23-173

1835 20th Street • Vero Beach, Florida 32960
Phone: 772-299-4791 • Fax: 772-778-3617 • E-mail: TimM@FL-Env.com

# Table of Contents


## 1.0 Executive Summary

## 2.0 Environmental Impact Report

**2.1 Objective**
**2.2 Introduction**
**2.3 Materials and Methods**
**2.4 Soils**
**2.5 Hydrology**
**2.6 Flora**
**2.7 Fauna**
**2.8 Wetlands**
**2.9 Summary and Discussion**
**2.10 Conclusion and Recommendations**
**2.11 Qualifications of Individual Preparing Report**

## 3.0 Appendix

**3.1 Location Map**
**3.2 Soils Map**
**3.3 Topographic Map**
**3.4 Flood Map**
**3.5 LULC Map**
**3.6 National Wetland Inventory Map**
**3.7 LIDAR**
**3.8 Historic Aerials**
**3.9 Site Photos**

# 1.0 Executive Summary

The **Margareta Apartments** property:

- is one parcel along Oleander Avenue in Fort Pierce, Florida.
- consists of 2.58 acres of disturbed, partially improved land.
- is zoned for general medium density residential units.
- was historically a citrus grove but has been subsequently cleared with a single-family residence constructed.
- is currently proposed for multi-family residential land development improvements.
- contains poorly drained sandy soils.
- is at an elevation of approximately 10 ft.
- is not in the flood plain.
- supports native live oaks, laurel oaks, and cabbage palms.
- does support the gopher tortoise.
- does contain jurisdictional wetlands, but not Waters of the United States.
- land development improvements may cause adverse environmental impacts to native oaks, cabbage palms, protected species, and wetlands.
    - Tree preservation is recommended.
    - Formal wetland delineation and wetland impact permitting is recommended.

# Environmental Impact Report

## 1.1 Objective

In July of 2023 Environmental Specialists from ***Florida Environmental Consulting Inc***. performed an environmental impact study of the **Margareta Apartments** property. The objective of this study was to assess and report on the baseline environmental condition of the subject site as well as to discuss how developing this site may impact the environment.

## 1.2 Introduction

The subject property is Parcel ID **2433-414-0001-000-4** and is in section 33 of township 35, range 40e of **Saint Lucie County, Florida**. More specifically, the parcel is on the West side of Oleander Avenue, North of Tumblin Kling Road in the City of Fort Pierce. The property sums 2.58 acres of disturbed, partially improved land zoned for medium density residential purposes at 27°23'12.0"N 80°20'05.9"W. This property was historically in use as a citrus grove, but was subsequently cleared, and a single-family residence constructed. The parcels are currently proposed for multifamily residential land development improvements by ***4101 Oleander Group, LLC***. Please see the maps and other reference materials in the appendix of this report.

## 1.3 Materials and Methods

The site assessment included preliminary research of the site and surrounding area to determine what type of ecological community to expect as well as what types of individual flora and fauna may be found on site. This preliminary research included; Geographic Information Systems (GIS) Mapping, aerial interpretation, Florida Department of Environmental Protection (FDEP) Environmental Resource Analysis, and assessing the potential for species and habitats listed by the City, County, South Florida Water Management District (SFWMD), Florida Natural Areas Inventory (FNAI), Florida Fish and Wildlife Conservation Commission (FWC), and the U.S. Fish and Wildlife Service (FWS).

The site assessment also included traversing and observing communities adjacent to and within the site. During the site assessment community types, vegetation, wildlife, and other pertinent observations were noted.

## 1.4 Soils

According to the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) the property contains 1 major soil type more specifically described as:

Soil 2, *Ankona and Farmton sands*, characterized as poorly drained sand with a water table typically 6-18 inches below the surface with no typical frequency of ponding or flooding, totaling 2.58 acres.

As mentioned above, the property was historically in use as a citrus grove but was subsequently cleared and a single-family residence constructed. As such it should be noted that these soils are disturbed. Please see the soils map in the appendix of this report for the general location of these soils.

## 1.5 Hydrology

This property is in hydrologic basin 17, the *Saint Lucie* basin, and the United States Geological Survey (USGS) Topographic Map in the Appendix shows the area as generally flat, with stormwater runoff sheet flowing down the remanent furrows to an onsite depressional area. Using the North American Vertical Datum of 1983 (NAD83) the natural ground grade is at an elevation of approximately 10 feet and according to the Flood Hazard Map in the Appendix, this area is not in the flood plain and as such is considered to be in Flood Zone X, an area of minimal flood hazard.

Based on the lack of offsite hydrologic connections, Waters of the United States are not present onsite.

## 1.6 Flora

As noted in the introduction the parcels total approximately 2.58 acres of disturbed, partially developed land. The land use in this case is a limiting factor in vegetative diversity, however there was some remnant native vegetation observed. As such the Land Use Land Cover classification for the property is considered 1110, *Low Density Fixed Single Family Units*. While this is an accurate description of the land use, the habitats present onsite could be more specifically described as 2.54 acres of 3100 and 4200, *Herbaceous (Dry Prairie*) with *Upland Hardwood Forrest* areas along with a depressional area of 0.04 acres considered 6410, *Freshwater Marsh*. Please see the Aerial LULC Map and Site Photos in the Appendix.

The majority of the property was cleared and filled in the early 1940's for citrus production and has since been routinely maintained and supports mostly miscellaneous grasses and forbs.

However, regenerated forested areas now support some live oaks (*Quercus virginiana*), laurel oaks (*Quercus laurifolia*), cabbage palms (*Sabal palmetto*), muscadine grape (*Vitis rotundifolia*), and Brazilian pepper (*Schinus terebinthifolius*), as well as some landscaping trees and shrubs.

The flora of the freshwater marsh depressional area consisted of coastal plain willow (*Salix caroliniana*), rushes (*Juncus spp.*), and various other wetland grasses and forbs.

No species of flora was observed on site listed by the County, Florida Natural Areas Inventory, Florida Fish and Wildlife Conservation Commission, or U.S. Fish and Wildlife Service, as Endangered, Threatened, or a Species of Special Concern.

Please see the Land Use Land Cover Map and Site Photos in the appendix of this report.

## 1.7 Fauna

Similarly, to the flora, the fauna was found severely limited by disturbance but included squirrels (*Sciurus carolinensis*), African agamas (*Agama agama*), ants (*Formicidae spp.*), spiders (*Arachnida spp.*), and bees (*Apidae spp.*), as well as exotic brown anoles (*Anolis sagrei*).

Additionally, there were multiple potentially occupied gopher tortoise (*Gopherus polyphemus*) burrows observed along the northern property line. The gopher tortoise is a species listed by the FWC and is protected along with their burrows.

No other species of fauna listed by the County, Florida Natural Areas Inventory, Florida Fish and Wildlife Conservation Commission, or U.S. Fish and Wildlife Service, as Endangered, Threatened, or a Species of Special Concern, was observed or suspected on site.

Please see the Site Photos in the Appendix of this report.

## 1.8 Wetlands

Based on topography and aerial interpolation, wetlands were suspected and this was confirmed in the field. Given the topographic features, further study was conducted in the depressional area. This feature was at a significantly lower elevation than the remainder of the property, and it was found to have indicators of hydrology, and a vegetative community of wetland obligate and facultative-wet vegetation. As such, this area was determined to support approximately 0.04-acres wetlands.

Based on the isolated nature of the onsite depressional marsh wetland, Waters of the United States are not present onsite. Please see the National Wetland Inventory Map in the Appendix of this report.

## 1.9 Summary and Discussion

In summary, the **Margareta Apartments** property is one parcel along Oleander Avenue in the City of Fort Pierce, Florida consisting of 2.58 acres of disturbed partially improved land. The property is zoned for general medium density residential units, was historically a citrus grove but has been subsequently cleared with a single-family residence constructed, and is currently proposed for multi-family residential land development improvements. The

property contains poorly drained sandy soils, is at an elevation of approximately 10 feet, is not in the flood plain, and does not support Waters of the United States. The property supports some regenerated native live oaks, laurel oaks, and cabbage palms and does support the gopher tortoise, as well as a small isolated jurisdictional wetland.

For discussion, as stated above the property does contain some native live oaks, laurel oaks and cabbage palms, and though these trees may be cleared with a permit, the City will request that micro-site-planning be looked into in an effort to save native trees as best practical. Mitigation may be provided for the removal of protected trees 14 inches and greater in diameter at breast height as well as cabbage palms 10' and greater in trunk height, either through a fee-in-lieu, supplemental plantings, or via transplanting.

Also, this property does support the gopher tortoise. Any proposed impacts within 25' of a gopher tortoise burrow will require special permitting from the FWC, as well as the relocation of any tortoise found along with associated mitigation fees. If suitable habitat is left undisturbed after site planning, some tortoises may remain on site. Gopher tortoises may be surveyed any time, however, gopher tortoise permitting, mitigation, and relocation should be initiated 90 days prior to any site work activity including bush-hogging and geotechnical work requiring clearing.

Finally, the property does support an isolated wetland, which appears to be less than the ½-acre mitigation threshold. As such any unavoidable impacts of the wetlands will not require compensatory mitigation but will require wetland delineation, jurisdictional review, and permitting.

## 1.10 Conclusion and Recommendations

In conclusion, land development improvements to the **Margareta Apartments** property, unless properly permitted, may cause adverse environmental impacts to native trees, protected species, and wetlands.

Onsite tree preservation is recommended, or mitigation may be required. Also, a formal gopher tortoise survey and relocation permitting is recommended. Finally, formal wetland delineation, jurisdictional review, and permitting are recommended during the site planning process.

Please contact Florida Environmental Consulting, Inc. with any questions or comments regarding this report or for any additional specific consulting.

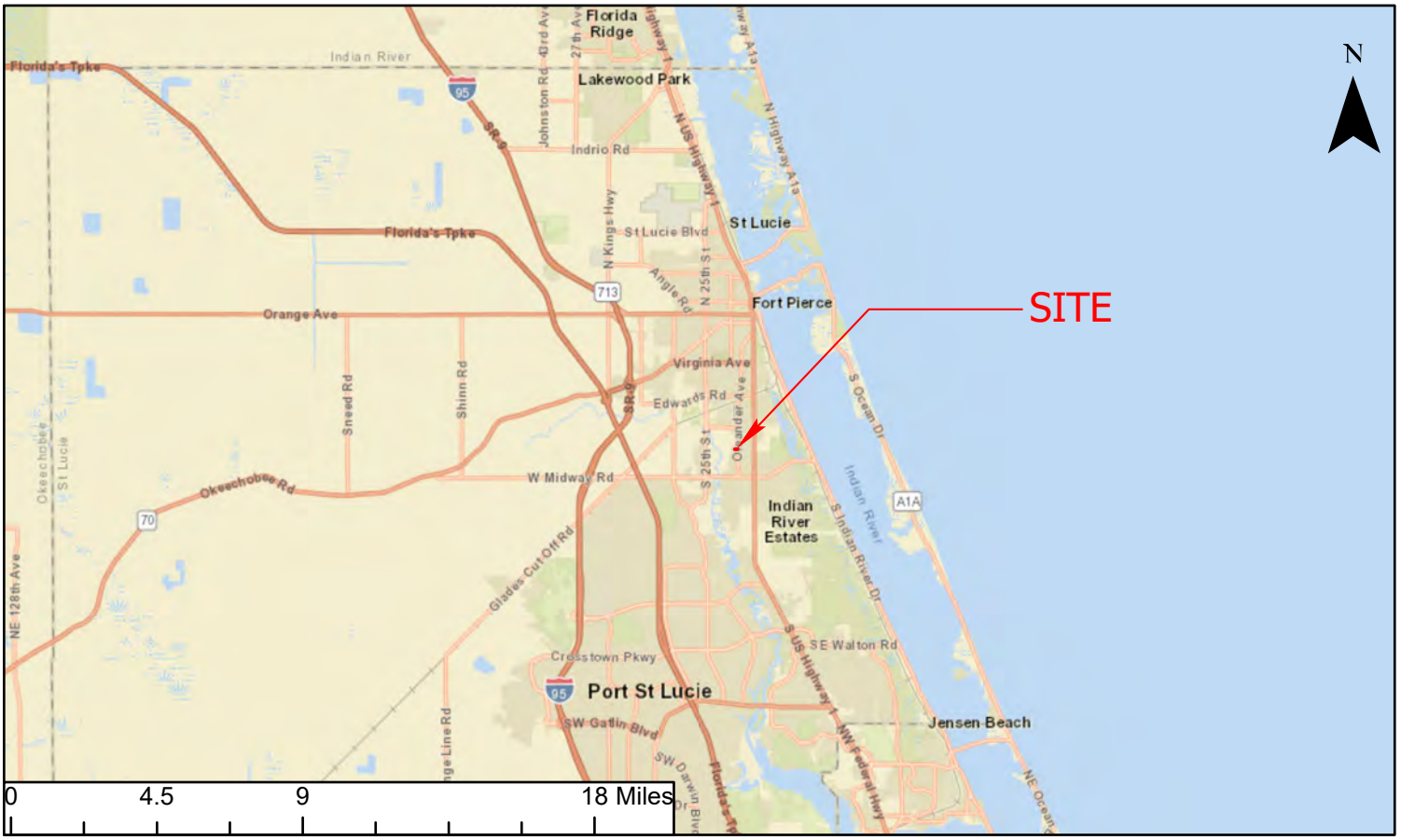
## 1.11 Qualifications of Individual Preparing Report

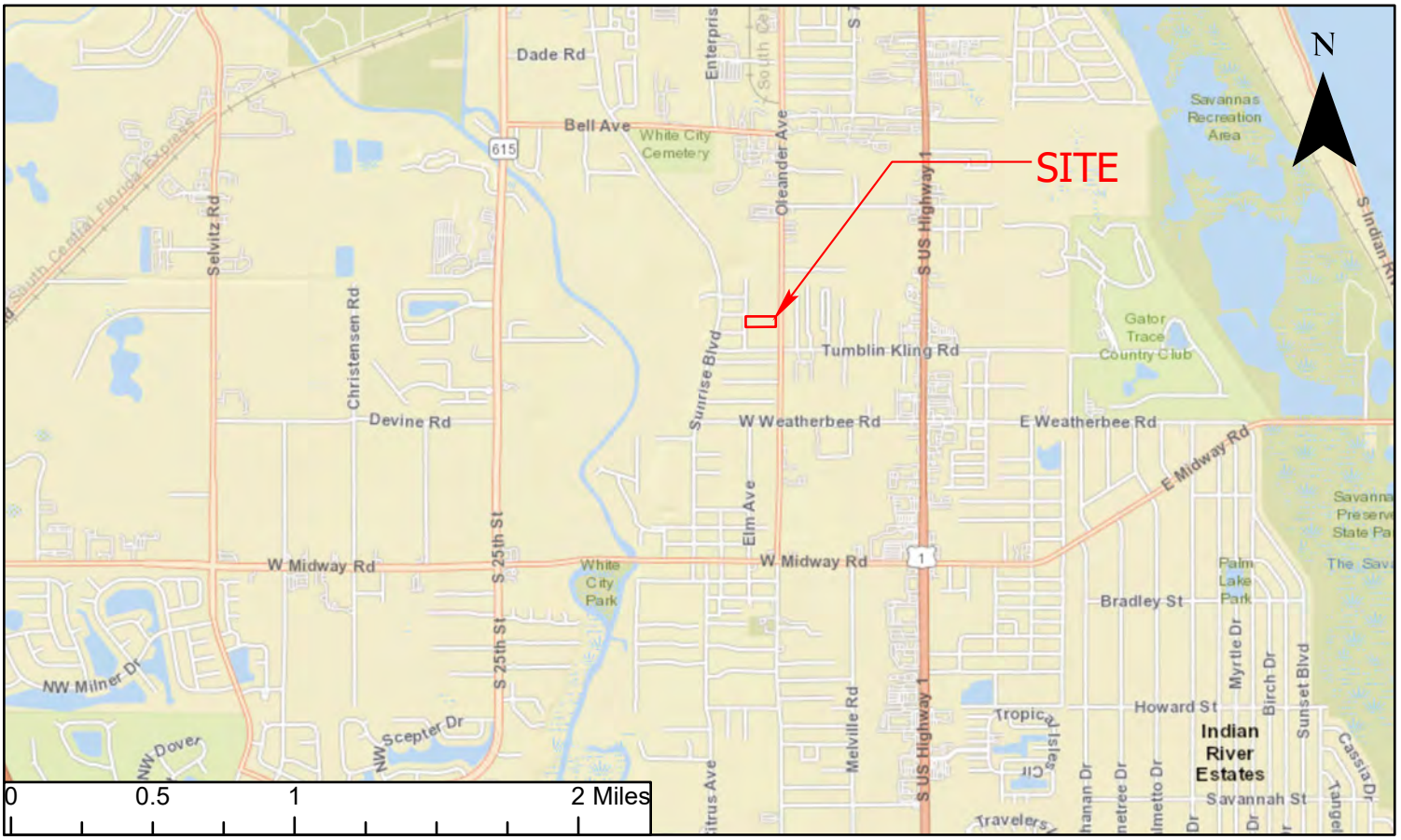
Florida Environmental Consulting is a Florida registered environmental consulting firm, the person who prepared this report is the president of the company, and his signature and seal on the cover of this document demonstrate that he is in responsible charge of the information provided. He is a Certified Environmental Consultant and Environmental Specialist.

Additionally, he has a Bachelor of Science in Environmental Science from the University of Florida with a minor in Natural Resource Management, along with 22 years of experience. Finally, he is a member of the National Association of Environmental Professionals, and the Environmental Assessment Association where a code of ethics and personal commitment to quality work is upheld.

# 3.0 Appendix

**3.1 Location Map**
**3.2 Soils Map**
**3.3 Topographic Map**
**3.4 Flood Map**
**3.5 LULC Map**
**3.6 National Wetland Inventory Map**
**3.7 LIDAR**
**3.8 Historic Aerials**
**3.9 Site Photos**




| LOCATION | MARGARETA APTS EIR | Florida Environmental Consulting Inc. | JOB NO. FEC-23-173 | Revisions | Date |
|---|---|---|---|---|---|
| | | 1835 20th Street• Vero Beach, Florida 32960 Phone: 772-299-4791 • E-mail: timm@fl-env.com | DESIGNED | | |
| | | | DRAWN | | |
| | | | CHECKED | | |
| | | | DATE | | |
| | | | SCALE | | |

# Legend

Subject Parcel 2.58 Acres

## Florida Soils

Ankona and Farmton sands

Nettles and Oldsmar sands

| | | | | |
|---|---|---|---|---|
| SOILS | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |

## Legend

Subject Parcel 2.58 Acres

| | | | | |
|---|---|---|---|---|
| TOPO | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |

# Legend

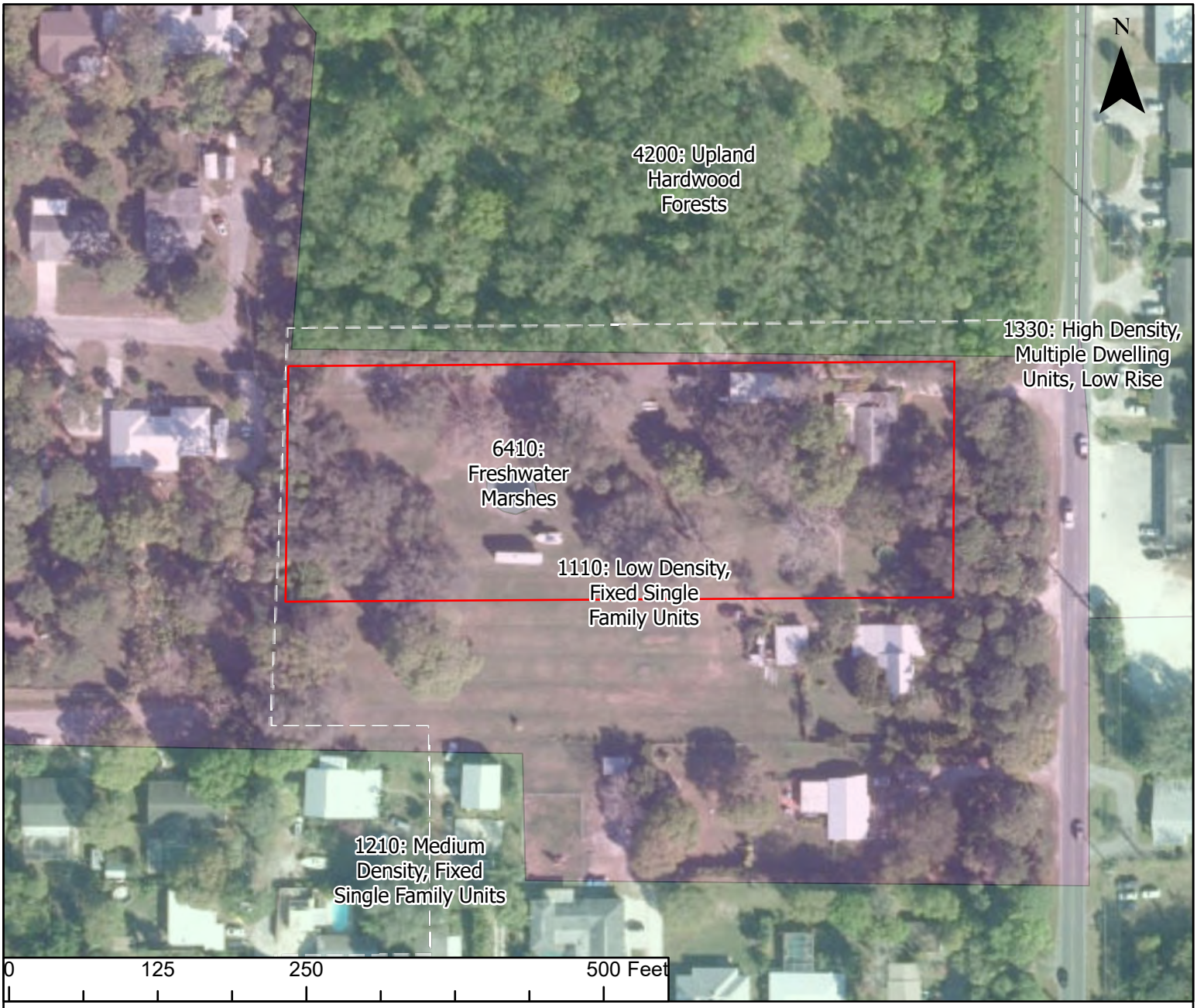
Subject Parcel 2.58 Acres

## USA Flood Hazard

0.2% Annual Chance Flood Hazard

1% Annual Chance Flood Hazard

| | | | | |
|---|---|---|---|---|
| FLOOD HAZARD | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |




# Legend

Subject Parcel 2.58 Acres

## Statewide Land Use Land Cover

- 1110: Low Density, Fixed Single Family Units,1110: Low Density, Fixed Single Family Units 2.54 Acres
- 1210: Medium Density, Fixed Single Family Units,1210: Medium Density, Fixed Single Family Units
- 1330: High Density, Multiple Dwelling Units, Low Rise
- 4200: Upland Hardwood Forests,4200: Upland Hardwood Forests
- 6410: Freshwater Marshes,6410: Freshwater Marshes 0.04 Acres

| | | | | |
|---|---|---|---|---|
| FIELD ADJUSTED LULC | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |

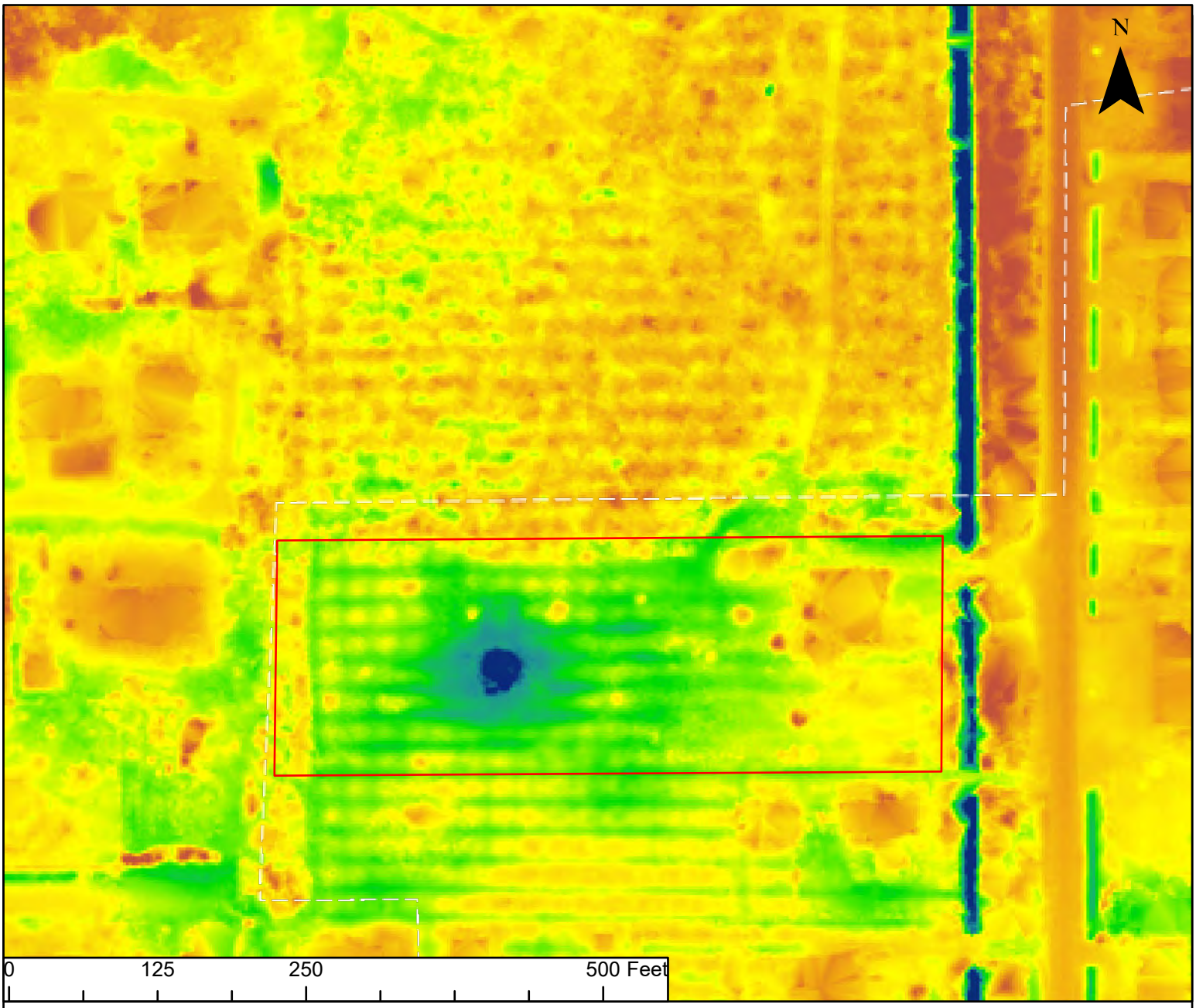
# Legend

Subject Parcel 2.58 Acres

## FL Wetlands

Freshwater Emergent Wetland

| | | | | | |
|---|---|---|---|---|---|
| FIELD ADJUSTED NWI | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions | Date |




# Legend

Subject Parcel 2.58 Acres

| | | | | | |
|---|---|---|---|---|---|
| 2018 LIDAR | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions | Date |

# Legend

Subject Parcel 2.58 Acres

| | | | | |
|---|---|---|---|---|
| 1944 AERIAL | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |

# Legend

Subject Parcel 2.58 Acres

| | | | | |
|---|---|---|---|---|
| 1970 AERIAL | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: tinm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |

# Legend

Subject Parcel 2.58 Acres

| | | | | |
|---|---|---|---|---|
| 1980 AERIAL | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |

# Legend

Subject Parcel 2.58 Acres

| | | | | |
|---|---|---|---|---|
| 1992 AERIAL | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |

# Legend

Subject Parcel 2.58 Acres

| | | | | |
|---|---|---|---|---|
| 2012 AERIAL | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: tinm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |

# Legend

Subject Parcel 2.58 Acres

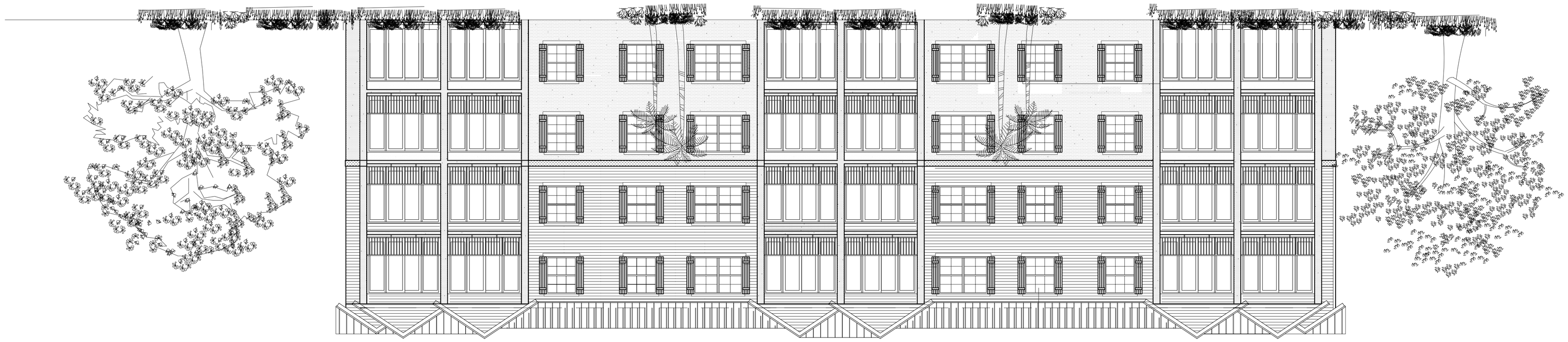
| | | | | |
|---|---|---|---|---|
| 2023 AERIAL | MARGARETA APTS EIR | Florida Environmental Consulting Inc.<br>1835 20th Street• Vero Beach, Florida 32960<br>Phone: 772-299-4791 • E-mail: timm@fl-env.com | JOB NO. FEC-23-173<br>DESIGNED<br>DRAWN<br>CHECKED<br>DATE<br>SCALE | Revisions / Date |

# FRONT (EAST)ELEVATION

SCALE: 1/8" = 1'-0"

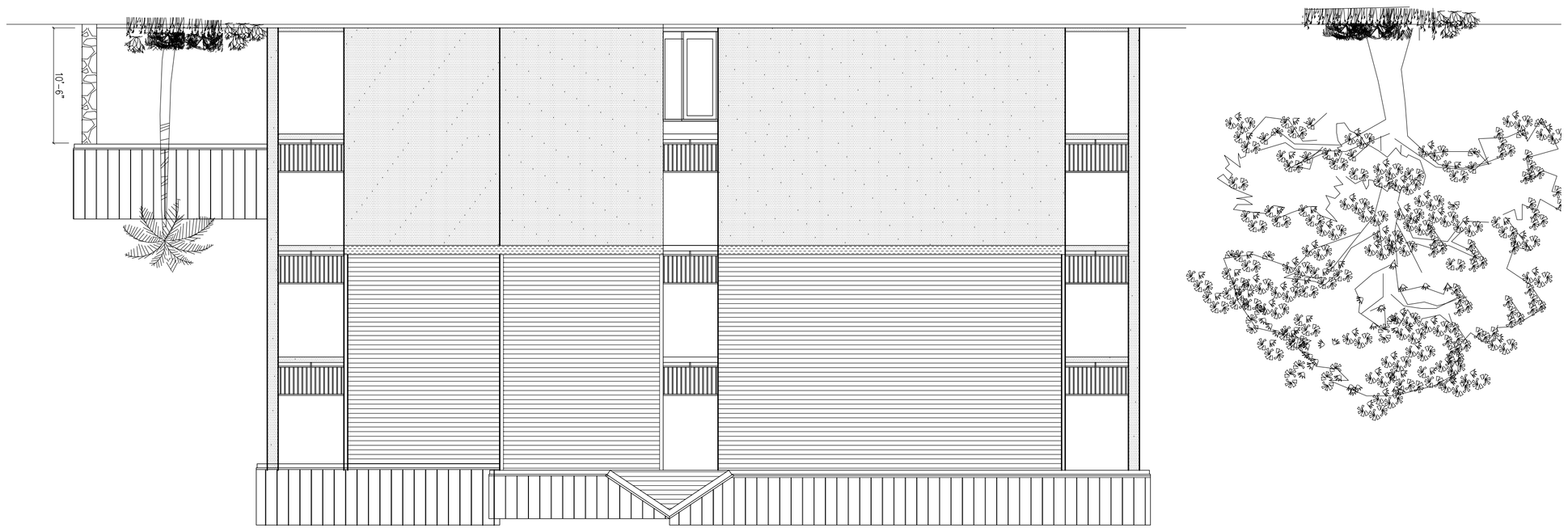
# REAR ELEVATION (WEST)

SCALE: 1/8" = 1'-0"



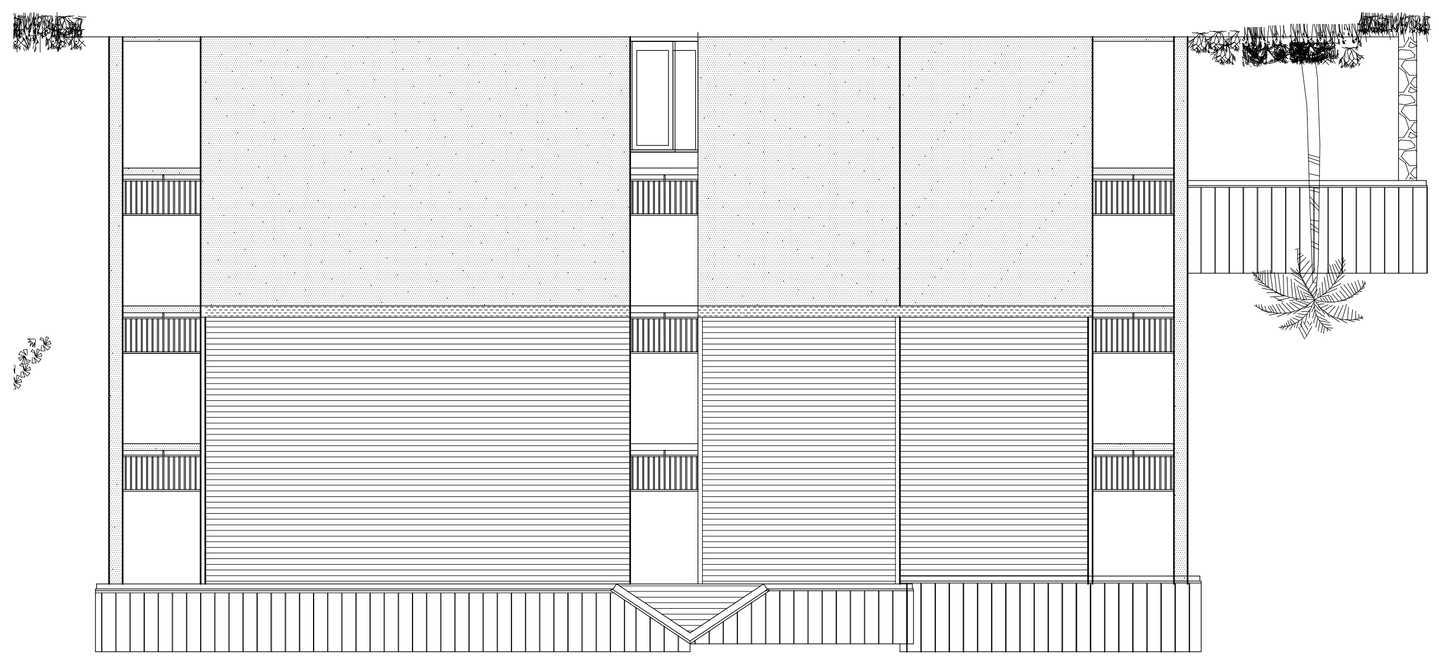
# SOUTH ELEVATION

SCALE: 1/8" = 1'-0"




# NORTH ELEVATION

SCALE: 1/8" = 1'-0"



MARGARITTAVILLAS

A3

DRAWING NO.

FRONT ELEVATION

TITLE :

| | |
|---|---|
| PROJ. NO.: | 2023-02 |
| DATE: | 11-01-2023 |
| APPROVED: | SHL |
| CHECKED: | SHL |
| DRAWN: | GSM |
| SCALE: | 1/8"=1'-0" |

Ownership of these drawings and the design represented herein are protected by copyright & other applicable laws. Any duplication, distribution or use for any purpose without the written permission of Staffan H. Lundberg Architect LLC could result in criminal prosecution as well as civil liability.

FLOOR PLANS
for
MARGARITTAVILLAS
4101 OLEANDER Avenue
FT. PIERCE, FLORIDA

STAFFAN H. LUNDBERG
ARCHITECT LLC
AR-0008984
1341 SEA HAWK LANE
VERO BEACH, FLORIDA 32963
(772) 538-5130
Staffanarchitect@gmail.com

| NO. | REVISIONS | DATE |
|---|---|---|
| | | |

ENERGYLITE

# GridLite™ GL3

## SITE + AREA LED LUMINAIRE

PROJECT _____ SPECIFIER _____

SPECIFICATION _____ TYPE _____

**CONSTRUCTION**
- Die-cast, low-copper aluminum alloy housing for optimal thermal performance and exceptional corrosion resistance
- 100% recycled aluminum

**FINISH**
- TGIC polyester super-durable powder coating with superior gloss, color retention and weather resistance
- Standard finishes provided at 3 mil nominal thickness, salt-spray-tested to 3,000 hours as per ASTM B117
- For marine-grade finish, consult factory. Provided at 5 mil nominal thickness, salt-spray-tested to 4,000 hours as per ASTM B117

**ELECTRICAL**
- 120-277 V Standard; 277-480V option available
- PF>0.9, THD<20%
- Parallel surge protection: enhanced 10kV standard, extreme 20kV optional (ANSI C136.2-2015)
- For series surge protection, consult factory
- Rated for operation -40°C to 40°C
- For 50°C option, consult factory

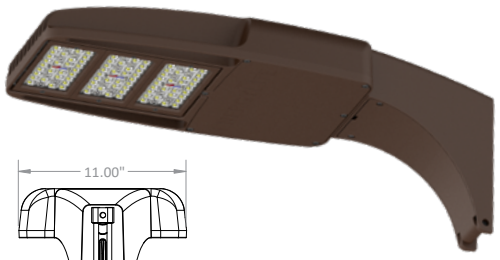
**OPTICS + PERFORMANCE**
- Up to 165 lumens per watt
- 12,000- to 40,000-lumen packages (82-325W)
- 5 customized distributions available
  - Type II Roadway Medium (Coefficient of Utilization: 0.793)
  - Type III Roadway Medium (Coefficient of Utilization: 0.852)
  - Type IV Wide Short (Coefficient of Utilization: 0.840)
  - Type V Square Short
  - Type V Square Medium
- Multiple shielding options available

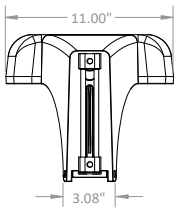
**CONTROLS**
- 0-10V dimming standard; DALI-2 option available
- Receptacle options:
  - ANSI C136.41 3-pin
  - ANSI C136.41 7-pin (for DALI-2 or 0-10V dimming)
  - Zhaga Book 18 (for next generation ambient light/motion sensing)
- Motion sensor option available – bi-level setting standard with low point of 50% and a 15-minute delay

**MOUNTING**
- Extended site arm offers universal mounting, allowing for retrofit without drilling into existing poles
- All mounting options allow for multiple fixture installations at 90°
- Wall-mount and round pole adapters available for extended site arm

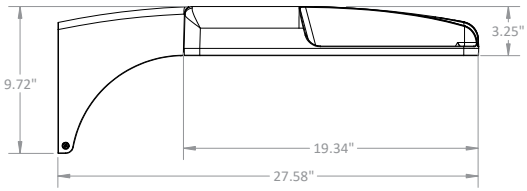
**LISTINGS**
- IDA Dark Sky Friendly ≤3000K, extended site arm or horizontal tenon
- IP66-rated optical and electrical chambers
- 3G Vibration-rated (ANSI C136.31)
- cULus Listed for wet locations (E487976)
- DLC + DLC Premium listings (Family code: JJJOYL)
- Zhaga D4i listed
- ANSI C136.15 labeling available
- BAA Compliance available; †*Consult factory to confirm specific fixture code is compliant if this is a requirement*
- **Designed and assembled in U.S.A.**

**WARRANTY**
- 10-year warranty






Extended Site Arm
EPA: 0.69 sq. ft.
WEIGHT: 22.28 lbs.




/ / / / / / / / / /

| FIXTURE | LUMENS | BEAM SPREAD | CRI | CCT | VOLTAGE | CONTROLS | SURGE | PHOTOCELL | FINISH | MOUNTING | OPTIONS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GL3 | 12L : 12,000 lm; 82W | 2RM : Type II Roadway Medium | 7 : 70 CRI | 30 : 3000K | STD : 120-277V | 10 : 0-10V | 1PS : 10kV 5kA, 120-277V | 70 : 7-pin | SBZ : Bronze (RAL8019) | ES : Extended Site Arm | *Field-Installed* |
| | 15L : 15,000 lm; 108W | 3RM : Type III Roadway Medium | | 40 : 4000K | HVL : 277-480V | DA : DALI-2 | 2PS : *20kV 10kA, 120-277V | 0Z : Z receptacle | SGY : Grey (RAL7038) | HT : Horizontal Tenon | HSS : House-side Shield |
| | 17L : 17,000 lm; 127W | 4WS : Type IV Wide Short | | 50 : 5000K | | | 2PH : *20kV 10kA, 277-480V | 3Z : 3-pin + Z | SBK : Black (RAL9017) | TM : Trunnion Mount | FSS : Front-side Shield |
| | 18H : 18.000 lm; 114W | T5Q : Type V Square Medium | | | | | | 7Z : 7-pin + Z | SWH : White (RAL9003) | KM : 3" Knuckle | CSS : Cul-de-Sac Shield |
| | 20H : 20,000 lm; 126W | 5QS : Type V Square Short | | | | | | 00 : none | MBZ : Marine Bronze (RAL8019) | KMS : 3" Knuckle at 45°; side wiring | SC : Shorting Cap |
| | 23H : 23,000 lm; 151W | | | | | | | | MGY : Marine Grey (RAL7038) | *Adapters* | *Factory-Installed* |
| | 26H : 26,000 lm; 173W | | | | | | | | MBK : Marine Black (RAL9017) | ES-WM : Extended Site Arm + Wall Mount Adapter | ZT1 : 0-10V Z Ambient Light Control |
| | 29H : 29,000 lm; 188W | | | | | | | | MWH : Marine White (RAL9003) | ES-RP : Extended Site Arm + Round Pole Adapter | ZT3 : 0-10V Z IR + ALC |
| | 30H : 30,000 lm; 194W | | | | | | | | | | ZT4 : 0-10V Z Occupancy, IR + ALC |
| | 33H : 33,000 lm; 239W | | | | | | | | | | ZT5 : 0-10V Zhaga Casambi BLE + ALC |
| | 35H : 35,000 lm; 261W | | | | | | | | | | |
| | 37H : 37,000 lm; 278W | | | | | | | | | | |
| | 40H : 40,000 lm; 325W | | | | | | | | | | |

Notes: †Consult factory to verify BAA compliant products.
80 or 90 CRI, + additional CCTs available upon request
HVL + DALI-2 combination only available with 12L-17L and 18H-23H performance packages.

*Consult factory for lead time and availability.
HVL unavailable with ZT1, ZT3, ZT4 and ZT5 photocell receptacles.
HSS not compatible with 4WS optics, instead use SS.

SOLAIS LIGHTING GROUP
8655 Corporate Drive
Frisco, TX 75033
469.294.1516
solais.com
All rights reserved
©Solais Lighting, LLC

4 STORIES 32 UNITS BUILDING

FIRST FLOOR PLAN (8432.55 ft ENCLOSING PATIOS & OVERHANG 310.55 ft)
6 – TWO BEDROOM UNITS
2 – ONE BEDROOM UNITS
8 UNITS TOTAL
SCALE 1/16" = 1'-0"

SECOND FLOOR PLAN (8432.55 ft. BALCONIES 810.55 ft.)
6 – TWO BEDROOM UNITS
2 – ONE BEDROOM UNITS
8 UNITS TOTAL
SCALE 1/16" = 1'-0"

MARGARITTAVILLAS

DRAWING NO.
A1

PRELIMINARY FLOOR PLANS 1st & 2nd FLOOR

TITLE :

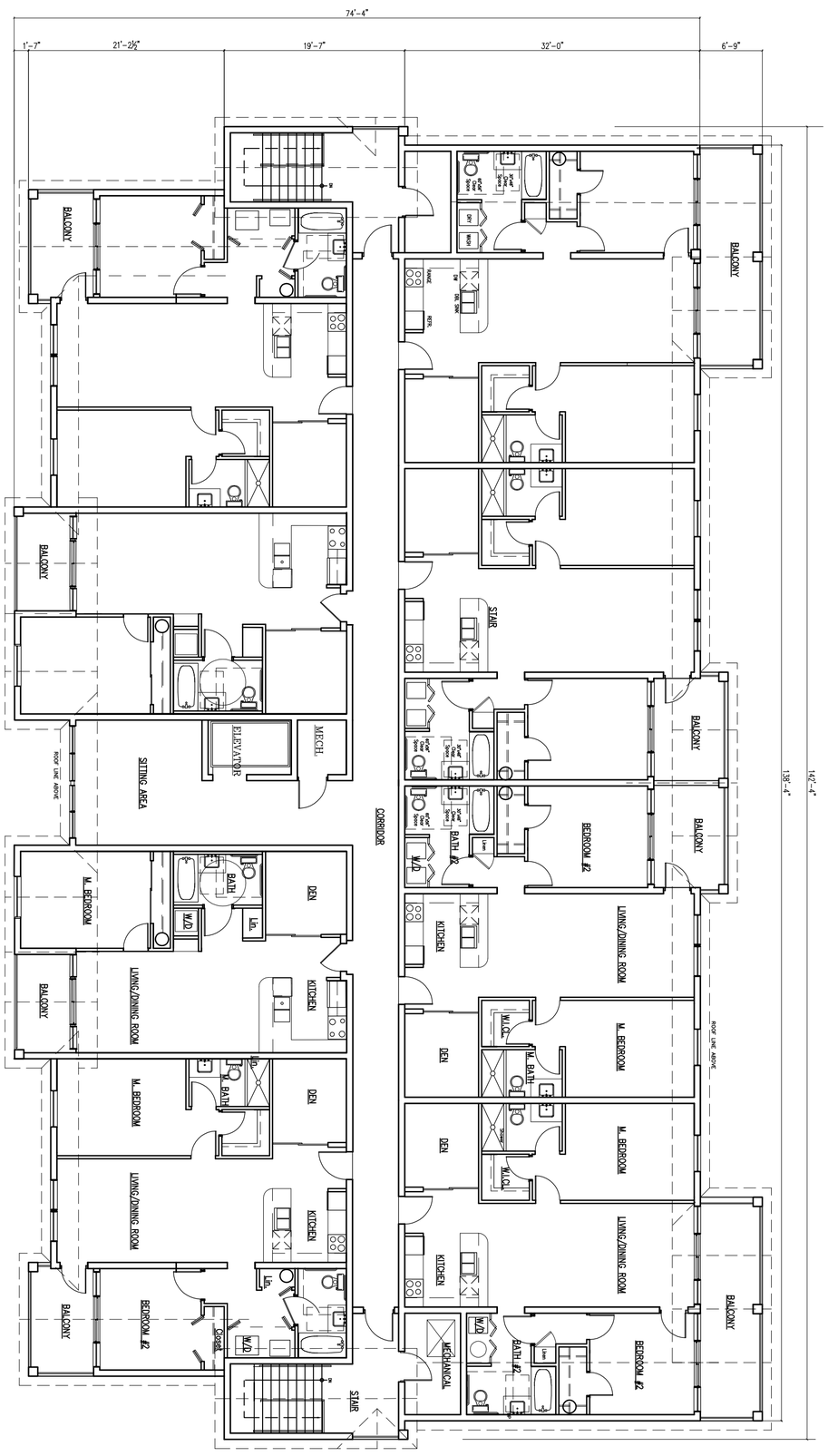
| | |
|---|---|
| PROJ. NO.: | 2023-02 |
| DATE: | 11-01-2023 |
| APPROVED: | SHL |
| CHECKED: | SHL |
| DRAWN: | GSM |
| SCALE: | AS SHOWN |

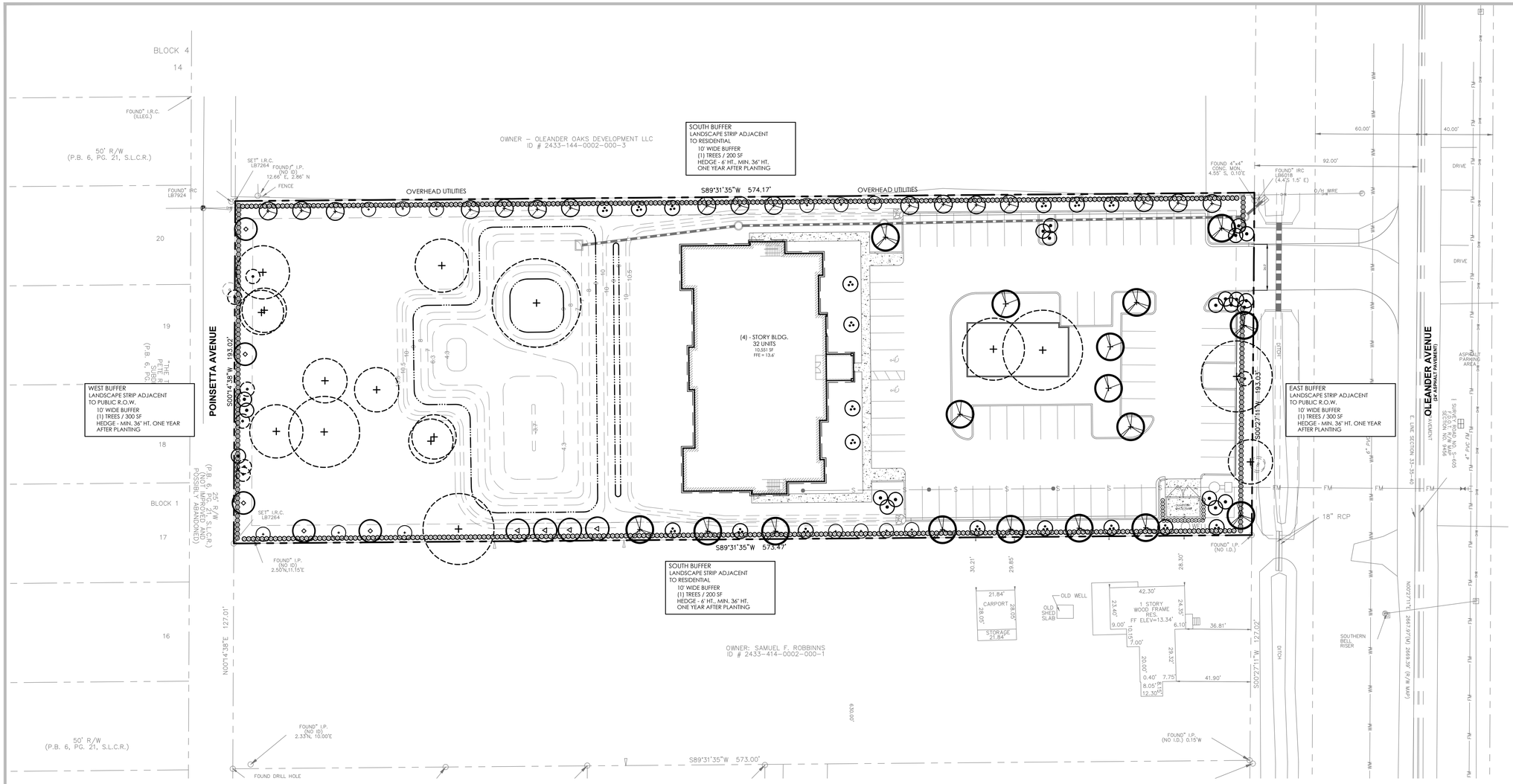
Ownership of these drawings and the design represented herein are protected by copyright & other applicable laws. Any duplication, distribution or use for any purpose without the written permission of Staffan H. Lundberg Architect LLC could result in criminal prosecution as well as civil liability.

FLOOR PLANS
for
# MARGARITTAVILLAS
4101 OLEANDER Avenue
FT. PIERCE, FLORIDA

STAFFAN H. LUNDBERG
ARCHITECT LLC
AR-0006984
1341 SEA HAWK LANE
VERO BEACH, FLORIDA 32963
(772) 538-5130
Staffanarchitect@gmail.com

| NO. | REVISIONS | DATE |
|---|---|---|
| | | |


74'-4"
1'-7"
21'-2½"
19'-7"
32'-0"
6'-9"
BALCONY
BALCONY
BALCONY




## Landscape Calculations

| | REQUIRED/ PERMITTED | PROVIDED |
|---|---|---|
| LANDSCAPE STRIPS ADJACENT TO PUBLIC R.O.W. | | |
| EAST - OLEANDER AVENUE - 166 LF ( 193' LESS 27' DRIVEWAYS) | | |
| 10' WIDE LANDSCAPE STRIP (166 x 10 = 1,660 sf.) | | |
| TREES: 1 / 300 SF | 6 TREES | 6 TREES |
| *INCLUDES (2) EXISTING TREES* | | |
| *(1) EXISTING PALMS* | | |
| *(2) PROPOSED TREES* | | |
| *(6) PROPOSED PALM* | | |
| plus 24" ht. hedge, 36" after one year | | |
| WEST - POINSETTA AVENUE - 193 LF | | |
| 10' WIDE LANDSCAPE STRIP (193 x 10 = 1,930 sf.) | | |
| TREES: 1 / 300 SF | 7 TREES | 7 TREES |
| *INCLUDES (2) EXSTING TREES* | | |
| *(6) EXISTING PALMS* | | |
| *(3) PROPOSED TREES* | | |
| *(2) PROPOSED PALMS* | | |
| plus 24" ht. hedge, 36" after one year | | |
| LANDSCAPE STRIPS ADJACENT TO RESIDENTIAL | | |
| NORTH - 575 LF | | |
| 10' WIDE LANDSCAPE STRIP (575 x 10 = 5,750 sf.) | | |
| TREES: 1 / 200 SF | 29 TREES | 29 TREES |
| *INCLUDES (29) PROPOSED TREES* | | |
| SOUTH - 574 LF | | |
| 10' WIDE LANDSCAPE STRIP (574 x 10 = 5,740 sf.) | | |
| TREES: 1 / 200 SF | 29 TREES | 29 TREES |
| *INCLUDES (1) EXISTING TREE* | | |
| *(28) PROPOSED TREES* | | |
| INTERIOR VEHICULAR USE LANDSCAPE AREA | | |
| VEHICULAR USE AREA: 26,182 SF (27,182 SF LESS 2X 500 SF EX TREES) | | |
| 1 SF / 15 SF OF VUA = 1,745 SF | 1,745 SF | 8,296 SF |
| (1) CANOPY TREE / 100 SF = | 18 TREES | 18 TREES |
| *INCLUDES (2) EXSTING TREES* | | |
| *(12) PROPOSED PALMS = 4 TREES* | | |
| *(12)PROPOSED TREES* | | |

## Plant List

| | SYM | KEY | BOTANICAL NAME/ COMMON NAME | HEIGHT/ SPREAD | SPECIFICATION | NATIVE | DROUGHT TOLERANT | TOTAL |
|---|---|---|---|---|---|---|---|---|
| TREES | | CES | CONOCARPUS ERECTUS 'SERICEUS' SILVER BUTTONWOOD | 12' HT. 5' SPR. | 45 GAL. MIN. 2.5 CAL. TREE FORM, 5' CT. MIN. | Y | M | 13 |
| | | IA | ILEX X 'ATTENUATA' EAST PALATKA HOLLY | 12' HT. 5' SPR. | 45 GAL. MIN. 2.5 CAL. TREE FORM, 5' CT. MIN. | Y | M | 17 |
| | | MG | MAGNOLIA GRANDIFLORA SOUTHERN MAGNOLIA | 14' HT. 5' SPR. | FIELD GROWN B&B 3" CAL., 5' C.T. MIN. | Y | H | 5 |
| | | LI | LAGERSTROEMIA INDICA CRAPE MYRTLE | 12' HT. 5' SPR. | FIELD GROWN B&B 2.5" CAL., 5' C.T. MIN. | N | M | 18 |
| | | QV | QUERCUS VIRGINIANA LIVE OAK | 14' HT. 5' SPR. | FIELD GROWN, B&B 3" CAL. 5' CT. MIN. | Y | H | 14 |
| | | SP | SABAL PALMETTO SABAL PALMETTO | 10 - 14' CT. | AS SHOWN, SLICKS STAGGER HEIGHTS | Y | H | 19 |
| | ▽ | SPM | SABAL PALMETTO SABAL PALMETTO | 10 - 14' CT. | AS SHOWN, SLICKS STAGGER HEIGHTS | Y | H | 19 |
| | | TD | TAXODIUM DISTICHUM BALD CYPRESS | 12' HT. 5' SPR. | 45 GAL. MIN. 2.5 CAL. TREE FORM, 5' CT. MIN. | Y | M | 4 |
| | | UA | ULMUS ALATA WINDGED ELM | 14' HT. 6' SPR. | FIELD GROWN B&b, 3" CAL. 5' CT, MIN. | Y | M | 3 |
| SHRUBS | | CHR | CHRYSOBALANUS ICACO COCOPLUM | 24" X 16" | 3 GAL., 24" O.C. | Y | H | 138 |
| | | VIB | VIBURNUM OBOVATUM WALTERS VIBURNUM | 24" X 16" | 3 GAL., 24" O.C. | Y | H | 450 |
| | | SOD | STENOTAPHRUM SECUNDATUM ST. AUGUSTINE SOD | | DISEASE FREE, LAID TIGHTLY, EVEN UNIFORM | N | M | T.B.D. |
| | | | EXISTING TREES TYP | | | | | |
| | | | EXISTING PALMS TYP | | | | | |

▽ DENOTES PALMS COUNTING TOWARDS MITIGATION REQUIREMENTS.

48 HOURS BEFORE DIGGING
CALL TOLL FREE
811
SUNSHINE811.COM
NOTIFICATION CENTER

plot date:
file name:


Patrick D. Cunningham, LLC
land planning
landscape architecture
519 Sapphire Drive
Sarasota, FL 34234
o: 941.351.8915
pcunningham.LLC@gmail.com


# CONCEPTUAL LANDSCAPE PLAN

# MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

| | | |
|---|---|---|
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | SUBMITTAL | 12.08.2023 |

SCALE: 1"=30'-0"

PATRICK D. CUNNINGHAM
FL REG #: LA0001669

SEAL

0 30 60

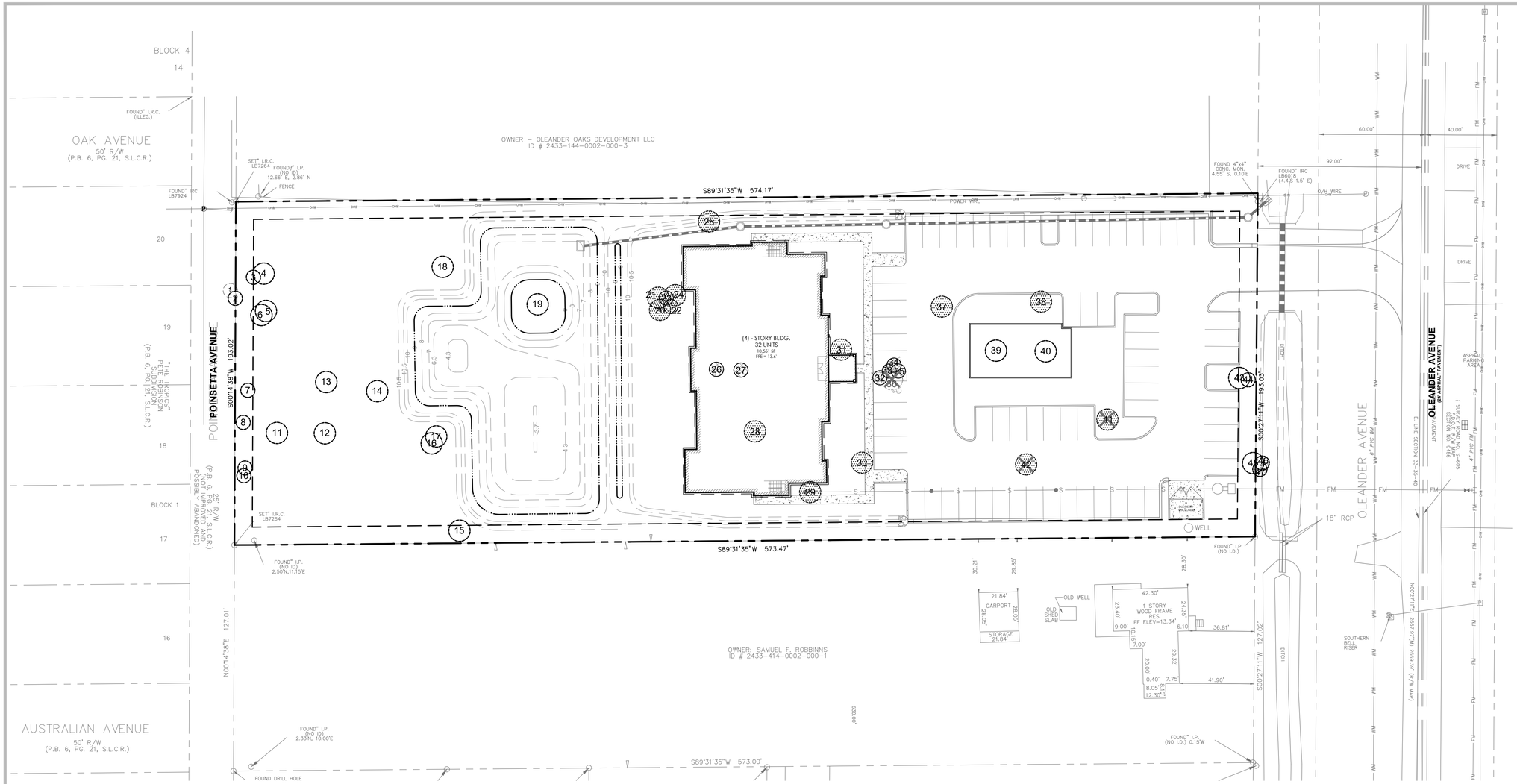
NORTH

SHEET

L-1



COPYRIGHT © PATRICK D. CUNNINGHAM, LLC 519 Sapphire Drive Sarasota, Florida 34243 941.351.8915 ALL RIGHTS RESERVED




## Existing Tree Inventory List

| TREE# | SPECIES | SIZE " | STATUS | ACTION | CREDTS |
|---|---|---|---|---|---|
| 1 | Palm Spp. | 16 " | Specimen | REMAIN | Off Site |
| 2 | Palm Spp. | 12 " | Specimen | REMAIN | + 1 Palm |
| 3 | Palm Spp. | 14 " | Specimen | REMAIN | + 1 Palm |
| 4 | Oak Spp. | 30 " | Protected | REMAIN | + 27.5" |
| 5 | Oak Spp. | 24 " | Protected | REMAIN | + 21.5" |
| 6 | Oak Spp. | 24 " | Protected | REMAIN | + 21.5" |
| 7 | Palm Spp. | 20 " | Specimen | REMAIN | + 1 Palm |
| 8 | Palm Spp. | 16 " | Specimen | REMAIN | + 1 Palm |
| 9 | Palm Spp. | 14 " | Specimen | REMAIN | + 1 Palm |
| 10 | Palm Spp. | 18 " | Specimen | REMAIN | + 1 Palm |
| 11 | Oak Spp. | 26 " | Protected | REMAIN | + 26" |
| 12 | Oak Spp. | 48 " | Protected | REMAIN | + 48" |
| 13 | Oak Spp. | 24 " | Protected | REMAIN | + 24" |
| 14 | Oak Spp. | 24 " | Protected | REMAIN | + 24" |
| 15 | Oak Spp. | 46 " | Protected | REMAIN | + 43.5" |
| 16 | Oak Spp. | 20 " | Protected | REMAIN | + 20" |
| 17 | Oak Spp. | 20 " | Protected | REMAIN | + 20" |
| 18 | Oak Spp. | 26 " | Protected | REMAIN | + 26" |
| 19 | Oak Spp. | 56 " | Protected | REMAIN | + 56" |
| 20 | Oak Spp. | 42 " | Protected | Remove | - 42" |

| TREE# | SPECIES | SIZE " | STATUS | ACTION | CREDTS |
|---|---|---|---|---|---|
| 21 | Oak Spp. | 24" | Protected | Remove | - 24" |
| 22 | Palm Spp. | 8 " | Specimen | Remove | - 1 Palm |
| 23 | Palm Spp. | 8 " | Specimen | Remove | - 1 Palm |
| 24 | Oak Spp. | 36" | Protected | Remove | - 36" |
| 25 | Oak Spp. | 36" | Protected | Remove | - 36" |
| 26 | Palm Spp. | 18 " | Specimen | Remove | - 1 Palm |
| 27 | Palm Spp. | 18 " | Specimen | Remove | - 1 Palm |
| 28 | Oak Spp. | 54" | Protected | Remove | - 54" |
| 29 | Oak Spp. | 44" | Protected | Remove | - 44" |
| 30 | Oak Spp. | 42" | Protected | Remove | - 42" |
| 31 | Oak Spp. | 30" | Protected | Remove | - 30" |
| 32 | Palm Spp. | 18" | Specimen | Remove | - 1 Palm |
| 33 | Palm Spp. | 16" | Specimen | Remove | - 1 Palm |
| 34 | Palm Spp. | 20" | Specimen | Remove | - 1 Palm |
| 35 | Palm Spp. | 16" | Specimen | Remove | - 1 Palm |
| 36 | Oak Spp. | 8" | Protected | Remove | - - |
| 37 | Oak Spp. | 42" | Protected | Remove | - 42" |
| 38 | Oak Spp. | 46" | Protected | Remove | - 46" |
| 39 | Oak Spp. | 36 " | Protected | REMAIN | + 33.5" |
| 40 | Oak Spp. | 56 " | Protected | REMAIN | + 53.5" |

| TREE# | SPECIES | SIZE " | STATUS | ACTION | CREDTS |
|---|---|---|---|---|---|
| 41 | Royal Poinciana | 30 " | Non-Native | Remove | - - |
| 42 | Royal Poinciana | 64 " | Non-Native | Remove | - - |
| 43 | Oak Spp. | 48 " | Protected | REMAIN | + 45.5" |
| 44 | Palm Spp. | 20 " | Specimen | REMAIN | + 1 Palm |
| 45 | Oak Spp. | 20 " | Protected | REMAIN | + 17.5" |
| 46 | Palm Spp. | 18" | Specimen | REMAIN | Off Site |
| 47 | Palm Spp. | 18" | Specimen | REMAIN | Off Site |

EXISTING NATIVE TREES
PROTECTED TREES TO BE REMOVED
*(8-IN. DBH TO LESS THAN 14-IN. DBH - NO MITIGATION REQUIRED)*

● SPECIMEN TREES TO BE REMOVED
*(14-IN. DBH OR GREATER - MITIGATION REQUIRED @ 1-IN. : 1-IN.)*

▽ SPECIMEN CABBAGE PALMS TO BE REMOVED
*(10-FT. C.T MIN. - MITIGATION REQUIRED @ 1 PALM. : 1 PALM*

*TREE CREDITS ARE CALCULATED AT (DBH PRESERVED - 2.5-IN. MIN. TREE CAL.) PER TREE SAVED. PALM CREDITS ARE CALCULATED AT (1) PALM SAVED = (1) PALM REMOVED.*

## Key

- EXISTING TREES - TO BE REMOVED LESS THAN 14-IN. DBH, THEREFORE DO NOT REQUIRE MITIGATION. — TO BE REMOVED
- EXISTING TREES - TO BE REMOVED NON-NATIVE TREE, THEREFORE DO NOT REQUIRE MITIGATION. — TO BE REMOVED
- (76) EXISTING TREES - TO BE REMOVED GREATER THAN 14-IN. DBH AND REQUIRE MITIGATION. — TO BE MITIGATED
- (70) EXISTING PALMS - TO BE REMOVED REQUIRE MITIGATION — TO REMAIN
- (10) (11) EXISTING TREES AND PALMS - TO REMAIN USED FOR TREE CREDITS TOWARDS REQUIRED LANDSCAPING.

48 HOURS BEFORE DIGGING CALL TOLL FREE 8-1-1 SUNSHINE811.COM NOTIFICATION CENTER

## Tree Mitigation Calculations

| | QUANTITY | DBH (INCHES) | MITIGATION REQ. |
|---|---|---|---|
| TO BE REMOVED | | | |
| PROTECTED | | | |
| LIVE OAKS (LESS THAN 14" DBH) | 1 TREE | 8 " | 0" |
| NON-NATIVE | | | |
| ROYAL POINCIANA | 2 TREES | 94 " | 0" |
| SPECIMEN | | | |
| LIVE OAKS (GREATER THAN 14" DBH) | 10 TREES | 396 " | - 396 " |
| SABAL PALMS | 8 PALMS | N/A | - 8 PALMS |

| MITIGATION (REPLACEMENT) | REQUIRED | PROVIDED |
|---|---|---|
| TOTAL TREE MITIGATION REQUIRED<br>INCL. *(16) EXISTING NATIVE OAK* | 396 " | 508 " *(00" SHORTFALL)*<br>*508"* |
| TOTAL PALM MITIGATION REQUIRED<br>INCL. *(10) EXISTING SABAL PALMS @ 10' ct min.*<br>*(1) SABAL PALM @ 10' ct min.* | 8 PALMS | 8 PALMS<br>*7 PALMS*<br>*1 PALMS* |

## General Notes:

1. CALCULATIONS ABOVE ARE PER TREE REPLACEMENT CHART IN THE JURISDICTIONS LAND DEVELOPMENT REGULATIONS.
2. A TREE REMOVAL PERMIT WILL BE REQUIRED PRIOR COMMENCEMENT OF DEVELOPMENT ACTIVITY.
3. THE CONDITION OF THE TREES LISTED ARE BASED ON A VARIETY OF MATERIALS, AS WELL AS FIELD OBSERVATIONS, AND ARE TO BE USED AS REFERENCE ONLY AND IS NOT TO BE USE FOR TREE PERMITTING. A CERTIFIED ARBORIST, NOT THE LANDSCAPE ARCHITECT IS RESPONSIBLE FOR ANY TREE EVALUATION REQUIRED BY THE CITY.
4. A CERTIFIED ARBORIST IS TO PROVIDE THE FINAL TREE DISPOSITION PLAN AT TIME OF TREE PERMITTING. THE VALUATION OF TREES SHALL BE APPRAISED USING THE COUNCIL OF TREE AND LANDSCAPE APPRAISERS GUIDE FOR PLANT APPRAISAL, LATEST EDITION.

## Additional Notes:

1. TREE BARRICADES FOR TREES TO BE PRESERVED DURING CONSTRUCTION SHALL BE LOCATED AT THE DRIP LINE, UNLESS OTHERWISE APPROVED BY THE ENVIRONMENTAL REVIEW STAFF, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE AREA WITHIN THE DRIP LINE SHALL REMAIN UNDISTURBED.
3. THE FOLLOWING ACTIVITIES ARE PROHIBITED WITHIN TECH DRIP LINE OF PRESERVED TREES:
   - A. IMPROVEMENTS, FILL, MACHINERY AND VEHICLE TRAVEL OR PARKING
   - B. UNDERGROUND UTILITIES
   - C. GRADE CHANGES, COMPACTION OF SOIL, OR EXCAVATION
   - D. STORAGE OR CONSTRUCTION MATERIALS.
4. THE TREE PROTECTION BARRICADES SHALL CONSIST OF CHAIN LINK FENCE (NEW OR USED) OR ORANGE SAFETY FENCE WITH A MINIMUM 5-FOOT HEIGHT, UNLESS OTHERWISE APPROVED BY THE BUILDING AND DEVELOPMENT SERVICES.
5. A TREE PERMIT WILL BE REQUIRED PRIOR TO ANY CONSTRUCTION, NATIVE VEGETATION REMOVAL WITHIN THE DRIP LINE OF A TREE, AND/OR TREE REMOVAL.
6. NO CLEARING WITH HEAVY EQUIPMENT, FILLING, OR PLACEMNT OF IMPROVEMENTS OR UTILITY LINES SHALL OCCUR WITHIN THE PROTECTED ROOT ZONE OF ANY CANOPY TREE TO BE SAVED.
7. THE PROTECTED ROOT ZONE IS DEFINED AS THE DRIPLINE OF THE TREE. ONLY HAND CLEARING OR MOWING IS PERMITTED WITHIN THE PROTECTED ROOT ZONE OF A CANOPY TREES TO BE SAVED IF AUTHORIZED BY THE ADMINISTRATOR.


Patrick D. Cunningham, LLC
land planning
landscape architecture
519 Sapphire Drive
Sarasota, FL 34234
o: 941.351.8915
pcunningham.LLC@gmail.com


EXISTING TREE INVENTORY PLAN

MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

| | | |
|---|---|---|
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | SUBMITTAL | 12.08.2023 |

SCALE: 1"=30'-0"

PATRICK D. CUNNINGHAM FL REG #: LA0001669

SEAL

0 30 60 NORTH

SHEET L-2

plot date:
file name:

## Additional Notes

1. QUALITY
PLANT MATERIALS USED SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER, AS GIVEN IN THE MOST CURRENT EDITION OF "GRADES AND STANDARDS FOR NURSERY PLANTS" PART I AND PART II, STATE OF FLORIDA.

2. DROUGHT TOLERANCE REQUIREMENTS
A MINIMUM OF 75% TO 100% OF TOTAL CUMULATIVE LANDSCAPE PLANT MATERIAL USED TO MEET THE PROVISIONS OF THE I.R.C. L.D.R., CHAPTER 926, SHALL BE "HIGH DROUGHT TOLERANT," AS CLASSIFIED AND LISTED IN THE MOST RECENT EDITION OF THE "WATERWISE - FLORIDA LANDSCAPES - LANDSCAPING TO PROMOTE WATER CONSERVATION USING PRINCIPLES OF XERISCAPE" - FROM FLORIDA'S WATER MANAGEMENT DISTRICTS.

3. TREES:
A. CANOPY TREES SHALL BE SPECIES HAVING AN AVERAGE MATURE SPREAD OF CROWN GREATER THAN FIFTEEN (15) FEET IN DIAMETER, AND HAVING A TRUNK WITH OVER FIVE (5) FEET OF CLEAR WOOD.
B. CANOPY TREES SHALL HAVE A 2" DIAMETER AT 0.5' ABOVE GRADE AND BE A MIN. 12' IN HEIGHT WITH A MINIMUM CROWN SPREAD OF 4.5' AT TIME OF PLANTING.
C. PALMS SHALL BE CONSIDERED 1/3 OF A TREE AND, IF USED, THEY SHALL CONSIST OF NO MORE THAN ONE-THIRD OF THE TOTAL NEW TREE REQUIREMENT. ADDITIONALLY, 3 PALMS = 1 CANOPY TREE. SINGLE DATE PALMS (NOT PYGMY DATE PALMS) MAY BE SUBSTITUTED FOR A CANOPY TREE.
D. AT LEAST 50% OF ALL NEW REQUIRED TREES SHALL BE OF A NATIVE SPECIES, AND AT LEAST 75% - 100% OF ALL TREES SHALL BE RATED "DROUGHT TOLERANT."
E. REQUIRED UNDERSTORY TREES SHALL BE A MINIMUM OF SIX (6) FEET OVERALL IN HEIGHT AND ONE- AND ONE-HALF (1.5) INCHES DIAMETER AT ONE-HALF (0.5) FEET ABOVE GRADE AT THE TIME OF PLANTING. MULTI-TRUNK TREES SHALL HAVE A COMBINED ONE- AND ONE-HALF-INCH CALIPER FOR ALL TRUNKS AT SIX (6) INCHES ABOVE GRADE. PALM TREES USED AS UNDERSTORY TREES SHALL HAVE A MINIMUM OVERALL HEIGHT OF SIX (6) FEET AND SHALL NOT COMPRISE MORE THAN ONE-THIRD OF THE TOTAL UNDERSTORY TREE REQUIREMENT.
F. A ROOT BARRIER IS REQUIRED FOR CANOPY TREES WITHIN 6-FT. OF A SIDEWALK, PAVED AREA, BUILDING, OR UNDERGROUND UTILITY .

4. SHRUBS/ HEDGES:
A. SHRUBS SHALL BE A MINIMUM OF EIGHTEEN (18) INCHES IN HEIGHT WHEN MEASURED IMMEDIATELY AFTER PLANTING, EXCEPT THAT SHRUBS OF NON-NATIVE VIBURNUM AND LIGUSTRUM SPECIES SHALL BE A MINIMUM OF TWENTY-FOUR (24) INCHES IN HEIGHT IMMEDIATELY AFTER PLANTING.
B. SHRUBS, WHERE REQUIRED, SHALL BE PLANTED IN AN OFFSET DOUBLE ROW AND MAINTAINED SO AS TO FORM A CONTINUOUS, UNBROKEN, SOLID SCREEN, WHERE REQUIRED TO FORM A CONTINUOUS SCREEN, TO SATISFY A BUFFER OR OPAQUE FEATURE REQUIREMENT, SHRUBS SHALL BE PLANTED ON TWENTY-FOUR (24)-TO-THIRTY (30) INCH CENTERS, UNLESS A GREATER SPACING IS NECESSARY TO ACCOMMODATE LARGER SHRUBS AND IS APPROVED BY PLANNING DIVISION STAFF.
C. EXCLUDING SHRUBS USED IN OPAQUE FEATURES, AT LEAST 50% OF THE REQUIRED NUMBER OF SHRUBS SHALL BE OF NATIVE SPECIES.

5. MULCH AND GROUND COVERS
THE USE OF CYPRESS MULCH IS PROHIBITED. MULCH THAT IS NOT CYPRESS MAY BE USED. GROUND COVERS (NOT INCLUDING SOD GRASS) SHALL BE PLANTED IN SUCH A MANNER AS TO PRESENT A FINISHED APPEARANCE AND REASONABLY COMPLETE COVERAGE WITHIN ONE YEAR AFTER PLANTING. AT LEAST 50% OF THE AREA COVERED BY LIVING MATERIAL SHALL BE OF NATIVE SPECIES. REFER TO IRC LDC FOR A LIST OF NATIVE GROUND COVERS AND FLOWERS. THE COMPLETE COVERAGE OF AN AREA BY GROUND COVERS PRECLUDES THE USE OF MULCH THEREAFTER.

6. TURF GRASS
TURF GRASS AREAS SHALL BE IDENTIFIED ON THE LANDSCAPE PLAN AND SHALL BE LIMITED TO A MAXIMUM OF 50% OF THE TOTAL IRRIGATED, LANDSCAPED AND VEGETATED PROJECT AREA, EXCLUDING RIGHTS-OF-WAY, ACTIVE RECREATION AREAS (E.G. PLAYFIELDS), AND SLOPES WITHIN DRY RETENTION AREAS. TURF GRASS SHALL BE PLACED SO THAT IT CAN BE IRRIGATED IN A SEPARATE ZONE. PREFERRED TURF GRASSES ARE THOSE QUALIFYING AS NATIVE.

7. IRRIGATION USAGE ZONES SHALL BE AS FOLLOWS:
A. GRASS AREA SHALL BE IN HIGH USAGE ZONES.
B. TREES & SHRUBS SHALL BE IN LOW USAGE ZONES.

8. THERE SHALL BE (6) DIFFERENT SPECIES OF TREES USED, AND (9) DIFFERENT SPECIES OF SHRUBS WITH (4) BEING NATIVE PER I.R.C. ORDINANCE, CHAPTER 926.

9. THE CONTRACTOR SHALL ATTEMPT TO PRESERVE AS MANY EXISTING TREES AS POSSIBLE AND FEASIBLE. TREES THAT ARE PRESERVED MAY BE CREDITED TOWARDS THE SITE TREE REQUIREMENT IF THEY MEET THE SPECIFICATIONS.

10. THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF TREES, SIGNS AND LIGHTS SUCH THAT ALL SIGNAGE IS EASILY SEEN AND LIGHTING WORKS FOR ITS INTENDED PURPOSE. TREE PLACEMENT MAY VARY FROM THIS PLAN TO ACHIEVE THIS REQUIREMENT.

11. LANDSCAPE ISLANDS SHALL BE BACKFILLED AT LEAST TO TOP OF CURB, AND MAY BE BERMED TO A MAXIMUM HEIGHT OF 24" ABOVE ADJACENT PARKING LOT GRADE.

12. ALL LANDSCAPE MATERIAL IN SHOCK WILL BE REPLACED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.

LAND CLEARING NOTES
A. ALL NATIVE UPLAND VEGETATION CONTRIBUTING TO THE STABILIZATION OF BANKS OR EXISTING CANALS, DITCHES OR NATURAL WATERCOURSES SHALL BE RETAINED.

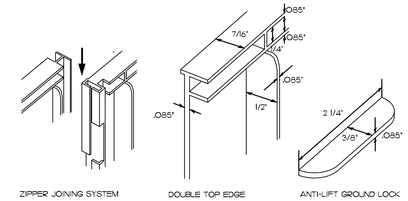
B. ALL NUISANCE EXOTIC VEGETATION EXISTING ON SITE SHALL BE REMOVED IN CONJUNCTION WITH ANY SITE DEVELOPMENT.

C. ANY ABANDONED FLOW WELLS EXISTING ON SITE SHALL BE PLUGGED IN CONJUNCTION WITH SITE DEVELOPMENT.

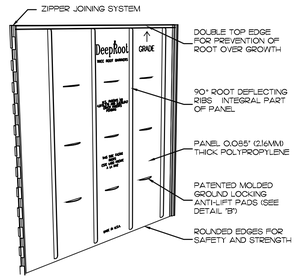
NOTES:
SPECIFIED TREE ROOT BARRIERS ARE A MECHANICAL BARRIER AND ROOT DEFLECTOR TO PREVENT TREE ROOTS FROM DAMAGING HARDSCAPES AND LANDSCAPES. ASSEMBLED IN 2' LONG MODULES TO CREATE VARYING SIZES OF CYLINDERS FOR SURROUNDING ROOT BALLS (SURROUND PLANTING STYLE) OR FOR LINEAR APPLICATIONS DIRECTLY BESIDE A HARDSCAPE ADJACENT TO ONE SIDE OF THE TREES (LINEAR PLANTING STYLE).

A. MATERIALS
1. THE CONTRACTOR SHALL FURNISH AND INSTALL TREE ROOT BARRIERS AS SPECIFIED. THE TREE ROOT BARRIERS SHALL BE PRODUCT # UB 24-2, # UB 36-2 AND # UB 48-2 AS MANUFACTURED BY DEEP ROOT PARTNERS, L.P. 345 LORTON AVE. #103, BURLINGAME, CA. (800-458-7668), OR APPROVED EQUAL. THE BARRIER SHALL BE BLACK, INJECTION MOLDED PANELS, OF 0.065" WALL THICKNESS IN MODULES 24" LONG BY 24" & 48" DEEP, MANUFACTURED WITH A MINIMUM 50% POST-CONSUMER RECYCLED POLYPROPYLENE PLASTIC WITH ADDED ULTRAVIOLET INHIBITORS, RECYCLABLE. EACH PANEL SHALL HAVE:

B. CONSTRUCTION AND INSTALLATION
1. THE CONTRACTOR SHALL INSTALL THE TREE ROOT BARRIERS WITH THE NUMBER OF PANELS AND IN THE MANNER SHOWN ON THE DRAWINGS. THE VERTICAL ROOT DEFLECTING RIBS SHALL BE FACING INWARDS TO THE ROOT BALL AND THE TOP OF THE DOUBLE EDGE SHALL BE 1/2" ABOVE GRADE. EACH OF THE REQUIRED NUMBER OF PANELS SHALL BE CONNECTED TO FORM A CIRCLE AROUND THE ROOT BALL OR WHERE SPECIFIED JOINED IN A LINEAR FASHION AND PLACED ALONG THE ADJACENT HARDSCAPE. ALL STREET TREES WITH TRUNKS CLOSER THAN 4 FT. TO PAVED SURFACES SHALL BE PLANTED WITH ROOT BARRIER BETWEEN THE ROOT BALL AND PAVING. PLANTINGS WITHIN TREE WELLS REQUIRE ROOT BARRIERS ALONG ALL SIDES OF THE TREE WELL.
2. EXCAVATION AND SOIL PREPARATION SHALL CONFORM TO THE DRAWINGS.
3. THE TREE ROOT BARRIERS SHALL BE BACKFILLED ON THE OUTSIDE WITH 3/4" TO 1 1/2" GRAVEL OR CRUSHED ROCK AS SHOWN ON THE DRAWINGS. NO GRAVEL BACKFILL IS REQUIRED FOR A LINEAR PLANTING



ZIPPER JOINING SYSTEM | DOUBLE TOP EDGE | ANTI-LIFT GROUND LOCK




**24" DEEPROOT TREE ROOT BARRIERS**
NOT TO SCALE

ALL EXISTING TREES TO BE PROTECTED DURING ANY LAND CLEARING AND/OR CONSTRUCTION AS FOLLOWS:

(A) PRIOR TO ANY LAND CLEARING OPERATIONS, TEMPORARY BARRIERS SHALL BE INSTALLED AROUND ALL TREES TO REMAIN WITHIN THE LIMITS OF LAND CLEARING OR CONSTRUCTION AND SHALL REMAIN UNTIL THE COMPLETION OF THE WORK.

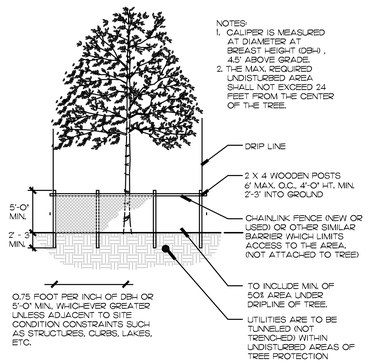
TREE PROTECTION SHALL COMPLY WITH THE JURISDICTIONS REGULATIONS.

(B) NO MATERIALS, TRAILERS, EQUIPMENT OR CHEMICALS SHALL BE STORED, OPERATED DUMPED, BURIED OR BURNED WITHIN THE PROTECTED AREAS.

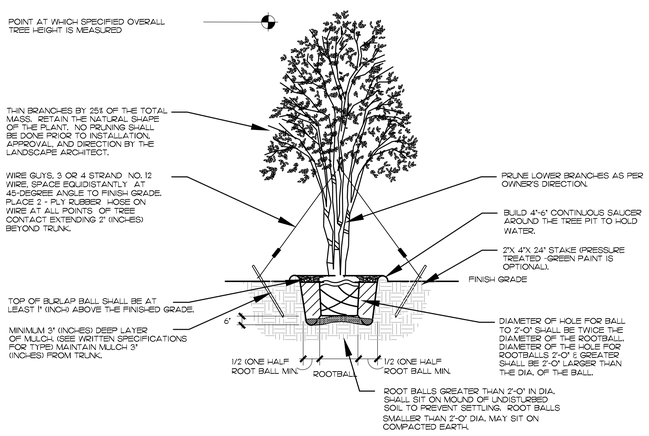
NO ATTACHMENT, WIRES (OTHER THAN PROTECTIVE GUY WIRES), SIGNS OR PERMITS SHALL BE ATTACHED TO A PROTECTED TREE.

(C) PROTECTED TREES SHALL BE PRUNED TO RESTORE THIS NATURAL SHAPE AND FERTILIZED AS NECESSARY TO COMPENSATE FOR ANY LOSS OF ROOTS AND TO STIMULATE ROOT GROWTH.

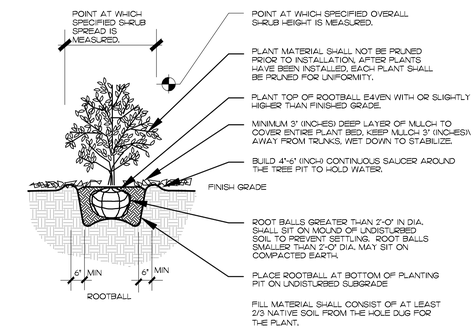
ANY DAMAGE TO TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY AFTER DAMAGE OCCURS.



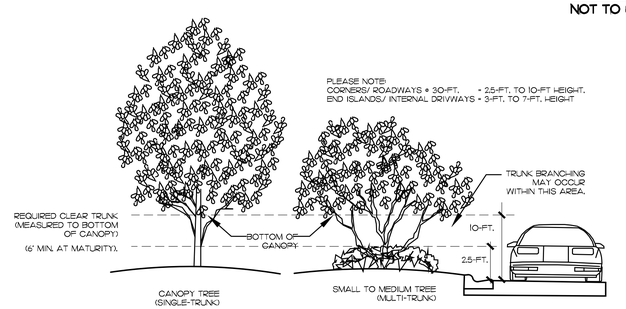

**TYPICAL TREE PROTECTION DETAIL**
NOT TO SCALE



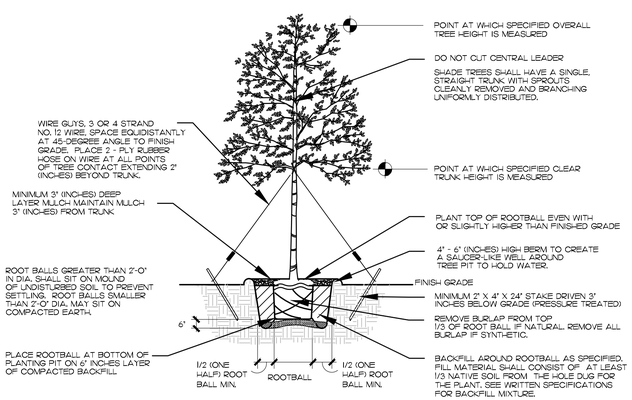

**TYPICAL IRRIGULAR/MULTI-TRUNK TREE PLANTING DETAIL**
NOT TO SCALE



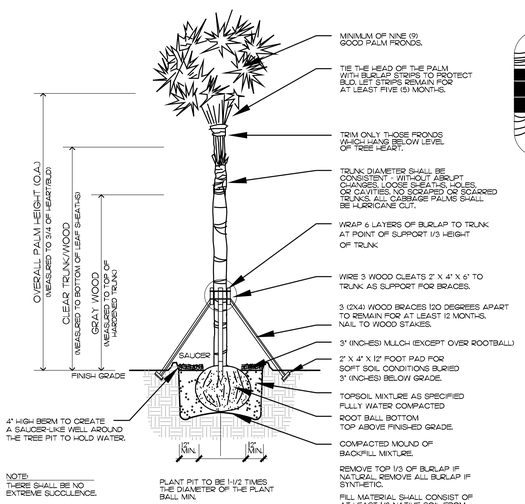

**TYPICAL SHRUB/ GROUNDCOVER PLANTING DETAIL**
NOT TO SCALE




**CLEAR TRUNK WITHIN SIGHT TRIANGLE DETAIL**
NOT TO SCALE

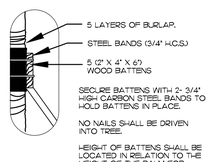


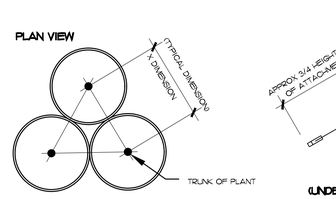

**TYPICAL TREE PLANTING DETAIL**
NOT TO SCALE



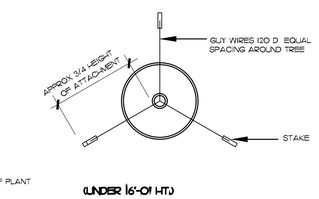

NOTE:
THERE SHALL BE NO EXTREME SUCCULENCE.

**TYPICAL PALM PLANTING DETAIL**
NOT TO SCALE




**TYPICAL PLANT SPACING DETAIL**
NOT TO SCALE




(UNDER 16'-0" HT.)

**TYPICAL TREE GUYING DETAIL**
NOT TO SCALE

48 HOURS BEFORE DIGGING
CALL TOLL FREE
8-1-1
SUNSHINE811.COM
NOTIFICATION CENTER

plot date:
file name:


Patrick D. Cunningham, LLC
land planning
landscape architecture
519 Sapphire Drive
Sarasota, FL 34234
o: 941.351.8915
pcunningham.LLC@gmail.com


LANDSCAPE DETAILS

MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

| | | |
|---|---|---|
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | SUBMITAL | 12.08.2023 |

SCALE: N.T.S.

PATRICK D. CUNNINGHAM
FL REG #: LA0001669

SEAL

NORTH

SHEET
L-3



▪ COPYRIGHT © ▪ PATRICK D. CUNNINGHAM, LLC ▪ 519 Sapphire Drive ▪ Sarasota, Florida 34243 ▪ 941.351.8915 ▪ ALL RIGHTS RESERVED ▪

| Luminaire Schedule | | | | | | |
|---|---|---|---|---|---|---|
| Symbol | Qty | Label | Arrangement | Lumens | LLF | Description |
| | 3 | A | SINGLE | 20430.57 | 1.000 | GL3-20H-3RM-750 @ 25' MTG. HT. |
| | 3 | B | SINGLE | 20617.21 | 1.000 | GL3-20H-5QS-750 @ 25' MTG. HT. |
| LIGHTING TO BE SUPPLIED BY WAMPLER LIGHTING GROUP, CONTACT BRAD WAMPLER @ 256.996.2560 OR BRAD@WAMPLERLIGHTINGGROUP.COM | | | | | | |

| Calculation Summary | | | | | | | |
|---|---|---|---|---|---|---|---|
| Label | CalcType | Units | Avg | Max | Min | Avg/Min | Max/Min |
| CalcPts | Illuminance | Fc | 2.60 | 11.3 | 0.1 | 26.00 | 113.00 |
| Entrance | Illuminance | Fc | 1.60 | 3.2 | 0.1 | 16.00 | 32.00 |

**PROJECT:**
**Margareta Villas**
**Fort Pierce, FL**

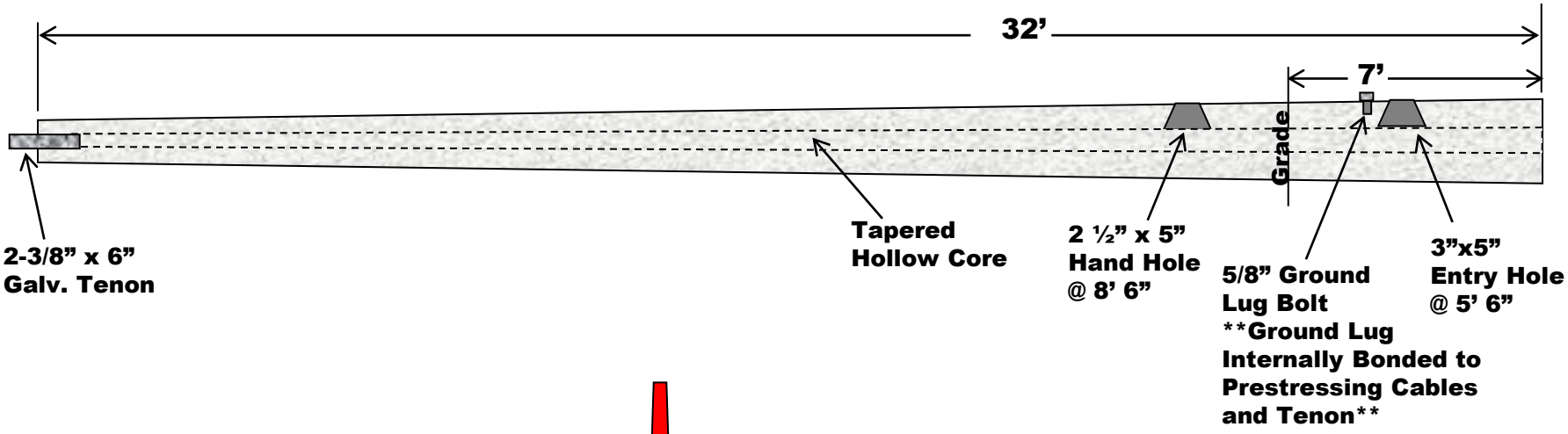

**Wampler Lighting Group**
**83 High Avenue**
**Valley Head, Alabama 35989**
**Contact Brad @ 256.996.2560**


**PLAN DATE**

| DATE | DESCRIPTION | DRAWN BY |
|---|---|---|
| 020524 | | JRC |

**JOB #: 020524MV**

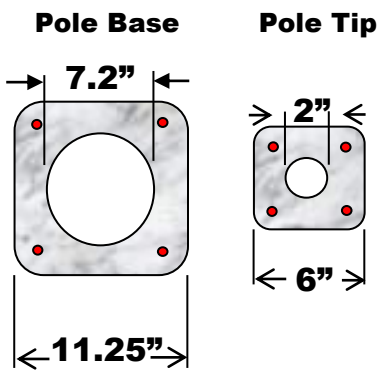
**Drawing Not to Scale**



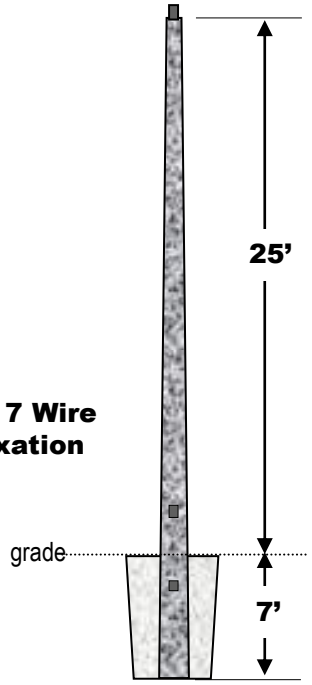


# Seminole Pole incorporated

www.SeminolePole.com Email: SeminolePole@gmail.com
Phone: 866-246-5545 Fax: 229-524-2866


• =0.5" Diameter 7 Wire 270k Low Relaxation Cable

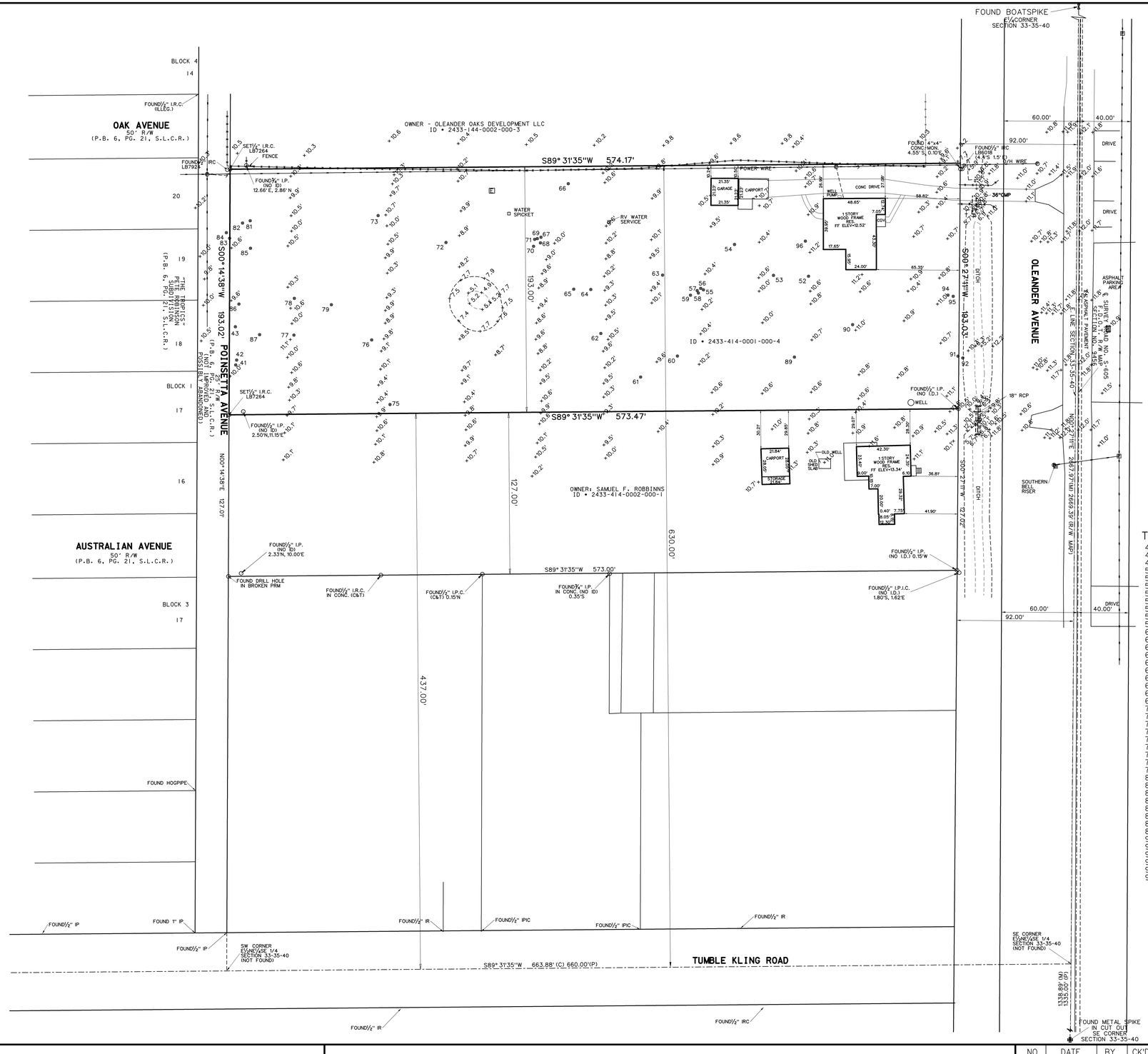



## Part#: SP3225TII

## Project:

| Pole O.A. | Burial Depth | Wind Speed | Gust | EPA Capacity |
|---|---|---|---|---|
| 32' | 7' | 140mph | 3 sec. | 9.0 |

| Min. Brk. Strength | Strand Info | Concrete | Pole Weight (lb) |
|---|---|---|---|
| 3,500# | 0.5" Diameter 270 ksi | 6,500psi | 1,900 |




## LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY.

SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

## NOTES

1. REPRODUCTIONS OF THIS SKETCH ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. EASEMENTS AND RIGHTS-OF-WAY SHOWN ARE TAKEN FROM TITLE COMMITMENT NUMBER 24394655CA, AS PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY. EFFECTIVE DATE: JANUARY 18, 2006 AT 8:00 A.M. PROPERTY IS SUBJECT TO THE AGREEMENT WITH FT. PIERCE UTILITIES AUTHORITY, AS RECORDED IN OFFICIAL RECORDS BOOK 424, AT PAGE 8776 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.
3. NO UNDERGROUND IMPROVEMENTS ARE SHOWN HEREON.
4. ELEVATIONS SHOWN HEREON ARE RELATIVE TO NAVD 1988, BASED ON ST. LUCIE COUNTY BENCHMARK "FRENCH" - ST. LUCIE COUNTY DISK IN CONC. 214' S OF FRENCH CREEK LANE, 29' W OF W.E.O.P. OLEANDER BLVD. ELEVATION = 11.32' NAVD 1988.
5. BEARINGS SHOWN HEREON ARE BASED ON THE STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR FLORIDA EAST ZONE, WITH THE EAST LINE OF THE SOUTHEAST ONE-QUARTER OF SECTION 33-35-40 HAVING A BEARING OF NORTH 00°27'11" EAST. N.G.S. CONTROL MONUMENTS Y403, STL4 AND GCY WERE USED TO DETERMINE THIS BEARING.
6. TREE TYPES LISTED TO THE BEST OF OUR ABILITY. FOR A MORE EXACT SPECIES DETERMINATION, A BOTANIST OR SIMILAR PROFESSIONAL SHOULD BE CONSULTED.
7. THIS SURVEY IS CERTIFIED TO:
   A. 4101 OLEANDER GROUP LLC
   B. LAW OFFICES OF DAVID DUEBELLI, P.A.
   C. OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
   D. AVJ DEVELOPMENT LLC, ISAOA/ATIMA

## LEGEND

- GUY ANCHOR WIRE
- WOOD UTILITY POLE
- CABLE TV BOX
- FENCE
- OVERHEAD POWER LINES
- SIGN
- TREE
- ELECTRIC SERVICE

## TREE LIST

| | | |
|---|---|---|
| 41 | 18" | CABBAGE PALM |
| 42 | 14" | CABBAGE PALM |
| 43 | 16" | CABBAGE PALM |
| 52 | 56" | LIVE OAK |
| 53 | 36" | LIVE OAK |
| 54 | 42" | LIVE OAK |
| 55 | 16" | CABBAGE PALM |
| 56 | 20" | CABBAGE PALM |
| 57 | 16" | CABBAGE PALM |
| 58 | 8" | LIVE OAK |
| 59 | 18" | CABBAGE PALM |
| 60 | 42" | LIVE OAK |
| 61 | 44" | LIVE OAK |
| 62 | 54" | LIVE OAK |
| 63 | 30" | LAUREL OAK |
| 64 | 18" | CABBAGE PALM |
| 65 | 18" | CABBAGE PALM |
| 66 | 36" | LIVE OAK |
| 67 | 36" | LIVE OAK |
| 68 | 8" | QUEEN PALM |
| 69 | 8" | QUEEN PALM |
| 70 | 42" | LIVE OAK |
| 71 | 24" | LIVE OAK |
| 72 | 56" | LIVE OAK |
| 73 | 26" | LIVE OAK |
| 75 | 46" | LIVE OAK |
| 76 | (2)20" | LIVE OAK |
| 77 | 48" | LIVE OAK |
| 78 | 24" | LIVE OAK |
| 79 | 24" | LIVE OAK |
| 81 | 30" | LIVE OAK |
| 82 | 16" | CABBAGE PALM |
| 83 | 16" | CABBAGE PALM |
| 84 | 16" | CABBAGE PALM |
| 85 | (2)24" | LIVE OAK |
| 86 | 20" | CABBAGE PALM |
| 87 | 26" | LIVE OAK |
| 89 | 64" | ROYAL POINCIANA |
| 90 | 30" | ROYAL POINCIANA |
| 91 | 20" | LIVE OAK |
| 92 | (2)18" | CABBAGE PALM |
| 94 | 48" | LIVE OAK |
| 95 | 20" | CABBAGE PALM |
| 96 | 46" | LIVE OAK |

## FLOOD INFORMATION

| | | |
|---|---|---|
| COMMUNITY NUMBER | : | 120286 |
| PANEL NUMBER | : | 12111C0189K |
| DATE OF FIRM | : | FEBRUARY 19, 2020 |
| ZONE | : | X |

## ABBREVIATIONS

| | | |
|---|---|---|
| L | - | ARC |
| ASPH | - | ASPHALT |
| C | - | CALCULATED |
| C&G | - | CURB & GUTTER |
| C.L.F. | - | CHAIN LINK FENCE |
| CONC. | - | CONCRETE |
| COR. | - | CORNER |
| C.U.P. | - | CONCRETE UTILITY POLE |
| D | - | DELTA (CENTRAL ANGLE) |
| D.E. | - | DRAINAGE EASEMENT |
| I.R. | - | IRON ROD |
| I.R.C. | - | IRON ROD AND CAP |
| L.B. | - | LICENSED BUSINESS |
| L.S. | - | LICENSED SURVEYOR |
| L.W.D.D. | - | LAKE WORTH DRAINAGE DISTRICT |
| MON. | - | MONUMENT |
| O.R.B. | - | OFFICIAL RECORDS BOOK |
| P.B. | - | PLAT BOOK |
| S.L.C.R. | - | ST. LUCIE COUNTY RECORDS |
| PG. | - | PAGE |
| P.S.M. | - | PROFESSIONAL SURVEYOR & MAPPER |
| U.E. | - | UTILITY EASEMENT |
| W.F. | - | WOOD FENCE |
| W.U.P. | - | WOOD UTILITY POLE |
| IP | - | IRON PIPE |
| RES | - | RESIDENCE |
| (C) | - | CALCULATED |
| (P) | - | PLAT |
| (M) | - | MEASURED |
| R/W | - | RIGHT-OF-WAY |

## SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON COMPLIES WITH STANDARDS OF PRACTICE FOR SURVEYS AS CONTAINED IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES, AND THAT SAID SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS SURVEYED UNDER MY DIRECTION.

_____
JEFF S. HODAPP
SURVEYOR AND MAPPER
FLORIDA LICENCE NO. LS5111

LAST DATE OF FIELD WORK : FEBRUARY 28, 2023

PERIMETER
SURVEYING & MAPPING
947 Clint Moore Road
Boca Raton, Florida
33487
Certificate of Authorization No. LB7264
Tel: (561) 241-9988
Fax: (561) 241-5182

# 4101 OLEANDER AVENUE
# FT. PIERCE, FL

## BOUNDARY, TOPOGRAPHIC AND TREE SURVEY

| NO. | DATE | BY | CK'D | REVISIONS: | FB/PG |
|---|---|---|---|---|---|
| 1 | 4/25/06 | JSH | | BOUNDARY, TREE & TOPOGRAPHIC SURVEY | |
| 2 | 6/5/06 | JSH | | RECERTIFY | |
| 3 | 6/5/06 | JSH | | RECERTIFY | |
| 4 | 2/28/23 | JSH | AJR | UPDATE BOUNDARY, TREE & TOPOGRAPHIC SURVEY | |
| 5 | | | | | |
| 6 | | | | | |

SEAL

JOB NO. 06122
SCALE 1"=40'
FB/PG AT/1
DRAWN JSH
CHECKED JS

SHEET 1 OF 1

SIMMONS & WHITE
2581 Metrocentre Blvd West, Suite 3, West Palm Beach, Florida 33407
O 561.478.7848 | F 561.478.3738 www.simmonsandwhite.com
Certificate of Authorization Number 3452

SIMMONS & WHITE
ENGINEERING | PLANNING | CONSULTING | SINCE 1982

# TRAFFIC IMPACT STATEMENT

## 4101 OLEANDER AVENUE MULTIFAMILY
## FORT PIERCE, FLORIDA

**Prepared for:**

4101 Oleander Group
17555 Collins Avenue
Apt. 2006
Sunny Isles, FL 33160

Job No. 23-103

Date: August 10, 2023

Bryan G. Kelley, P.E.
FL Reg. No. 74006

Bryan G. Kelley, P.E., State of Florida, Professional Engineer, License No. 74006

This item has been digitally signed and sealed by Bryan G. Kelley, P.E. on 08/10/2023 .

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

# TABLE OF CONTENTS

**1.0 SITE DATA. ..... 3**

**2.0 TRAFFIC GENERATION ..... 3**

**3.0 TRAFFIC ANALYSIS ..... 4**

**4.0 CONCLUSION ..... 4**

## 1.0 SITE DATA

The subject parcel is located on the west side of Oleander Avenue north of Midway Road and contains approximately 2.58 acres. The proposed plan of development includes 32 multifamily dwelling units with an estimated build out year of 2028. The purpose of this traffic impact statement is to address the traffic impacts of the proposed development plan. Access to the site is proposed via a full driveway connection to Oleander Avenue. A site location map depicting the location of the project is attached to the report. For more information concerning site layout and geometry, please refer to the Site Plan prepared by MBV Engineering, Inc.

## 2.0 TRAFFIC GENERATION

The traffic to be generated by the proposed development is calculated in accordance with the rates provided in the ITE Trip Generation Manual, 10th Edition as shown on Table 1, Table 2, and Table 3 attached with this report. Table 1 shows the daily traffic generation associated with the proposed use. Tables 2 and 3 show the A.M. and P.M. peak hour traffic generation, respectively. The traffic generation associated with the proposed 32 multifamily dwelling units may be summarized as follows:

**Proposed Development**

| | | |
|---|---|---|
| Daily Traffic Generation | = | 145 tpd |
| A.M. Peak Hour Traffic Generation | = | 12 pht (3 In/9 Out) |
| P.M. Peak Hour Traffic Generation | = | 12 pht (7 In/5 Out) |

## 3.0 TRAFFIC ANALYSIS

**Roadway Link Analysis**

Figure 2 attached to the report depicts the estimated trip distribution for the proposed development. Based on City Code Section 105-5 and the trip generation of 12 peak hour trips, the radius of development shall be 1 mile.

Tables 4 and 5 calculate the project's significance for each of the roadway segments within the radius of influence for the A.M. and P.M. peak hours, respectively. The project was considered to have an insignificant impact if the project trips represented less than 1.0% of the LOS D volume threshold for each roadway segment. As shown in Tables 4 and 5, the impact to all roadway segments was considered insignificant and therefore no further traffic analysis is required.

**Driveway Volumes**

The AM and PM peak hour volumes at the project entrances for the overall development with no reduction for pass by credits are shown in Tables 2 and 3 and may be summarized as follows:

**DIRECTIONAL DISTRIBUTION (TRIPS IN/OUT)**

| | |
|---|---|
| AM = | 3 / 9 |
| PM = | 7 / 5 |

As previously mentioned, site access is proposed via a full access driveway connection to Oleander Avenue. Due to the minimal traffic volumes as shown in Figure 3, no turn lanes are warranted or recommended.

## 4.0 CONCLUSION

The proposed plan of development will result in an increase of 145 trips per day, 12 AM peak hour trips, and 12 PM peak hour trips at project build out in 2028. A review of the traffic data revealed the project will have an insignificant impact to the surrounding roadway network and meets the requirements outlined in City Code Section 105-5 (Management and monitoring program).

Figure 1 – Site Location Map
4101 Oleander Avenue
Project # 23-103

SIMMONS & WHITE

# 4101 OLEANDER AVENUE

08/08/2023

## PROPOSED DEVELOPMENT

### TABLE 1 - Daily Traffic Generation

| Landuse | ITE Code | Intensity | | Rate/Equation | Dir Split In | Dir Split Out | Gross Trips | Internalization % | Internalization Total | External Trips | Pass-by % | Pass-by Trips | Net Trips |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multifamily Mid-Rise Housing 4-10 stories (Apartment/Condo/TH) | 221 | 32 | Dwelling Units | 4.54 | | | 145 | 0.0% | 0 | 145 | 0% | 0 | 145 |
| | | | **Grand Totals:** | | | | **145** | **0.0%** | **0** | **145** | **0%** | **0** | **145** |

### TABLE 2 - AM Peak Hour Traffic Generation

| Landuse | ITE Code | Intensity | | Rate/Equation | Dir Split In | Dir Split Out | Gross Trips In | Gross Trips Out | Gross Trips Total | Internalization % | Internalization In | Internalization Out | Internalization Total | External Trips In | External Trips Out | External Trips Total | Pass-by % | Pass-by Trips | Net Trips In | Net Trips Out | Net Trips Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multifamily Mid-Rise Housing 4-10 stories (Apartment/Condo/TH) | 221 | 32 | Dwelling Units | 0.37 | 0.23 | 0.77 | 3 | 9 | 12 | 0.0% | 0 | 0 | 0 | 3 | 9 | 12 | 0% | 0 | 3 | 9 | 12 |
| | | | **Grand Totals:** | | | | **3** | **9** | **12** | **0.0%** | **0** | **0** | **0** | **3** | **9** | **12** | **0%** | **0** | **3** | **9** | **12** |

### TABLE 3 - PM Peak Hour Traffic Generation

| Landuse | ITE Code | Intensity | | Rate/Equation | Dir Split In | Dir Split Out | Gross Trips In | Gross Trips Out | Gross Trips Total | Internalization % | Internalization In | Internalization Out | Internalization Total | External Trips In | External Trips Out | External Trips Total | Pass-by % | Pass-by Trips | Net Trips In | Net Trips Out | Net Trips Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multifamily Mid-Rise Housing 4-10 stories (Apartment/Condo/TH) | 221 | 32 | Dwelling Units | 0.39 | 0.61 | 0.39 | 7 | 5 | 12 | 0.0% | 0 | 0 | 0 | 7 | 5 | 12 | 0% | 0 | 7 | 5 | 12 |
| | | | **Grand Totals:** | | | | **7** | **5** | **12** | **0.0%** | **0** | **0** | **0** | **7** | **5** | **12** | **0%** | **0** | **7** | **5** | **12** |



SIMMONS & WHITE

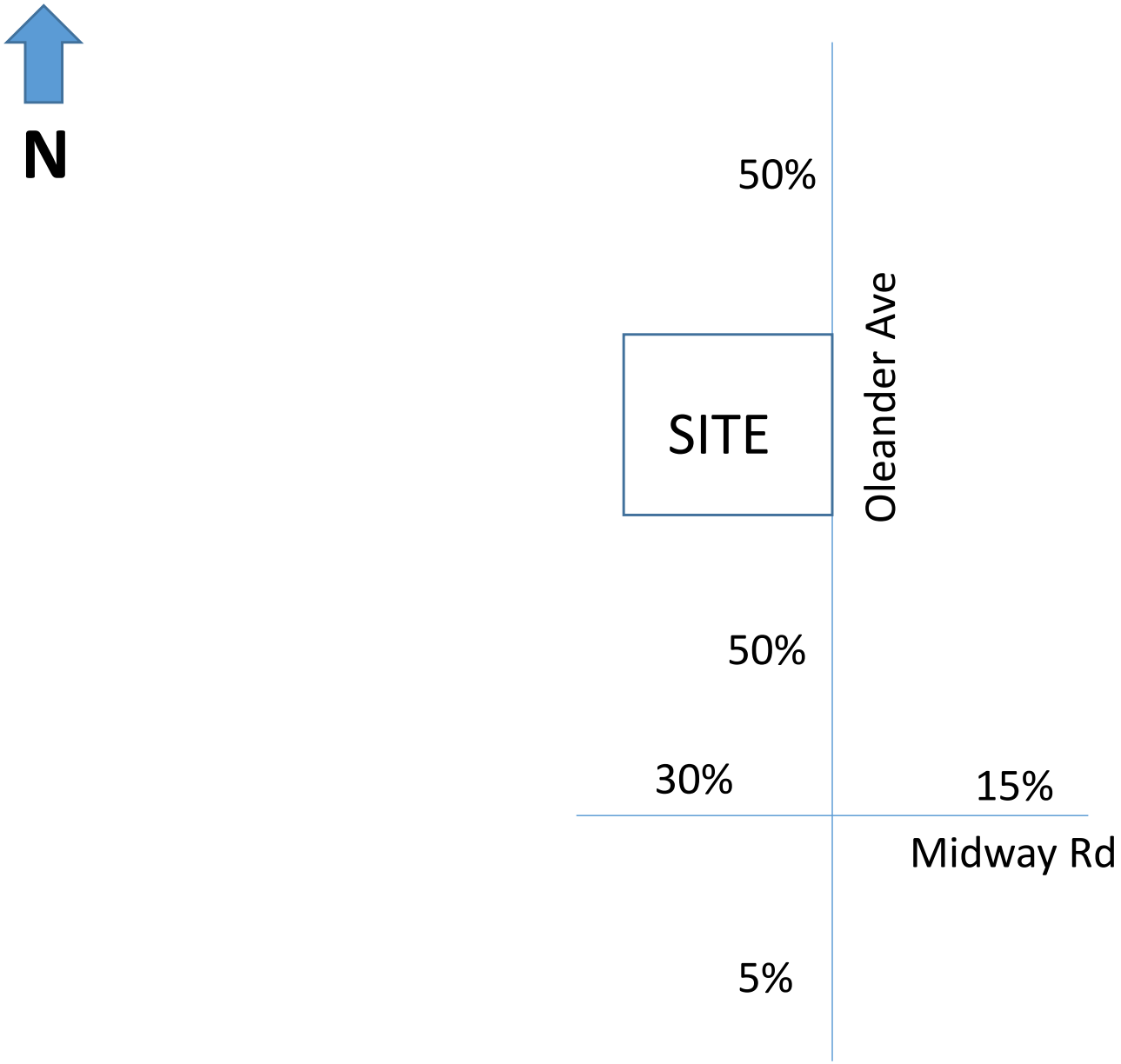



Figure 2 – Trip Distribution
4101 Oleander Avenue
Project # 23-103

SIMMONS & WHITE

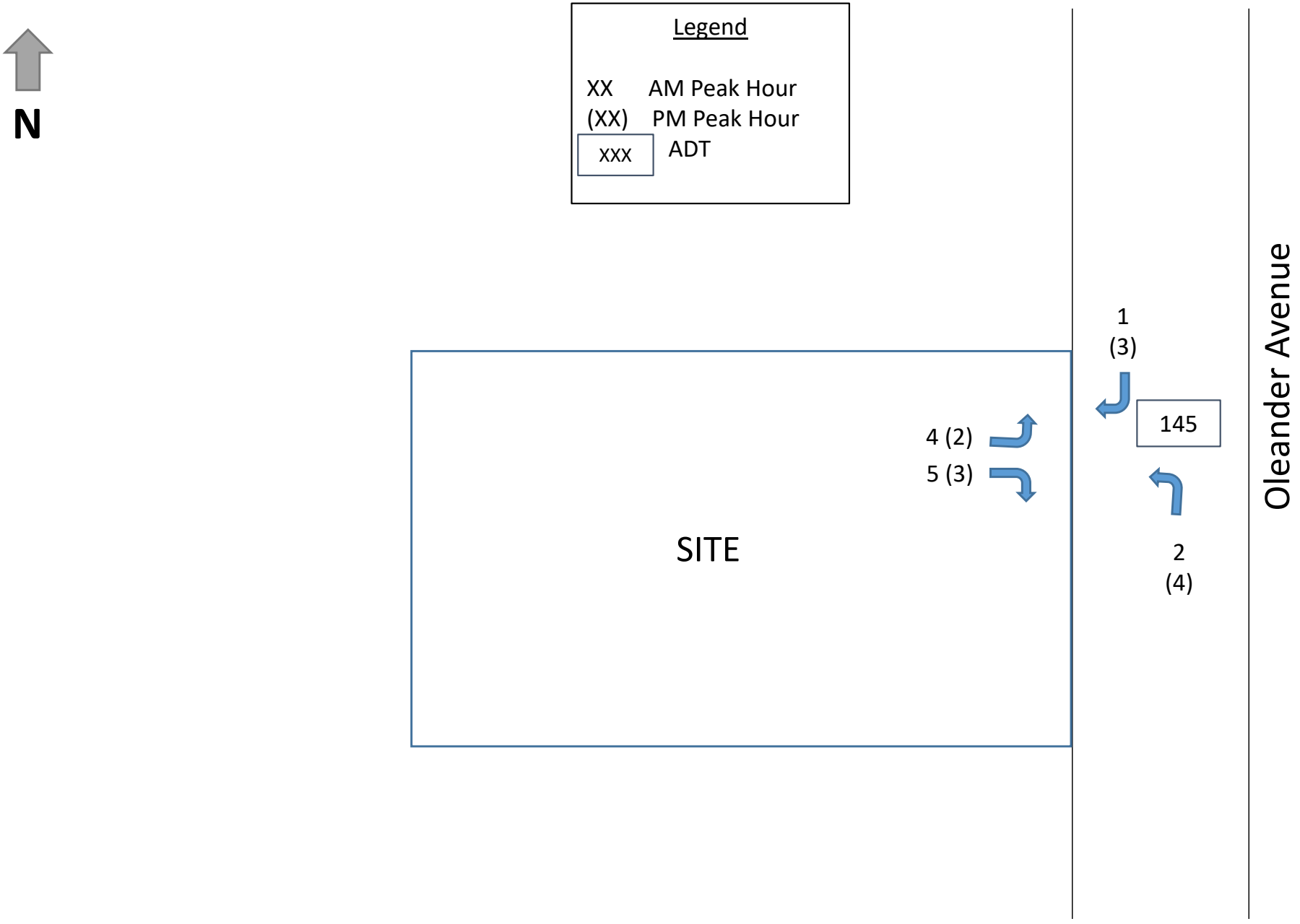



Figure 3 – Driveway Volumes
4101 Oleander Avenue
Project # 23-103

SIMMONS & WHITE

# TABLE 4

## PROJECT SIGNIFICANCE CALCULATION
## AM PEAK HOUR

**2028 BUILD OUT**
**TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERI3**
**TOTAL AM PEAK HOUR PROJECT TRIPS (EXITIN(9**

| ROADWAY | FROM | TO | PROJECT DISTRIBUTION | AM PEAK HOUR DIRECTIONAL PROJECT TRIPS | EXISTING LANES | LOS D STANDARD | TOTAL PROJECT IMPACT | PROJECT SIGNIFICANT |
|---|---|---|---|---|---|---|---|---|
| OLEANDER AVENUE | BEACH AVENUE | KITTERMAN ROAD | 5% | 0 | 2 | 540 | 0.00% | NO |
| OLEANDER AVENUE | KITTERMAN ROAD | MIDWAY ROAD | 5% | 0 | 2 | 750 | 0.00% | NO |
| OLEANDER AVENUE | MIDWAY ROAD | WEATHERBEE ROAD | 50% | 5 | 2 | 750 | 0.67% | NO |
| OLEANDER AVENUE | WEATHERBEE ROAD | SITE | 50% | 5 | 2 | 540 | 0.93% | NO |
| OLEANDER AVENUE | SITE | BELL AVENUE | 50% | 5 | 2 | 540 | 0.93% | NO |
| OLEANDER AVENUE | BELL AVENUE | FARMERS MARKET ROAD | 50% | 5 | 2 | 540 | 0.93% | NO |
| OLEANDER AVENUE | FARMERS MARKET ROAD | EDWARDS ROAD | 50% | 5 | 2 | 750 | 0.67% | NO |
| | | | | | | | | |
| MIDWAY ROAD | SUNRISE BOULEVARD | OLEANDER AVENUE | 30% | 3 | 4D | 2100 | 0.14% | NO |
| MIDWAY ROAD | OLEANDER AVENUE | US-1 | 15% | 1 | 4D | 2100 | 0.05% | NO |



SIMMONS&WHITE

# TABLE 5
## PROJECT SIGNIFICANCE CALCULATION
## AM PEAK HOUR

**2028 BUILD OUT**
**TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERIN 7**
**TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) 5**

| ROADWAY | FROM | TO | PROJECT DISTRIBUTION | PM PEAK HOUR DIRECTIONAL PROJECT TRIPS | EXISTING LANES | LOS D STANDARD | TOTAL PROJECT IMPACT | PROJECT SIGNIFICANT |
|---|---|---|---|---|---|---|---|---|
| OLEANDER AVENUE | BEACH AVENUE | KITTERMAN ROAD | 5% | 0 | 2 | 540 | 0.00% | NO |
| OLEANDER AVENUE | KITTERMAN ROAD | MIDWAY ROAD | 5% | 0 | 2 | 750 | 0.00% | NO |
| OLEANDER AVENUE | MIDWAY ROAD | WEATHERBEE ROAD | 50% | 4 | 2 | 750 | 0.53% | NO |
| OLEANDER AVENUE | WEATHERBEE ROAD | SITE | 50% | 4 | 2 | 540 | 0.74% | NO |
| OLEANDER AVENUE | SITE | BELL AVENUE | 50% | 4 | 2 | 540 | 0.74% | NO |
| OLEANDER AVENUE | BELL AVENUE | FARMERS MARKET ROAD | 50% | 4 | 2 | 540 | 0.74% | NO |
| OLEANDER AVENUE | FARMERS MARKET ROAD | EDWARDS ROAD | 50% | 4 | 2 | 750 | 0.53% | NO |
| | | | | | | | | |
| MIDWAY ROAD | SUNRISE BOULEVARD | OLEANDER AVENUE | 30% | 2 | 4D | 2100 | 0.10% | NO |
| MIDWAY ROAD | OLEANDER AVENUE | US-1 | 15% | 1 | 4D | 2100 | 0.05% | NO |



SIMMONS & WHITE

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

# Traffic Counts and Level of Service Report
# 2023

| Roadway Name | Location | AADT | Pk Hr Service Capacity | AM Pk Hr Pk Dir | | | PM Pk Hr Pk Dir | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Volume | LOS | V/C | Volume | LOS | V/C |
| OKEECHOBEE RD | FLORIDA'S TURNPIKE to KINGS HWY | 9,733 | 2,100 | 490 | C | 0.23 | 490 | C | 0.23 |
| OKEECHOBEE RD | KINGS HWY to CROSSROADS PKWY | 23,734 | 4,240 | 1,195 | C | 0.28 | 1,195 | C | 0.28 |
| OKEECHOBEE RD | CROSSROADS PKWY to I-95 | 26,375 | 4,240 | 1,327 | C | 0.31 | 1,327 | C | 0.31 |
| OKEECHOBEE RD | I-95 to JENKINS RD | 32,142 | 4,240 | 1,569 | C | 0.37 | 1,569 | C | 0.37 |
| OKEECHOBEE RD | JENKINS RD to MCNEIL RD | 32,142 | 4,040 | 1,569 | C | 0.39 | 1,569 | C | 0.39 |
| OKEECHOBEE RD | MCNEIL RD to VIRGINIA AVE | 31,230 | 3,170 | 1,524 | C | 0.48 | 1,524 | C | 0.48 |
| OKEECHOBEE RD | VIRGINIA AVE to HARTMAN RD | 15,500 | 2,100 | 802 | C | 0.38 | 791 | C | 0.38 |
| OKEECHOBEE RD | HARTMAN RD to 35TH ST | 15,500 | 1,630 | 802 | D | 0.49 | 791 | D | 0.49 |
| OKEECHOBEE RD | 35TH ST to 33RD ST | 16,500 | 1,630 | 859 | D | 0.53 | 822 | D | 0.50 |
| OKEECHOBEE RD | 33RD ST to 25TH ST | 16,500 | 1,630 | 859 | D | 0.53 | 822 | D | 0.50 |
| OKEECHOBEE RD | 25TH ST to GEORGIA AVE | 12,000 | 1,630 | 695 | C | 0.43 | 616 | C | 0.38 |
| OKEECHOBEE RD | GEORGIA AVE to DELAWARE AVE | 12,000 | 1,710 | 695 | C | 0.41 | 616 | C | 0.36 |
| OLD DIXIE HWY | US 1 to SR A1A NORTH | 830 | 790 | 129 | C | 0.16 | 123 | C | 0.16 |
| OLD DIXIE HWY | SR A1A NORTH to ST LUCIE BLVD | 1,753 | 750 | 82 | C | 0.11 | 82 | C | 0.11 |
| OLD DIXIE HWY | ST LUCIE BLVD to INDRIO RD | 2,125 | 790 | 172 | C | 0.22 | 126 | C | 0.16 |
| OLD DIXIE HWY | INDRIO RD to INDIAN RIVER C.L. | 1,340 | 870 | 63 | C | 0.07 | 63 | C | 0.07 |
| OLEANDER AVE | BEACH AVE to KITTERMAN RD | 2,970 | 540 | 172 | C | 0.32 | 194 | C | 0.36 |
| OLEANDER AVE | KITTERMAN RD to MIDWAY RD | 6,162 | 750 | 358 | C | 0.48 | 358 | C | 0.48 |
| OLEANDER AVE | MIDWAY RD to WEATHERBEE RD | 6,400 | 750 | 362 | C | 0.48 | 365 | C | 0.49 |
| OLEANDER AVE | WEATHERBEE RD to BELL AVE | 6,400 | 540 | 362 | D | 0.67 | 365 | D | 0.68 |
| OLEANDER AVE | BELL AVE to FARMER'S MARKET RD | 12,703 | 540 | 613 | F | 1.14 | 581 | F | 1.08 |
| OLEANDER AVE | FARMER'S MARKET RD to EDWARDS RD | 12,703 | 750 | 613 | D | 0.82 | 581 | D | 0.78 |
| OLEANDER AVE | EDWARDS RD to WISTERIA AVE | 9,907 | 750 | 601 | D | 0.80 | 500 | D | 0.67 |
| OLEANDER AVE | WISTERIA AVE to GARDENIA AVE | 9,907 | 540 | 601 | F | 1.11 | 500 | D | 0.93 |
| OLEANDER AVE | GARDENIA AVE to VIRGINIA AVE | 9,907 | 790 | 601 | D | 0.76 | 500 | D | 0.63 |
| OLEANDER AVE | VIRGINIA AVE to SUNRISE BLVD | 5,500 | 600 | 309 | D | 0.52 | 320 | D | 0.53 |
| ORANGE AVE | OKEECHOBEE C.L. to SNEED RD | 5,195 | 670 | 303 | C | 0.45 | 289 | C | 0.43 |
| ORANGE AVE | SNEED RD to HEADER CANAL RD | 5,195 | 670 | 303 | C | 0.45 | 289 | C | 0.43 |
| ORANGE AVE | HEADER CANAL RD to SHINN RD | 5,195 | 670 | 303 | C | 0.45 | 289 | C | 0.43 |

* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

# Traffic Counts and Level of Service Report
# 2023

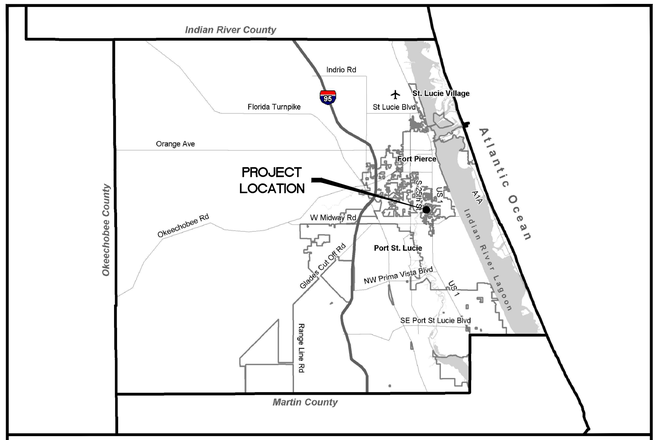
| Roadway Name | Location | AADT | Pk Hr Service Capacity | AM Pk Hr Pk Dir | | | PM Pk Hr Pk Dir | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Volume | LOS | V/C | Volume | LOS | V/C |
| MIDWAY RD | OKEECHOBEE RD to SHINN RD | 6,581 | 760 | 331 | C | 0.44 | 331 | C | 0.44 |
| MIDWAY RD | SHINN RD to MCCARTY RD | 6,581 | 630 | 331 | C | 0.53 | 331 | C | 0.53 |
| MIDWAY RD | MCCARTY RD to I-95 | 6,581 | 700 | 331 | C | 0.47 | 331 | C | 0.47 |
| MIDWAY RD | I-95 to GLADES CUT-OFF RD | 20,913 | 2,100 | 1,021 | C | 0.49 | 1,021 | C | 0.49 |
| MIDWAY RD | GLADES CUT-OFF RD to EAST TORINO PKWY | 23,000 | 2,100 | 1,190 | C | 0.57 | 1,256 | C | 0.60 |
| MIDWAY RD | W OF SELVITZ RD to SELVITZ RD | 25,000 | 2,100 | 1,245 | C | 0.59 | 1,298 | C | 0.62 |
| MIDWAY RD | SELVITZ RD to CHRISTENSEN RD | 23,000 | 2,100 | 1,176 | C | 0.56 | 1,166 | C | 0.56 |
| MIDWAY RD | CHRISTENSEN RD to 25TH ST | 23,000 | 2,100 | 1,176 | C | 0.56 | 1,166 | C | 0.56 |
| MIDWAY RD | 25TH ST to SUNRISE BLVD | 23,000 | 2,100 | 1,245 | C | 0.59 | 1,147 | C | 0.55 |
| MIDWAY RD | SUNRISE BLVD to OLEANDER AVE | 23,000 | 2,100 | 1,245 | C | 0.59 | 1,147 | C | 0.55 |
| MIDWAY RD | OLEANDER AVE to US 1 | 20,000 | 2,100 | 1,011 | C | 0.48 | 974 | C | 0.46 |
| MIDWAY RD | US 1 to WALLACE ST | 3,690 | 790 | 183 | C | 0.23 | 183 | C | 0.23 |
| MIDWAY RD | WALLACE ST to WEATHERBEE RD | 3,690 | 920 | 183 | C | 0.20 | 183 | C | 0.20 |
| MIDWAY RD | WEATHERBEE RD to INDIAN RIVER DR | 3,690 | 630 | 183 | C | 0.29 | 183 | C | 0.29 |
| MORNINGSIDE BLVD | WESTMORELAND BLVD to PORT ST LUCIE BLVD | 2,289 | 920 | 123 | C | 0.13 | 123 | C | 0.13 |
| MORNINGSIDE BLVD | PORT ST LUCIE BLVD to LYNGATE DR | 3,728 | 880 | 296 | C | 0.34 | 314 | C | 0.36 |
| NEBRASKA AVE | 25TH ST to 13TH ST | 3,752 | 1,710 | 249 | C | 0.15 | 192 | C | 0.11 |
| OAKRIDGE DR | MOUNTWELL ST to OAKLYN ST | 7,113 | 700 | 442 | C | 0.63 | 385 | C | 0.55 |
| OHIO AVE | SUNRISE BLVD to COLONIAL RD | 3,875 | 540 | 205 | C | 0.38 | 227 | C | 0.42 |
| OHIO AVE | COLONIAL RD to US 1 | 3,875 | 750 | 205 | C | 0.27 | 227 | C | 0.30 |
| OKEECHOBEE RD | OKEECHOBEE C.L. to BLUEFIELD RD | 11,835 | 1,580 | 618 | B | 0.39 | 665 | B | 0.42 |
| OKEECHOBEE RD | BLUEFIELD RD to CARLTON RD | 11,835 | 2,000 | 618 | B | 0.31 | 665 | B | 0.33 |
| OKEECHOBEE RD | CARLTON RD to SNEED RD | 8,931 | 2,100 | 449 | B | 0.21 | 449 | B | 0.21 |
| OKEECHOBEE RD | IDEAL HOLDING RD to HEADER CANAL RD | 8,931 | 2,100 | 449 | B | 0.21 | 449 | B | 0.21 |
| OKEECHOBEE RD | SNEED RD to IDEAL HOLDING RD | 8,931 | 2,100 | 449 | B | 0.21 | 449 | B | 0.21 |
| OKEECHOBEE RD | HEADER CANAL RD to MIDWAY RD | 8,931 | 2,450 | 449 | B | 0.18 | 449 | B | 0.18 |
| OKEECHOBEE RD | MIDWAY RD to SHINN RD | 8,931 | 3,110 | 449 | B | 0.14 | 449 | B | 0.14 |
| OKEECHOBEE RD | SHINN RD to MCCARTY RD | 7,079 | 3,240 | 335 | B | 0.10 | 335 | B | 0.10 |
| OKEECHOBEE RD | MCCARTY RD to FLORIDA'S TURNPIKE | 9,733 | 3,240 | 490 | B | 0.15 | 490 | B | 0.15 |

* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic

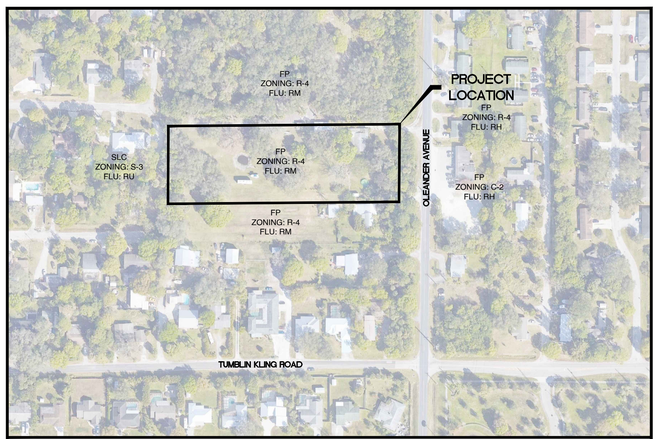
# MARGARETA VILLAS
# MULTI-FAMILY

## SECTION 33, TOWNSHIP 35S, RANGE 40E
## CITY OF FORT PIERCE, FLORIDA

SEPTEMBER 2023




LOCATION MAP




VICINITY MAP

## OWNER

4101 OLEANDER GROUP, LLC
17555 COLLINS AVENUE, APT. 2006
SUNNY ISLES, FLORIDA 33160
PH: (305) 337-0183

## APPLICANT

MR. GEZA SZINI-SEBO
ABANDEL GROUP, LTD.
51 WIGTON PLACE
THORNHILL, ON, CANADA L4J8C6
PH: (305) 337-0183

## 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

## SURVEYOR

PERIMETER SURVEYING & MAPPING
947 CLINT MOORE ROAD
BOCA RATON, FLORIDA 33487
PH: (561) 241-9988

## ARCHITECT

STAFFAN H. LUNDBERG
1341 SEA HAWK LANE
VERO BEACH, FLORIDA 32963
PH: (772) 538-5130

## INDEX OF DRAWINGS


| | |
|---|---|
| C1 | COVER SHEET |
| C2 | GENERAL NOTES |
| C3 | EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN |
| C4 | SITE AND UTILITY PLAN |
| C5 | PAVING, GRADING AND DRAINAGE PLAN |
| C6 | CROSS SECTIONS |
| C7 | GENERAL DETAILS |
| C8 | WATER AND SEWER DETAILS |
| C9 | EROSION CONTROL DETAILS |


## LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY. SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's **below.**
**Call** before you dig.

AARON J. BOWLES
LICENSE
No. 55313
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

AARON J. BOWLES
FL. P.E. #55313

DATE: 1/31/24

PROJECT: 23-0060

SHEET
C1

This item has been digitally signed & sealed by Aaron Bowles, P.E. on the date adjacent to the seal.

Printed copies of this document are not considered signed & sealed and the signature must be verified on any electronic copies.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 COVER - DETAILS.dwg 1/31/2024 10:15 AM
GREGG REED

## PRE-CONSTRUCTION REQUIREMENTS:

1. THE CONTRACTOR IS REQUIRED TO PERFORM HIS WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE VARIOUS PERMITS WHICH WILL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.
2. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE (SEQUENCE OF OPERATIONS) PRIOR TO THE PRE-CONSTRUCTION MEETING.
3. CONTRACTOR WILL ATTEND A PRE-CONSTRUCTION MEETING WITH THE DESIGN ENGINEER, MUNICIPALITY AND/ OR OWNER PRIOR TO LAND DISTURBANCE.
4. SHOP DRAWINGS SHALL BE SUBMITTED BEFORE ORDERING MATERIAL FOR PLANNED PROJECT. CORRESPONDING SHALL BE BETWEEN THE DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

## CONSTRUCTION NOTES:

1. THE CONTRACTOR IS ADVISED TO THOROUGHLY REVIEW THIS PLAN PACKAGE SO AS TO BE TOTALLY PREPARED TO PRESENT HIS BID PRICES IN THE CONTRACT DOCUMENTS. THE PLAN PACKAGE SUFFICIENTLY DELINEATES THE SCOPE AND INTENT OF THE ROADWAY WORK TO BE ACCOMPLISHED. IT WILL, THEREFORE, BE INCUMBENT ON THE CONTRACTOR TO ADJUST HIS FEE DOLLARS TO REFLECT ANY AND ALL ITEMS WHICH MAY NOT BE CLEARLY OUTLINED OR THOSE ITEMS WHICH MAY NOT BE INDICATED BUT WHICH ARE NECESSARY FOR THE SUCCESSFUL COMPLETION OF THIS PROJECT WITHOUT ADDITIONAL COSTS TO THE OWNER.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF FORT PIERCE AND FDOT STANDARDS AND SPECIFICATIONS.
3. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND IS RESPONSIBLE FOR THE COORDINATION OF UTILITY RELOCATION.
4. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN THE FIELD WITH UTILITY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION, AS REQUIRED BY THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT. NOTIFY SUNSHINE AT 811.
6. CONTRACTOR SHALL TAKE EXTREME CAUTION WHEN EXCAVATING NEARBY EXISTING UTILITIES.
7. CONTRACTOR SHALL INFORM ENGINEER OF ANY CONFLICT BEFORE ANY FURTHER WORK IS COMPLETED.
8. UTILITIES ARE TO BE ADJUSTED BY UTILITY OWNER OR AS DIRECTED BY THE ENGINEER.
9. SURFACE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INQUIRE OF THE ENGINEER IF ADDITIONAL INFORMATION IS AVAILABLE, TO MAKE ARRANGEMENTS TO REVIEW SAME PRIOR TO BIDDING, AND IS TO MAKE HIS OWN DETERMINATION AS TO ALL SUBSURFACE CONDITIONS.
10. CONTRACTOR SHALL NOTIFY THE ENGINEER IF SOIL OR SUBSURFACE CONDITIONS UNSUITABLE FOR CONSTRUCTION ARE ENCOUNTERED.
11. ALL EXCAVATED SOILS DEEMED SUITABLE AS FILL MATERIAL AS DETERMINED BY THE ENGINEER SHALL BE UTILIZED ON SITE BY THE CONTRACTOR AT HIS OWN EXPENSE. THE EXACT LOCATION OF DELIVERY ON SITE SHALL BE DETERMINED BY THE ENGINEER. ALL EXCAVATED SOILS DEEMED UNSUITABLE SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.
12. ITEM IN CONFLICT WITH DESIGN SUCH AS EXISTING CURBS AND GUTTERS, SIDEWALKS, DRAINAGE STRUCTURES, PAVEMENT AND EXCESS EXCAVATIONS ARE TO BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A LEGAL AND PROPER MANNER AWAY FROM THE JOB SITE AT HIS OWN EXPENSE.
13. CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR CONSTRUCTION.
14. IT SHOULD BE NOTED THAT THE OCCUPATIONAL SAFETY AND HEALTH ACT PROHIBITS THE OPERATING OF EQUIPMENT OR MACHINES CLOSER THAN TEN (10) FEET TO ENERGIZED ELECTRIC LINES RATES AT FIFTY KILOVOLTS OR BELOW. ALSO, NO EXCAVATION IS PERMITTED WITHIN FIVE (5) FEET OF POWER POLE FACILITIES.
15. ALL IRONS AND MONUMENTS (P.R.M.'S) SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
16. ANY PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED, THE CONTRACTOR WILL NOTIFY THE ENGINEER.
17. ALL EXISTING TREES WITHIN THE RIGHT OF WAY ARE TO BE REMOVED AS CLEARING AND GRUBBING UNLESS OTHERWISE NOTED.
18. WHEN REFERENCED TO, FDOT REFERS TO FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS,CURRENT EDITION.
19. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO A CONDITION EQUAL TO, OR BETTER THAN THAT WHICH IS NOW EXISTING.
20. BACKFILL, GRADE AND SOD AS REQUIRED AROUND ALL NEW CONSTRUCTION AND ALL DEVELOPED LOTS TO PREVENT EROSION. SEED AND MULCH WILL ONLY BE ALLOWED TO RESTORE UNDEVELOPED LOTS AFFECTED BY CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
21. SODDING TO BE USED AT LOCATIONS AS DIRECTED BY THE ENGINEER. SOD ALL DISTURBED AREAS UPON COMPLETION.
22. ALL EXCESS CONSTRUCTION MATERIAL AND WASTE TO BE HAULED OFF-SITE AND DISPOSED OF PROPERLY AT CONTRACTOR'S EXPENSE.
23. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH FDOT STANDARDS FOR TRAFFIC CONTROL THROUGH WORK ZONES AND MUTCD (PART VI).
24. PROPERTY OWNERS AND BUSINESSES WITHIN THE AREA OF CONSTRUCTION SHALL BE GIVEN ACCESS TO THEIR PROPERTY AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.
25. ALL MAILBOXES SHALL BE RELOCATED BY THE CONTRACTOR AS DIRECTED BY THE U.S. POSTAL MAIL CARRIER.
26. THE CONTRACTOR SHALL REMOVE, COVER OR OBLITERATE EXISTING ROADWAY SIGN AND PAVEMENT MARKINGS THAT CONFLICT WITH THE CONSTRUCTION TRAFFIC CONTROL PLANS.
27. CONTRACTOR TO PROTECT ALL SPRINKLER HEADS NOT IN CONFLICT WITH DESIGN AND RELOCATE ALL THOSE WHICH ARE IN CONFLICT TO A LOCATION DETERMINED IN FIELD.
28. SOD TWO (2) FEET MINIMUM ALONG SIDE PROPOSED EDGE OF PAVEMENT.
29. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY DRAINAGE MEASURES AS REQUIRED TO ADEQUATELY DRAIN THE PROJECT AND ANY TEMPORARILY TRAVELED ROADWAYS. TEMPORARY DRAINAGE DESIGN, CONSTRUCTION AND MAINTENANCE IS THE CONTRACTOR'S RESPONSIBILITY; HOWEVER, ALL SUCH MEASURES MUST BE APPROVED BY THE ENGINEER.
30. THE EXISTING SIDEWALK SHALL NOT BE DISTURBED UNLESS OTHERWISE NOTED.
31. GRADES SHOWN ARE FINISHED GRADES.
32. SAWCUT CONCRETE OR ASPHALT DRIVEWAYS AS REQUIRED FOR REPLACEMENT.
33. ALL ABANDONED UTILITIES (INCLUDING PIPES, CABLES AND STRUCTURES) FOUND IN THE RIGHT OF WAY AND NOT SHOWN ON THE PLANS, ARE TO BE REMOVED AND PROPERLY DISPOSED OF AT THE EXPENSE OF THE CONTRACTOR. THIS INCLUDES ALL EXOTIC PIPES LIKE ASBESTOS-CEMENT PIPE. COST TO BE INCLUDED IN CLEARING AND GRUBBING ITEM.
34. DRIVEWAY LOCATIONS AND WIDTHS ARE APPROXIMATE AND ARE TO BE ADJUSTED AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
35. BENCHMARK DATUM IN NAVD 88.
36. BACKFILL AND SOD AS REQUIRED BEYOND RIGHT OF WAY LINES ON INDIVIDUAL LOTS TO MAINTAIN POSITIVE DRAINAGE FLOW INTO CURB AND GUTTER.
37. GRADE AND SOD SWALES TEN (10) FEET FROM PROPOSED DITCH BOTTOM INLETS AND MITERED END SECTIONS ON SIDE STREETS AS REQUIRED.
38. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ℄ (BASELINE) AND ℄ (CENTERLINE) CONSTRUCTION THROUGHOUT THE PROJECT.
39. THE CONTRACTOR SHALL REMOVE DRIVEWAY APRONS AND DRIVEWAY CULVERTS AND SHALL MAINTAIN ROUGH GRADE FOR UTILITY MODIFICATIONS.
40. ALL EXISTING SWALES SHALL BE PROTECTED BY THE CONTRACTOR. ANY DAMAGE TO THE SWALE LINE SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE.
41. PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN THE INDIVIDUAL BID ITEMS SHALL BE INCLUDED IN THE CONTRACT PRICES FOR BID ITEMS.
42. MAINTAIN A MINIMUM OF ONE (1) FOOT CLEARANCE BETWEEN POWER POLE AND EDGE OF SIDEWALK.
43. WHEN ALL OTHER PERMANENT CONSTRUCTION IS COMPLETE, THE FINAL SURFACE COURSE SHALL BE PLACED.
44. CONSTRUCTION OPERATIONS FOR PLACEMENT OF THE FINAL SURFACE COURSE SHALL BE LIMITED TO A DISTANCE, AS DIRECTED BY THE ENGINEER, THE CONTRACTOR CAN COMPLETE IN ONE (1) DAY.
45. THE CONTRACTOR SHALL IMPLEMENT TEMPORARY PAVEMENT MARKINGS UNTIL THE FINAL SURFACE COURSE HAS CURED (MINIMUM THIRTY (30) DAYS AFTER FINAL SURFACE COURSE PLACEMENT). ANY TEMPORARY PAINTED MARKINGS PLACED ON THE FINAL.
46. PAVEMENT TRANSITION SHALL BE MADE IN ACCORDANCE WITH PAVEMENT TRANSITION DETAIL.
47. ALL APPROVED PERMIT CONDITIONS, INCLUDING BUT NOT LIMITED TO FDOT, FDEP AND CITY OF FORT PIERCE, SHALL BE MET BY CONTRACTOR PRIOR TO CERTIFICATION OF COMPLETION BY ENGINEER.

## ROADWAY SPECIFICATIONS

### GENERAL

IT IS INTENDED THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" MOST CURRENT EDITION 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.

IF WITHIN THAT PARTICULAR SECTION ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE A PART OF THE STANDARD SPECIFICATIONS ALSO.

THE CONTRACTOR SHALL GIVE THE ENGINEER 48 HOURS NOTICE PRIOR TO REQUESTING 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 TWO YEARS FROM THE DATE OF PROJECT ACCEPTANCE, DURING WHICH ALL FAULTY CONSTRUCTION AND/OR MATERIALS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

### GRADING

THE CONTRACTOR SHALL PERFORM ALL GRADING NECESSARY TO ACHIEVE THE PROPOSED PLAN GRADES INCLUDING TYPICAL SECTIONS.

ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 120 OF THE STANDARD SPECIFICATIONS.

### STAKING

CONSTRUCTION STAKING WILL BE PERFORMED BY THE CONTRACTOR.

### STABILIZING

STABILIZED SUBGRADE SHALL BE CONSTRUCTED TO THE FLORIDA BEARING VALUE AS PER PLAN FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, AND IN ACCORDANCE WITH SECTION 160 OF THE STANDARD SPECIFICATIONS.

(TYPE C STABILIZATION). ALL STABILIZED AREAS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

### 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 AND CEMENTED COQUINA SHELL BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ROCK PIT CERTIFICATION FOR CEMENTED COQUINA SHELL MATERIAL. BASE SHALL BE COMPACTED BY AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. BASE SHALL BE APPROVED PRIOR TO PRIME COAT.

### PRIME AND TACK COAT

PRIME AND TACK COAT FOR THE BASE SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

### ASPHALTIC CONCRETE SURFACE COURSE (A.C.S.C.)

TYPE S-III ACSC SHALL BE CONSTRUCTED FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, IN ACCORDANCE WITH SECTIONS 320, AND 330 OF THE STANDARD SPECIFICATIONS.

### TESTING

THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN APPROVED INDEPENDENT TESTING LABORATORY TO CONDUCT ALL REQUIRED TESTS ON SUBGRADE, BASE AND SURFACE COURSE MATERIALS. TEST RESULTS MUST BE SUBMITTED PRIOR TO ANY REQUEST FOR PAYMENT ON THE ABOVE ITEMS.

THE SCHEDULE FOR TESTING OF THE ROAD CONSTRUCTION SHALL BE AS FOLLOWS:

A. SUBGRADE:
1. FLORIDA BEARING VALUE TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET, OR CLOSER AS MIGHT BE NECESSARY IN THE EVENT OF VARIATIONS IN SUBSOIL CONDITIONS.
2. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET OR CLOSER AS MIGHT BE NECESSARY.

B. BASE:
1. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 500 FEET OR CLOSER AS MIGHT BE NECESSARY.

ALL TESTING SHALL BE TAKEN IN A STAGGERED SAMPLING PATTERN FROM A POINT 1 1/2 INCHES INSIDE THE LEFT EDGE, TO THE CENTER, TO A POINT 12 INCHES INSIDE THE RIGHT EDGE OF THE ITEM TESTED.

IF ANY TEST INDICATES THAT THE WORK DOES NOT MEET THE SPECIFICATIONS, THE SUBSTANDARD AREA SHALL BE REWORKED OR CORRECTED AND RETESTED, AT THE CONTRACTOR'S EXPENSE, UNTIL THE PROVISIONS OF THESE SPECIFICATIONS ARE MET.

ALL PASSING TESTS SHALL BE PAID FOR BY THE OWNER. ALL FAILING 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.

### CONSTRUCTION IN STREETS AND ROAD RIGHT-OF-WAYS

1. OPEN ROAD CUTS REQUIRES PRIOR APPROVAL OF THE CITY, COUNTY, STATE OR ANY OTHER AGENCY WHICH MAY HAVE JURISDICTION.
2. ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND STANDARDS.
3. ALL AREAS IN EXISTING RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION SHALL RECEIVE SOLID SOD.
4. STREET RESTORATION TO BE DONE AS PER CITY OF FORT PIERCE STANDARDS.
5. 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.
6. TRAFFIC CONTROL ON ALL COUNTY AND STATE HIGHWAY RIGHT-OF-WAYS 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.

## DRAINAGE 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 STRENGTH OF 3000 PSI.

ALL REINFORCING STEEL TO BE ASTM A 615-72 GRADE 40, FYP = 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.

STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 430 AND RELATED SECTIONS OF THE STANDARD SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.

### 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.

### CULVERT PIPES

REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE STANDARD SPECIFICATIONS.

### PRECAST CONCRETE DRAINAGE PRODUCTS

ALL PRECAST CONCRETE DRAINAGE PRODUCTS (INCLUDING BUT NOT LIMITED TO ROUND CONC. PIPE. ELLIPTICAL CONC. PIPE, UNDERDRAINS, MANHOLES, INLETS, ENDWALLS, JUNCTION BOXES, THREE SIDED CONC. CULVERTS, AND CONC. BOX CULVERTS) SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE STANDARD SPECIFICATIONS.

### GROUNDWATER

GROUNDWATER MAY BE ENCOUNTERED ON THIS SITE. THE CONTRACTOR IS TO PLAN ACCORDINGLY.

### 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 NOT LIMITED TO, INVERT AND TOP ELEVATIONS OF CULVERTS AND INLET STRUCTURES. CONTRACTOR SHALL SUBMIT COMPLETE AND FINAL RECORD DRAWINGS TO ENGINEER UPON COMPLETION OF PROJECT AND PRIOR TO FINAL INSPECTION AND FINAL PAYMENT.

### INSPECTION

MINIMUM CONSTRUCTION INSPECTION CHECKPOINTS

THE ENGINEER SHALL BE NOTIFIED:
1. PRIOR TO ANY MAJOR DEVIATION FROM THE APPROVED PLANS.
2. PRIOR TO BACKFILLING ANY PIPE TRENCHES.
3. UPON COMPLETION OF SUBGRADE GRADING AND COMPACTION.
4. UPON BEGINNING OF SPREADING OF ROCK BASE MATERIAL.
5. UPON COMPLETION OF GRADING AND COMPACTION OF THE BASE MATERIAL AND PRIOR TO PRIMING.
6. IMMEDIATELY PRIOR TO AND UPON APPLICATION OF A.C.S.C.
7. UPON COMPLETION OF CONSTRUCTION.

## FDEP SEPARATION CRITERIA:

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER, FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610,F.A.C.
(B)NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
(C) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610,F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
(D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2),F.S., AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUME-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(C) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL THE WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER 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.

(3) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES

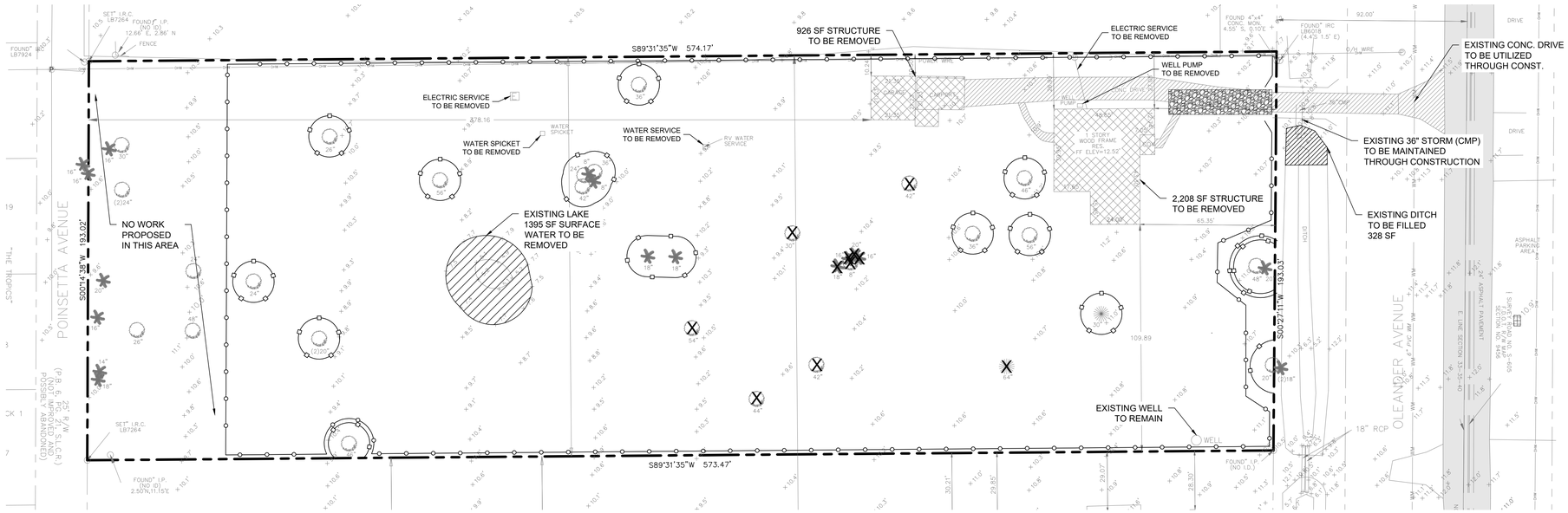
(A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
(B)EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY-OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

## GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CHECKING ACTUAL SITE CONDITIONS BEFORE STARTING CONSTRUCTION.
2. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK.
3. ALL WORK SHALL BE IN 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.
4. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH REQUIREMENTS OF THE CITY OF FORT PIERCE, WATER MANAGEMENT DISTRICT, FDEP AND THESE PLANS AND SPECIFICATIONS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST 48 HOURS IN ADVANCE FOR CONSTRUCTION OPERATIONS.
6. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
7. CONTRACTOR SHALL SUPPLY DENSITY TESTS TO ENGINEER ON ALL SUB-GRADE AND BASE. TESTS SHALL BE PREPARED PER AASHTO T-180 METHOD.
8. SLOPE GRADES FROM ELEVATIONS SHOWN TO EXISTING GRADE AT PROPERTY LINE. MAXIMUM SLOPE 4:1.
9. ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE FOR ANY INSPECTION.
10. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH M.U.T.C.D. STANDARDS, CITY OF FORT PIERCE AND F.D.O.T.
11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.
12. THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTORS BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE. WHEN GROUNDWATER IS ENCOUNTERED THE CONTRACTOR SHALL PLAN ACCORDINGLY.
13. ALL INLETS SHALL HAVE A 6" MIN. SUMP BELOW LOWEST INVERT.
14. EROSION CONTROL FENCING MUST BE IN PLACE PRIOR TO GRADING.
15. PIPE LENGTHS AND SLOPES SHOWN ARE APPROXIMATE.
16. 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.
17. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
18. CONTRACTOR SHALL ADJUST INLET/STRUCTURE OR CONNECTION LOCATION AS REQUIRED TO ENSURE PROPOSED STRUCTURES AND PIPES ARE IN PROPER ALIGNMENT AND MATCH SLOPE OF EXISTING PIPES OR CONNECTIONS.
19. THIS PLAN CONTEMPLATES ACCESS CONNECTIONS TO ADJACENT ROADS AS SHOWN.
20. FILL MATERIAL MAY NOT BE STOCKPILED HIGHER THAN SIX (6) VERTICAL FEET ONSITE PER CITY OF FORT PIERCE CODE.
21. DIMENSIONS SHOWN ARE TO EDGE OF GUTTER OR PAVEMENT. RADII SHOWN ARE TO FACE OF CURB.
22. ALL SIGNS SHALL BE PER M.U.T.C.D. STANDARDS.
23. ALL PAVEMENT MARKINGS, EXCEPT PARKING STALL STRIPING, SHALL BE THERMOPLASTIC PER CITY OF FORT PIERCE REQUIREMENTS.
24. THE USES PROPOSED AS PART OF THIS PLAN DO NOT REQUIRE A SUBMITTAL OF A RISK MANAGEMENT PLAN PURSUANT TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGULATIONS AND SHALL NOT EXCEED THE EPA'S RMP THRESHOLD QUANTITIES OF LISTED SUBSTANCES.
25. WATER FOR FIRE FIGHTING PURPOSES SHALL BE INDICATED WITH A BLUE ROADWAY REFLECTOR, PLACE ONE FOOT OFF OF THE CENTERLINE OF THE ROAD FACING THE FIRE HYDRANT. THIS INCLUDES NEW AND EXISTING SOURCES.
26. REGARDLESS OF PRIVATE OR PUBLIC DEDICATIONS, THERE SHALL BE NO UTILITY CONNECTIONS, METER BOXES OR VALVE BOXES IN EXISTING OR PROPOSED SIDEWALK OR DRIVEWAY AREAS.
27




# EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN

SCALE: 1" = 30'

GRAPHIC SCALE
0 30 60
( IN FEET )
1 inch = 30 ft.

## LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- EXISTING BUILDING DEMO
- EXISTING CONCRETE DEMO
- SILT FENCE
- TREE PROTECTION FENCE
- EXISTING TREE TO BE REMOVED

TREE LEGEND
- OAK
- PALM
- ROYAL POINCIANA

## LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY.

SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

## NOTES

1. REPRODUCTIONS OF THIS SKETCH ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. EASEMENTS AND RIGHTS-OF-WAY SHOWN ARE TAKEN FROM TITLE COMMITMENT NUMBER 24394655CA, AS PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, EFFECTIVE DATE: JANUARY 18, 2006 AT 8:00 A.M. PROPERTY IS SUBJECT TO THE AGREEMENT WITH FT. PIERCE UTILITIES AUTHORITY, AS RECORDED IN OFFICIAL RECORDS BOOK 424, AT PAGE 8776 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.
3. NO UNDERGROUND IMPROVEMENTS ARE SHOWN HEREON.
4. ELEVATIONS SHOWN HEREON ARE RELATIVE TO NAVD 1988, BASED ON ST. LUCIE COUNTY BENCHMARK "FRENCH" - ST. LUCIE COUNTY DISK IN CONC. 214' S OF FRENCH CREEK LANE, 29' W OF W E.O.P. OLEANDER BLVD. ELEVATION = 11.32' NAVD 1988.
5. BEARINGS SHOWN HEREON ARE BASED ON THE STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR FLORIDA EAST ZONE, WITH THE EAST LINE OF THE SOUTHEAST ONE-QUARTER OF SECTION 33-35-40 HAVING A BEARING OF NORTH 00°27'11" EAST. N.G.S. CONTROL MONUMENTS Y403, STL4 AND GCY WERE USED TO DETERMINE THIS BEARING.
6. TREE TYPES LISTED TO THE BEST OF OUR ABILITY. FOR A MORE EXACT SPECIES DETERMINATION, A BOTANIST OR SIMILAR PROFESSIONAL SHOULD BE CONSULTED.
7. THIS SURVEY IS CERTIFIED TO:

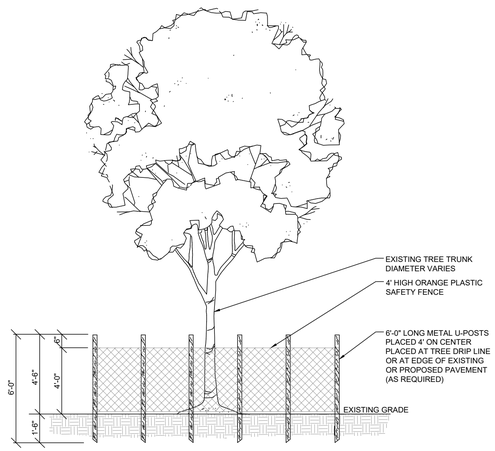
## FLOOD INFORMATION

COMMUNITY NUMBER : 120286
PANEL NUMBER : 12111C0189K
DATE OF FIRM : FEBRUARY 19, 2020
ZONE : X

## ABBREVIATIONS

| | | |
|---|---|---|
| L | = | ARC |
| ASPH | = | ASPHALT |
| C | = | CALCULATED |
| C&G | = | CURB & GUTTER |
| C.L.F. | = | CHAIN LINK FENCE |
| CONC. | = | CONCRETE |
| COR. | = | CORNER |
| C.U.P. | = | CONCRETE UTILITY POLE |
| D | = | DELTA (CENTRAL ANGLE) |
| D.E. | = | DRAINAGE EASEMENT |
| I.R. | = | IRON ROD |
| I.R.C. | = | IRON ROD AND CAP |
| L.B. | = | LICENSED BUSINESS |
| L.S. | = | LICENSED SURVEYOR |
| L.W.D.D. | = | LAKE WORTH DRAINAGE DISTRICT |
| MON. | = | MONUMENT |
| O.R.B. | = | OFFICIAL RECORDS BOOK |
| P.B. | = | PLAT BOOK |
| S.L.C.R. | = | ST. LUCIE COUNTY RECORDS |
| PG. | = | PAGE |
| P.S.M. | = | PROFESSIONAL SURVEYOR & MAPPER |
| U.E. | = | UTILITY EASEMENT |
| W.F. | = | WOOD FENCE |
| W.U.P. | = | WOOD UTILITY POLE |
| IP | = | IRON PIPE |
| RES | = | RESIDENCE |
| (C) | = | CALCULATED |
| (P) | = | PLAT |
| (M) | = | MEASURED |
| R/W | = | RIGHT-OF-WAY |

LEGEND
- GUY ANCHOR WIRE
- WOOD UTILITY POLE
- CABLE TV BOX
- FENCE
- OVERHEAD POWER LINES
- SIGN
- TREE
- ELECTRIC SERVICE




ELEVATION

TREE PROTECTION 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. FENCES/ BARRICADE SHALL BE INSTALLED AT PERIMETER OF ALL TREES OR GROUP OF TREES TO BE PRESERVED. FENCE SHALL BE MAINTAINED DURING CONSTRUCTION.




PLAN VIEW

## TREE PROTECTION BARRIER DETAIL

NTS

## DEMOLITION NOTES

1. ALL EXOTIC AND INVASIVE SPECIES TO BE REMOVED CONGRUENT WITH DEVELOPMENT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE ATTAINMENT OF ALL DEMOLITION PERMITS NECESSARY FOR PROPOSED CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY / ALL NECESSARY EROSION CONTROL MEASURES AS PRESENTED ON THIS SHEET AND INCLUDED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
4. ALL BARRIERS AND PROTECTION MEASURES FOR TREES BEING SAVED SHALL BE PLACED BEFORE ANY DEMOLITION ACTIVITY BEGINS. LARGE TREES ON ADJACENT PROPERTIES, NEAR THE PROPERTY LINE, SHOULD ALSO BE PROTECTED.
5. ALL IMPACTS TO THE IRC R/W SHALL BE SODDED WITHIN (3) DAYS OF FINAL GRADING.
6. "TRUCKS ENTERING ROADWAY" SIGNS SHALL BE INSTALLED IN ADVANCE BOTH DIRECTIONS OF CONSTRUCTION ENTRANCE PER MUTCD STANDARDS.

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.

C:\CIVIL ON HARD DRIVE\2022\23-0060 4101 Oleander multi family\DWG\23-0060 C3 EX COND,DEMO,EROSION.dwg

| DATE | REVISIONS |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 1/31/2024 |

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1835 20TH STREET
VERO BEACH, FL 32960
PH (772) 778-5381
FX (772) 778-5617
MELBOURNE, FL - PH (321) 253-4100
FT PIERCE, FL - PH (772) 468-9055

EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN

MARGARETA VILLAS
MULTI-FAMILY

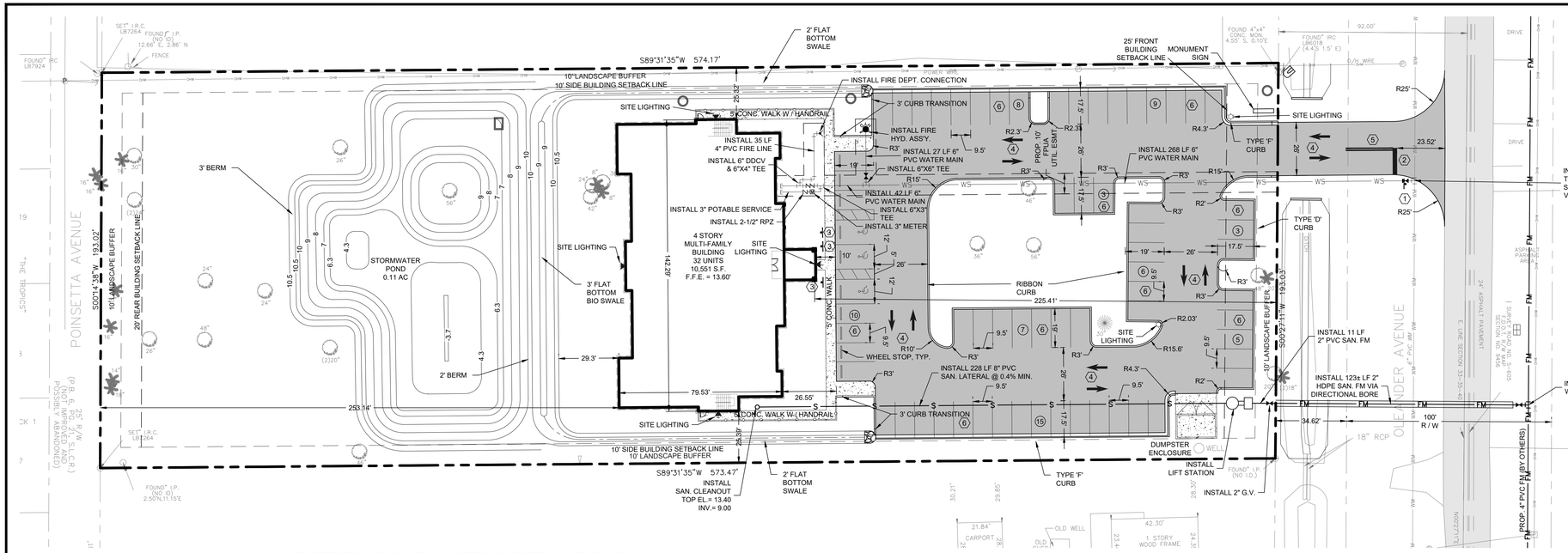
CITY OF FORT PIERCE FLORIDA

AARON J. BOWLES LICENSE No. 55313 STATE OF FLORIDA PROFESSIONAL ENGINEER

AARON J. BOWLES
FL. P.E. #55313 1/31/24

SHEET
C3

23-0060




# SITE AND UTILITY PLAN

SCALE: 1" = 30'

GRAPHIC SCALE

0 30 60

( IN FEET )

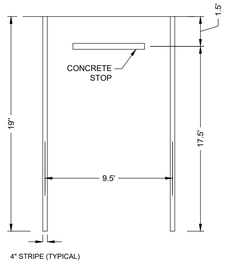
1 inch = 30 ft.

## LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE

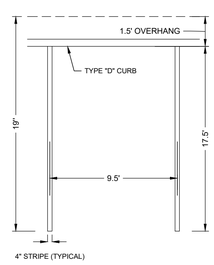
## SITE, SIGNAGE & PAVEMENT MARKING SCHEDULE

| SIGN ID NUMBER | SIZE | DESIGNATION / NOTES |
|---|---|---|
| ① | 30" | R1-1 "STOP" SIGN |
| ② | 24" | SOLID WHITE STOP BAR- THERMOPLASTIC |
| ③ | 12" | FTP-20-06 HC PARKING SIGN |
| ④ | | PAINTED PAVEMENT MARKINGS PER FDOT INDEX #711-001 |
| ⑤ | 6" | DOUBLE YELLOW STRIPE - THERMOPLASTIC |
| ⑥ | 4" | PAINTED WHITE STRIPE |



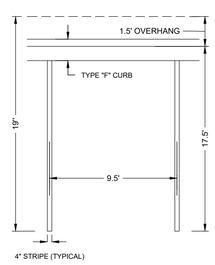

TYPICAL PARKING SPACE DETAIL

N.T.S.




PARKING SPACE DETAIL WITH "D" CURB AND OVERHANG

N.T.S.




PARKING SPACE DETAIL WITH "F" CURB AND OVERHANG

N.T.S.

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.

## PROJECT INFORMATION

### SITE ADDRESS
4101 OLEANDER AVENUE
FORT PIERCE, FL 34982

### OWNER
4101 OLEANDER GROUP, LLC
17555 COLLINS AVENUE, APT. 2006
SUNNY ISLES, FLORIDA 33160
PHONE (305) 337-0183

### APPLICANT
MR. GEZA SZINI-SEBO
ABANDEL GROUP, LTD.
51 WIGTON PLACE
THORNHILL, ON, CANADA L4J8C6
PHONE (305) 337-0183

### ARCHITECT
STAFFAN H. LUNDBERG
1341 SEA HAWK LANE
VERO BEACH, FLORIDA
PHONE (772) 538-5130

### ENGINEER
MBV ENGINEERING, INC.
1835 20TH STREET
VERO BEACH, FLORIDA 32960
PHONE (772) 569-0035

### SURVEYOR
PERIMETER SURVEYING & MAPPING
947 CLINT MOORE ROAD
BOCA RATON, FLORIDA
PHONE (561) 241-9988

### TAX PARCEL I.D NUMBER(S)
2433-414-0001-000-4

### ZONING
R-4

### LAND USE
RM

### LATITUDE
27°23'12.02" N

### LONGITUDE
80°20'05.75" W

### PROJECT DESCRIPTION
THIS PROJECT PROPOSES A 32 UNIT MULTI FAMILY RESIDENTIAL BUILDING WITH RELATED STORMWATER IMPROVEMENTS, PARKING AND LANDSCAPING. THE SITE SEEKS TO PRESERVE TREES WHERE POSSIBLE AND HAS CONFIGURED THE PARKING AND STORMWATER TO TRY TO PRESERVE THE TREE CANOPY.

### SITE DATA

EXISTING SITE DATA

| | SF | AC | % |
|---|---|---|---|
| SITE AREA | 110,747 SF | 2.54 AC | 100% |
| AREA OF DEVELOPMENT | 110,747 SF | 2.54 AC | 100.00% |
| IMPERVIOUS AREA | 4,954 SF | 0.11 AC | 4.47% |
| EXISTING BUILDING | 3,136 SF | 0.07 AC | 2.83% |
| EXISTING CONCRETE | 1,818 SF | 0.04 AC | 1.64% |
| EXISTING PAVEMENT | 0 SF | 0.00 AC | 0.00% |
| PERVIOUS AREA | 105,793 SF | 2.43 AC | 95.53% |

PROPOSED SITE DATA

| | | | |
|---|---|---|---|
| SITE AREA | 110,747 SF | 2.54 AC | 100% |
| IMPERVIOUS AREA | 44,149 SF | 1.01 AC | 39.86% |
| PROPOSED BUILDING | 10,551 SF | 0.24 AC | 9.53% |
| PROPOSED CONCRETE | 2,998 SF | 0.07 AC | 2.71% |
| PROPOSED ASPHALT | 25,702 SF | 0.59 AC | 23.21% |
| WET POND AREA | 4,898 SF | 0.11 AC | 4.42% |
| PERVIOUS AREA | 66,598 SF | 1.53 AC | 60.14% |
| OPEN SPACE | 66,598 SF | 1.53 AC | 60.14% |
| NET NEW IMPERVIOUS | + 39,195 SF | 0.90 AC | |

### ZONING DATA

| | R-4 ZONING | EXISTING | PROPOSED |
|---|---|---|---|
| LOT SIZE | 20,000 SF | 110,747 SF | 110,747 SF |
| MIN. LOT WIDTH | 75-FT | 193-FT | 193-FT |
| BUILDING SETBACKS | | | |
| FRONT | 25-FT | 59-FT | 225-FT |
| SIDE | 10-FT | 110-FT | 25-FT |
| CORNER SIDE | 15-FT | 10-FT | 25-FT |
| REAR | 20-FT | 378-FT | 253-FT |
| BUILDING COVERAGE | 50% | 2.83% | 9.53% |
| OPEN SPACE | 10% | 95.53% | 60.14% |
| BUILDING HEIGHT | 45-FT | -- | 45-FT |

### PARKING DATA
MULTIFAMILY HOUSING DEVELOPMENTS

| | | | | | |
|---|---|---|---|---|---|
| 2 SP/ | 1 UNIT | 32 UNITS | = | 64 | SPACES REQUIRED |
| | | | | 66 | SPACES PROVIDED |
| | | | | 3 | ADA SPACES |
| | | | | 63 | STANDARD SPACES |

### TRAFFIC STATEMENT
PER ITE, 11TH EDITION:
USE 1: (MULTIFAMILY HOUSING (MID-RISE)) = 2.93 ADT PER DWELLING UNIT
2.93 X 32.0 DU = 94 ADDT

### DRAINAGE STATEMENT
STORMWATER IS TO BE COLLECTED IN THE WET POND AND BIO SWALE LOCATED TO THE REAR OF THE PROPERTY. THE SITE INCORPORATES LOW IMPACT DESIGN (L / D) BY UTILIZING A BIO SWALE OFFERING AN AESTHETIC AMENITY, IN ADDITION TO THE WET POND'S RETENTION AND ATTENUATION FOR NUTRIENT REDUCTION.

### PERMITS REQUIRED
CoFP DEVELOPMENT REVIEW APPLICATION
CoFP DESIGN REVIEW APPLICATION
CoFP CONCURRENCY CAPACITY ANALYSIS FORM
CoFP DPCR
SLC FIRE REVIEW
FORT PIERCE UTILITIES AUTHORITY (FPUA)
NSLWCD CONNECTION PERMIT
SFWMD/FDEP 10-2 CERTIFICATION
FDEP WATER DISTRIBUTION PERMIT
FDEP WASTEWATER COLLECTION PERMIT
FDEP NPDES NOI PERMIT

### FLOOD ZONE
THE SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE X PER FLOOD INSURANCE RATE MAP #12111C0189K, DATED FEB 19, 2020.

### LEGAL DESCRIPTION
THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY. SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

### WASTEWATER SOURCE
FPUA

### POTABLE WATER SOURCE
FPUA

### CONSTRUCTON SCHEDULE
START: JANUARY 2025
FINISH: DECEMBER 2026

| NO. | DATE | REVISIONS |
|---|---|---|
| 8 | - | - |
| 7 | - | - |
| 6 | - | - |
| 5 | - | - |
| 4 | - | - |
| 3 | - | - |
| 2 | - | - |
| 1 | - | - |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 1/31/2024 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA-#3728
1835 20TH STREET
VERO BEACH, FL 32960
TEL. (772) 569-0035
FAX. (772) 778-7617
MELBOURNE FL. PH (321) 253-4100
FT.PIERCE FL. PH (772) 468-9055

SITE AND UTILITY PLAN

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

AARON J. BOWLES LICENSE No. 55313 STATE OF FLORIDA PROFESSIONAL ENGINEER

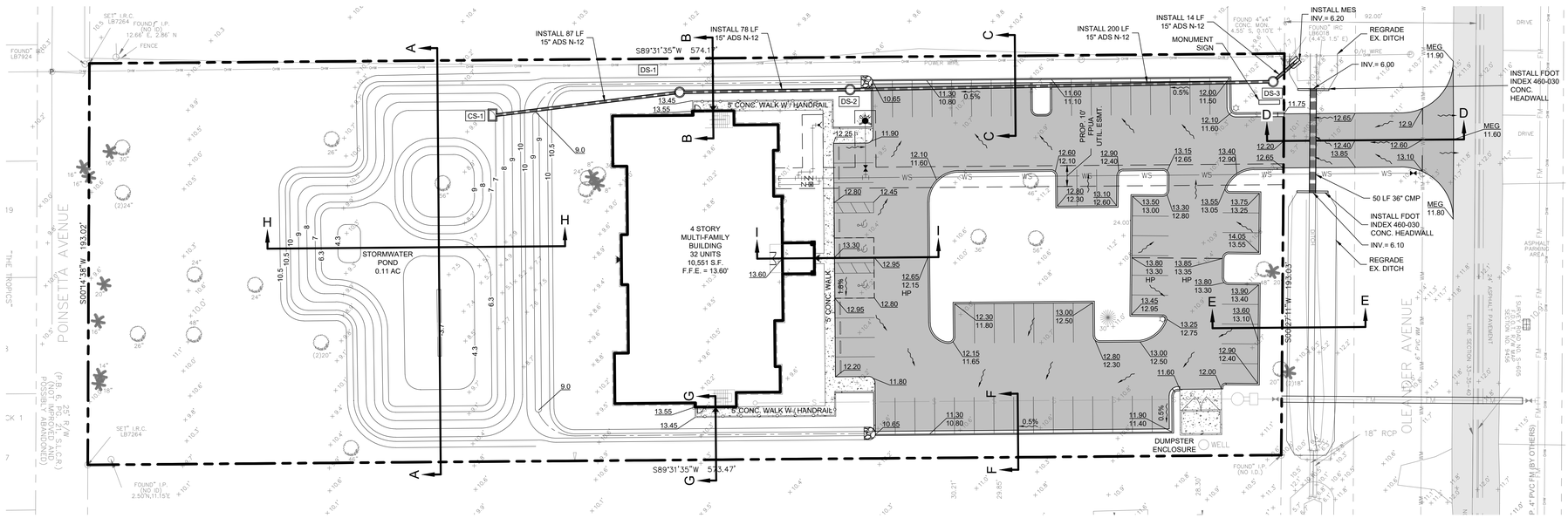
AARON J. BOWLES
FL. P.E. #55313 1/31/24

SHEET

C4

23-0060

C:\CIVIL DH HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 C4 SITE UTIL PLAN.dwg 1/31/2024 10:14




# PAVING, GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

GRAPHIC SCALE

0 30 60

( IN FEET )

1 inch = 30 ft.

## LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- EXISTING ELEVATION (15.4)
- PROPOSED ELEVATION (18.70)
- PROPOSED DIRECTIONAL FLOW

**DRAINAGE STRUCTURE SCHEDULE**

| | STRUCTURE NUMBER | CS-1 | DS-1 | DS-2 | DS-3 | STRUCTURE NUMBER |
|---|---|---|---|---|---|---|
| | FDOT INDEX # | # 425-052 | # 425-001 | # 425-001 | # 425-001 | FDOT INDEX # |
| | DESCRIPTION | MODIFIED TYPE "C" CONTROL STRUCTURE | STORM MH (4' DIA.) | STORM MH (4' DIA.) | STORM MH (4' DIA.) | DESCRIPTION |
| | RIM ELEV. | 10.00 | 10.70 | 10.50 | 10.20 | RIM ELEV. |
| | PIPE DIA. | 15.00 " | 15.00 " | 15.00 " | 15.00 " | PIPE DIA. |
| | COVER | 1.35 ' | 2.40 ' | 2.50 ' | 3.00 ' | COVER |
| INVERT ELEVATION | N | - | - | - | - | N |
| | S | - | - | - | - | S |
| | E | 7.40 E | 7.05 E | 6.75 E | 5.20 E | E |
| | W | | 7.05 W | 6.75 W | 6.20 W | W |
| | BOTTOM ELEV. | 6.90 | 6.55 | 6.25 | 5.45 | BOTTOM ELEV. |

DRAINAGE STRUCTURE SCHEDULE

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 C5 PVGD PLAN.dwg 1/31/2024 10:12 AM

| | DATE | REVISIONS |
|---|---|---|
| 8 | - | - |
| 7 | - | - |
| 6 | - | - |
| 5 | - | - |
| 4 | - | - |
| 3 | - | - |
| 2 | - | - |
| 1 | - | - |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 1/31/2024 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1935 39TH STREET
VERO BEACH, FL 32960
PH. (772) 778-5211
FX. (772) 778-5217
MELBOURNE, FL - PH (321) 253-4100
FT PIERCE, FL - PH (772) 468-9055

PAVING, GRADING AND DRAINAGE PLAN

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

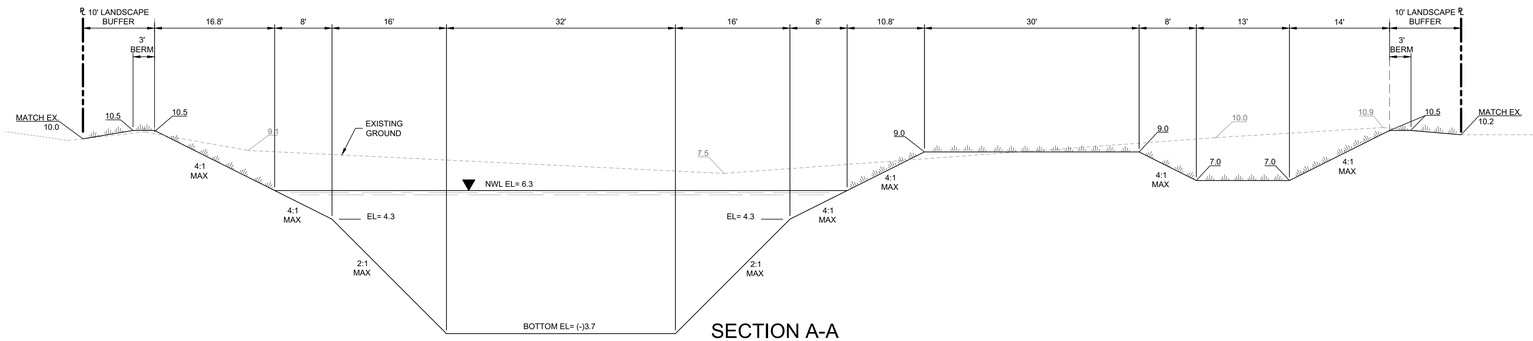
AARON J. BOWLES LICENSE No. 55313 STATE OF FLORIDA PROFESSIONAL ENGINEER

AARON J. BOWLES
FL. P.E. #55313 1/31/24

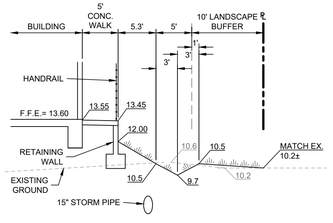
SHEET

C5

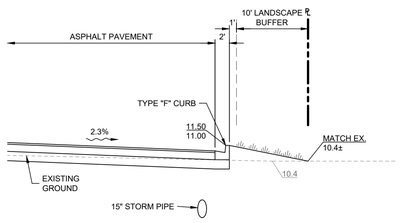
23-0060



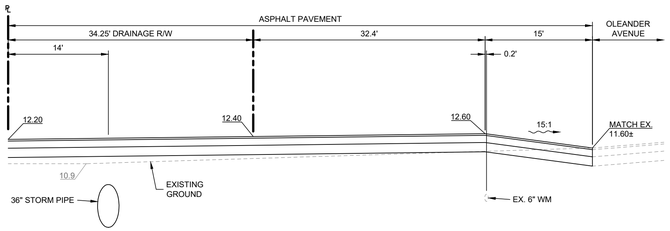

## SECTION A-A
N.T.S.



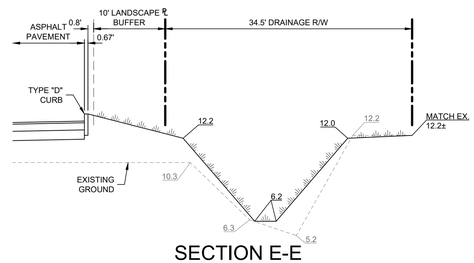

## SECTION B-B
N.T.S.



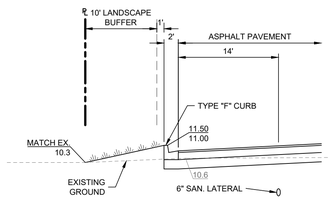

## SECTION C-C
N.T.S.



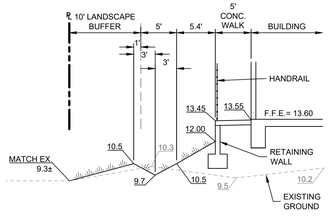

## SECTION D-D
N.T.S.



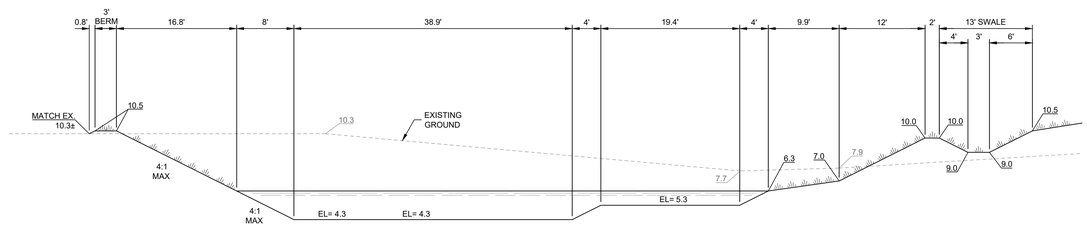

## SECTION E-E
N.T.S.



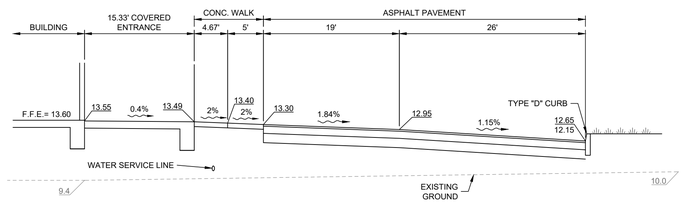

## SECTION F-F
N.T.S.




## SECTION G-G
N.T.S.




## SECTION H-H
N.T.S.




## SECTION I-I
N.T.S.

72 HOURS BEFORE DIGGING CALL TOLL FREE 811
Know what's below. Call before you dig.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander mult family\DWG\23-0060 CS PUD PLAN.dwg 1/31/2024 10:12 AM

| DATE | REVISIONS |
|---|---|
| 8 | |
| 7 | |
| 6 | |
| 5 | |
| 4 | |
| 3 | |
| 2 | |
| 1 | |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 1/31/2024 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1815 - 20TH STREET
VERO BEACH, FL 32960
TX. (772) 778-7212
FX. (772) 778-7217
MELBOURNE, FL - PH (321) 133-4100
FT. PIERCE, FL - PH (772) 468-9055

CROSS SECTIONS

MARGARETA VILLAS
MULTI-FAMILY

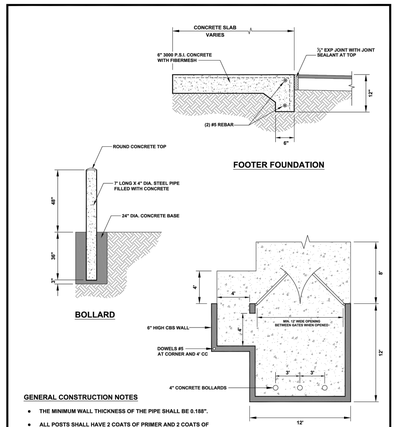
CITY OF FORT PIERCE, FLORIDA

AARON J. BOWLES LICENSE No. 55313 STATE OF FLORIDA PROFESSIONAL ENGINEER

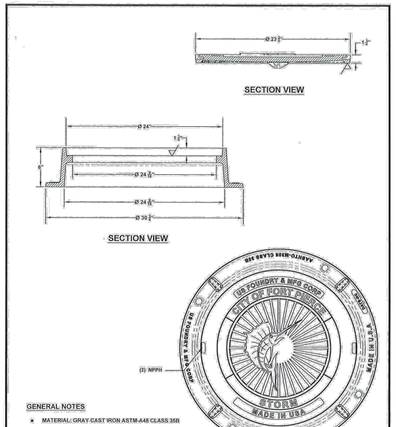
AARON J. BOWLES
FL. P.E. #55313 1/31/24

SHEET
C6

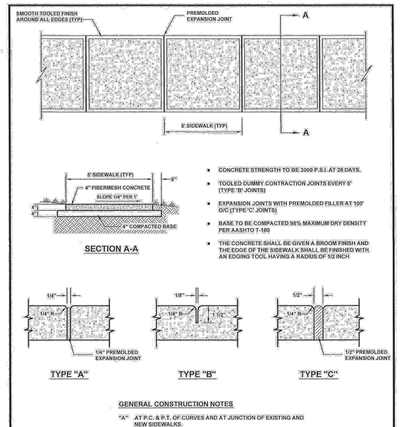
23-0060



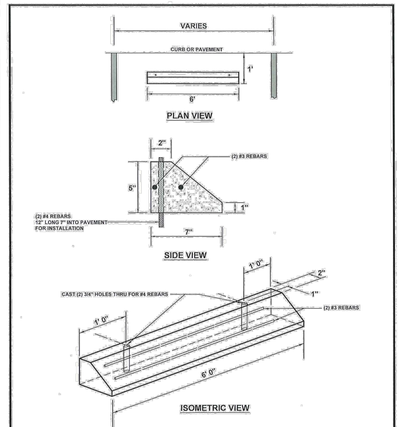

FORT PIERCE — DUMPSTER ENCLOSURE DETAIL — DATE: MAY, 2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET: _



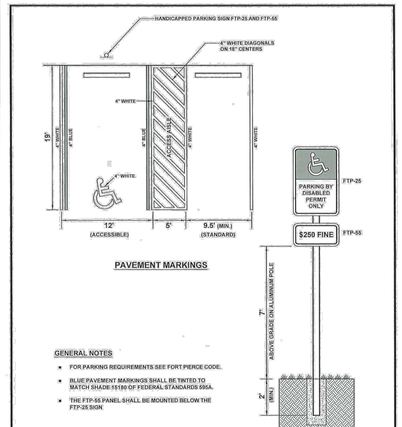

FORT PIERCE — MANHOLE COVER DETAIL — DATE: APRIL 2021 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET: ?




FORT PIERCE — STANDARD SIDEWALK DETAIL — DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET: 6




FORT PIERCE — CONCRETE BUMPER DETAIL — DATE: AUGUST 2020 | SCALE: 3/4"=1' | DRAWN: S.SUNKER | SHEET: 10




FORT PIERCE — HANDICAPPED AND STANDARD PARKING DETAIL — DATE: AUGUST 2020 | SCALE: 3/4"=1' | DRAWN: S.SUNKER | SHEET: 11




FORT PIERCE — PAVING DETAIL WITHOUT CURB AND GUTTER — DATE: SEPTEMBER 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET: 14




FORT PIERCE — PAVEMENT WITH CURB AND GUTTER — DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET: 15



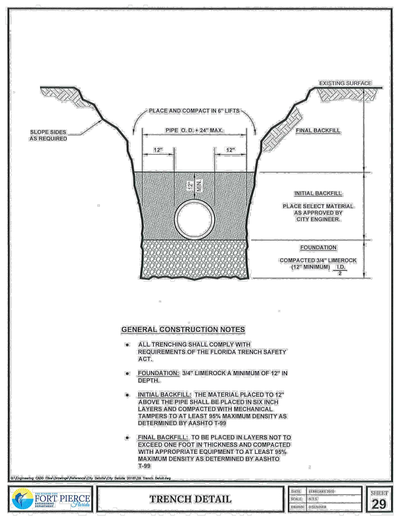

FORT PIERCE — TYPE "D" CURB AND GUTTER DETAILS — DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET: 22



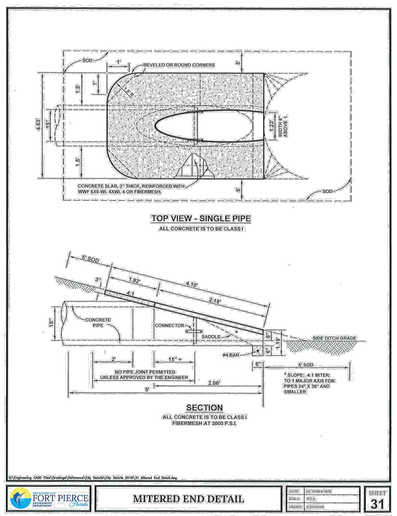

FORT PIERCE — TYPE "F" CURB AND GUTTER DETAILS — DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET: 24




FORT PIERCE — TERMINAL CURB WITH JOINT DETAILS — DATE: SEPTEMBER 2020 | SCALE: 3/4"=1' | DRAWN: S.SUNKER | SHEET: 26




FORT PIERCE — TRENCH DETAIL — DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET: 29




FORT PIERCE — MITERED END DETAIL — DATE: OCTOBER 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET: 31

| | DATE | REVISIONS |
|---|---|---|
| 8 | | |
| 7 | | |
| 6 | | |
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | | |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 1/31/2024 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
PREDOMINE PL
VERO BEACH, FL 32960
PH. (772) 539-3151
FX. (772) 778-3417
E-MAIL: INFO@MBVENG.COM

GENERAL DETAILS

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE — FLORIDA

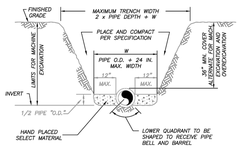
AARON J. BOWLES
LICENSE
No. 55313
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

AARON J. BOWLES
FL. P.E. #55313 1/31/24

SHEET
C7

23-0060

C:\DOVE_ON_HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 COVER - DETAILS.dwg 1/31/2024 11:15 AM

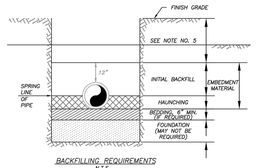



NOTES:

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 | TYPICAL TRENCH DETAIL | M-1 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC MISC. DETAILS 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |

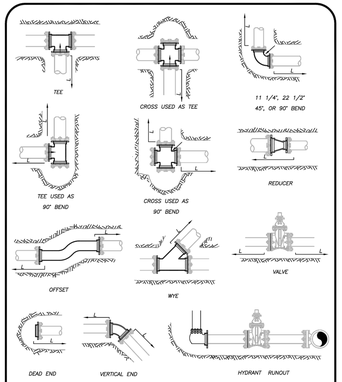



BACKFILLING REQUIREMENTS
N.T.S.

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 | BACKFILLING REQUIREMENTS | M-2 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC MISC. DETAILS 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |




MECHANICAL JOINT ANCHORING REQUIREMENTS
N.T.S.

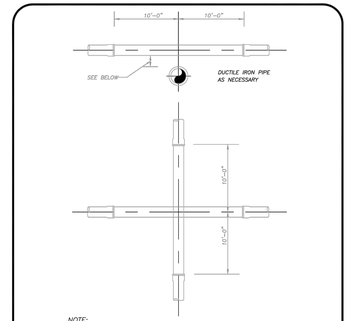
| FPUA COMMUNITY PROUD | MECHANICAL JOINT ANCHORING REQUIREMENTS | M-3 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC MISC. DETAILS 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | 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 | MECHANICAL JOINT RESTRAINT NOTES | M-4 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC MISC. DETAILS 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |

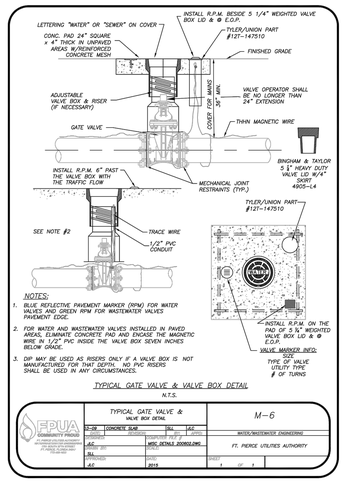



NOTE:

PLEASE REFER TO FORT PIERCE UTILITIES STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS.

UTILITY CROSSING DETAIL
N.T.S.

| FPUA COMMUNITY PROUD | UTILITY CROSSING DETAIL | M-5 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC MISC. DETAILS 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |

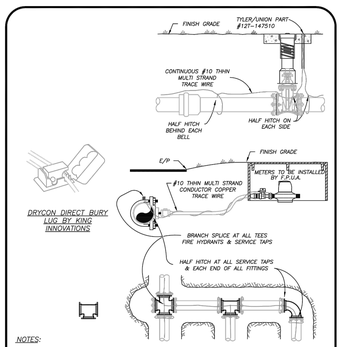



NOTES:

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 | TYPICAL GATE VALVE & VALVE BOX DETAIL | M-6 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC MISC. DETAILS 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |

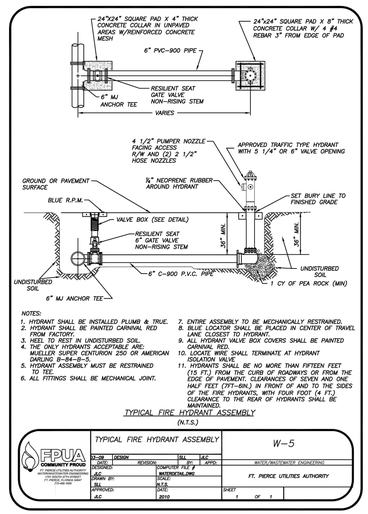



NOTES:

1) TRACE WIRE IS REQUIRED ON ALL PIPE AS NOTED BY UTILITIES ENGINEER AND SHOWN IN STANDARD DETAILS.
2) INCLUDE ALL COST OF MATERIAL & LABOR IN PRICE OF PIPE.
3) CONTRACTOR IS RESPONSIBLE FOR CONTINUITY OF ALL TRACE WIRE.

TRACE WIRE
(N.T.S.)

| FPUA COMMUNITY PROUD | TRACE WIRE DETAIL | M-11 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC MISC. DETAILS 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |

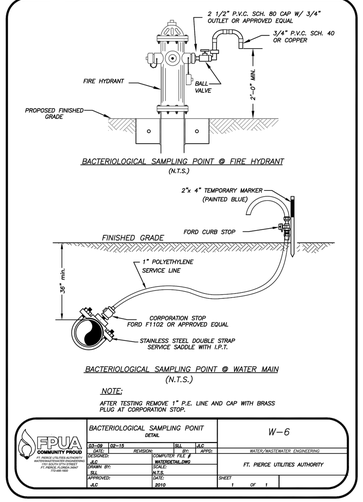



NOTES:

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. 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. ALL PIPE RUNS 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 |
|---|---|---|
| 12-08 12-19 | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC | MUTTERDETAIL.DWG | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |



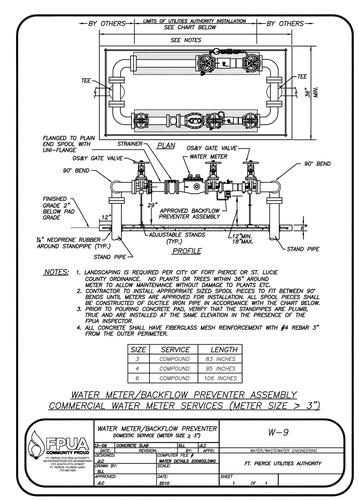

BACTERIOLOGICAL SAMPLING POINT @ FIRE HYDRANT
(N.T.S.)

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 POINT DETAIL | W-6 |
|---|---|---|
| 12-08 12-19 | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC | MUTTERDETAIL.DWG | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |



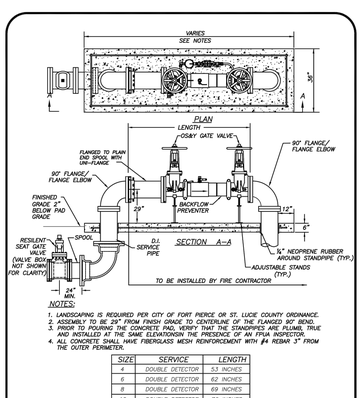

NOTES:

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 FURNISHED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
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 | WATER METER/BACKFLOW PREVENTER DOMESTIC SERVICE (METER SIZE ≥ 1") | W-9 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC WATER DETAILS 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | PCPUT | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |



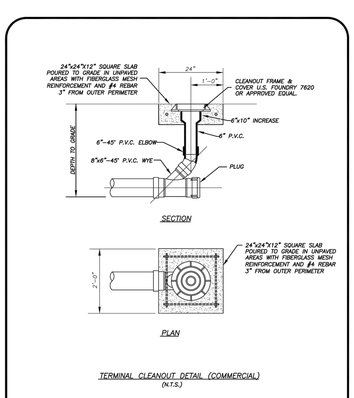

NOTES:

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 ELEVATION IN 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 |

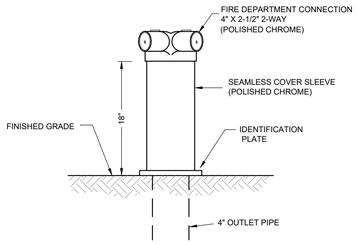
BACKFLOW PREVENTER ASSEMBLY-4"-10" FIRE SERVICE
(N.T.S.)

| FPUA COMMUNITY PROUD | BACKFLOW PREVENTER ASSEMBLY 4"-10" FIRE SERVICE | W-10 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC WATER DETAILS 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 1 OF 1 |




TERMINAL CLEANOUT DETAIL (COMMERCIAL)
(N.T.S.)

| FPUA COMMUNITY PROUD | TERMINAL CLEANOUT DETAIL WASTEWATER | S-4B |
|---|---|---|
| 12-08 | SLL | WATER/WASTEWATER ENGINEERING |
| APVD. REVISION | DESIGNED COMPUTER FILE # | |
| AJC SEWER DETAIL 2009052.DWG | DRAWN BY: | FT. PIERCE UTILITIES AUTHORITY |
| SLL | N.T.S. | |
| APPROVED: AJC 2010 | DATE: | SHEET 2 OF 3 |




**FDC (FIRE DEPT. CONNECTION) DETAIL**
**N.T.S.**

| NO. | DATE | REVISIONS |
|---|---|---|
| 8 | | |
| 7 | | |
| 6 | | |
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | | |
| △ | | |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 1/31/2024 |

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1055 W. GRANADA BLVD. SUITE 3
ORMOND BEACH, FL 32360
PH. (772) 539-3151
FX. (772) 778-3417
PRELIMINARY NOT FOR CONSTRUCTION
LICENSED ELECTRONICALLY

WATER AND SEWER DETAILS

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE

FLORIDA

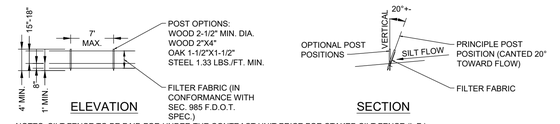
AARON J. BOWLES
LICENSE
No. 55313
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

AARON J. BOWLES
FL. P.E. #55313 1/31/24

SHEET
C8

23-0060

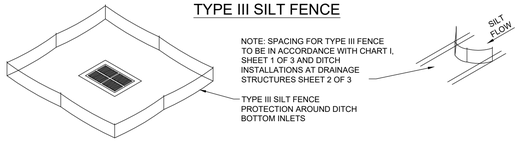
C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander- multi family\DWG\23-0060 COVER - DETAILS.dwg 1/31/2024 10:14 AM
aaron.bowles




ELEVATION SECTION

NOTES: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (L.F.)

## TYPE III SILT FENCE



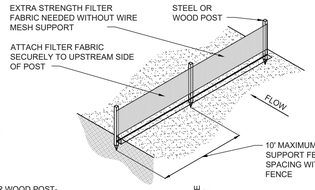

NOTE: SPACING FOR TYPE III FENCE TO BE IN ACCORDANCE WITH CHART I, SHEET 1 OF 3 AND DITCH INSTALLATIONS AT DRAINAGE STRUCTURES SHEET 2 OF 3

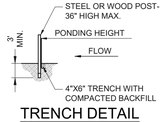
DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

## SILT FENCE APPLICATIONS

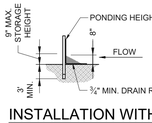
N.T.S.

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.



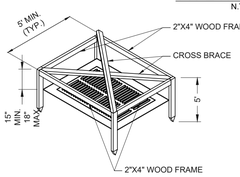

TRENCH DETAIL



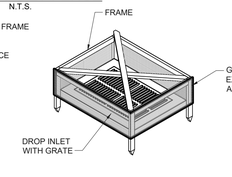

INSTALLATION WITHOUT TRENCHING

## TYPE IV SILT FENCE

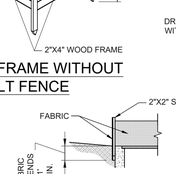
N.T.S.




VIEW OF FRAME WITHOUT SILT FENCE

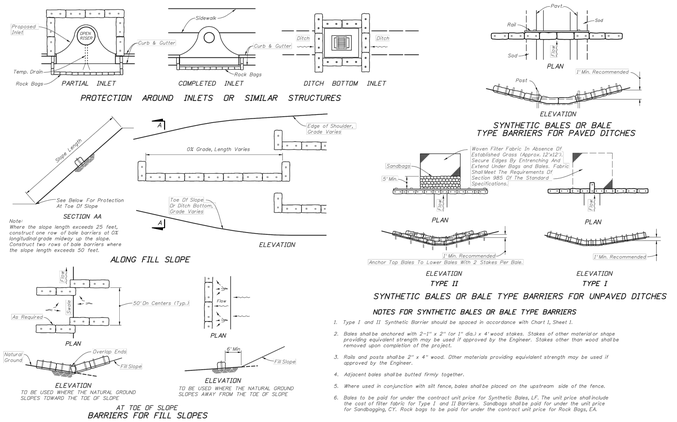



VIEW OF FRAME WITH SILT FENCE




SILT FENCE INLET PROTECTION

N.T.S.







NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

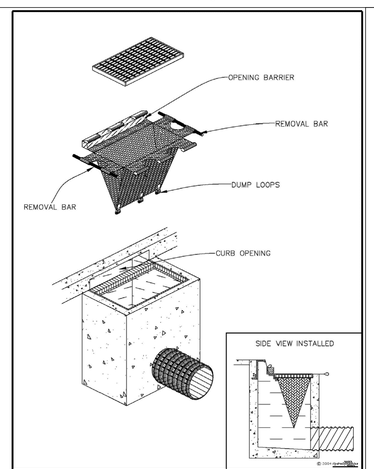
1. Type I and II Synthetic Barrier should be spaced in accordance with Chart I, Sheet 1.
2. Bales shall be anchored with 2'-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivalent strength may be used if approved by the Engineer.
4. Adjacent bales shall be butted firmly together.
5. Where used in conjunction with silt fence, bales shall be placed on the upstream side of the fence.
6. Bales to be paid for under the contract unit price for Synthetic Bales, LF. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sandbags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.

## EROSION AND SEDIMENTATION CONTROL NOTES

CONSTRUCTION ACTIVITIES CAN RESULT IN THE GENERATION OF SIGNIFICANT AMOUNTS OF POLLUTANTS WHICH MAY REACH SURFACE OR GROUND WATERS. ONE OF THE PRIMARY POLLUTANTS OF SURFACE WATERS IS SEDIMENT DUE TO EROSION. EXCESSIVE QUANTITIES OF SEDIMENT WHICH REACH WATER BODIES OF FLOOD PLAINS HAVE BEEN SHOWN TO ADVERSELY AFFECT THEIR PHYSICAL, BIOLOGICAL AND CHEMICAL PROPERTIES. TRANSPORTED SEDIMENT CAN OBSTRUCT STREAM CHANNELS, REDUCE HYDRAULIC CAPACITY OF WATER BODIES OF FLOOD PLAINS, REDUCE THE DESIGN CAPACITY OF CULVERTS AND OTHER WORKS, AND ELIMINATE BENTHIC INVERTEBRATES AND FISH SPAWNING SUBSTRATES BY SILTATION. EXCESSIVE SUSPENDED SEDIMENTS REDUCE LIGHT PENETRATION AND THEREFORE, REDUCE PRIMARY PRODUCTIVITY.

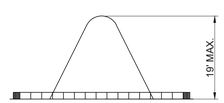
## MINIMUM STANDARDS

1. SEDIMENT BASIN 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 UNSLOPE 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 STOCKPILES 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. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE REVIEWER, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
6. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
7. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE SEDIMENT BASIN SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREA FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN.
8. AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
9. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
10. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
11. 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.
12. BEFORE TEMPORARY OR NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
13. 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. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
14. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
16. 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 LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
17. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
    A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
    B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
    C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
    D. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
18. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE, WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE WITH CURBS AND GUTTERS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISON LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
19. 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, IN THE OPINION OF THE REVIEWER. DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
20. PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITE SHALL BE PROTECTED FROM SEDIMENT DISPOSITION AND EROSION.
21. PHASED PROJECTS SHOULD BE CLEARED IN CONJUNCTION WITH CONSTRUCTION OF EACH PHASE.
22. EROSION CONTROL DESIGN AND CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS IN INDEX NOS. 104 AND 105 OF FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS.
23. THE REVIEWER MAY APPROVE MODIFICATIONS OR ALTER PLANS TO THESE EROSION CONTROL CRITERIA DUE TO SITE SPECIFIC CONDITIONS.



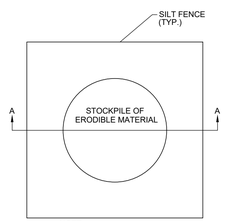

INLET INSERT SEDIMENT CONTAINMENT SYSTEM

N.T.S.




NOTE:
ALL STOCKPILES SHALL BE A MAXIMUM OF 25' HIGH.

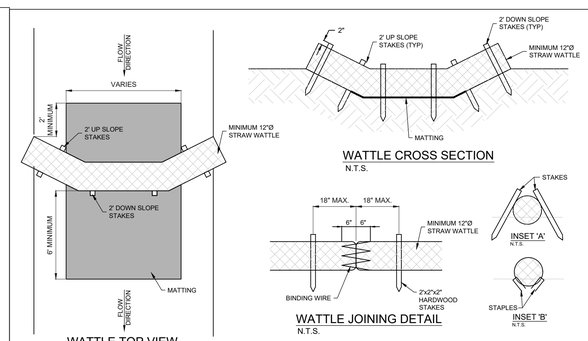
SECTION A-A




NOTE:
FOR STOCKPILING ERODIBLE MATERIAL FOR EXTENDED PERIODS, THE AREA SHALL BE SEEDED AND MULCHED.

SEDIMENT CONTROL DETAIL FOR STOCKPILING OF ERODIBLE MATERIAL

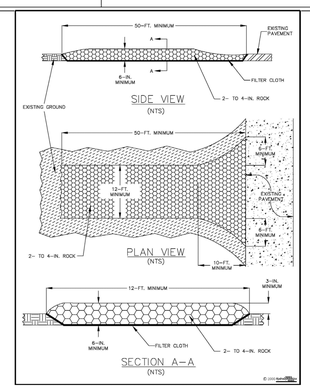
N.T.S.




NOTES:
1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2"-3" DEEP x 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD OVERLAP 24" - SHINGLE IN DIRECTION OF FLOW.
3. SECURE THE WATTLE WITH 18"-24" STAKES EVERY 3'-4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE, LEAVING AT LEAST 2"-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKE SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.
4. USE MINIMUM 12"Ø COIR (COCONUT FIBER)/STRAW WATTLE.
5. USE 2' WOODEN STAKES WITH A 2"x2" NOMINAL CROSS SECTION.
6. ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AS DIRECTED.
7. INSTALL A MINIMUM OF 2 UP SLOPE STAKES AND 4 DOWN SLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
8. PROVIDE STAPLES MADE OF 0.125"Ø STEEL SIRE FORMED INTO A 'U;' SHAPE NOT LESS THAN 12" IN LENGTH.
9. INSTALL STAPLES APPROX. EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE DETAILS

N.T.S.




SOIL TRACKING PREVENTION DEVICE DETAIL

N.T.S.

CITY OF FORT PIERCE NOTES (EROSION CONTROL)

(a) THE CITY ENGINEERING DEPARTMENT SHALL MAKE INSPECTIONS AS HEREINAFTER REQUIRED AND NOTIFY THE BUILDING OFFICIAL UPON INSPECTION APPROVAL OR IF THE WORK FAILS TO COMPLY WITH THE EROSION AND SEDIMENT CONTROL PLAN AS APPROVED TO REQUEST A STOP-WORK ORDER. PLANS FOR GRADING / STRIPPING / EXCAVATING AND FILLING WORK BEARING THE STAMP OF APPROVAL OF THE CITY ENGINEER SHALL BE MAINTAINTED AT THE SITE DURING THE DURATION OF WORK. TO OBTAIN INSPECTIONS, THE PERMITTEE SHALL NOTIFY THE CITY ENGINEERING DEPARTMENT AT LEAST TWO WORKING DAYS BEFORE THE FOLLOWING:
(1) START OF CONSTRUCTION
(2) INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES
(3) COMPLETION OF SITE CLEARING
(4) COMPLETION OF ROUGH GRADING
(5) COMPLETION OF FINAL GRADING
(6) CLOSE OF THE CONSTRUCTION SEASON
(7) COMPLETION OF FINAL LANDSCAPING.
(b) THE PERMITTEE SHALL BE RESPONSIBLE FOR THE FUNCTIONALITY OF ALL CONTROL MEASURES IN ACCORDANCE WITH THE INSPECTION SCHEDULE OUTLINED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
THE PURPOSE OF SUCH INSPECTIONS WILL BE TO DETERMINE THE OVERALL EFFECTIVENESS OF THE CONTROL PLAN AND POSSIBLE NEED FOR ADDITIONAL CONTROL MEASURES.
(c) THE CITY ENGINEER OR HIS DESIGNEE SHALL ENTER THE PROPERTY OF THE APPLICANT AS DEEMED NECESSARY TO MAKE REGULAR INSPECTIONS TO ENSURE THE EFFECTIVENESS OF THE CONTROL PLAN AND THE POSSIBLE NEED FOR ADDITIONAL CONTROL MEASURES.

| | DATE | REVISIONS |
|---|---|---|
| 8 | | |
| 7 | | |
| 6 | | |
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | | |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 1/31/2024 |

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
PREDOMINE IL - PH (772) 539-3151
FT. PIERCE, FLORIDA 34950
VERO BEACH, FL 32960
(561) 537-3151
FX. (772) 778-3417

# EROSION CONTROL DETAILS

MARGARETA VILLAS
MULTI-FAMILY

FLORIDA
CITY OF FORT PIERCE

AARON J. BOWLES
LICENSE
No. 55313
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

AARON J. BOWLES
FL. P.E. #55313 1/31/24

SHEET
C9

23-0060

© 2024 MBV ENGINEERING, INC.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander- multi family\DWG\23-0060 COVER DETAILS.dwg 1/31/2024 10:14 AM
Gerardo Garcia

MBV
ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
www.mbveng.com CA #3728

September 24, 2024

Ms. Kerry Driver, Planner
City of Fort Pierce
100 N. US Hwy. 1
Fort Pierce, FL 34982

***Submitted via email***

Subject: Margareta Villas – 4101 Oleander Avenue
City of Fort Pierce, Florida
Engineer's Project Number: 23-0060

Dear Ms. Driver:

In accordance with your TRC comments dated March 21, 2024, please see our below responses and attachments as listed in the enclosures:

PLANNING DEPARTMENT

- The name of the project needs to be consistent in spelling on submitted documents/plans. **Name is now consistent.**
- Design Review on side walls of building should meet code. **Revisions provided. Refer to architectural plans.**
- Color palette of drawing is needed. **Please see the attached color palette.**
- A completion certification by a landscape architect, cost estimate and landscape bond pursuant to City Code 123-6 shall be required before the Final Certificate of Occupancy is approved for the site. **Acknowledged.**
- Prior to the issuance of any site clearing permits, the applicant shall provide a Tree Mitigation Survey and coordinate with the City of Ft. Pierce Arborist for the required mitigation of the City regulated trees proposed to be removed as a result of this site's development/construction activity. **Acknowledged.**
- Per City Code Section 125-317 (b). – Sidewalks (Applicability): In order to provide continual access for pedestrians, sidewalks and sidewalk linkages shall be required to be provided by the property owner or permit applicant when one of the following events occur:
  1. Whenever a permit is issued for the construction of a new duplex, multifamily, commercial, or office structure or use;
  2. When the valuation of a building permit for construction, additions, and renovations to

structures or uses are more than $35,000.

3. Any expansion of an existing structure or use which results in an expansion of that structure or use in excess of 25 percent of the existing square footage of structure area on a parcel;
4. Plans submitted for site plan, conditional use, PUD/PUR, and subdivision review. Plans shall reflect all proposed sidewalk improvements.
5. Any substantial change in use on the property.

**Sidewalks have been added to the revised Site Plan.**

- Delineate the wetland on the site plan and acknowledge that it meets State mitigation on wetland. **The small 1,395 SF wetland/surface water is shown on the Existing Conditions Plan, Sheet C3.**
- Adhere to and apply where applicable City Code, Sec. 105.5, Management and Monitoring Program. **Acknowledged.**
- Dumpster should be relocated from front of property*** **The dumpster has been relocated away from the frontage with landscape screening proposed. Refer to the revised Site Plan and Landscape Plan.**
- Resubmittal of modified Site Plan is needed due to the following reason: ***
- The property is zoned R-4, Medium Density. Per zoning code, Sec. 125-194, the
  - maximum density for the zone is 10 units per acre. Your development application and narrative is proposing 32-units. At max, with straight zoning, the property can have up to 25 units for your 2.54 acreage. **Please see the information below on the use of Innovative Community Development.**

Advisory Comments:

- Considering Sec. 125-243, Innovative Residential developments, your density can be increased. **An increase of 5 units is supported through the use of Innovative Community Development: The innovative design options selected for this project are the use of the bioswale treatment system that is a low impact development (LID) method and provides for a more green atmosphere and preservation of large amount of trees, including oaks, with the retention system and parking lot designed around the trees.**
- Considering Future Land Use Goal 1.1.8 Policy, the City will allow an additional market rate unit per affordable housing unit, up to a maximum of 40 units. Affordable housing developments must meet the following criteria:

  a) Located within ¼ mile of a rail station, multimodal transit center, or transit stop; **A transit stop is located approximately 1/2 mile away at US Highway 1 and Tumblin Kling Rd.**

  b) Meet the definition of affordable housing as defined by the median income of the City of Fort Pierce; **The applicant is not proposing affordable housing.**

  c) Affordable housing developments shall include a variety of housing types. **N/A.**

- Lighting plan should ensure that the proposed lights on development does not impede on to the neighboring residential properties. **The lighting design has been revised. Refer to the plan by Wampler Lighting Group.**

ENGINEERING DEPARTMENT

Do Not Recommend Site Plan & Design Review.

1. Parking stalls length shall be revised to 18-feet with a 1-foot overhang or bumper rail placement in accordance with the City of Fort Pierce Code of Ordinance Section 125-315(c)(7). **The parking stalls are revised. Refer to the revised Site Plan.**
2. The landscape plan indicates that an existing 56" DBH oak tree is to remain and the project's stormwater pond is to be constructed around this tree (existing grade elevation of 9.0'+/-) hence creating an island in the middle of the pond. Staff will need additional information pertaining to this design to ensure that this tree can survive as the control elevation for this pond appears to be proposed at 10.00 which means that the tree will be submerged 1' for long periods of time. In addition, trees are not permitted to be located within the limits of retention/detention areas. **This tree and others are proposed to remain in the back of the site. The stormwater management design has been revised to include a dry retention pond that meanders through the trees. Access to all trees is proposed. Refer to the revised plans.**
3. The Site Plan shall be revised to include the note that "All construction shall be in compliance with City of Fort Pierce Code of Ordinance Sections 119 and 125". **This note has been added to Sheet C4.**
4. The electronic copy of the survey was not signed and sealed; please provide the required certified survey in electronic format. **A digitally signed and sealed survey is provided.**
5. The landscape plans label existing trees as 1-47. However, the provided tree survey provides a numbering system of 41-96 for the existing trees. Please update the landscape plans so the tree identification matches what is provided on the survey. **Acknowledged. The Tree Inventory Plan has been revised to mirror the numbering system found on the existing tree survey as requested. (See Sheet L-2)**
6. Update the survey to correctly identify Tumblin Kling Road. **The survey has been revised with the correct road name. Please see attached survey.**
7. Identify a proposed (5' min.) sidewalk along Oleander Avenue extending the width of the property. The applicant shall confirm with St. Lucie County as the required sidewalk width of the sidewalk as Oleander is a County roadway. **Per St. Lucie County, a six-foot-wide sidewalk has been added along Oleander. Refer to the revised site plan.**

Advisory Comments

1. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application. **Acknowledged.**
2. The project shall have all State and Federal permits in place prior to conducting any land clearing operations as the submitted Environmental Impact Report indicates that wetlands and gopher tortoise's burrows are present on the site. **Acknowledged.**
3. Tree mitigation calculations will be reviewed at time of DPCR submittals and are not approved as part of this submittal. **Acknowledged.**

BUILDING DEPARTMENT

1. Building Official or his representative has no comments at the time of this meeting but reserves the submission of comments upon completion of the official plan review. **Acknowledged.**
2. All new construction or alterations shall meet the requirements of the Florida Building Code 8th Edition. **Acknowledged.**
3. Building Permit required. **Acknowledged.**
4. Signed and sealed construction drawings required. **Acknowledged.**
5. Must meet the following Accessibility requirements: **Acknowledged.**
   a. Accessible route
   b. Handicapped parking spaces
   c. Means of egress
6. Shall meet the Fire Prevention Code: **Acknowledged.**
   b. Smoke alarm system is required

POLICE DEPARTMENT

No comments at this time. **Acknowledged.**

ST. LUCIE COUNTY PLANNING DEPARTMENT***

Advisory Comments:

- Traffic Impact Review Requested – due to the adjacent Levels of Service reported for the affected links of Oleander, evaluation of the impacts to the links and adjacent intersections is recommended. **A roadway segment analysis has now been completed for Oleander Avenue.**
- Lighting – Please request additional photometric data, to verify adverse spillover to adjacent single-family homes will not occur. **Please see the revised photometrics.**
- Parking Lot Screening/Landscape Islands – With the adjacent SF residence, an increased landscape buffer is encouraged, along with an additional landscape island to break up the

expanse of parking. Additionally, please consider shifting the dumpster location away from the abutting single-family residence and the "front yard" along Oleander. **Acknowledged. Although not required by the City CODE, the southeast buffer has been enhanced from the back of the proposed structure, east to the property line. This buffer is proposed at 1.5 trees per 200 sf, adding another (8) trees to the buffer; a parking island was added along the south property line as requested; and the proposed dumpster enclosure was relocated approximately 150-ft. west, away from the Oleander Avenue, and lessening the impact upon the adjacent neighbor.**

SLC – PW / ENGINEERING

Corrections

1. Dimension the setback from the driveway to the side property line. Please refer to section 7.05.06 of the St. Lucie County land development code. **Dimensions for the driveway are now shown on the revised site plan.**
2. Advisory: there is a roadside swale and a drainage ditch along the west side of Oleander Avenue. These may be combined into 1 feature along this frontage. **Acknowledged.**

Conditions:

3. A Site Development Permit is required prior to performing site improvement activities. **Acknowledged.**
4. A 6-foot sidewalk is required along Oleander Avenue. The applicant may request a fee-in-lieu of construction from the Board of County Commissioners. **Sidewalk is now shown on the revised Site Plan.**

CITY CLERK OFFICE

No comments at this time. **Acknowledged.**

CODE ENFORCEMENT

No comments at this time. **Acknowledged.**

FORT PIERCE UTILITIES AUTHORITY

- FPUA W/WW Engineering: Concept approved.
  - Water and wastewater (via force main) services are available to serve the subject property. Offsite force main will be required. To connect to these services please submit Utility Plan (@ complete sets) along with a completed commercial service application and lift station calculations to FPUA's Water and Wastewater Engineering department, at 1701 S 37th Street, Fort Pierce, FL 34947. Please see the Developer's Responsibilities page attached or on the FPUA website for important steps to guide through the entire process including utility details and permit applications (link below). For questions please contact Shane

Ostrander sostrander@FPUA.com or 772-466-1600 ext 3468. **Acknowledged.**

- FPUA Electric & Gas Engineering: This submission is outside of the FPUA electric service area. **Acknowledged.**

- FPUA Gas: N/A.

- FPUA Fiber: FPUAnet Approves. **Acknowledged.**

SLC FIRE DISTRICT***

Site Plan Requires Re-submittal

The follow conditions/revisions are necessary:

1. Please submit a completed application for Development/Site Plan Review (St. Lucie County Fire District Development & Site Plan Review Application). This form is available on-line at https://www.slcfd.com. **Acknowledged.**
2. Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form. **Acknowledged.**
3. Please provide an electronic revised copy of the site plan (pdf format). **Provided.**
4. Please provide written acknowledgement of the conditions/revisions provided. **Provided.**
5. A separate review and permit is required for Underground Fire Mains connected to standpipes or sprinkler systems. **Acknowledged.**
6. Fire department access roads provided in accordance with 18.2.3 shall be provided at the start of a project and shall be maintained throughout construction. Surface. Fire department access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with an all-weather driving surface. **Acknowledged.**
7. Per the St. Lucie County Fire District Fire Prevention Code Resolution 740-23, at least 13 feet 6 inches nominal vertical clearance shall be provided and maintained over the full width of all means of access (including, but not limited to trees, canopies, etc.) **Acknowledged.**
8. The Fire District reserves the right for future comments at the site plan & building construction phase. **Acknowledged.**
9. Fire apparatus access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 ft from fire apparatus access roads as measured by an approved route around the exterior of the building or facility. NFPA 1 18.2.3.2.2. (*Installation of a sprinkler system will be required if this distance requirement is not met.)* **Acknowledged.**
10. Where buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with NFPA 13, NFPA 13R, or NFPA 13D, the distance in 18.2.3.2.2 shall be permitted to be increased to 450 ft (137 m). **Acknowledged.**
11. Be advised: Dimensions of largest vehicle are as follows: 38 tons or 77,000 lbs., 47.5 ft.

total length, 21.5 ft. wheel base, 10.5 ft. total width, 41.5 degree turning radius. **Acknowledged.**

12. Minimum roadway pavement width (two-way traffic) shall be twenty (20) ft. **Acknowledged.**
13. Minimum roadway pavement width (one-way traffic) shall be twelve (12) ft. **Acknowledged.**
14. Fire hydrants (shall be) are provided for buildings other than detached one-and-two-family dwellings IAW both of the following 1) The maximum distance to a fire hydrant from the closest point in the building shall not exceed 400 feet. 2) The maximum distance between fire hydrants shall not exceed 500 feet. Please provide fire flow calculations for hydrants. **Acknowledged.**
15. An approved water supply capable of supplying the required fire flow for fire protection (shall be) is identified to all premises upon which facilities, buildings, or portions of buildings which are to be constructed or moved into the jurisdiction. The approved water supply shall be in accordance with NFPA 1:18.4. See "Needed NFPA Fire Flow Calculator Spreadsheet". **Acknowledged.**
16. Prior to the final occupancy of any building, the permitted water supply for fire protection, including fire hydrants and fire suppression systems, shall be installed, tested, and acceptable to the AHJ (SLCFD). **Acknowledged.**
17. Fire department connections shall be located on the street side of buildings and shall be located and arranged so that hose lines can be readily attached to the inlets without interference from any nearby objects, including buildings, fences, landscaping, or other fire department connections. The locations of connections shall be based upon the access requirements of the fire department. **Acknowledged.**
18. The distance allowed between the fire department connection and a fire hydrant shall be no more than one hundred fifty (150) feet as a vehicle travels. **Acknowledged.**
19. Minimum Size of Water Mains.
20. The minimum size of water mains for supplying water for firefighting purposes shall be six (6) inches. b. The minimum size of water mains supplying hydrants on a dead end main shall be eight (8) inches. c. The maximum number of hydrants located on a dead end main shall be one (1). d. Grid or Tee systems shall be supplied by a minimum of an eight (8) inch looped main. Exceptions may be granted based on the capacity of the water distribution system but in no case shall the main size be less than six (6) inches. e. The minimum size water main(s) shall be determined by the needed fire flow as established by the Fire Marshal and based on the current Insurance Service Office (ISO) Requirements. **Acknowledged.**
21. Hydrants shall be located no more than 12ft. from the curb of roadways or from the edge of payment. Clearances of three feet (3 ft.) shall be maintained around the circumference

of hydrants. A clear space of not less than five feet (5ft.) shall be provided in front of each hydrant connection having a diameter greater than 2 ½ inches. The center of hose outlet shall be not less than 18 inches above final grade. **Acknowledged.**

ST. LUCIE TRASNPORTATION PLANNING ORGANIZATION

- **Sidewalks/Bicycle-Pedestrian Connectivity:** There are no designated areas for pedestrian and bicycle travel, or parking. The proposed development does not appear to include sidewalks on either side of the internal drive. Additionally, no sidewalk connections are provided along the proposed driveway entrances on the Conceptual Site Plan. The lack of sidewalks and sidewalk connections creates unsafe conditions for pedestrians or bicyclists who would be required to walk or ride within the driveway to access the apartment complex. Sidewalks and bicycle facilities should be provided within for pedestrian and bicyclist safety as part of the proposed development. **An internal sidewalk has been added to the revised plan that can be utilized for walking and biking pedestrians. Refer to the revised site plan.**
- **Traffic Data:** The Traffic Generation utilizes calculations provided in the ITE Trip Manual Generation Manual, 10th Edition. Traffic generation should be updated utilizing the most current ITE Trip Generation Manual, which is the 11th edition. **The text of the report has been updated to correctly reference the ITE 11th Edition.**
- **Historical Growth Rate:** The Traffic Impact Study for the proposed development does not appear to utilize the University of Florida BEBR growth rate percentage for the historical growth rate. However, a historical growth rate of 2.5 percent should be utilized which is the actual annual growth rate in St. Lucie County since 1995. **A historical growth rate of 2.5% has now been used in the analysis.**
  - You can contact Stephanie M. Torres, CPM
    Bicycle Pedestrian Program Manager
    772-462-1593 www.stlucietpo.org

FDOT

No comments at this time. **Acknowledged.**

ST. LUCIE COUNTY SCHOOL BOARD

No comments at this time. **Acknowledged.**

Please note that the three (3) * indicates remarks added or submitted on 3/21.

Should you have any questions regarding the above subject, please feel free to contact our office at any time.

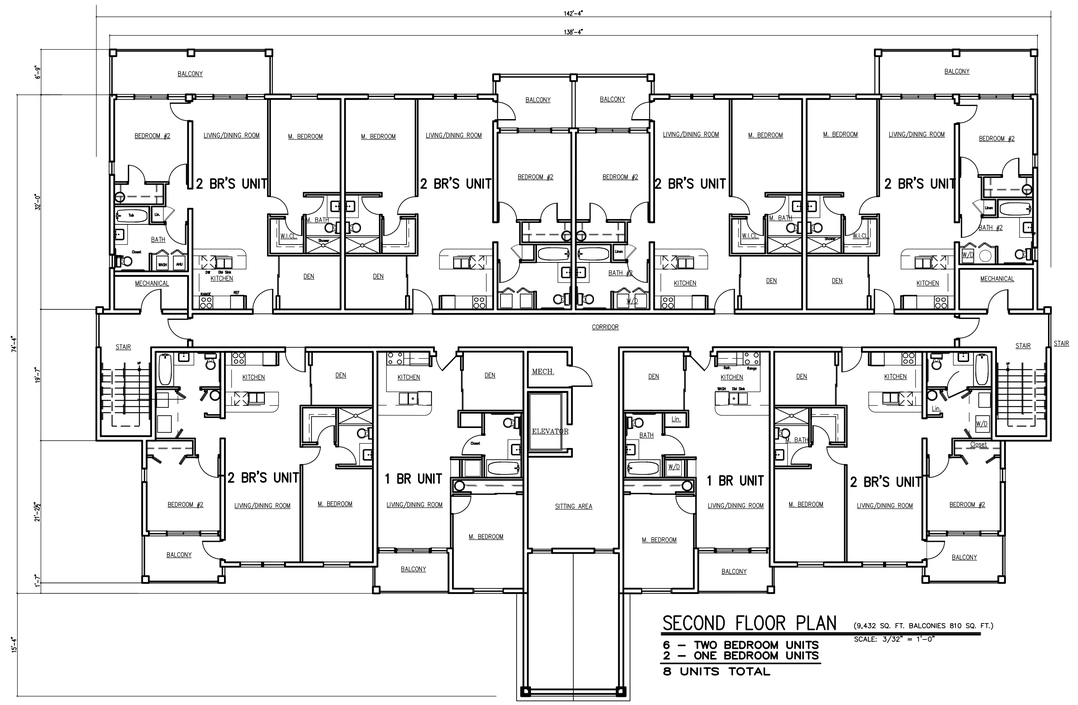
Sincerely,

Angelena N. Vitter, P.E.
Project Manager

AV/jeh

**ENCLOSURES:**

- Revised Architectural Plans
- Architectural Rendering
- Revised Civil Plans
- Revised Landscape Plans
- Survey
- Traffic Response Letter
- Traffic Report
- Color Palette
- Lighting Design, Fixture and Pole




NO. | REVISIONS | DATE


STAFFAN H. LUNDBERG
ARCHITECT LLC
AR-0008984
1341 SEA HAWK LANE
VERO BEACH, FLORIDA 32963
(772) 538-5130
Staffanarchitect@gmail.com


FLOOR PLANS
for
# MARGARETA VILLAS
4101 OLEANDER Avenue
FT. PIERCE, FLORIDA


Ownership of these drawings and the design represented herein are protected by copyright & other applicable laws. Any duplication, distribution or use for any purpose without the written permission of Staffan H. Lundberg Architect LLC could result in criminal prosecution as well as civil liability.


| | |
|---|---|
| SCALE: | AS SHOWN |
| DRAWN: | GSM |
| CHECKED: | SHL |
| APPROVED: | SHL |
| DATE: | 05-15-24 |
| PROJ. NO.: | 2023-02 |

TITLE :
PRELIMINARY
FLOOR PLANS
1st & 2nd FLOOR

DRAWING NO.
A1

MARGARETA VILLAS

FOURTH FLOOR PLAN 9,432 SQ. FT. ( BALCONIES 810 SQ. FT.)
SCALE: 3/32" = 1'-0"

4 – TWO BEDROOM UNITS
2 –THREE BEDROOM UNITS

6 – UNITS TOTAL

THIRD FLOOR PLAN 9,432 SQ. FT. ( BALCONIES 810 SQ. FT.)
SCALE: 3/32" = 1'-0"

6 – TWO BEDROOM UNITS
2 – ONE BEDROOM UNITS

8 – UNITS TOTAL

| NO. | REVISIONS | DATE |
|---|---|---|
| | | |


STAFFAN H. LUNDBERG
ARCHITECT LLC
AR-0006984
1341 SEA HAWK LANE
VERO BEACH, FLORIDA 32963
(772) 538-5130
Staffanarchitect@gmail.com


FLOOR PLANS
for
# MARGARETA VILLAS
4101 OLEANDER Avenue
FT. PIERCE, FLORIDA


Ownership of these drawings and the design represented herein are protected by copyright & other applicable laws. Any duplication, distribution or use for any purpose without the written permission of Staffan H. Lundberg Architect LLC could result in criminal prosecution as well as civil liability.


| | |
|---|---|
| SCALE: | AS SHOWN |
| DRAWN: | GSM |
| CHECKED: | SHL |
| APPROVED: | SHL |
| DATE: | 05-15-24 |
| PROJ. NO.: | 2023-02 |

TITLE :

PRELIMINARY
FLOOR PLANS
3rd &4th FL

DRAWING NO.

A2

MARGARETA VILLAS

NORTH ELEVATION
SCALE: 1/8" = 1'-0"

SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

REAR ELEVATION (WEST)
SCALE: 1/8" = 1'-0"

FRONT (EAST)ELEVATION
SCALE: 1/8" = 1'-0"

| NO. | REVISIONS | DATE |
|---|---|---|
| | | |

STAFFAN H. LUNDBERG
ARCHITECT LLC
AR-0006984
1341 SEA HAWK LANE
VERO BEACH, FLORIDA 32963
(772) 538-5130
Staffanarchitect@gmail.com

FLOOR PLANS
for
# MARGARETA VILLAS
4101 OLEANDER Avenue
FT. PIERCE, FLORIDA

Ownership of these drawings and the design represented herein are protected by copyright & other applicable laws. Any duplication, distribution or use for any purpose without the written permission of Staffan H. Lundberg Architect LLC could result in criminal prosecution as well as civil liability.

| | |
|---|---|
| SCALE: | 1/8"-0"='1'-0" |
| DRAWN: | GSM |
| CHECKED: | SHL |
| APPROVED: | SHL |
| DATE: | 05-15-2024 |
| PROJ. NO.: | 2023-02 |

TITLE :

ELEVATIONS

DRAWING NO.

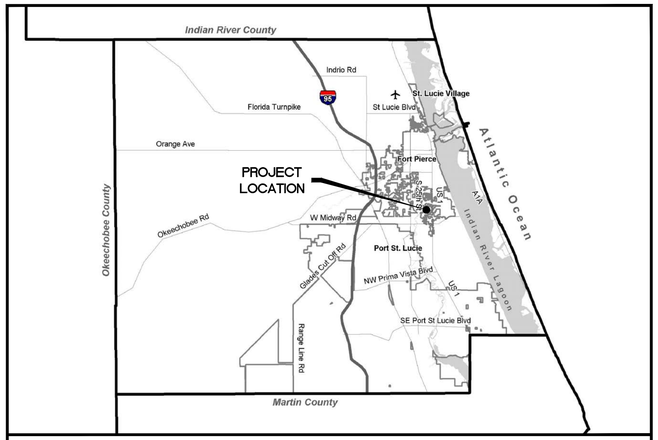
A3

MARGARETA VILLAS

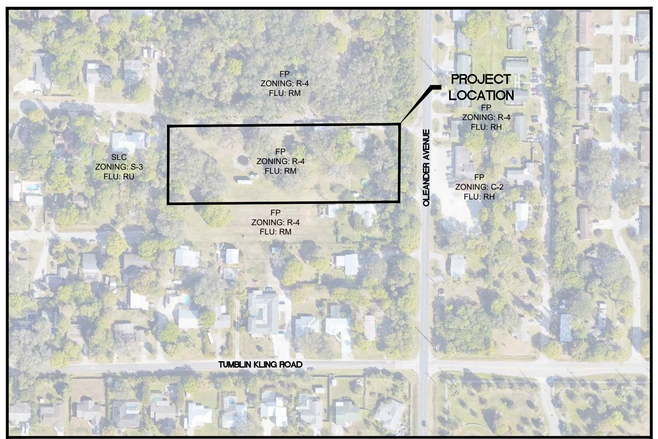
# MARGARETA VILLAS
# MULTI-FAMILY

## SECTION 33, TOWNSHIP 35S, RANGE 40E
## CITY OF FORT PIERCE, FLORIDA

SEPTEMBER 2023




LOCATION MAP




VICINITY MAP

## OWNER

4101 OLEANDER GROUP, LLC
17555 COLLINS AVENUE, APT. 2006
SUNNY ISLES, FLORIDA 33160
PH: (305) 337-0183

## APPLICANT

MR. GEZA SZINI-SEBO
ABANDEL GROUP, LTD.
51 WIGTON PLACE
THORNHILL, ON, CANADA L4J8C6
PH: (305) 337-0183

## 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

## SURVEYOR

PERIMETER SURVEYING & MAPPING
947 CLINT MOORE ROAD
BOCA RATON, FLORIDA 33487
PH: (561) 241-9988

## ARCHITECT

STAFFAN H. LUNDBERG
1341 SEA HAWK LANE
VERO BEACH, FLORIDA 32963
PH: (772) 538-5130

## INDEX OF DRAWINGS


| | |
|---|---|
| C1 | COVER SHEET |
| C2 | GENERAL NOTES |
| C3 | EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN |
| C4 | SITE AND UTILITY PLAN |
| C5 | PAVING, GRADING AND DRAINAGE PLAN |
| C6 | CROSS SECTIONS |
| C7 | GENERAL DETAILS |
| C8 | WATER AND SEWER DETAILS |
| C9 | EROSION CONTROL DETAILS |


## LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY. SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's **below.**
**Call** before you dig.

ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950

DATE: 09/20/24

PROJECT: 23-0060

SHEET
C1

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 COVER - DETAILS.dwg 9/23/2024 3:05 PM
GREGG REED

## PRE-CONSTRUCTION REQUIREMENTS:

1. THE CONTRACTOR IS REQUIRED TO PERFORM HIS WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE VARIOUS PERMITS WHICH WILL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.
2. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE (SEQUENCE OF OPERATIONS) PRIOR TO THE PRE-CONSTRUCTION MEETING.
3. CONTRACTOR WILL ATTEND A PRE-CONSTRUCTION MEETING WITH THE DESIGN ENGINEER, MUNICIPALITY AND/ OR OWNER PRIOR TO LAND DISTURBANCE.
4. SHOP DRAWINGS SHALL BE SUBMITTED BEFORE ORDERING MATERIAL FOR PLANNED PROJECT. CORRESPONDING SHALL BE BETWEEN THE DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

## CONSTRUCTION NOTES:

1. THE CONTRACTOR IS ADVISED TO THOROUGHLY REVIEW THIS PLAN PACKAGE SO AS TO BE TOTALLY PREPARED TO PRESENT HIS BID PRICES IN THE CONTRACT DOCUMENTS. THE PLAN PACKAGE SUFFICIENTLY DELINEATES THE SCOPE AND INTENT OF THE WORK TO BE ACCOMPLISHED. IT WILL, THEREFORE, BE INCUMBENT ON THE CONTRACTOR TO ADJUST HIS FEE DOLLARS TO REFLECT ANY AND ALL ITEMS WHICH MAY NOT BE CLEARLY OUTLINED OR THOSE ITEMS WHICH MAY NOT BE INDICATED BUT WHICH ARE NECESSARY FOR THE SUCCESSFUL COMPLETION OF THIS PROJECT WITHOUT ADDITIONAL COSTS TO THE OWNER.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF FORT PIERCE AND FDOT STANDARDS AND SPECIFICATIONS.
3. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND IS RESPONSIBLE FOR THE COORDINATION OF UTILITY RELOCATION.
4. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN THE FIELD WITH UTILITY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION, AS REQUIRED BY THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT. NOTIFY SUNSHINE AT 811.
6. CONTRACTOR SHALL TAKE EXTREME CAUTION WHEN EXCAVATING NEARBY EXISTING UTILITIES.
7. CONTRACTOR SHALL INFORM ENGINEER OF ANY CONFLICT BEFORE ANY FURTHER WORK IS COMPLETED.
8. UTILITIES ARE TO BE ADJUSTED BY UTILITY OWNER OR AS DIRECTED BY THE ENGINEER.
9. SURFACE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INQUIRE OF THE ENGINEER IF ADDITIONAL INFORMATION IS AVAILABLE, TO MAKE ARRANGEMENTS TO REVIEW SAME PRIOR TO BIDDING, AND IS TO MAKE HIS OWN DETERMINATION AS TO ALL SURFACE & SUBSURFACE CONDITIONS.
10. CONTRACTOR SHALL NOTIFY THE ENGINEER IF SOIL OR SUBSURFACE CONDITIONS UNSUITABLE FOR CONSTRUCTION ARE ENCOUNTERED.
11. ALL EXCAVATED SOILS DEEMED SUITABLE AS FILL MATERIAL AS DETERMINED BY THE ENGINEER SHALL BE UTILIZED ON SITE BY THE CONTRACTOR AT HIS OWN EXPENSE. THE LOCATION OF DELIVERY ON SITE SHALL BE PER CITY REQUIREMENTS. ALL EXCAVATED SOILS DEEMED UNSUITABLE SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.
12. ITEM IN CONFLICT WITH DESIGN SUCH AS EXISTING CURBS AND GUTTERS, SIDEWALKS, DRAINAGE STRUCTURES, PAVEMENT AND EXCESS EXCAVATIONS ARE TO BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A LEGAL AND PROPER MANNER AWAY FROM THE JOB SITE AT HIS OWN EXPENSE IF ALLOWABLE.
13. CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR CONSTRUCTION.
14. IT SHOULD BE NOTED THAT THE OCCUPATIONAL SAFETY AND HEALTH ACT PROHIBITS THE OPERATING OF EQUIPMENT OR MACHINES CLOSER THAN TEN (10) FEET TO ENERGIZED ELECTRIC LINES RATES AT FIFTY KILOVOLTS OR BELOW. ALSO, NO EXCAVATION IS PERMITTED WITHIN FIVE (5) FEET OF POWER POLE FACILITIES.
15. ALL IRONS AND MONUMENTS (P,R.M.'S) SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
16. ANY PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED, THE CONTRACTOR WILL NOTIFY THE ENGINEER.
17. ALL EXISTING TREES WITHIN THE RIGHT OF WAY ARE TO BE REMOVED AS CLEARING AND GRUBBING UNLESS OTHERWISE NOTED.
18. WHEN REFERENCED TO, FDOT REFERS TO FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS,CURRENT EDITION.
19. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO A CONDITION EQUAL TO, OR BETTER THAN THAT WHICH IS NOW EXISTING.
20. BACKFILL, GRADE AND SOD AS REQUIRED AROUND ALL NEW CONSTRUCTION TO PREVENT EROSION. SEED AND MULCH WILL ONLY BE ALLOWED TO RESTORE UNDEVELOPED AREAS AFFECTED BY CONSTRUCTION OR AS DIRECTED BY THE ENGINEER OR LANDSCAPE ARCHITECT.
21. SODDING TO BE USED AT LOCATIONS AS DIRECTED BY THE ENGINEER OR LANDSCAPE ARCHITECT. SOD ALL DISTURBED AREAS UPON COMPLETION.
22. ALL EXCESS CONSTRUCTION MATERIAL AND WASTE TO BE HAULED OFF-SITE AND DISPOSED OF PROPERLY AT CONTRACTOR'S EXPENSE.
23. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH FDOT STANDARDS FOR TRAFFIC CONTROL THROUGH WORK ZONES AND MUTCD (PART VI).
24. PROPERTY OWNERS AND BUSINESSES WITHIN THE AREA OF CONSTRUCTION SHALL BE GIVEN ACCESS TO THEIR PROPERTY AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.
25. ALL MAILBOXES SHALL BE RELOCATED BY THE CONTRACTOR AS DIRECTED BY THE U.S. POSTAL MAIL CARRIER.
26. THE CONTRACTOR SHALL REMOVE, COVER OR OBLITERATE EXISTING ROADWAY SIGN AND PAVEMENT MARKINGS THAT CONFLICT WITH THE CONSTRUCTION TRAFFIC CONTROL PLANS.
27. CONTRACTOR TO PROTECT ALL SPRINKLER HEADS NOT IN CONFLICT WITH DESIGN AND RELOCATE ALL THOSE WHICH ARE IN CONFLICT TO A LOCATION DETERMINED IN FIELD.
28. SOD TWO (2) FEET MINIMUM ALONG SIDE PROPOSED EDGE OF PAVEMENT.
29. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY DRAINAGE MEASURES AS REQUIRED TO ADEQUATELY DRAIN THE PROJECT AND ANY TEMPORARILY TRAVELED ROADWAYS. TEMPORARY DRAINAGE DESIGN, CONSTRUCTION AND MAINTENANCE IS THE CONTRACTOR'S RESPONSIBILITY; HOWEVER, ALL SUCH MEASURES MUST BE APPROVED BY THE ENGINEER.
30. THE EXISTING SIDEWALK SHALL NOT BE DISTURBED UNLESS OTHERWISE NOTED.
31. GRADES SHOWN ARE FINISHED GRADES.
32. SAWCUT CONCRETE OR ASPHALT DRIVEWAYS AS REQUIRED FOR REPLACEMENT.
33. ALL ABANDONED UTILITIES (INCLUDING PIPES, CABLES AND STRUCTURES) FOUND IN THE RIGHT OF WAY AND NOT SHOWN ON THE PLANS, ARE TO BE REMOVED AND PROPERLY DISPOSED OF AT THE EXPENSE OF THE CONTRACTOR. THIS INCLUDES ALL EXOTIC PIPES LIKE ASBESTOS-CEMENT PIPE. COST TO BE INCLUDED IN CLEARING AND GRUBBING ITEM.
34. SHOULD THE DRIVEWAY LOCATION OR WIDTH BE REQUIRED TO BE ADJUSTED , COORDINATE WITH THE ENGINEER AND CITY PRIOR TO ADJUSTMENTS.
35. BENCHMARK DATUM IN NAVD 88.
36. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ℄ (BASELINE) AND ℄ (CENTERLINE) CONSTRUCTION THROUGHOUT THE PROJECT.
37. THE CONTRACTOR SHALL PERFORM UTILITY WORK WITHIN RIGHT-OF-WAY PER ST. LUCIE COUNTY AND FDOT STANDARDS.
38. EXISTING SWALES OR DITCHES TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. ANY DAMAGE TO THE SWALE OR DITCH SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE.
39. PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN THE INDIVIDUAL BID ITEMS SHALL BE INCLUDED IN THE CONTRACT PRICES FOR BID ITEMS.
40. MAINTAIN A MINIMUM OF ONE (1) FOOT CLEARANCE BETWEEN POWER POLE AND EDGE OF SIDEWALK.
41. WHEN ALL OTHER PERMANENT CONSTRUCTION IS COMPLETE, THE FINAL SURFACE COURSE SHALL BE PLACED.
42. CONSTRUCTION OPERATIONS FOR PLACEMENT OF THE FINAL SURFACE COURSE SHALL BE LIMITED TO A DISTANCE, AS DIRECTED BY THE ENGINEER, THE CONTRACTOR CAN COMPLETE IN ONE (1) DAY.
43. THE CONTRACTOR SHALL IMPLEMENT TEMPORARY PAVEMENT MARKINGS UNTIL THE FINAL SURFACE COURSE HAS CURED (MINIMUM THIRTY (30) DAYS AFTER FINAL SURFACE COURSE PLACEMENT). ANY TEMPORARY PAINTED MARKINGS SHALL BE REPLACED ON THE FINAL.
44. PAVEMENT TRANSITION SHALL BE MADE IN ACCORDANCE WITH PAVEMENT TRANSITION DETAIL.
45. ALL APPROVED PERMIT CONDITIONS, INCLUDING BUT NOT LIMITED TO FDOT, FDEP AND CITY OF FORT PIERCE, SHALL BE MET BY CONTRACTOR PRIOR TO CERTIFICATION OF COMPLETION BY ENGINEER.

## ROADWAY SPECIFICATIONS

### GENERAL

IT IS INTENDED THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" MOST CURRENT EDITION 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.

IF WITHIN THAT PARTICULAR SECTION ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE A PART OF THE STANDARD SPECIFICATIONS ALSO.

THE CONTRACTOR SHALL GIVE THE ENGINEER 48 HOURS NOTICE PRIOR TO REQUESTING 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 TWO YEARS FROM THE DATE OF PROJECT ACCEPTANCE, DURING WHICH ALL FAULTY CONSTRUCTION AND/OR MATERIALS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

### GRADING

THE CONTRACTOR SHALL PERFORM ALL GRADING NECESSARY TO ACHIEVE THE PROPOSED PLAN GRADES INCLUDING TYPICAL SECTIONS.

ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 120 OF THE STANDARD SPECIFICATIONS.

### STAKING

CONSTRUCTION STAKING WILL BE PERFORMED BY THE CONTRACTOR.

### STABILIZING

STABILIZED SUBGRADE SHALL BE CONSTRUCTED TO THE FLORIDA BEARING VALUE AS PER PLAN FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, AND IN ACCORDANCE WITH SECTION 160 OF THE STANDARD SPECIFICATIONS.

(TYPE C STABILIZATION). ALL STABILIZED AREAS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

### 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 AND CEMENTED COQUINA SHELL BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ROCK PIT CERTIFICATION FOR CEMENTED COQUINA SHELL MATERIAL. BASE SHALL BE COMPACTED BY AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. BASE SHALL BE APPROVED PRIOR TO PRIME COAT.

### PRIME AND TACK COAT

PRIME AND TACK COAT FOR THE BASE SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

### ASPHALTIC CONCRETE SURFACE COURSE (A.C.S.C.)

TYPE S-III ACSC SHALL BE CONSTRUCTED FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, IN ACCORDANCE WITH SECTIONS 320, AND 330 OF THE STANDARD SPECIFICATIONS.

### TESTING

THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN APPROVED INDEPENDENT TESTING LABORATORY TO CONDUCT ALL REQUIRED TESTS ON SUBGRADE, BASE AND SURFACE COURSE MATERIALS. TEST RESULTS MUST BE SUBMITTED PRIOR TO ANY REQUEST FOR PAYMENT ON THE ABOVE ITEMS.

THE SCHEDULE FOR TESTING OF THE ROAD CONSTRUCTION SHALL BE AS FOLLOWS:

A. SUBGRADE:
1. FLORIDA BEARING VALUE TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET, OR CLOSER AS MIGHT BE NECESSARY IN THE EVENT OF VARIATIONS IN SUBSOIL CONDITIONS.
2. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET OR CLOSER AS MIGHT BE NECESSARY.

B. BASE:
1. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 500 FEET OR CLOSER AS MIGHT BE NECESSARY.

ALL TESTING SHALL BE TAKEN IN A STAGGERED SAMPLING PATTERN FROM A POINT 1 1/2 INCHES INSIDE THE LEFT EDGE, TO THE CENTER, TO A POINT 12 INCHES INSIDE THE RIGHT EDGE OF THE ITEM TESTED.

IF ANY TEST INDICATES THAT THE WORK DOES NOT MEET THE SPECIFICATIONS, THE SUBSTANDARD AREA SHALL BE REWORKED OR CORRECTED AND RETESTED, AT THE CONTRACTOR'S EXPENSE, UNTIL THE PROVISIONS OF THESE SPECIFICATIONS ARE MET.

ALL PASSING TESTS SHALL BE PAID FOR BY THE OWNER. ALL FAILING 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.

### CONSTRUCTION IN STREETS AND ROAD RIGHT-OF-WAYS

1. OPEN ROAD CUTS REQUIRE PRIOR APPROVAL OF THE CITY, COUNTY, STATE OR ANY OTHER AGENCY WHICH MAY HAVE JURISDICTION.
2. ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND STANDARDS.
3. ALL AREAS IN EXISTING RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION SHALL RECEIVE SOLID SOD.
4. STREET RESTORATION TO BE DONE AS PER ST. LUCIE COUNTY STANDARDS.
5. 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.
6. TRAFFIC CONTROL ON ALL COUNTY AND STATE HIGHWAY RIGHT-OF-WAYS 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.

## DRAINAGE 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 STRENGTH OF 3000 PSI.

ALL REINFORCING STEEL TO BE ASTM A 615-72 GRADE 40, FYP = 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.

STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 430 AND RELATED SECTIONS OF THE STANDARD SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.

### 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.

### CULVERT PIPES

REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE STANDARD SPECIFICATIONS.

### PRECAST CONCRETE DRAINAGE PRODUCTS

ALL PRECAST CONCRETE DRAINAGE PRODUCTS (INCLUDING BUT NOT LIMITED TO ROUND CONC. PIPE. ELLIPTICAL CONC. PIPE, UNDERDRAINS, MANHOLES, INLETS, ENDWALLS, JUNCTION BOXES, THREE SIDED CONC. CULVERTS, AND CONC. BOX CULVERTS) SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE STANDARD SPECIFICATIONS.

### GROUNDWATER

GROUNDWATER MAY BE ENCOUNTERED ON THIS SITE. THE CONTRACTOR IS TO PLAN ACCORDINGLY.

### 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 NOT LIMITED TO, INVERT AND TOP ELEVATIONS OF CULVERTS AND INLET STRUCTURES. CONTRACTOR SHALL SUBMIT COMPLETE AND FINAL RECORD DRAWINGS TO ENGINEER UPON COMPLETION OF PROJECT AND PRIOR TO FINAL INSPECTION AND FINAL PAYMENT.

### INSPECTION

MINIMUM CONSTRUCTION INSPECTION CHECKPOINTS

THE ENGINEER SHALL BE NOTIFIED:
1. PRIOR TO ANY MAJOR DEVIATION FROM THE APPROVED PLANS.
2. PRIOR TO BACKFILLING ANY PIPE TRENCHES.
3. UPON COMPLETION OF SUBGRADE GRADING AND COMPACTION.
4. UPON BEGINNING OF SPREADING OF ROCK BASE MATERIAL.
5. UPON COMPLETION OF GRADING AND COMPACTION OF THE BASE MATERIAL AND PRIOR TO PRIMING.
6. IMMEDIATELY PRIOR TO AND UPON APPLICATION OF A.C.S.C.
7. UPON COMPLETION OF CONSTRUCTION.

## FDEP SEPARATION CRITERIA:

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER, FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610,F.A.C.
(B)NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
(C) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610,F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
(D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2),F.S., AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUME-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(C) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL THE WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER 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.

(3) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES

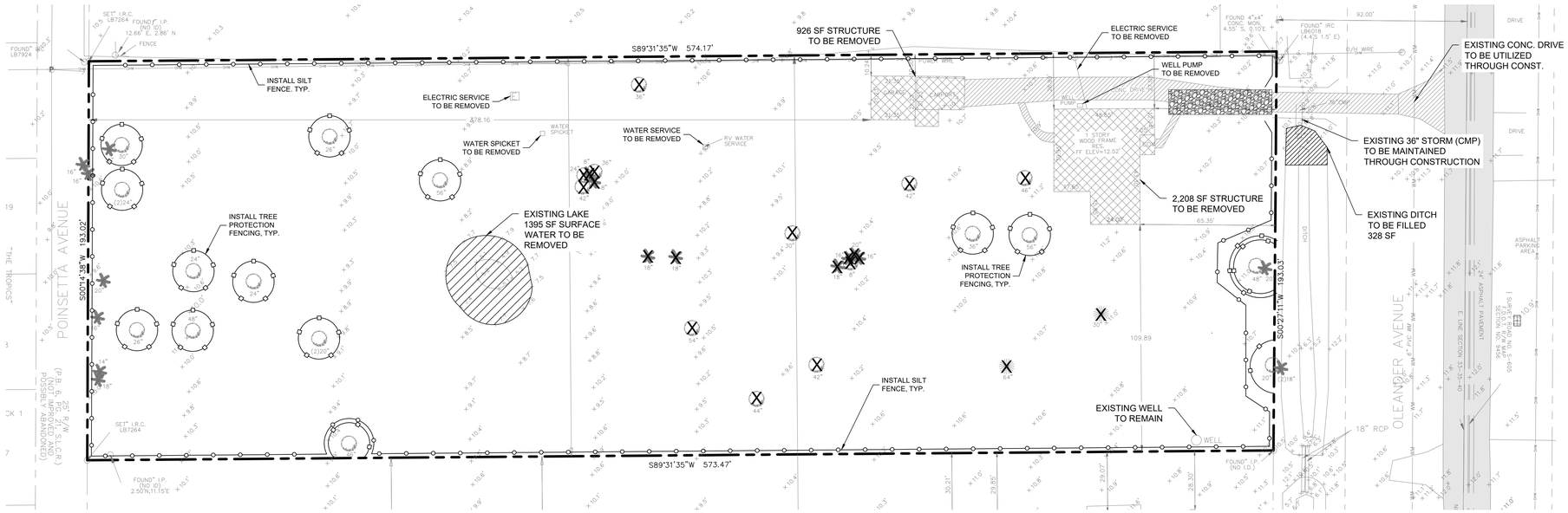
(A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
(B)EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

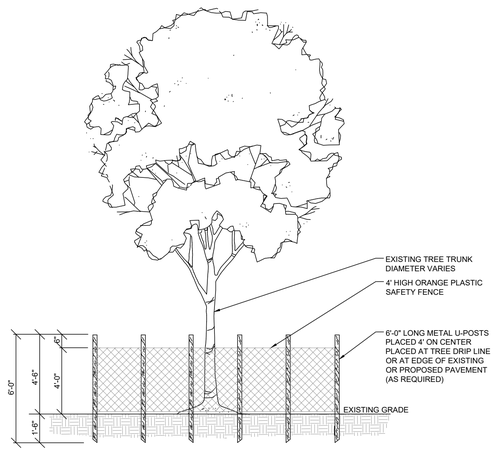
(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY-OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY-OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

## GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CHECKING ACTUAL SITE CONDITIONS BEFORE STARTING CONSTRUCTION.
2. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK.
3. ALL WORK SHALL BE IN 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.
4. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH REQUIREMENTS OF THE CITY OF FORT PIERCE, WATER MANAGEMENT DISTRICT, FDEP , ST LUCIE COUNTY AND THESE PLANS AND SPECIFICATIONS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST 48 HOURS IN ADVANCE FOR CONSTRUCTION OPERATIONS.
6. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
7. CONTRACTOR SHALL SUPPLY DENSITY TESTS TO ENGINEER ON ALL SUB-GRADE AND BASE. TESTS SHALL BE PREPARED PER AASHTO T-180 METHOD.
8. SLOPE GRADES FROM ELEVATIONS SHOWN TO EXISTING GRADE AT PROPERTY LINE. MAXIMUM SLOPE 4:1.
9. ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE FOR ANY INSPECTION.
10. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH M.U.T.C.D. STANDARDS, ST. LUCIE COUNTY AND FDOT.
11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.
12. THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTORS BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE. WHEN GROUNDWATER IS ENCOUNTERED THE CONTRACTOR SHALL PLAN ACCORDINGLY.
13. ALL INLETS SHALL HAVE A 6" MIN. SUMP BELOW LOWEST INVERT.
14. EROSION CONTROL FENCING MUST BE IN PLACE PRIOR TO GRADING.
15. PIPE LENGTHS AND SLOPES SHOWN ARE APPROXIMATE.
16. 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.
17. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
18. CONTRACTOR SHALL ADJUST INLET/STRUCTURE OR CONNECTION LOCATION AS REQUIRED TO ENSURE PROPOSED STRUCTURES AND PIPES ARE IN PROPER ALIGNMENT AND MATCH SLOPE OF EXISTING PIPES OR CONNECTIONS.
19. THIS PLAN CONTEMPLATES ACCESS CONNECTIONS TO ADJACENT ROADS AS SHOWN.
20. FILL MATERIAL MAY NOT BE STOCKPILED HIGHER THAN SIX (6) VERTICAL FEET ONSITE PER CITY OF FORT PIERCE CODE.
21. DIMENSIONS SHOWN ARE TO EDGE OF GUTTER OR PAVEMENT. RADII SHOWN ARE TO FACE OF CURB.
22. ALL SIGNS SHALL BE PER M.U.T.C.D. STANDARDS.
23. ALL PAVEMENT MARKINGS, EXCEPT PARKING STALL STRIPING, SHALL BE THERMOPLASTIC PER CITY OF FORT PIERCE REQUIREMENTS.
24. THE USES PROPOSED AS PART OF THIS PLAN DO NOT REQUIRE A SUBMITTAL OF A RISK MANAGEMENT PLAN PURSUANT TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGULATIONS AND SHALL NOT EXCEED THE EPA'S RMP THRESHOLD QUANTITIES OF LISTED SUBSTANCES.
25. WATER FOR FIRE FIGHTING PURPOSES SHALL BE INDICATED WITH A BLUE ROADWAY REFLECTOR, PLACE ONE FOOT OFF OF THE CENTERLINE OF THE ROAD FACING THE FIRE HYDRANT. THIS INCLUDES NEW AND EXISTING SOURCES.
26. REGARDLESS OF PRIVATE OR P




ELEVATION

TREE PROTECTION 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. FENCES/BARRAICADE SHALL BE INSTALLED AT DRIPLINE OF ALL TREES OR GROUP OF TREES TO BE PRESERVED UNLESS OTHERWISE APPROVED BY STAFF. FENCE SHALL BE MAINTAINED DURING CONSTRUCTION.

PLAN VIEW

## TREE PROTECTION BARRIER DETAIL

NTS

# EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN

SCALE: 1" = 30'

GRAPHIC SCALE
0 30 60
( IN FEET )
1 inch = 30 ft.

## LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- EXISTING BUILDING DEMO
- EXISTING CONCRETE DEMO
- SILT FENCE
- TREE PROTECTION FENCE
- EXISTING TREE TO BE REMOVED

TREE LEGEND
- OAK
- PALM
- ROYAL POINCIANA

## LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY.

SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

## NOTES

1. REPRODUCTIONS OF THIS SKETCH ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. EASEMENTS AND RIGHTS-OF-WAY SHOWN ARE TAKEN FROM TITLE COMMITMENT NUMBER 24394655CA, AS PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, EFFECTIVE DATE: JANUARY 18, 2006 AT 8:00 A.M. PROPERTY IS SUBJECT TO THE AGREEMENT WITH FT. PIERCE UTILITIES AUTHORITY, AS RECORDED IN OFFICIAL RECORDS BOOK 424, AT PAGE 8776 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.
3. NO UNDERGROUND IMPROVEMENTS ARE SHOWN HEREON.
4. ELEVATIONS SHOWN HEREON ARE RELATIVE TO NAVD 1988, BASED ON ST. LUCIE COUNTY BENCHMARK "FRENCH" - ST. LUCIE COUNTY DISK IN CONC. 214' S OF FRENCH CREEK LANE, 29' W OF W E.O.P. OLEANDER BLVD. ELEVATION = 11.32' NAVD 1988.
5. BEARINGS SHOWN HEREON ARE BASED ON THE STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR FLORIDA EAST ZONE, WITH THE EAST LINE OF THE SOUTHEAST ONE-QUARTER OF SECTION 33-35-40 HAVING A BEARING OF NORTH 00°27'11" EAST. N.G.S. CONTROL MONUMENTS Y403, STL4 AND GCY WERE USED TO DETERMINE THIS BEARING.
6. TREE TYPES LISTED TO THE BEST OF OUR ABILITY. FOR A MORE EXACT SPECIES DETERMINATION, A BOTANIST OR SIMILAR PROFESSIONAL SHOULD BE CONSULTED.
7. THIS SURVEY IS CERTIFIED TO:

## FLOOD INFORMATION

COMMUNITY NUMBER : 120286
PANEL NUMBER : 12111C0189K
DATE OF FIRM : FEBRUARY 19, 2020
ZONE : X

## ABBREVIATIONS

| | | |
|---|---|---|
| L | = | ARC |
| ASPH | = | ASPHALT |
| C | = | CALCULATED |
| C&G | = | CURB & GUTTER |
| C.L.F. | = | CHAIN LINK FENCE |
| CONC. | = | CONCRETE |
| COR. | = | CORNER |
| C.U.P. | = | CONCRETE UTILITY POLE |
| D | = | DELTA (CENTRAL ANGLE) |
| D.E. | = | DRAINAGE EASEMENT |
| I.R. | = | IRON ROD |
| I.R.C. | = | IRON ROD AND CAP |
| L.B. | = | LICENSED BUSINESS |
| L.S. | = | LICENSED SURVEYOR |
| L.W.D.D. | = | LAKE WORTH DRAINAGE DISTRICT |
| MON. | = | MONUMENT |
| O.R.B. | = | OFFICIAL RECORDS BOOK |
| P.B. | = | PLAT BOOK |
| S.L.C.R. | = | ST. LUCIE COUNTY RECORDS |
| PG. | = | PAGE |
| P.S.M. | = | PROFESSIONAL SURVEYOR & MAPPER |
| U.E. | = | UTILITY EASEMENT |
| W.F. | = | WOOD FENCE |
| W.U.P. | = | WOOD UTILITY POLE |
| IP | = | IRON PIPE |
| RES | = | RESIDENCE |
| (C) | = | CALCULATED |
| (P) | = | PLAT |
| (M) | = | MEASURED |
| R/W | = | RIGHT-OF-WAY |

LEGEND
- GUY ANCHOR WIRE
- WOOD UTILITY POLE
- CABLE TV BOX
- FENCE
- OVERHEAD POWER LINES
- SIGN
- TREE
- ELECTRIC SERVICE

## DEMOLITION NOTES

1. ALL EXOTIC AND INVASIVE SPECIES TO BE REMOVED CONGRUENT WITH DEVELOPMENT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE ATTAINMENT OF ALL DEMOLITION PERMITS NECESSARY FOR PROPOSED CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY / ALL NECESSARY EROSION CONTROL MEASURES AS PRESENTED ON THIS SHEET AND INCLUDED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
4. ALL BARRIERS AND PROTECTION MEASURES FOR TREES BEING SAVED SHALL BE PLACED BEFORE ANY DEMOLITION ACTIVITY BEGINS. LARGE TREES ON ADJACENT PROPERTIES, NEAR THE PROPERTY LINE, SHOULD ALSO BE PROTECTED.
5. ALL IMPACTS TO THE SLC R/W SHALL BE SODDED WITHIN (3) DAYS OF FINAL GRADING.
6. "TRUCKS ENTERING ROADWAY" SIGNS SHALL BE INSTALLED IN ADVANCE BOTH DIRECTIONS OF CONSTRUCTION ENTRANCE PER MUTCD STANDARDS.

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.

C:\DATA_ON_HARD DRIVE\2022\23-0060 4101 Oleander multi family\DWG\23-0060 C3 EX COND,DEMO,EROSION.dwg

| DATE | REVISIONS |
|---|---|
| 9/20/24 | 1 PER CITY COMMENTS |
| | 2 |
| | 3 |
| | 4 |
| | 5 |
| | 6 |
| | 7 |
| | 8 |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 9/23/2024 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1855 39TH STREET
VERO BEACH, FL 32960
PH (772) 778-7378
FX (772) 778-7417
MELBOURNE, FL PH (321) 253-4100
FT PIERCE, FL PH (772) 468-9055

EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN

MARGARETA VILLAS
MULTI-FAMILY

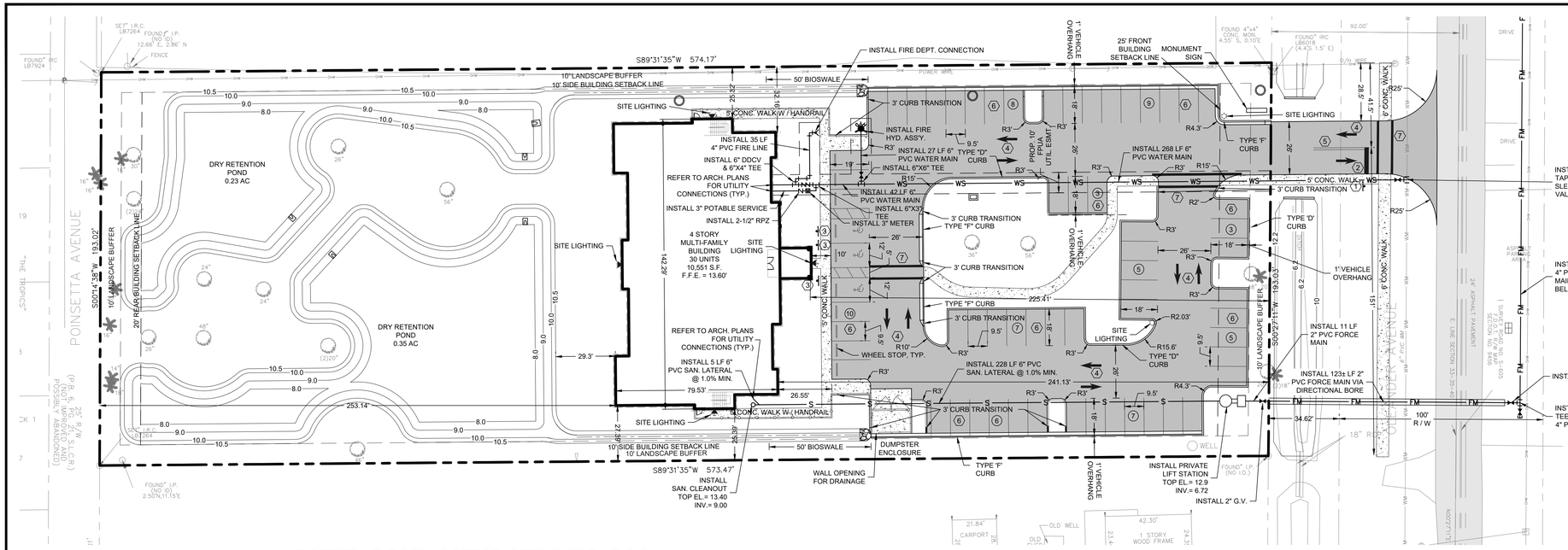
CITY OF FORT PIERCE FLORIDA

ANGELENA N. VITTER LICENSE No. 62950 STATE OF FLORIDA PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950

SHEET
C3

23-0060




# SITE AND UTILITY PLAN

SCALE: 1" = 30'

GRAPHIC SCALE

0 30 60

( IN FEET )

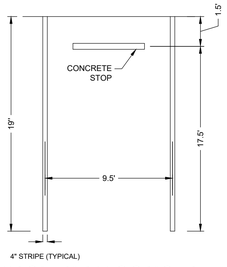
1 inch = 30 ft.

## LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE

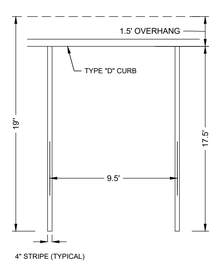
## SITE, SIGNAGE & PAVEMENT MARKING SCHEDULE

| SIGN ID NUMBER | SIZE | DESIGNATION / NOTES |
|---|---|---|
| ① | 30" | R1-1 "STOP" SIGN |
| ② | 24" | SOLID WHITE STOP BAR- THERMOPLASTIC |
| ③ | 12" | FTP-20-06 HC PARKING SIGN |
| ④ | | PAINTED PAVEMENT MARKINGS PER FDOT INDEX #711-001 |
| ⑤ | 6" | 25 LF DOUBLE YELLOW STRIPE - THERMOPLASTIC |
| ⑥ | 4" | PAINTED WHITE STRIPE |
| ⑦ | | 6' CROSS WALK WITH 12" SOLID WHITE STRIPES |



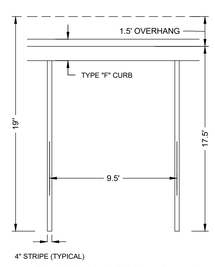

TYPICAL PARKING SPACE DETAIL

N.T.S.




PARKING SPACE DETAIL WITH "D" CURB AND OVERHANG

N.T.S.




PARKING SPACE DETAIL WITH "F" CURB AND OVERHANG

N.T.S.

NOTE:

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF FORT PIERCE CODE OF ORDINANCES SECTIONS 119 AND 125.

## PROJECT INFORMATION

### SITE ADDRESS

4101 OLEANDER AVENUE
FORT PIERCE, FL 34982

### OWNER

4101 OLEANDER GROUP, LLC
17555 COLLINS AVENUE, APT. 2006
SUNNY ISLES, FLORIDA 33160
PHONE (305) 337-0183

### ENGINEER

MBV ENGINEERING, INC.
1835 20TH STREET
VERO BEACH, FLORIDA 32960
PHONE (772) 569-0035

### APPLICANT

MR. GEZA SZINI-SEBO
ABANDEL GROUP, LTD.
51 WIGTON PLACE
THORNHILL, ON, CANADA L4J8C6
PHONE (305) 337-0183

### ARCHITECT

STAFFAN H. LUNDBERG
1341 SEA HAWK LANE
VERO BEACH, FLORIDA
PHONE (772) 538-5130

### SURVEYOR

PERIMETER SURVEYING & MAPPING
947 CLINT MOORE ROAD
BOCA RATON, FLORIDA
PHONE (561) 241-9988

### TAX PARCEL I.D NUMBER(S)

2433-414-0001-000-4

| ZONING | LAND USE |
|---|---|
| R-4 | RM |

| LATITUDE | LONGITUDE |
|---|---|
| 27°23'12.02" N | 80°20'05.75" W |

### PROJECT DESCRIPTION

THIS PROJECT PROPOSES A 30 UNIT MULTI FAMILY RESIDENTIAL BUILDING WITH RELATED STORMWATER IMPROVEMENTS, PARKING AND LANDSCAPING. THE SITE SEEKS TO PRESERVE TREES WHERE POSSIBLE AND HAS CONFIGURED THE PARKING AND STORWATER TO TRY TO PRESERVE THE TREE CANOPY.

### SITE DATA

EXISTING SITE DATA

| | SF | AC | % |
|---|---|---|---|
| SITE AREA | 110,747 SF | 2.54 AC | 100% |
| AREA OF DEVELOPMENT | 110,747 SF | 2.54 AC | 100.00% |
| IMPERVIOUS AREA | 4,954 SF | 0.11 AC | 4.47% |
| EXISTING BUILDING | 3,136 SF | 0.07 AC | 2.83% |
| EXISTING CONCRETE | 1,818 SF | 0.04 AC | 1.64% |
| EXISTING PAVEMENT | 0 SF | 0.00 AC | 0.00% |
| PERVIOUS AREA | 105,793 SF | 2.43 AC | 95.53% |

PROPOSED SITE DATA

| | | | |
|---|---|---|---|
| SITE AREA | 110,747 SF | 2.54 AC | 100% |
| IMPERVIOUS AREA | 43,026 SF | 0.99 AC | 38.85% |
| PROPOSED BUILDING | 10,551 SF | 0.24 AC | 9.53% |
| PROPOSED CONCRETE | 2,985 SF | 0.07 AC | 2.70% |
| PROPOSED ASPHALT | 24,592 SF | 0.56 AC | 22.21% |
| WET POND AREA | 4,898 SF | 0.11 AC | 4.42% |
| PERVIOUS AREA | 67,721 SF | 1.55 AC | 61.15% |
| OPEN SPACE | 67,721 SF | 1.55 AC | 61.15% |
| NET NEW IMPERVIOUS | + 38,072 SF | 0.87 AC | |

### ZONING DATA

| | R-4 ZONING | EXISTING | PROPOSED |
|---|---|---|---|
| LOT SIZE | 20,000 SF | 110,747 SF | 110,747 SF |
| MIN. LOT WIDTH | 75-FT | 193-FT | 193-FT |
| BUILDING SETBACKS | | | |
| FRONT | 25-FT | 59-FT | 225-FT |
| SIDE | 10-FT | 110-FT | 25-FT |
| CORNER SIDE | 15-FT | 10-FT | 25-FT |
| REAR | 20-FT | 378-FT | 253-FT |
| BUILDING COVERAGE | 50% | 2.83% | 9.53% |
| OPEN SPACE | 10% | 95.53% | 61.15% |
| BUILDING HEIGHT | 45-FT | -- | 45-FT |

### PARKING DATA

MULTIFAMILY HOUSING DEVELOPMENTS

2 SP/ 1 UNIT 30 UNITS = 60 SPACES REQUIRED

| | |
|---|---|
| 63 | SPACES PROVIDED |
| 3 | ADA SPACES |
| 60 | STANDARD SPACES |

### TRAFFIC STATEMENT

PER ITE, 11TH EDITION:

USE 1: (MULTIFAMILY HOUSING (MID-RISE)) = 2.93 ADT PER DWELLING UNIT

2.93 X 30.0 DU = 88 ADDT

### DRAINAGE STATEMENT

STORMWATER IS TO BE COLLECTED IN THE BIO SWALE AND DRY RETENTION POND LOCATED TO THE REAR OF THE PROPERTY. THE SITE INCORPORATES LOW IMPACT DESIGN (L / D) BY UTILIZING A BIO SWALE OFFERING AN AESTHETIC AMENITY, IN ADDITION TO THE DRY POND'S RETENTION AND ATTENUATION FOR NUTRIENT REDUCTION.

### PERMITS REQUIRED

CoFP DEVELOPMENT REVIEW APPLICATION
CoFP DESIGN REVIEW APPLICATION
CoFP CONCURRENCY CAPACITY ANALYSIS FORM
CoFP DPCR
SLC FIRE REVIEW
FORT PIERCE UTILITIES AUTHORITY (FPUA)
NSLWCD CONNECTION PERMIT
SFWMD/FDEP 10-2 CERTIFICATION
FDEP WATER DISTRIBUTION PERMIT
FDEP WASTEWATER COLLECTION PERMIT
FDEP NPDES NOI PERMIT

### FLOOD ZONE

THE SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE X PER FLOOD INSURANCE RATE MAP #12111C0189K, DATED FEB 19, 2020.

### LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY. SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

### WASTEWATER SOURCE

FPUA

### POTABLE WATER SOURCE

FPUA

### CONSTRUCTON SCHEDULE

START: JANUARY 2025
FINISH: DECEMBER 2026

| NO. | DATE | REVISIONS |
|---|---|---|
| 1 | 9/20/24 | PER CITY COMMENTS |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 9/23/2024 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
MELBOURNE, FL - PH (321) 253-4100
FT.PIERCE, FL - PH (772) 468-9055

SITE AND UTILITY PLAN

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

ANGELENA N. VITTER
F.L. P.E. #62950

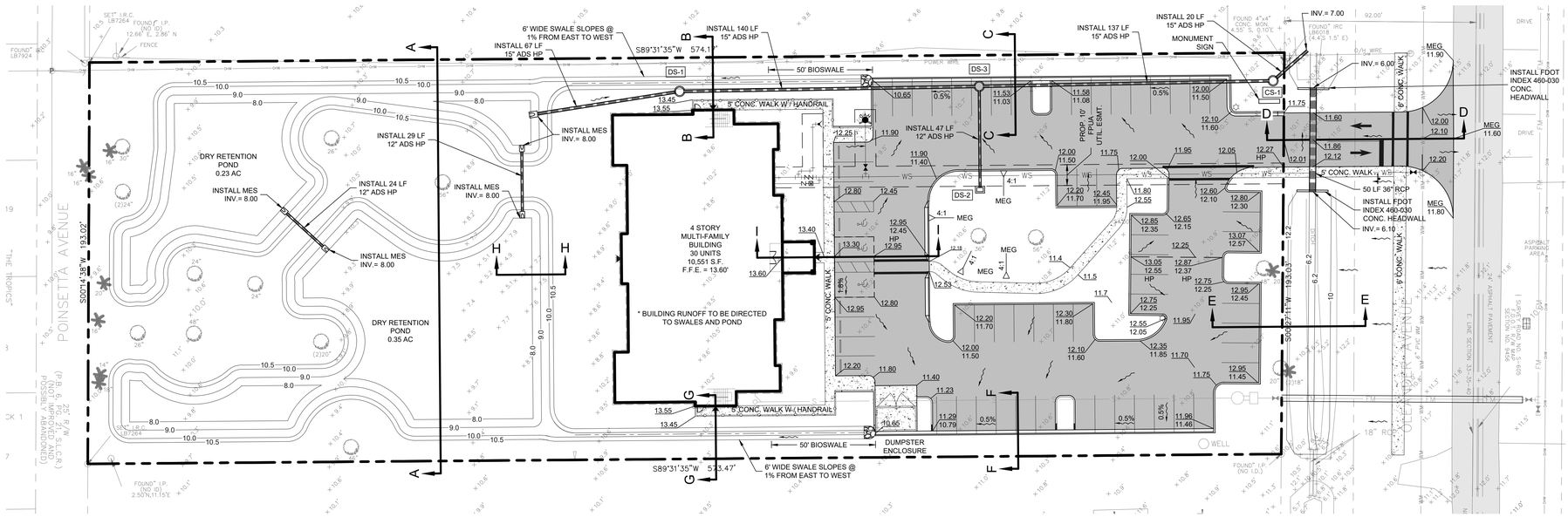
SHEET

C4

23-0060

72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's below.
Call before you dig.

C:\CIVIL 3D\HMB DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 C4 SITE UTIL PLAN.dwg 9/23/2024 3:02 PM




# PAVING, GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

GRAPHIC SCALE

0 30 60

( IN FEET )

1 inch = 30 ft.

## LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- 15.4 EXISTING ELEVATION
- 18.70 PROPOSED ELEVATION
- PROPOSED DIRECTIONAL FLOW

**DRAINAGE STRUCTURE SCHEDULE**

| | STRUCTURE NUMBER | DS-1 | DS-2 | DS-3 | CS-1 | STRUCTURE NUMBER |
|---|---|---|---|---|---|---|
| | FDOT INDEX # | # 425-001 | # 425-052 | # 425-001 | # 425-001 | FDOT INDEX # |
| | DESCRIPTION | STORM MH (4' DIA.) | TYPE "C" DITCH BOTTOM INLET | STORM MH (4' DIA.) | CONTROL STRUCTURE STORM MH (4' DIA.) * | DESCRIPTION |
| | RIM ELEV. | 10.90 | 10.40 | 10.90 | 10.70 | RIM ELEV. |
| | PIPE DIA. | 15.00 " | 12.00 " | 15.00 " | 15.00 " | PIPE DIA. |
| | COVER | 1.65 ' | 1.80 ' | 2.21 ' | 2.38 ' | COVER |
| INVERT ELEVATION | N | - | 7.91 N | - | - | N |
| | S | - | - | 7.44 S | - | S |
| | E | 7.82 E | - | 7.44 E | 7.06 E | E |
| | W | 7.82 W | - | 7.44 W | 7.06 W | W |
| | BOTTOM ELEV. | 6.82 | 6.91 | 6.44 | 6.06 | BOTTOM ELEV. |

DRAINAGE STRUCTURE SCHEDULE

* 4' WIDE WEIR WALL INSIDE MANHOLE. WEIR ELEVATION IS 10' NAVD

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.

| # | DATE | REVISIONS |
|---|---|---|
| 1 | 9/20/24 | PER CITY COMMENTS |
| 2 | – | – |
| 3 | – | – |
| 4 | – | – |
| 5 | – | – |
| 6 | – | – |
| 7 | – | – |
| 8 | – | – |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 9/23/2024 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA-#3728
1835 39TH STREET
VERO BEACH, FL 32960
PH (772) 778-5211
FX (772) 778-5217
MELBOURNE, FL - PH (321) 253-4100
FT PIERCE, FL - PH (772) 468-9055

PAVING, GRADING AND DRAINAGE PLAN

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

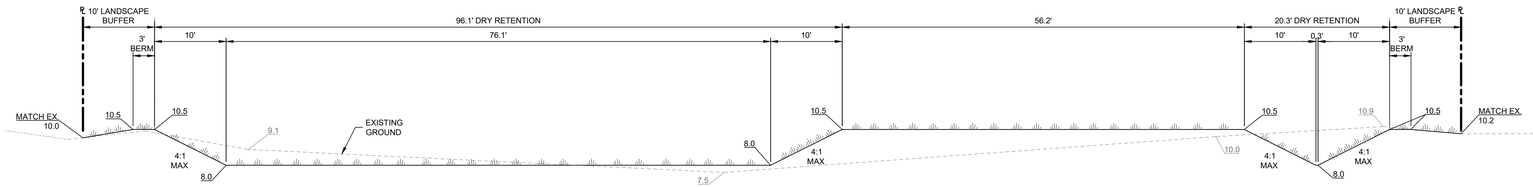
ANGELENA N. VITTER LICENSE No. 62950 STATE OF FLORIDA PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950

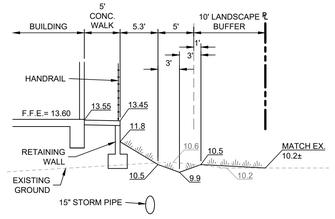
SHEET
C5

23-0060

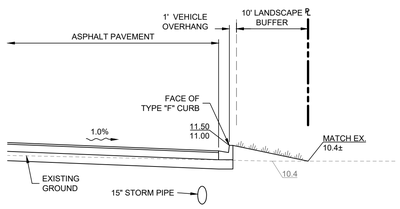
C:\DOVE ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 CS PGD PLAN.dwg 9/23/2024 3:03 PM



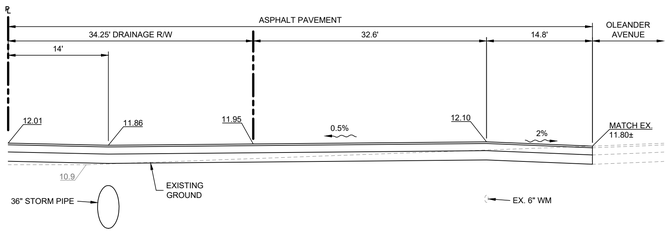

## SECTION A-A
N.T.S.



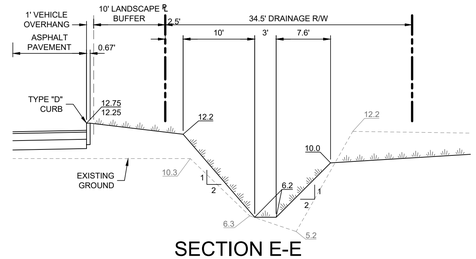

## SECTION B-B
N.T.S.



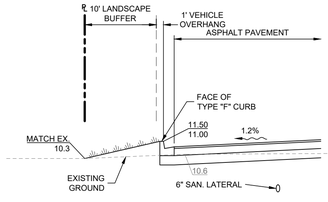

## SECTION C-C
N.T.S.



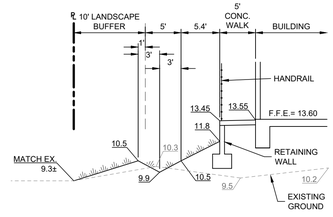

## SECTION D-D
N.T.S.



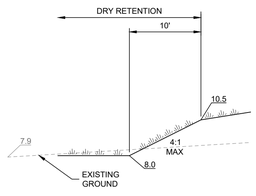

## SECTION E-E
N.T.S.



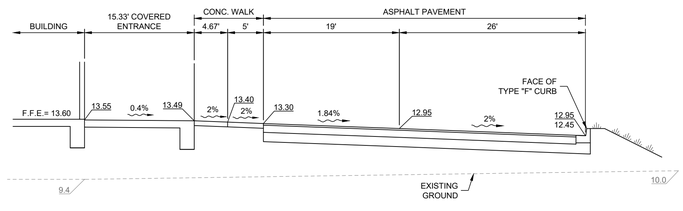

## SECTION F-F
N.T.S.




## SECTION G-G
N.T.S.




## SECTION H-H
N.T.S.




## SECTION I-I
N.T.S.

72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's below.
Call before you dig.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander mutl family\DWG\23-0060 CS PKD PLAN.dwg 9/23/2024 3:03 PM

| DATE | REVISIONS |
|---|---|
| 9/20/24 | 1 PER CITY COMMENTS |
| | 2 |
| | 3 |
| | 4 |
| | 5 |
| | 6 |
| | 7 |
| | 8 |

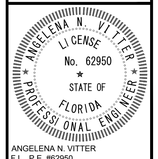
| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 9/23/2024 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA-#3728
1835 39TH STREET
VERO BEACH, FL 32960
TX. (772) 778-3317
MELBOURNE, FL - PH (321) 253-4100
FT PIERCE, FL - PH (772) 468-9055

CROSS SECTIONS

MARGARETA VILLAS
MULTI-FAMILY

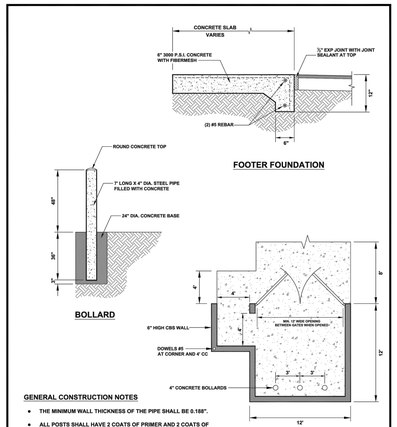
CITY OF FORT PIERCE, FLORIDA



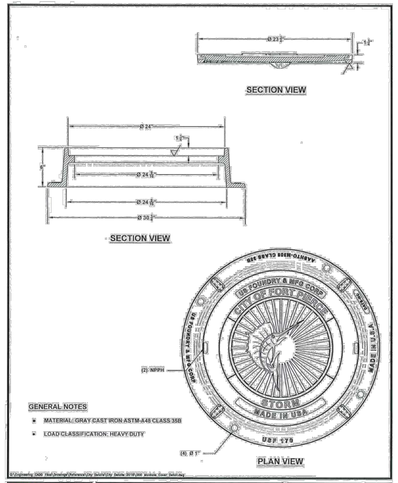

ANGELENA N. VITTER
F.L. P.E. #62950

SHEET
C6

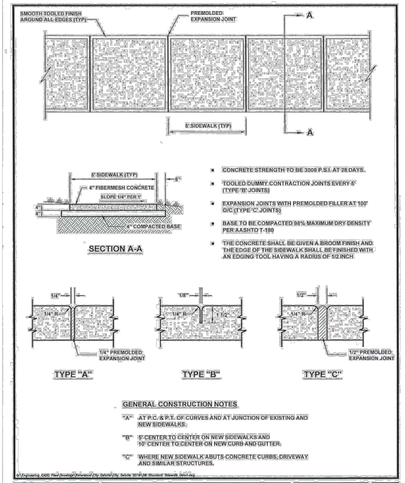
23-0060



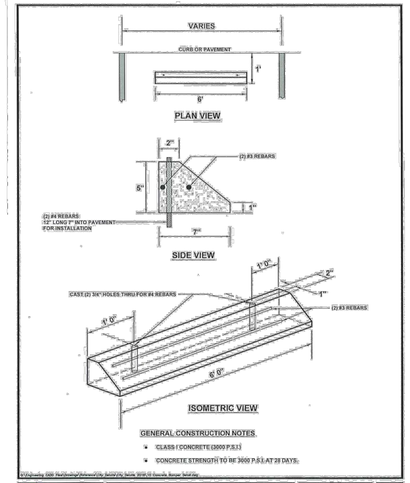

FORT PIERCE | DUMPSTER ENCLOSURE DETAIL | DATE: MAY, 2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET _



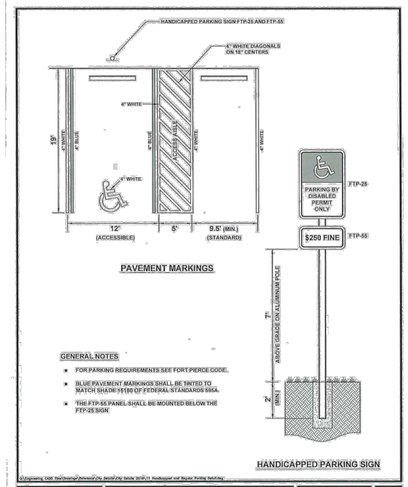

FORT PIERCE | MANHOLE COVER DETAIL | DATE: APRIL 2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET ?



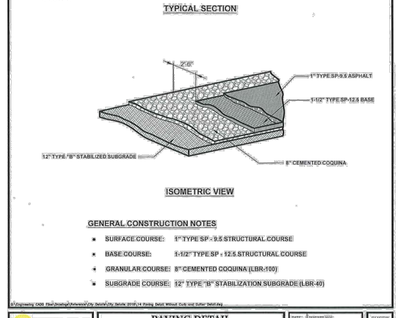

FORT PIERCE | STANDARD SIDEWALK DETAIL | DATE: 10/JANUARY/2024 | SCALE: NTS | DRAWN: KRS/AMS | SHEET 6



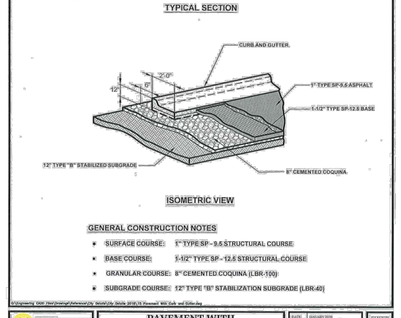

FORT PIERCE | CONCRETE BUMPER DETAIL | DATE: 10/JANUARY/2024 | SCALE: NTS | DRAWN: KRS/AMS | SHEET 10



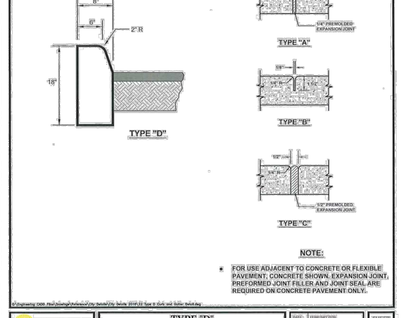

FORT PIERCE | HANDICAPPED AND STANDARD PARKING DETAIL | DATE: 10/JANUARY/2024 | SCALE: NTS | DRAWN: KRS/AMS | SHEET 11



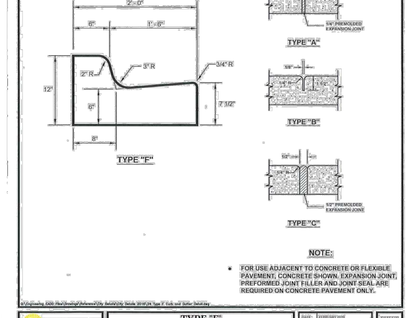

FORT PIERCE | PAVING DETAIL WITHOUT CURB AND GUTTER | DATE: 03/MARCH/2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET 14



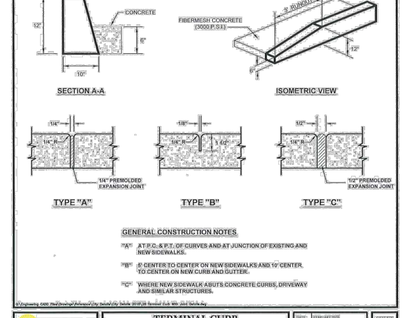

FORT PIERCE | PAVEMENT WITH CURB AND GUTTER | DATE: 03/MARCH/2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET 15



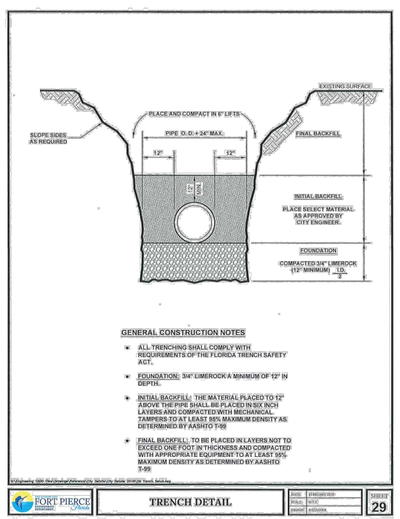

FORT PIERCE | TYPE "D" CURB AND GUTTER DETAILS | DATE: 03/MARCH/2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET 22



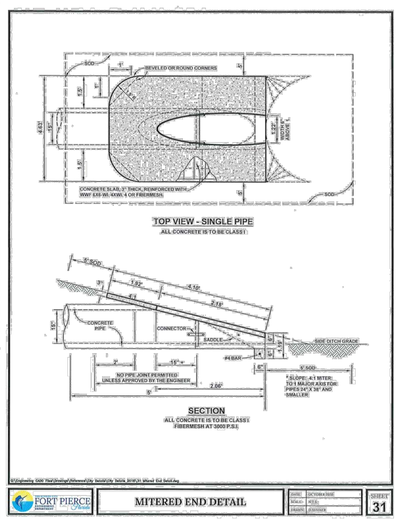

FORT PIERCE | TYPE "F" CURB AND GUTTER DETAILS | DATE: 03/MARCH/2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET 24




FORT PIERCE | TERMINAL CURB WITH JOINT DETAILS | DATE: 03/MARCH/2020 | SCALE: AS SHOWN | DRAWN: AUTHOR | SHEET 26




FORT PIERCE | TRENCH DETAIL | DATE: 07/MARCH/2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 29




FORT PIERCE | MITERED END DETAIL | DATE: OCTOBER/2020 | SCALE: AS SHOWN | DRAWN: AUTHOR | SHEET 31

C:\CIVIL ON HARD DRIVE\2020\23-0060 4101 Oleander multi family\DWG\23-0060 COVER - DETAILS.dwg 9/23/2024 1:01 PM

| | DATE | REVISIONS |
|---|---|---|
| 1 | 9/20/24 | PER CITY COMMENTS |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
PREDOMINE PL - PH: (772) 323-3150
VERO BEACH, FL 32960 FAX: (772) 778-3417

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 9/23/2024 |

GENERAL DETAILS

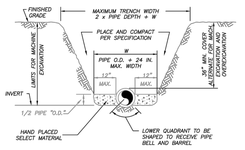
MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF FLORIDA
PROFESSIONAL ENGINEER
ANGELENA N. VITTER
F.L. P.E. #62950

SHEET
C7

23-0060

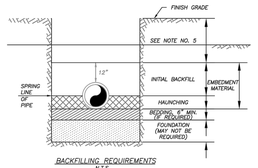



NOTES:

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 | TYPICAL TRENCH DETAIL | M-1 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISC. DETAILS 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |

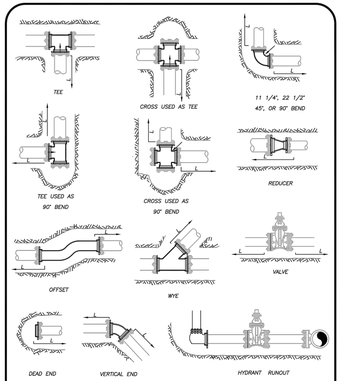



BACKFILLING REQUIREMENTS
N.T.S.

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 | BACKFILLING REQUIREMENTS | M-2 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISC. DETAILS 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |




MECHANICAL JOINT ANCHORING REQUIREMENTS
N.T.S.

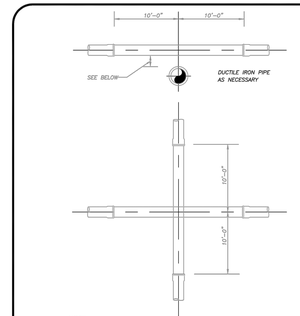
| FPUA COMMUNITY PROUD | MECHANICAL JOINT ANCHORING REQUIREMENTS | M-3 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISC. DETAILS 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | 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 | MECHANICAL JOINT RESTRAINT NOTES | M-4 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISC. DETAILS 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |

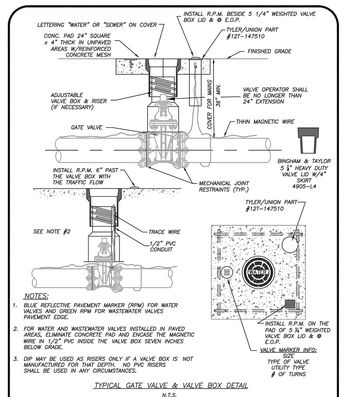



NOTE:

PLEASE REFER TO FORT PIERCE UTILITIES STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS.

UTILITY CROSSING DETAIL
N.T.S.

| FPUA COMMUNITY PROUD | UTILITY CROSSING DETAIL | M-5 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISC. DETAILS 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |

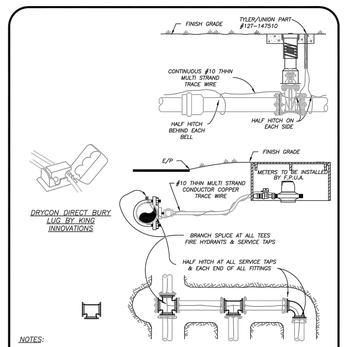



NOTES:

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 | TYPICAL GATE VALVE & VALVE BOX DETAIL | M-6 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISC. DETAILS 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |

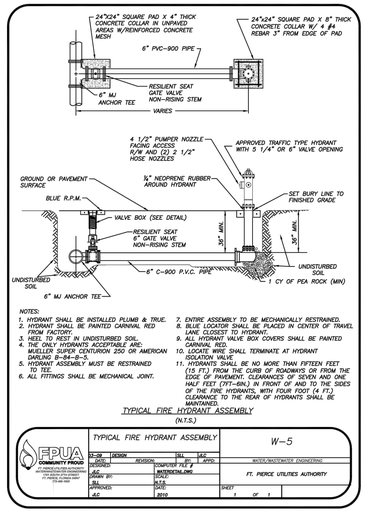



NOTES:

1) TRACE WIRE IS REQUIRED ON ALL PIPE AS NOTED BY UTILITIES ENGINEER AND SHOWN IN STANDARD DETAILS.
2) INCLUDE ALL COST OF MATERIAL & LABOR IN PRICE OF PIPE.
3) CONTRACTOR IS RESPONSIBLE FOR CONTINUITY OF ALL TRACE WIRE.

TRACE WIRE
(N.T.S.)

| FPUA COMMUNITY PROUD | TRACE WIRE DETAIL | M-11 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISC. DETAILS 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |

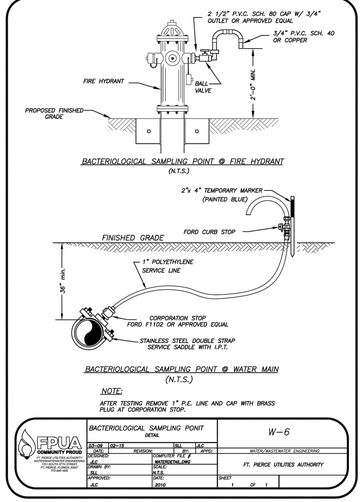



NOTES:

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 CENTURION 250 OR AMERICAN DARLING B-84-B.
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. DRAIN PLUG 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 |
|---|---|---|
| 12-08 UDESIGN | REVISION: | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISTERDETAIL.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |

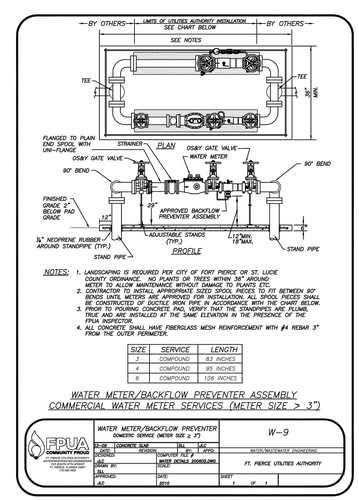



BACTERIOLOGICAL SAMPLING POINT @ WATER MAIN
(N.T.S.)

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 |
|---|---|---|
| 12-08 102-19 | REVISION: | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISTERDETAIL.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |



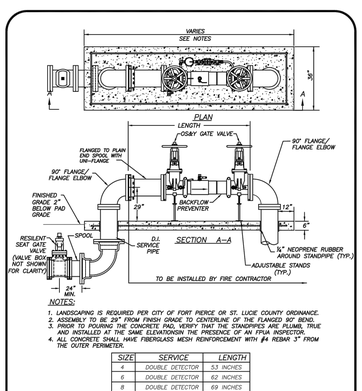

NOTES:

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 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 | WATER METER/BACKFLOW PREVENTER DOMESTIC SERVICE (METER SIZE ≥ 1") | W-9 |
|---|---|---|
| 12-08 CONCRETE SLAB | SLL LAC | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISTER DETAILS 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |



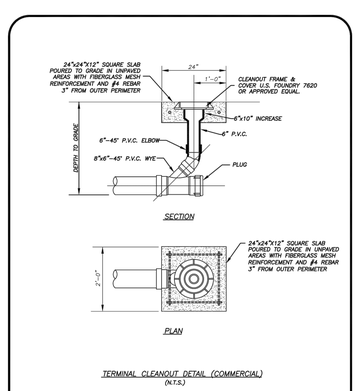

NOTES:

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 ELEVATION IN 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 |

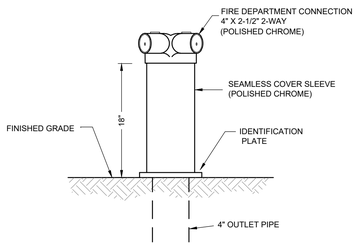
BACKFLOW PREVENTER ASSEMBLY-4"-10" FIRE SERVICE
(N.T.S.)

| FPUA COMMUNITY PROUD | BACKFLOW PREVENTER ASSEMBLY 4"-10" FIRE SERVICE | W-10 |
|---|---|---|
| 12-08 CONCRETE PAD | REVISION: | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: MISTER DETAILS 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 1 OF 1 |




TERMINAL CLEANOUT DETAIL (COMMERCIAL)
(N.T.S.)

| FPUA COMMUNITY PROUD | TERMINAL CLEANOUT DETAIL WASTEWATER | S-4B |
|---|---|---|
| 12-08 | REVISION: | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | COMPUTER FILE #: SEWER DETAIL 2020022.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: SLL | M.T.S. | |
| APPROVED: AJC | DATE: 2018 | SHEET 2 OF 3 |




**FDC (FIRE DEPT. CONNECTION) DETAIL**
**N.T.S.**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8 | | | | | | | |
| 7 | | | | | | | |
| 6 | | | | | | | |
| 5 | | | | | | | |
| 4 | | | | | | | |
| 3 | | | | | | | |
| 2 | | | | | | | |
| 1 | PER CITY COMMENTS | | | | | | 9/20/24 |
| △ | **REVISIONS** | | | | | | **DATE** |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 9/23/2024 |

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1001 NE 3RD AVENUE, SUITE 215
VERO BEACH, FL 32960
PH. (772) 778-3317
FX. (772) 778-3417
PRELIMINARY NOT FOR CONSTRUCTION

WATER AND SEWER DETAILS

MARGARETA VILLAS
MULTI-FAMILY

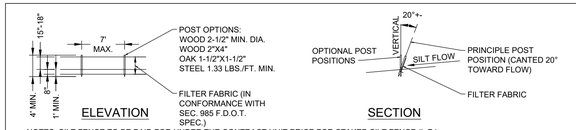
CITY OF FORT PIERCE — FLORIDA

ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
ANGELENA N. VITTER
F.L. P.E. #62950

SHEET
C8

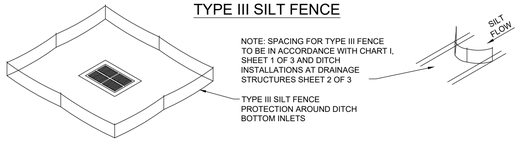
23-0060

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander- multi family\DWG\23-0060 COVER - DETAILS.dwg 9/23/2024 3:01 PM
Angelena Vitter




NOTES: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (L.F.)

## TYPE III SILT FENCE

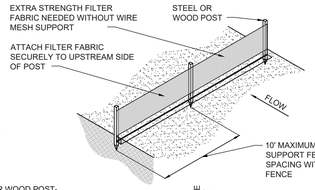


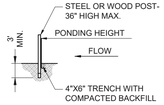

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

## SILT FENCE APPLICATIONS

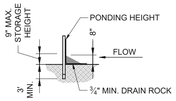
N.T.S.

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.



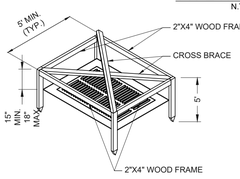

TRENCH DETAIL



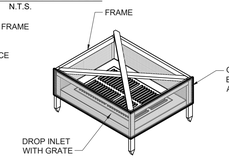

INSTALLATION WITHOUT TRENCHING

## TYPE IV SILT FENCE

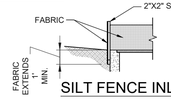
N.T.S.




VIEW OF FRAME WITHOUT SILT FENCE

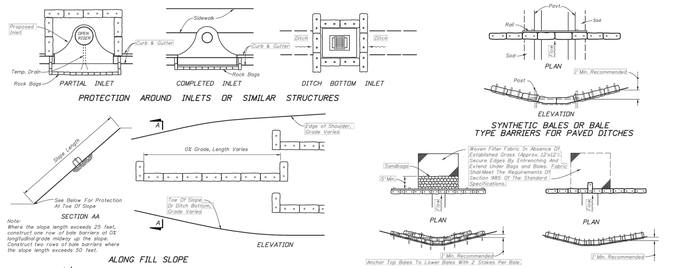



VIEW OF FRAME WITH SILT FENCE




SILT FENCE INLET PROTECTION

N.T.S.




NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

1. Type I and II Synthetic Barrier should be spaced in accordance with Chart I, Sheet 1.
2. Bales shall be anchored with 2-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivalent strength may be used if approved by the Engineer.
4. Adjacent bales shall be butted firmly together.
5. Where used in conjunction with silt fence, bales shall be placed on the upstream side of the fence.
6. Bales to be paid for under the contract unit price for Synthetic Bales, LF. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sandbags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.

## EROSION AND SEDIMENTATION CONTROL NOTES

CONSTRUCTION ACTIVITIES CAN RESULT IN THE GENERATION OF SIGNIFICANT AMOUNTS OF POLLUTANTS WHICH MAY REACH SURFACE OR GROUND WATERS. ONE OF THE PRIMARY POLLUTANTS OF SURFACE WATERS IS SEDIMENT DUE TO EROSION. EXCESSIVE QUANTITIES OF SEDIMENT WHICH REACH WATER BODIES OF FLOOD PLAINS HAVE BEEN SHOWN TO ADVERSELY AFFECT THEIR PHYSICAL, BIOLOGICAL AND CHEMICAL PROPERTIES. TRANSPORTED SEDIMENT CAN OBSTRUCT STREAM CHANNELS, REDUCE HYDRAULIC CAPACITY OF WATER BODIES OF FLOOD PLAINS, REDUCE THE DESIGN CAPACITY OF CULVERTS AND OTHER WORKS, AND ELIMINATE BENTHIC INVERTEBRATES AND FISH SPAWNING SUBSTRATES BY SILTATION. EXCESSIVE SUSPENDED SEDIMENTS REDUCE LIGHT PENETRATION AND THEREFORE, REDUCE PRIMARY PRODUCTIVITY.

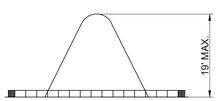
## MINIMUM STANDARDS

1. SEDIMENT BASIN 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 UNSLOPE 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 STOCKPILES 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. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE REVIEWER, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
6. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
7. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE SEDIMENT BASIN SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREA FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN.
8. AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
9. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
10. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
11. 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.
12. BEFORE TEMPORARY OR NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
13. 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. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
14. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
16. 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 LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
17. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
    A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
    B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
    C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
    D. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
18. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE, WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE WITH CURBS AND GUTTERS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
19. 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, IN THE OPINION OF THE REVIEWER. DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
20. PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITE SHALL BE PROTECTED FROM SEDIMENT DISPOSITION AND EROSION.
21. PHASED PROJECTS SHOULD BE CLEARED IN CONJUNCTION WITH CONSTRUCTION OF EACH PHASE.
22. EROSION CONTROL DESIGN AND CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS IN INDEX NOS. 104 AND 105 OF FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS.
23. THE REVIEWER MAY APPROVE MODIFICATIONS OR ALTER PLANS TO THESE EROSION CONTROL CRITERIA DUE TO SITE SPECIFIC CONDITIONS.



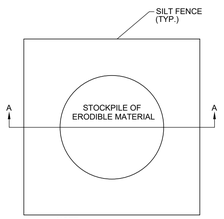

INLET INSERT SEDIMENT CONTAINMENT SYSTEM

N.T.S.




NOTE:
ALL STOCKPILES SHALL BE A MAXIMUM OF 25' HIGH.

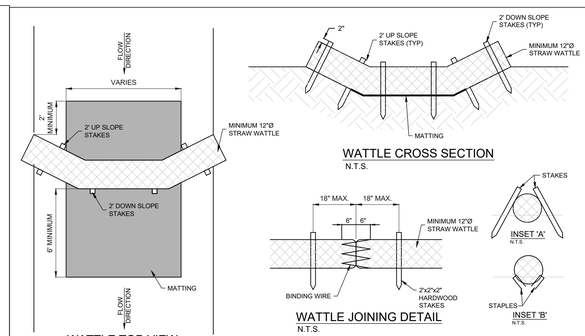
SECTION A-A




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.

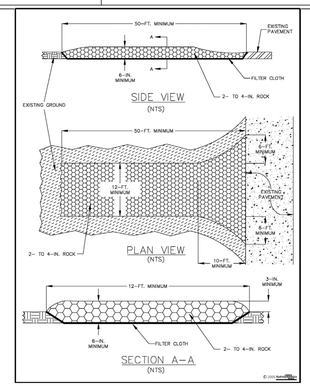



N.T.S.

NOTES:
1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2"-3" DEEP x 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD OVERLAP 24" - SHINGLE IN DIRECTION OF FLOW.
3. SECURE THE WATTLE WITH 18"-24" STAKES EVERY 3'-4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE, LEAVING AT LEAST 2"-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKE SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.
4. USE MINIMUM 12"Ø COIR (COCONUT FIBER)/STRAW WATTLE.
5. USE 2' WOODEN STAKES WITH A 2"x2" NOMINAL CROSS SECTION.
6. ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AS DIRECTED.
7. INSTALL A MINIMUM OF 2 UP SLOPE STAKES AND 4 DOWN SLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
8. PROVIDE STAPLES MADE OF 0.125"Ø STEEL SIRE FORMED INTO A 'U; SHAPE NOT LESS THAN 12" IN LENGTH.
9. INSTALL STAPLES APPROX. EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE DETAILS

N.T.S.




SOIL TRACKING PREVENTION DEVICE DETAIL

N.T.S.

CITY OF FORT PIERCE NOTES (EROSION CONTROL)

(a) THE CITY ENGINEERING DEPARTMENT SHALL MAKE INSPECTIONS AS HEREINAFTER REQUIRED AND NOTIFY THE BUILDING OFFICIAL UPON INSPECTION APPROVAL OR IF THE WORK FAILS TO COMPLY WITH THE EROSION AND SEDIMENT CONTROL PLAN AS APPROVED TO REQUEST A STOP-WORK ORDER. PLANS FOR GRADING / STRIPPING / EXCAVATING AND FILLING WORK BEARING THE STAMP OF APPROVAL OF THE CITY ENGINEER SHALL BE MAINTAINTED AT THE SITE DURING THE DURATION OF WORK. TO OBTAIN INSPECTIONS, THE PERMITTEE SHALL NOTIFY THE CITY ENGINEERING DEPARTMENT AT LEAST TWO WORKING DAYS BEFORE THE FOLLOWING:
(1) START OF CONSTRUCTION
(2) INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES
(3) COMPLETION OF SITE CLEARING
(4) COMPLETION OF ROUGH GRADING
(5) COMPLETION OF FINAL GRADING
(6) CLOSE OF THE CONSTRUCTION SEASON
(7) COMPLETION OF FINAL LANDSCAPING.
(b) THE PERMITTEE SHALL BE RESPONSIBLE FOR THE FUNCTIONALITY OF ALL CONTROL MEASURES IN ACCORDANCE WITH THE INSPECTION SCHEDULE OUTLINED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
THE PURPOSE OF SUCH INSPECTIONS WILL BE TO DETERMINE THE OVERALL EFFECTIVENESS OF THE CONTROL PLAN AND POSSIBLE NEED FOR ADDITIONAL CONTROL MEASURES.
(c) THE CITY ENGINEER OR HIS DESIGNEE SHALL ENTER THE PROPERTY OF THE APPLICANT AS DEEMED NECESSARY TO MAKE REGULAR INSPECTIONS TO ENSURE THE EFFECTIVENESS OF THE CONTROL PLAN AND THE POSSIBLE NEED FOR ADDITIONAL CONTROL MEASURES.

| DATE | REVISIONS |
|---|---|
| 9/20/24 | 1 PER CITY COMMENTS |
| | 2 |
| | 3 |
| | 4 |
| | 5 |
| | 6 |
| | 7 |
| | 8 |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 9/23/2024 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
PHELOCRAFT, L.L.P. (772) 539-3151
E-MAIL: MBV@MBVENGINEERING.COM
VERO BEACH, FL 32960
4055 OSLO CIRCLE
FX: (772) 778-3417

# EROSION CONTROL DETAILS

MARGARETA VILLAS
MULTI-FAMILY

FLORIDA
CITY OF FORT PIERCE

ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
ANGELENA N. VITTER
F.L. P.E. #62950

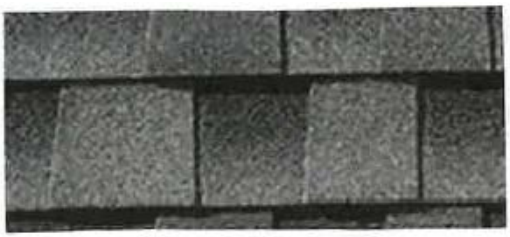
SHEET
C9

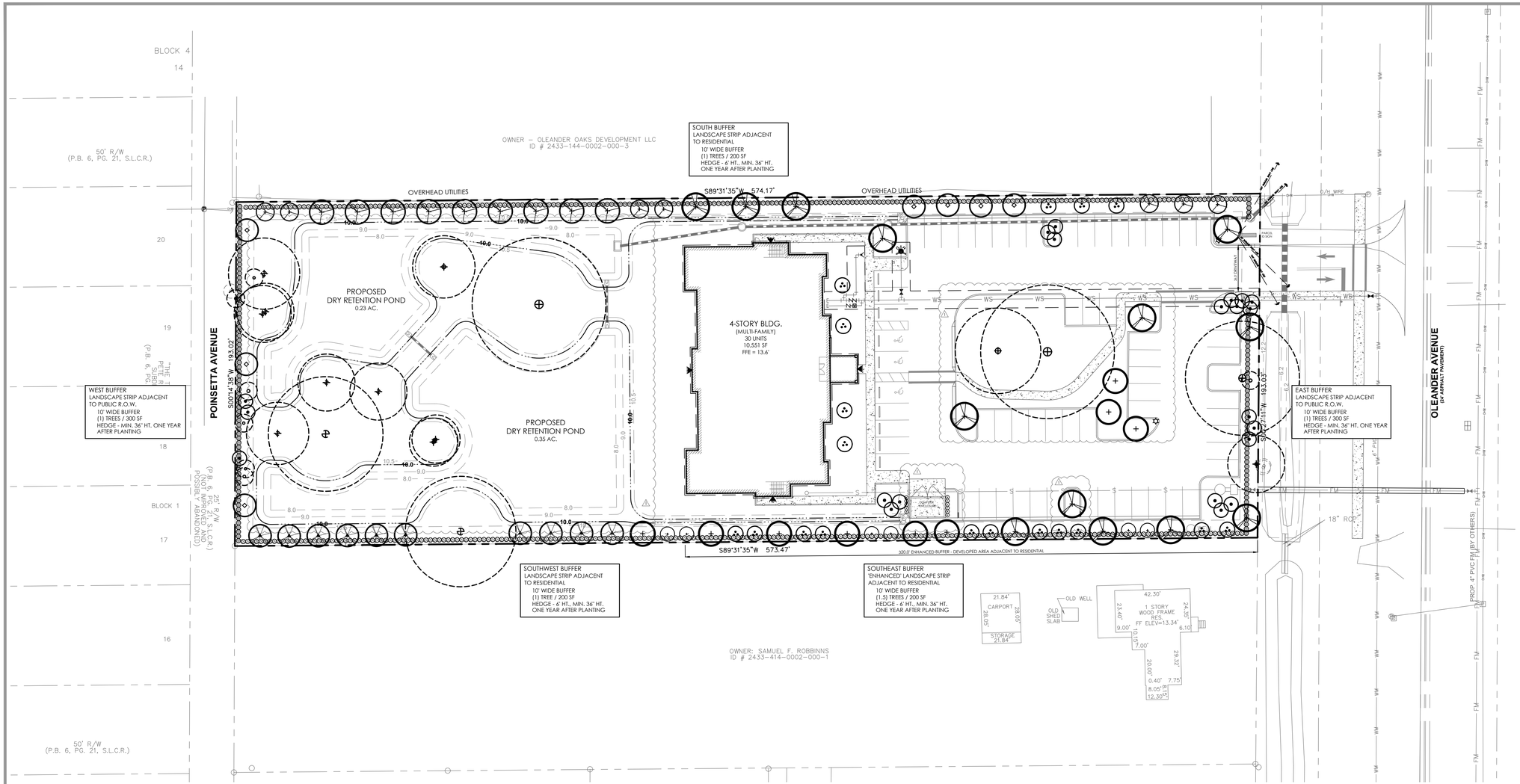
23-0060

© 2024 MBV ENGINEERING, INC.

C:\CIVIL 3D_HARD DRIVE\2023\23-0060 4101 Oleander- multi family\DWG\23-0060 COVER - DETAILS.dwg 9/23/2024 3:01 PM
Angelena Vitter

# COLOR SCHEME (BENJAMIN MOORE)
## MARGARETA VILLAS

| | | |
|---|---|---|
| **BOTTOM HALF STUCCO WALLS, COLUMNS, WINDOW TRIM & ENTRY** | **2126-70 Chalk White** | |
| **UPPER WALLS STUCCO LAP SIDING** | **0622 SERENE SETTING** | |
| **WINDOW SHUTTERS** | **0624 BLUE POT** | |
| **METAL RAILINGS** | **ESP DARK BRONZE** | |
| **ROOFING ASPHALT SHINGLES** | **GAF OYSTER GRAY** |  |
| **STAIR WELL BOTTOM HALF** | **OC-152 White** | |
| **STAIR WELL TOP HALF STUCCO LAP SIDING** | **0623 POMPEII RUINS** | |




## Landscape Calculations

| | REQUIRED/ PERMITTED | PROVIDED |
|---|---|---|
| LANDSCAPE STRIPS ADJACENT TO PUBLIC R.O.W. | | |
| EAST - OLEANDER AVENUE - 166 LF ( 193' LESS 27' DRIVEWAYS) | | |
| 10' WIDE LANDSCAPE STRIP (166 X 10 = 1,660 SF) | | |
| TREES: 1 / 300 SF | 6 TREES | 6 TREES |
| INCLUDES (2) EXISTING TREES | | |
| (1) EXISTING PALMS | | |
| (2) PROPOSED TREES | | |
| (6) PROPOSED PALMS = 2 TREES | | |
| PLUS 24" HT. HEDGE, 36" AFTER ONE YEAR | | |
| WEST - POINSETTA AVENUE - 193 LF | | |
| 10' WIDE LANDSCAPE STRIP (193 X 10 = 1,930 SF) | | |
| TREES: 1 / 300 SF | 7 TREES | 8 TREES |
| INCLUDES (2) EXISTING TREES-ADJACENT | | |
| (6) EXISTING PALMS = 2 TREES | | |
| (3) PROPOSED TREES | | |
| (3) PROPOSED PALMS = 1 TREE | | |
| PLUS 24" HT. HEDGE, 36" AFTER ONE YEAR | | |
| LANDSCAPE STRIPS ADJACENT TO RESIDENTIAL | | |
| NORTH - 575 LF | | |
| 10' WIDE LANDSCAPE STRIP (575 X 10 = 2,540 SF) | | |
| TREES: 1 / 200 SF | 29 TREES | 29 TREES |
| INCLUDES (29) PROPOSED TREES | | |
| ⚠ SOUTHWEST - 254 LF | | |
| 10' WIDE LANDSCAPE STRIP (254 X 10 = 5,740 SF) | | |
| TREES: 1 / 200 SF | 13 TREES | 13 TREES |
| INCLUDES (1) EXISTING TREE | | |
| (12) PROPOSED TREES | | |
| ⚠ SOUTHEAST - 320 LF *** | | |
| 10' WIDE LANDSCAPE STRIP (320 X 10 = 3,200 SF) | | 'ENHANCED' |
| TREES: 1.5 / 200 SF | 24 TREES | 24 TREES |
| INCLUDES (24) PROPOSED TREES | | |
| ⚠ INTERIOR VEHICULAR USE LANDSCAPE AREA | | |
| VEHICULAR USE AREA: | | 26,032 SF |
| 1 SF / 15 SF OF VUA = | 1,736 SF | 8,242 SF |
| (1) CANOPY TREE / 100 SF = | 18 TREES | 18 TREES |
| INCLUDES (2) EXISTING TREES | | |
| (12) PROPOSED PALMS = 4 TREES | | |
| (12) PROPOSED TREES | | |

*** PLEASE NOTE: THE ENHANCED BUFFER IS PROVIDED UNDER THE ENCOURAGEMENT OF STAFF PER THE STAFF REPORT DATED 03.21.2024

48 HOURS BEFORE DIGGING
CALL TOLL FREE
8-1-1
SUNSHINE811.COM
NOTIFICATION CENTER

## Plant List

| SYM | KEY | BOTANICAL NAME/ COMMON NAME | HEIGHT/ SPREAD | SPECIFICATION | NATIVE | DROUGHT TOLERANT | TOTAL |
|---|---|---|---|---|---|---|---|
| TREES | ⚠ AR | ACER RUBRUM<br>RED MAPLE | 12' HT.,<br>4' SPR. | FIELD GROWN B&B | Y | M | 9 |
| | ⚠ CC | CALLISTEMON CITRINUS<br>RED BOTTLEBRUSH | 12' HT.,<br>4' SPR. | FIELD GROWN B&B<br>2.5" CAL., 5' C.T. MIN. | N | H | 18 |
| | CE | CONOCARPUS ERECTUS 'SERICEUS'<br>SILVER BUTTONWOOD | 12' HT.,<br>4' SPR. | 45 GAL. MIN. 2.5 CAL.<br>TREE FORM, 5' CT. MIN. | Y | M | 9 ⚠ |
| | IA | ILEX X 'ATTENUATA'<br>EAST PALATKA HOLLY | 12' HT.,<br>4' SPR. | 45 GAL. MIN. 2.5 CAL.<br>TREE FORM, 5' CT. MIN. | Y | M | 7 ⚠ |
| | MG | MAGNOLIA GRANDIFLORA<br>SOUTHERN MAGNOLIA | 14' HT.,<br>4' SPR. | FIELD GROWN B&B<br>3" CAL., 5' C.T. MIN. | Y | H | 7 ⚠ |
| | QV | QUERCUS VIRGINIANA<br>LIVE OAK | 14' HT.,<br>5' SPR. | FIELD GROWN, B&B<br>3" CAL. 5' CT. MIN. | Y | H | 13 ⚠ |
| | SP | SABAL PALMETTO<br>SABAL PALM | 10 - 14' CT. | AS SHOWN, SLICKS<br>STAGGER HEIGHTS | Y | H | 21 ⚠ |
| | TD | TAXODIUM DISTICHUM<br>BALD CYPRESS | 12' HT.,<br>4' SPR. | 45 GAL. MIN. 2.5 CAL.<br>TREE FORM, 5' CT. MIN. | Y | M | 10 ⚠ |
| | UA | ULMUS ALATA<br>WINDGED ELM | 14' HT.,<br>6' SPR. | FIELD GROWN B&B.<br>3" CAL. 5' CT. MIN. | Y | M | 9 ⚠ |
| SHRUBS | ⚠ CHR | CHRYSOBALANUS ICACO 'RED TIP'<br>'RED TIP' COCOPLUM | 24" X 18" | 24" O.C.,<br>FULL TO BASE | Y | H | 132 ⚠ |
| | ⚠ CLU | CLUSIA GUTTIFERA<br>SMALL LEAF CLUSIA | 24" X 18" | 24" O.C.,<br>FULL TO BASE | Y | H | 450 |
| | ⚠ POD | PODOCARPUS MACROPHYLLUS<br>PODOCARPUS | 30" X 18" | 24" O.C.,<br>FULL TO BASE | N | H | 11 ⚠ |
| | SOD | STENOTAPHRUM SECUNDATUM<br>ST. AUGUSTINE SOD | | DISEASE FREE, LAID<br>TIGHTLY, EVEN UNIFORM | N | M | T.B.D. |
| | | EXISTING TREES TYP | | | | | |
| | | EXISTING PALMS TYP | | | | | |


Patrick D. Cunningham, LLC
land planning
landscape architecture
519 Sapphire Drive
Sarasota, FL 34234
o: 941.351.8915
pcunningham.LLC@gmail.com


# CONCEPTUAL LANDSCAPE PLAN

# MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

| | | |
|---|---|---|
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | PER CITY COMMENTS | 09.20.2024 |
| | SUBMITTAL | 12.08.2023 |

SCALE: 1"=30'-0"

PATRICK D. CUNNINGHAM
FL REG #: LA0001669

SEAL

0 30 60

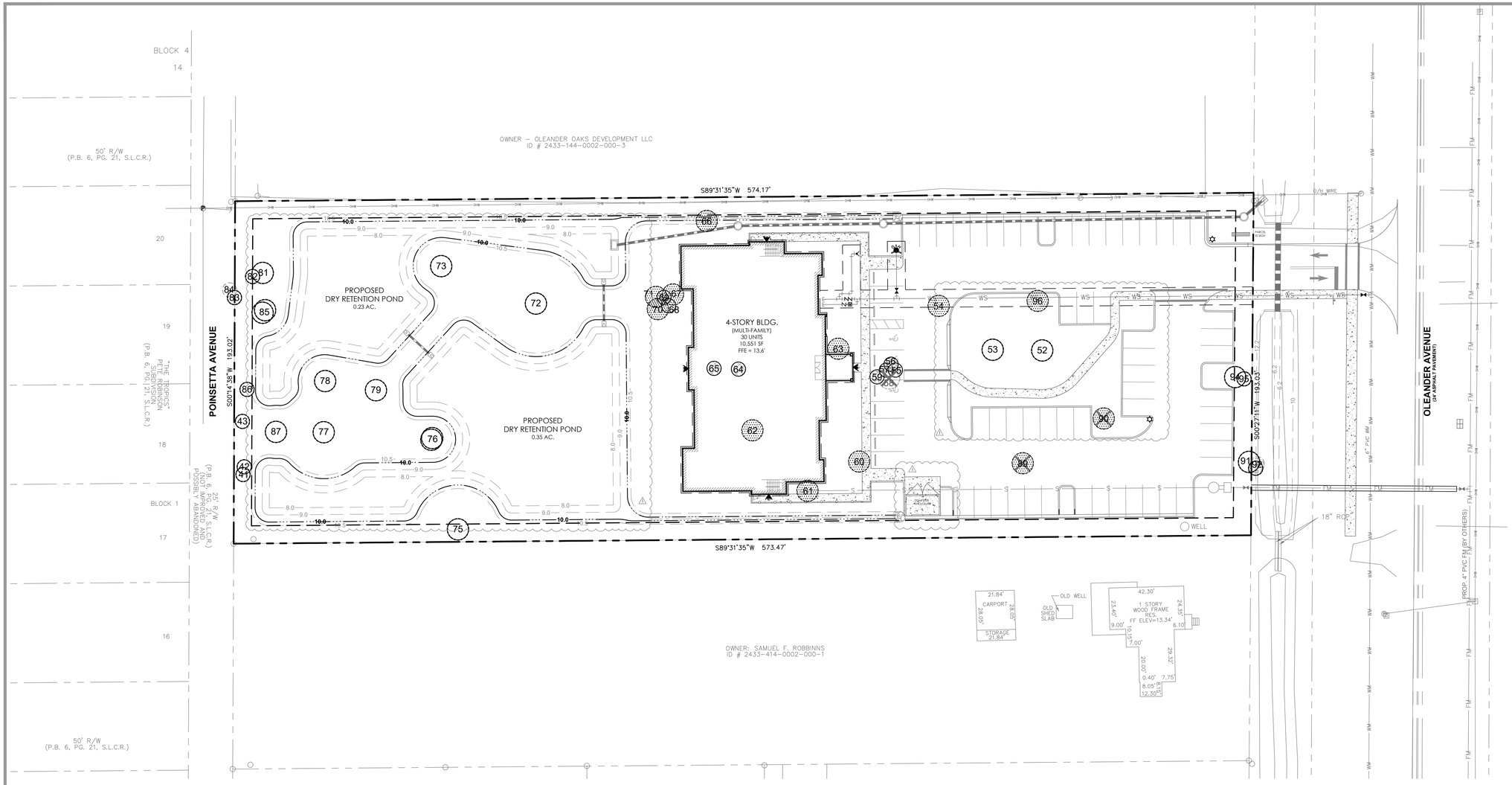
NORTH

SHEET L-1

plot date:
file name:



▪ COPYRIGHT © ▪ PATRICK D. CUNNINGHAM, LLC ▪ 519 Sapphire Drive ▪ Sarasota, Florida 34243 ▪ 941.351.8915 ▪ ALL RIGHTS RESERVED ▪




## Existing Tree Inventory List

| TREE# | SPECIES | SIZE " | STATUS | ACTION | CREDITS |
|---|---|---|---|---|---|
| 41 | Cabbage | 18 " | Specimen | Remain | + 1 Palm |
| 42 | Cabbage | 14 " | Specimen | Remain | + 1 Palm |
| 43 | Cabbage | 16 " | Specimen | Remain | + 1 Palm |
| | OUT OF SEQUENCE | | | | |
| 52 | Live Oak | 56 " | Specimen | Remain | + 53.5" |
| 53 | Live Oak | 36 " | Specimen | Remain | + 33.5" |
| ● 54 | Live Oak | 42 " | Specimen | Remove | - 42" |
| ▽ 55 | Cabbage | 16 " | Specimen | Remove | - 1 Palm |
| ▽ 56 | Cabbage | 20 " | Specimen | Remove | - 1 Palm |
| ▽ 57 | Cabbage | 16 " | Specimen | Remove | - 1 Palm |
| 58 | Live Oak | 8 " | Protected | Remove | - - |
| ▽ 59 | Cabbage | 18 " | Specimen | Remove | - 1 Palm |
| ● 60 | Live Oak | 42 " | Specimen | Remove | - 42" |
| ● 61 | Live Oak | 44 " | Specimen | Remove | - 44" |
| ● 62 | Live Oak | 54 " | Specimen | Remove | - 54" |
| ● 63 | Laurel Oak | 30 " | Specimen | Remove | - 30" |
| ▽ 64 | Cabbage | 18 " | Specimen | Remove | - 1 Palm |
| ▽ 65 | Cabbage | 18 " | Specimen | Remove | - 1 Palm |
| ● 66 | Live Oak | 36 " | Specimen | Remove | - 36" |
| ● 67 | Live Oak | 36 " | Specimen | Remove | - 36" |

| TREE# | SPECIES | SIZE " | STATUS | ACTION | CREDITS |
|---|---|---|---|---|---|
| 68 | Queen Palm | 8 " | Non-Native | Remove | N/A |
| 69 | Queen Palm | 8 " | Non-Native | Remove | N/A |
| ● 70 | Live Oak | 42 " | Specimen | Remove | - 42" |
| ● 71 | Live Oak | 24 " | Specimen | Remove | - 24" |
| 72 | Live Oak | 56 " | Specimen | Remain | + 53.5" |
| 73 | Live Oak | 26 " | Specimen | Remain | + 23.5" |
| | OUT OF SEQUENCE | | | | |
| 75 | Live Oak | 46 " | Specimen | Remain | + 43.5" |
| 76 double | Live Oak | 20 " | Specimen | Remain | + 17.5" |
| | Live Oak | 20 " | Specimen | Remain | + 17.5" |
| 77 | Live Oak | 48 " | Specimen | Remain | + 45.5" |
| 78 | Live Oak | 24 " | Specimen | Remain | + 21.5" |
| 79 | Live Oak | 24 " | Specimen | Remain | + 21.5" |
| | OUT OF SEQUENCE | | | | |
| 81 | Live Oak | 30 " | Specimen | Remain | + 27.5" |
| 82 | Cabbage | 16 " | Specimen | Remain | + 1 Palm |
| 83 | Cabbage | 16 " | Specimen | Remain | + 1 Palm |
| 84 | Cabbage | 16 " | Specimen | Remain | N/A-Off Site |
| 85 double | Live Oak | 24 " | Specimen | Remain | + 21.5" |
| | Live Oak | 24 " | Specimen | Remain | + 21.5" |

| TREE# | SPECIES | SIZE " | STATUS | ACTION | CREDITS |
|---|---|---|---|---|---|
| 86 | Cabbage | 20 " | Specimen | Remain | + 1 Palm |
| 87 | Live Oak | 26 " | Specimen | Remain | + 23.5" |
| | OUT OF SEQUENCE | | | | |
| 89 | Royal Poinciana | 64 " | Non-Native | Remove | N/A |
| 90 | Royal Poinciana | 30 " | Non-Native | Remove | N/A |
| 91 | Live Oak | 20 " | Specimen | Remain | |
| 92 double | Cabbage | 18 " | Specimen | Remain | N/A-Off Site |
| | Cabbage | 18 " | Specimen | Remain | N/A-Off Site |
| | OUT OF SEQUENCE | | | | |
| 94 | Live Oak | 48 " | Specimen | Remain | + 45.5" |
| 95 | Cabbage | 20 " | Specimen | Remain | + 1 Palm |
| ● 96 | Live Oak | 46 " | Specimen | Remove | - 46" |

EXISTING NATIVE TREES
PROTECTED TREES TO BE REMOVED
*(8-IN. DBH TO LESS THAN 14-IN. DBH - NO MITIGATION REQUIRED)*

● SPECIMEN TREES TO BE REMOVED
*(14-IN. DBH OR GREATER - MITIGATION REQUIRED @ 1-IN. : 1-IN.)*

▽ SPECIMEN CABBAGE PALMS TO BE REMOVED
*(10-FT. C.T MIN. - MITIGATION REQUIRED @ 1 PALM : 1 PALM*

*TREE CREDITS ARE CALCULATED AT (DBH PRESERVED LESS 2.5-IN. MIN. TREE CAL.) PER TREE SAVED.*
*PALM CREDITS ARE CALCULATED AT (1) PALM SAVED = (1) PALM REMOVED.*
*OFF-SITE TREES AND PALMS DO NOT COUNT TOWARDS AND MITIGATION AND/OR CREDITS*

## Tree Mitigation Calculations

| | QUANTITY | DBH (INCHES) | MITIGATION REQ. |
|---|---|---|---|
| TO BE REMOVED | | | |
| PROTECTED | | | |
| LIVE OAKS (LESS THAN 14" DBH) | 1 TREE | 8 " | 0" |
| NON-NATIVE | | | |
| ROYAL POINCIANA | 2 TREES | 94 " | 0" |
| QUEEN PALM | 2 PALMS | N/A | 0" |
| OFF-SITE | | | |
| CABBAGE PALMS | 3 PALMS | N/A | N/A |
| SPECIMEN | | | |
| LIVE OAKS (GREATER THAN 14" DBH) | 10 TREES | 396 " | - 396 " DBH |
| SABAL PALMS | 6 PALMS | N/A | - 6 PALMS |

| MITIGATION (REPLACEMENT) | REQUIRED | EXISTING | DIFFERENCE | |
|---|---|---|---|---|
| TOTAL TREE MITIGATION REQUIRED | - 396 " DBH | + 488 " DBH | + 92 " DBH | (00' SHORTFALL) |
| INCL. (16) EXISTING NATIVE OAKS (12) OAKS = (2) DOUBLE OAKS = | | | | |
| TOTAL PALM MITIGATION REQUIRED | - 6 PALMS | + 7 PALMS | + 1 PALM | (00' SHORTFALL) |
| INCL. (7) EXISTING SABAL PALMS @ 10' C.T. MIN. | | | | |

## General Notes:

1. THE EXISTING TREE LOCATIONS AND SIZES (DBH) DEPICTED WITHIN THE LANDSCAPE PLAN SET ARE TAKEN FROM THE CERTIFIED SURVEY DATED MAY 1, 2024, PREPARED BY PERIMETER SURVEYING & MAPPING. (561) 241-9988.
2. THE TREE CANOPY SHOWN ON THE PLANS ARE GRAPHIC AND ARE DRAWN AT 1-FT. RADIUS PER 1-IN DBH, ALTHOUGH RELATIVELY ACCURATELY, ON-SITE VERIFICATION MAY BE REQUIRED.
3. CALCULATIONS ABOVE ARE PER TREE REPLACEMENT CHART IN THE JURISDICTIONS LAND DEVELOPMENT REGULATIONS.
4. A TREE REMOVAL PERMIT WILL BE REQUIRED PRIOR COMMENCEMENT OF DEVELOPMENT ACTIVITY.
5. THE CONDITION OF THE TREES LISTED ARE BASED ON A VARIETY OF MATERIALS, AS WELL AS FIELD OBSERVATIONS, AND ARE TO BE USED AS REFERENCE ONLY AND IS NOT TO BE USE FOR TREE PERMITTING. A CERTIFIED ARBORIST, NOT THE LANDSCAPE ARCHITECT IS RESPONSIBLE FOR ANY TREE EVALUATION REQUIRED BY THE CITY.
6. A CERTIFIED ARBORIST IS TO PROVIDE THE FINAL TREE DISPOSITION PLAN AT TIME OF TREE PERMITTING. THE VALUATION OF TREES SHALL BE APPRAISED USING THE COUNCIL OF TREE AND LANDSCAPE APPRAISERS GUIDE FOR PLANT APPRAISAL, LATEST EDITION.

## Additional Notes:

1. TREE BARRICADES FOR TREES TO BE PRESERVED DURING CONSTRUCTION SHALL BE LOCATED AT THE DRIP LINE, UNLESS OTHERWISE APPROVED BY THE ENVIRONMENTAL REVIEW STAFF, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE AREA WITHIN THE DRIP LINE SHALL REMAIN UNDISTURBED.
3. THE FOLLOWING ACTIVITIES ARE PROHIBITED WITHIN TECH DRIP LINE OF PRESERVED TREES:
   - A. IMPROVEMENTS, FILL, MACHINERY AND VEHICLE TRAVEL OR PARKING
   - B. UNDERGROUND UTILITIES
   - C. GRADE CHANGES, COMPACTION OF SOIL, OR EXCAVATION
   - D. STORAGE OR CONSTRUCTION MATERIALS.
4. THE TREE PROTECTION BARRICADES SHALL CONSIST OF CHAIN LINK FENCE (NEW OR USED) OR ORANGE SAFETY FENCE WITH A MINIMUM 5-FOOT HEIGHT, UNLESS OTHERWISE APPROVED BY THE BUILDING AND DEVELOPMENT SERVICES.
5. A TREE PERMIT WILL BE REQUIRED PRIOR TO ANY CONSTRUCTION, NATIVE VEGETATION REMOVAL WITHIN THE DRIP LINE OF A TREE, AND/OR TREE REMOVAL.
6. NO CLEARING WITH HEAVY EQUIPMENT, FILLING, OR PLACEMNT OF IMPROVEMENTS OR UTILITY LINES SHALL OCCUR WITHIN THE PROTECTED ROOT ZONE OF ANY CANOPY TREE TO BE SAVED.
7. THE PROTECTED ROOT ZONE IS DEFINED AS THE DRIPLINE OF THE TREE. ONLY HAND CLEARING OR MOWING IS PERMITTED WITHIN THE PROTECTED ROOT ZONE OF A CANOPY TREES TO BE SAVED IF AUTHORIZED BY THE ADMINISTRATOR.

## Key

- EXISTING TREES - TO BE REMOVED LESS THAN 14-IN. DBH, THEREFORE DO NOT REQUIRE MITIGATION. — TO BE REMOVED
- EXISTING TREES - TO BE REMOVED NON-NATIVE TREE, THEREFORE DO NOT REQUIRE MITIGATION. — TO BE REMOVED
- 76 EXISTING TREES - TO BE REMOVED GREATER THAN 14-IN. DBH AND REQUIRE MITIGATION. — TO BE MITIGATED
- 70 EXISTING PALMS - TO BE REMOVED REQUIRE MITIGATION — TO REMAIN
- 10 11 EXISTING TREES AND PALMS - TO REMAIN USED FOR TREE CREDITS TOWARDS REQUIRED LANDSCAPING.

48 HOURS BEFORE DIGGING
CALL TOLL FREE
8-1-1
SUNSHINE811.COM
NOTIFICATION CENTER

plot date:
file name:


Patrick D. Cunningham, LLC
land planning
landscape architecture
519 Sapphire Drive
Sarasota, FL 34234
o: 941.351.8915
pcunningham.LLC@gmail.com


EXISTING TREE INVENTORY PLAN

MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

| | | |
|---|---|---|
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | PER CITY COMMENTS | 09.20.2024 |
| | SUBMITTAL | 12.08.2023 |

SCALE: 1"=30'-0"

PATRICK D. CUNNINGHAM
FL REG #: LA0001669
SEAL

0 30 60
NORTH

SHEET
L-2



■ COPYRIGHT © ■ PATRICK D. CUNNINGHAM, LLC ■ 519 Sapphire Drive ■ Sarasota, Florida 34243 ■ 941.351.8915 ■ ALL RIGHTS RESERVED ■

## Additional Notes

1. QUALITY
PLANT MATERIALS USED SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER, AS GIVEN IN THE MOST CURRENT EDITION OF "GRADES AND STANDARDS FOR NURSERY PLANTS" PART I AND PART II, STATE OF FLORIDA.

2. DROUGHT TOLERANCE REQUIREMENTS
A MINIMUM OF 75% TO 100% OF TOTAL CUMULATIVE LANDSCAPE PLANT MATERIAL USED TO MEET THE PROVISIONS OF THE I.R.C. L.D.R., CHAPTER 926, SHALL BE "HIGH DROUGHT TOLERANT," AS CLASSIFIED AND LISTED IN THE MOST RECENT EDITION OF THE "WATERWISE - FLORIDA LANDSCAPES - LANDSCAPING TO PROMOTE WATER CONSERVATION USING PRINCIPLES OF XERISCAPE" - FROM FLORIDA'S WATER MANAGEMENT DISTRICTS.

3. TREES:
A. CANOPY TREES SHALL BE SPECIES HAVING AN AVERAGE MATURE SPREAD OF CROWN GREATER THAN FIFTEEN (15) FEET IN DIAMETER, AND HAVING A TRUNK WITH OVER FIVE (5) FEET OF CLEAR WOOD.
B. CANOPY TREES SHALL HAVE A 2" DIAMETER AT 0.5' ABOVE GRADE AND BE A MIN. 12' IN HEIGHT WITH A MINIMUM CROWN SPREAD OF 4.5' AT TIME OF PLANTING.
C. PALMS SHALL BE CONSIDERED 1/3 OF A TREE AND, IF USED, THEY SHALL CONSIST OF NO MORE THAN ONE-THIRD OF THE TOTAL NEW TREE REQUIREMENT. ADDITIONALLY, 3 PALMS = 1 CANOPY TREE. SINGLE DATE PALMS (NOT PYGMY DATE PALMS) MAY BE SUBSTITUTED FOR A CANOPY TREE.
D. AT LEAST 50% OF ALL NEW REQUIRED TREES SHALL BE OF A NATIVE SPECIES, AND AT LEAST 75% - 100% OF ALL TREES SHALL BE RATED "DROUGHT TOLERANT."
E. REQUIRED UNDERSTORY TREES SHALL BE A MINIMUM OF SIX (6) FEET OVERALL IN HEIGHT AND ONE- AND ONE-HALF (1.5) INCHES DIAMETER AT ONE-HALF (0.5) FEET ABOVE GRADE AT THE TIME OF PLANTING. MULTI-TRUNK TREES SHALL HAVE A COMBINED ONE- AND ONE-HALF-INCH CALIPER FOR ALL TRUNKS AT SIX (6) INCHES ABOVE GRADE. PALM TREES USED AS UNDERSTORY TREES SHALL HAVE A MINIMUM OVERALL HEIGHT OF SIX (6) FEET AND SHALL NOT COMPRISE MORE THAN ONE-THIRD OF THE TOTAL UNDERSTORY TREE REQUIREMENT.
F. A ROOT BARRIER IS REQUIRED FOR CANOPY TREES WITHIN 6-FT. OF A SIDEWALK, PAVED AREA, BUILDING, OR UNDERGROUND UTILITY .

4. SHRUBS/ HEDGES:
A. SHRUBS SHALL BE A MINIMUM OF EIGHTEEN (18) INCHES IN HEIGHT WHEN MEASURED IMMEDIATELY AFTER PLANTING, EXCEPT THAT SHRUBS OF NON-NATIVE VIBURNUM AND LIGUSTRUM SPECIES SHALL BE A MINIMUM OF TWENTY-FOUR (24) INCHES IN HEIGHT IMMEDIATELY AFTER PLANTING.
B. SHRUBS, WHERE REQUIRED, SHALL BE PLANTED IN AN OFFSET DOUBLE ROW AND MAINTAINED SO AS TO FORM A CONTINUOUS, UNBROKEN, SOLID SCREEN, WHERE REQUIRED TO FORM A CONTINUOUS SCREEN, TO SATISFY A BUFFER OR OPAQUE FEATURE REQUIREMENT. SHRUBS SHALL BE PLANTED ON TWENTY-FOUR (24)-TO-THIRTY (30) INCH CENTERS, UNLESS A GREATER SPACING IS NECESSARY TO ACCOMMODATE LARGER SHRUBS AND IS APPROVED BY PLANNING DIVISION STAFF.
C. EXCLUDING SHRUBS USED IN OPAQUE FEATURES, AT LEAST 50% OF THE REQUIRED NUMBER OF SHRUBS SHALL BE OF NATIVE SPECIES.

5. MULCH AND GROUND COVERS
THE USE OF CYPRESS MULCH IS PROHIBITED. MULCH THAT IS NOT CYPRESS MAY BE USED. GROUND COVERS (NOT INCLUDING SOD GRASS) SHALL BE PLANTED IN SUCH A MANNER AS TO PRESENT A FINISHED APPEARANCE AND REASONABLY COMPLETE COVERAGE WITHIN ONE YEAR AFTER PLANTING. AT LEAST 50% OF THE AREA COVERED BY LIVING MATERIAL SHALL BE OF NATIVE SPECIES. REFER TO IRC LDC FOR A LIST OF NATIVE GROUND COVERS AND FLOWERS. THE COMPLETE COVERAGE OF AN AREA BY GROUND COVERS PRECLUDES THE USE OF MULCH THEREAFTER.

6. TURF GRASS
TURF GRASS AREAS SHALL BE IDENTIFIED ON THE LANDSCAPE PLAN AND SHALL BE LIMITED TO A MAXIMUM OF 50% OF THE TOTAL IRRIGATED, LANDSCAPED AND VEGETATED PROJECT AREA, EXCLUDING RIGHTS-OF-WAY, ACTIVE RECREATION AREAS (E.G. PLAYFIELDS), AND SLOPES WITHIN DRY RETENTION AREAS. TURF GRASS SHALL BE PLACED SO THAT IT CAN BE IRRIGATED IN A SEPARATE ZONE. PREFERRED TURF GRASSES ARE THOSE QUALIFYING AS NATIVE.

7. IRRIGATION USAGE ZONES SHALL BE AS FOLLOWS:
A. GRASS AREA SHALL BE IN HIGH USAGE ZONES.
B. TREES & SHRUBS SHALL BE IN LOW USAGE ZONES.

8. THERE SHALL BE (6) DIFFERENT SPECIES OF TREES USED, AND (9) DIFFERENT SPECIES OF SHRUBS WITH (4) BEING NATIVE PER I.R.C. ORDINANCE, CHAPTER 926.

9. THE CONTRACTOR SHALL ATTEMPT TO PRESERVE AS MANY EXISTING TREES AS POSSIBLE AND FEASIBLE. TREES THAT ARE PRESERVED MAY BE CREDITED TOWARDS THE SITE TREE REQUIREMENT IF THEY MEET THE SPECIFICATIONS.

10. THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF TREES, SIGNS AND LIGHTS SUCH THAT ALL SIGNAGE IS EASILY SEEN AND LIGHTING WORKS FOR ITS INTENDED PURPOSE. TREE PLACEMENT MAY VARY FROM THIS PLAN TO ACHIEVE THIS REQUIREMENT.

11. LANDSCAPE ISLANDS SHALL BE BACKFILLED AT LEAST TO TOP OF CURB, AND MAY BE BERMED TO A MAXIMUM HEIGHT OF 24" ABOVE ADJACENT PARKING LOT GRADE.

12. ALL LANDSCAPE MATERIAL IN SHOCK WILL BE REPLACED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.

LAND CLEARING NOTES
A. ALL NATIVE UPLAND VEGETATION CONTRIBUTING TO THE STABILIZATION OF BANKS OR EXISTING CANALS, DITCHES OR NATURAL WATERCOURSES SHALL BE RETAINED.

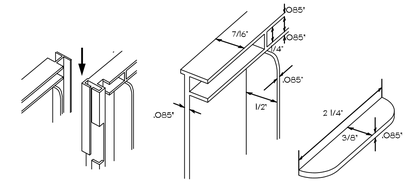
B. ALL NUISANCE EXOTIC VEGETATION EXISTING ON SITE SHALL BE REMOVED IN CONJUNCTION WITH ANY SITE DEVELOPMENT.

C. ANY ABANDONED FLOW WELLS EXISTING ON SITE SHALL BE PLUGGED IN CONJUNCTION WITH SITE DEVELOPMENT.

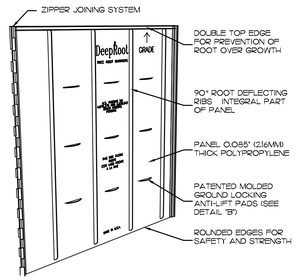
NOTES:
SPECIFIED TREE ROOT BARRIERS ARE A MECHANICAL BARRIER AND ROOT DEFLECTOR TO PREVENT TREE ROOTS FROM DAMAGING HARDSCAPES AND LANDSCAPES. ASSEMBLED IN 2' LONG MODULES TO CREATE VARYING SIZES OF CYLINDERS FOR SURROUNDING ROOT BALLS (SURROUND PLANTING STYLE) OR FOR LINEAR APPLICATIONS DIRECTLY BESIDE A HARDSCAPE ADJACENT TO ONE SIDE OF THE TREES (LINEAR PLANTING STYLE).

A. MATERIALS
1. THE CONTRACTOR SHALL FURNISH AND INSTALL TREE ROOT BARRIERS AS SPECIFIED. THE TREE ROOT BARRIERS SHALL BE PRODUCT # UB 24-2, # UB 36-2 AND # UB 48-2 AS MANUFACTURED BY DEEP ROOT PARTNERS, L.P. 345 LORTON AVE. #103, BURLINGAME, CA. (800-458-7668), OR APPROVED EQUAL. THE BARRIER SHALL BE BLACK, INJECTION MOLDED PANELS, OF 0.065" WALL THICKNESS IN MODULES 24" LONG BY 24" & 48" DEEP, MANUFACTURED WITH A MINIMUM 50% POST CONSUMER RECYCLED POLYPROPYLENE PLASTIC WITH ADDED ULTRAVIOLET INHIBITORS, RECYCLABLE. EACH PANEL SHALL HAVE:

B. CONSTRUCTION AND INSTALLATION
1. THE CONTRACTOR SHALL INSTALL THE TREE ROOT BARRIERS WITH THE NUMBER OF PANELS AND IN THE MANNER SHOWN ON THE DRAWINGS. THE VERTICAL ROOT DEFLECTING RIBS SHALL BE FACING INWARDS TO THE ROOT BALL AND THE TOP OF THE DOUBLE EDGE SHALL BE 1/2" ABOVE GRADE. EACH OF THE REQUIRED NUMBER OF PANELS SHALL BE CONNECTED TO FORM A CIRCLE AROUND THE ROOT BALL OR WHERE SPECIFIED JOINED IN A LINEAR FASHION AND PLACED ALONG THE ADJACENT HARDSCAPE. ALL STREET TREES WITH TRUNKS CLOSER THAN 4 FT. TO PAVED SURFACES SHALL BE PLANTED WITH ROOT BARRIER BETWEEN THE ROOT BALL AND PAVING. PLANTINGS WITHIN TREE WELLS REQUIRE ROOT BARRIERS ALONG ALL SIDES OF THE TREE WELL.
2. EXCAVATION AND SOIL PREPARATION SHALL CONFORM TO THE DRAWINGS.
3. THE TREE ROOT BARRIERS SHALL BE BACKFILLED ON THE OUTSIDE WITH 3/4" TO 1 1/2" GRAVEL OR CRUSHED ROCK AS SHOWN ON THE DRAWINGS. NO GRAVEL BACKFILL IS REQUIRED FOR A LINEAR PLANTING



ZIPPER JOINING SYSTEM | DOUBLE TOP EDGE | ANTI-LIFT GROUND LOCK




**24" DEEPROOT TREE ROOT BARRIERS**
NOT TO SCALE

ALL EXISTING TREES TO BE PROTECTED DURING ANY LAND CLEARING AND/OR CONSTRUCTION AS FOLLOWS:

(A) PRIOR TO ANY LAND CLEARING OPERATIONS, TEMPORARY BARRIERS SHALL BE INSTALLED AROUND ALL TREES TO REMAIN WITHIN THE LIMITS OF LAND CLEARING OR CONSTRUCTION AND SHALL REMAIN UNTIL THE COMPLETION OF THE WORK.

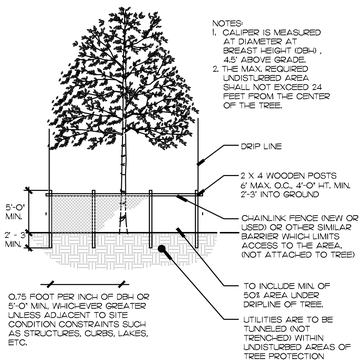
TREE PROTECTION SHALL COMPLY WITH THE JURISDICTIONS REGULATIONS.

(B) NO MATERIALS, TRAILERS, EQUIPMENT OR CHEMICALS SHALL BE STORED, OPERATED DUMPED, BURIED OR BURNED WITHIN THE PROTECTED AREAS.

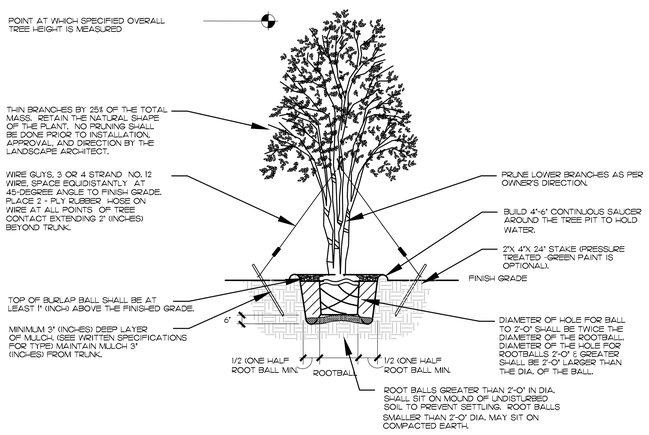
NO ATTACHMENT, WIRES (OTHER THAN PROTECTIVE GUY WIRES), SIGNS OR PERMITS SHALL BE ATTACHED TO A PROTECTED TREE.

(C) PROTECTED TREES SHALL BE PRUNED TO RESTORE THIS NATURAL SHAPE AND FERTILIZED AS NECESSARY TO COMPENSATE FOR ANY LOSS OF ROOTS AND TO STIMULATE ROOT GROWTH.

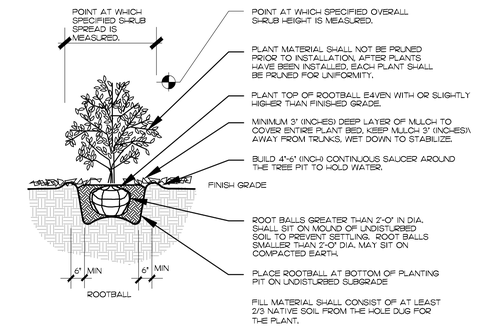
ANY DAMAGE TO TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY AFTER DAMAGE OCCURS.



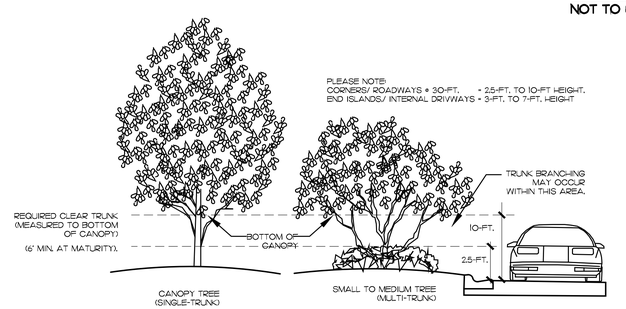

**TYPICAL TREE PROTECTION DETAIL**
NOT TO SCALE



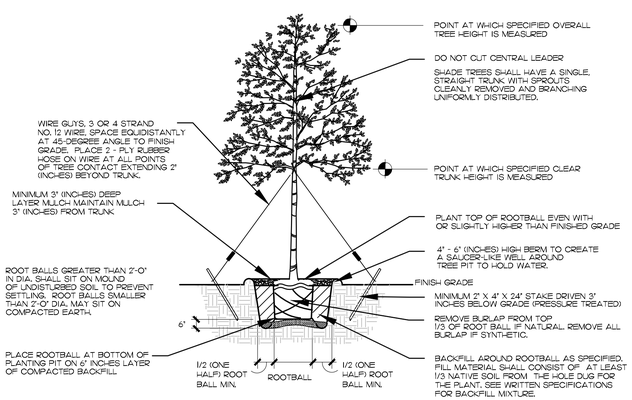

**TYPICAL IRRIGULAR/MULTI-TRUNK TREE PLANTING DETAIL**
NOT TO SCALE



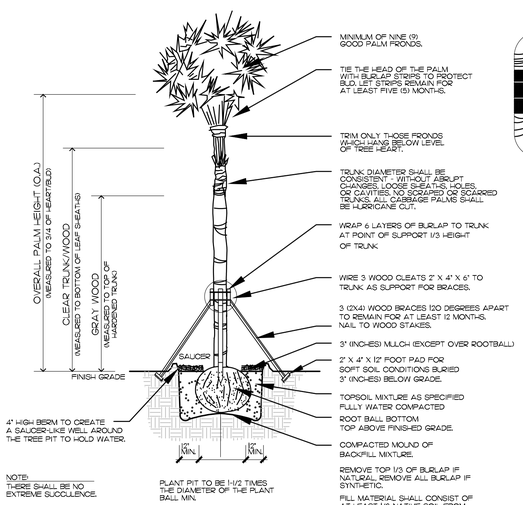

**TYPICAL SHRUB/ GROUNDCOVER PLANTING DETAIL**
NOT TO SCALE




**CLEAR TRUNK WITHIN SIGHT TRIANGLE DETAIL**
NOT TO SCALE

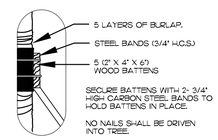


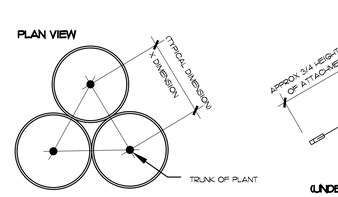

**TYPICAL TREE PLANTING DETAIL**
NOT TO SCALE



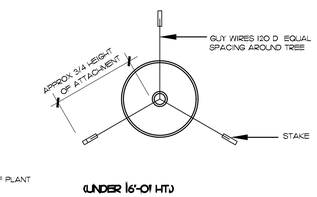

NOTE:
THERE SHALL BE NO EXTREME SUCCULENCE.

**TYPICAL PALM PLANTING DETAIL**
NOT TO SCALE




**TYPICAL PLANT SPACING DETAIL**
NOT TO SCALE




(UNDER 16'-0" HT.)

**TYPICAL TREE GUYING DETAIL**
NOT TO SCALE

48 HOURS BEFORE DIGGING
CALL TOLL FREE
8-1-1
SUNSHINE811.COM
NOTIFICATION CENTER

plot date:
file name:


Patrick D. Cunningham, LLC
land planning
landscape architecture
519 Sapphire Drive
Sarasota, FL 34234
o: 941.351.8915
pcunningham.LLC@gmail.com


LANDSCAPE DETAILS

MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

| | | |
|---|---|---|
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | SUBMITAL | 12.08.2023 |

SCALE: N.T.S.

PATRICK D. CUNNINGHAM
FL REG #: LA0001669

SEAL

NORTH

SHEET
L-3



▪ COPYRIGHT © ▪ PATRICK D. CUNNINGHAM, LLC ▪ 519 Sapphire Drive ▪ Sarasota, Florida 34243 ▪ 941.351.8915 ▪ ALL RIGHTS RESERVED ▪

ENERGYLITE

# GridLite™ GL3

## SITE + AREA LED LUMINAIRE

PROJECT _____ SPECIFIER _____

SPECIFICATION _____ TYPE _____

**CONSTRUCTION**
- Die-cast, low-copper aluminum alloy housing for optimal thermal performance and exceptional corrosion resistance
- 100% recycled aluminum

**FINISH**
- TGIC polyester super-durable powder coating with superior gloss, color retention and weather resistance
- Standard finishes provided at 3 mil nominal thickness, salt-spray-tested to 3,000 hours as per ASTM B117
- For marine-grade finish, consult factory. Provided at 5 mil nominal thickness, salt-spray-tested to 4,000 hours as per ASTM B117

**ELECTRICAL**
- 120-277 V Standard; 277-480V option available
- PF>0.9, THD<20%
- Parallel surge protection: enhanced 10kV standard, extreme 20kV optional (ANSI C136.2-2015)
- For series surge protection, consult factory
- Rated for operation -40°C to 40°C
- For 50°C option, consult factory

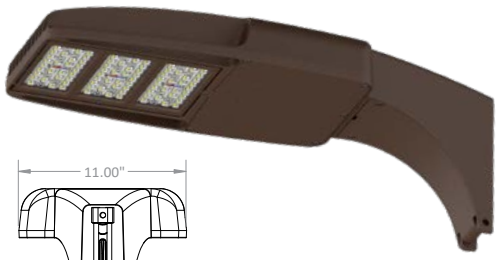
**OPTICS + PERFORMANCE**
- Up to 165 lumens per watt
- 12,000- to 40,000-lumen packages (82-325W)
- 5 customized distributions available
  - Type II Roadway Medium (Coefficient of Utilization: 0.793)
  - Type III Roadway Medium (Coefficient of Utilization: 0.852)
  - Type IV Wide Short (Coefficient of Utilization: 0.840)
  - Type V Square Short
  - Type V Square Medium
- Multiple shielding options available

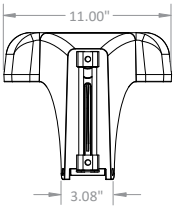
**CONTROLS**
- 0-10V dimming standard; DALI-2 option available
- Receptacle options:
  - ANSI C136.41 3-pin
  - ANSI C136.41 7-pin (for DALI-2 or 0-10V dimming)
  - Zhaga Book 18 (for next generation ambient light/motion sensing)
- Motion sensor option available – bi-level setting standard with low point of 50% and a 15-minute delay

**MOUNTING**
- Extended site arm offers universal mounting, allowing for retrofit without drilling into existing poles
- All mounting options allow for multiple fixture installations at 90°
- Wall-mount and round pole adapters available for extended site arm

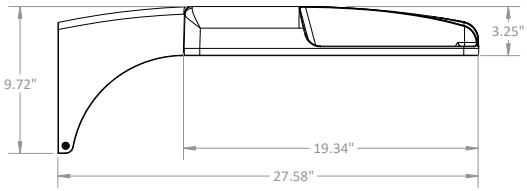
**LISTINGS**
- IDA Dark Sky Friendly ≤3000K, extended site arm or horizontal tenon
- IP66-rated optical and electrical chambers
- 3G Vibration-rated (ANSI C136.31)
- cULus Listed for wet locations (E487976)
- DLC + DLC Premium listings (Family code: JJJOYL)
- Zhaga D4i listed
- ANSI C136.15 labeling available
- BAA Compliance available; †*Consult factory to confirm specific fixture code is compliant if this is a requirement*
- **Designed and assembled in U.S.A.**

**WARRANTY**
- 10-year warranty






Extended Site Arm
EPA: 0.69 sq. ft.
WEIGHT: 22.28 lbs.




/ / / / / / / / / /

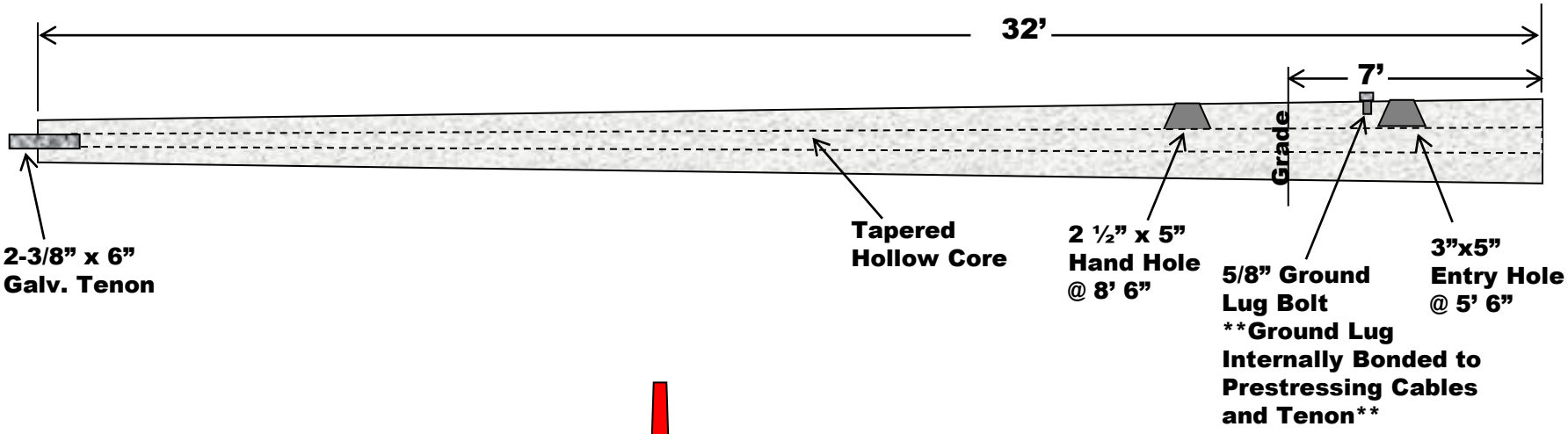
| FIXTURE | LUMENS | BEAM SPREAD | CRI | CCT | VOLTAGE | CONTROLS | SURGE | PHOTOCELL | FINISH | MOUNTING | OPTIONS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GL3 | 12L : 12,000 lm; 82W | 2RM : Type II Roadway Medium | 7 : 70 CRI | 30 : 3000K | STD : 120-277V | 10 : 0-10V | 1PS : 10kV 5kA, 120-277V | 70 : 7-pin | SBZ : Bronze (RAL8019) | ES : Extended Site Arm | *Field-Installed* |
| | 15L : 15,000 lm; 108W | 3RM : Type III Roadway Medium | | 40 : 4000K | HVL : 277-480V | DA : DALI-2 | 2PS : *20kV 10kA, 120-277V | 0Z : Z receptacle | SGY : Grey (RAL7038) | HT : Horizontal Tenon | HSS : House-side Shield |
| | 17L : 17,000 lm; 127W | 4WS : Type IV Wide Short | | 50 : 5000K | | | 2PH : *20kV 10kA, 277-480V | 3Z : 3-pin + Z | SBK : Black (RAL9017) | TM : Trunnion Mount | FSS : Front-side Shield |
| | 18H : 18.000 lm; 114W | T5Q : Type V Square Medium | | | | | | 7Z : 7-pin + Z | SWH : White (RAL9003) | KM : 3" Knuckle | CSS : Cul-de-Sac Shield |
| | 20H : 20,000 lm; 126W | 5QS : Type V Square Short | | | | | | 00 : none | MBZ : Marine Bronze (RAL8019) | KMS : 3" Knuckle at 45°; side wiring | SC : Shorting Cap |
| | 23H : 23,000 lm; 151W | | | | | | | | MGY : Marine Grey (RAL7038) | *Adapters* | *Factory-Installed* |
| | 26H : 26,000 lm; 173W | | | | | | | | MBK : Marine Black (RAL9017) | ES-WM : Extended Site Arm + Wall Mount Adapter | ZT1 : 0-10V Z Ambient Light Control |
| | 29H : 29,000 lm; 188W | | | | | | | | MWH : Marine White (RAL9003) | ES-RP : Extended Site Arm + Round Pole Adapter | ZT3 : 0-10V Z IR + ALC |
| | 30H : 30,000 lm; 194W | | | | | | | | | | ZT4 : 0-10V Z Occupancy, IR + ALC |
| | 33H : 33,000 lm; 239W | | | | | | | | | | ZT5 : 0-10V Zhaga Casambi BLE + ALC |
| | 35H : 35,000 lm; 261W | | | | | | | | | | |
| | 37H : 37,000 lm; 278W | | | | | | | | | | |
| | 40H : 40,000 lm; 325W | | | | | | | | | | |

Notes: †Consult factory to verify BAA compliant products.
80 or 90 CRI, + additional CCTs available upon request
HVL + DALI-2 combination only available with 12L-17L and 18H-23H performance packages.

*Consult factory for lead time and availability.
HVL unavailable with ZT1, ZT3, ZT4 and ZT5 photocell receptacles.
HSS not compatible with 4WS optics, instead use SS.

SOLAIS LIGHTING GROUP
8655 Corporate Drive
Frisco, TX 75033
469.294.1516
solais.com
All rights reserved
©Solais Lighting, LLC

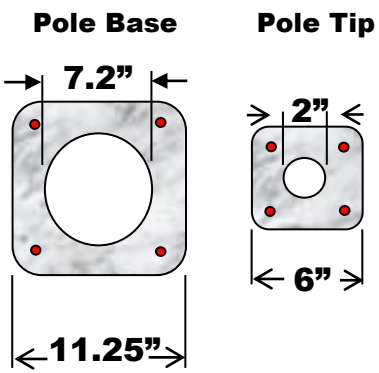
**Drawing Not to Scale**



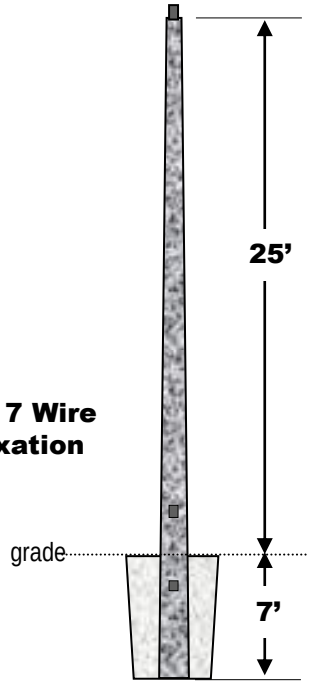


Seminole Pole incorporated

www.SeminolePole.com Email: SeminolePole@gmail.com
Phone: 866-246-5545 Fax: 229-524-2866


• =0.5" Diameter 7 Wire 270k Low Relaxation Cable

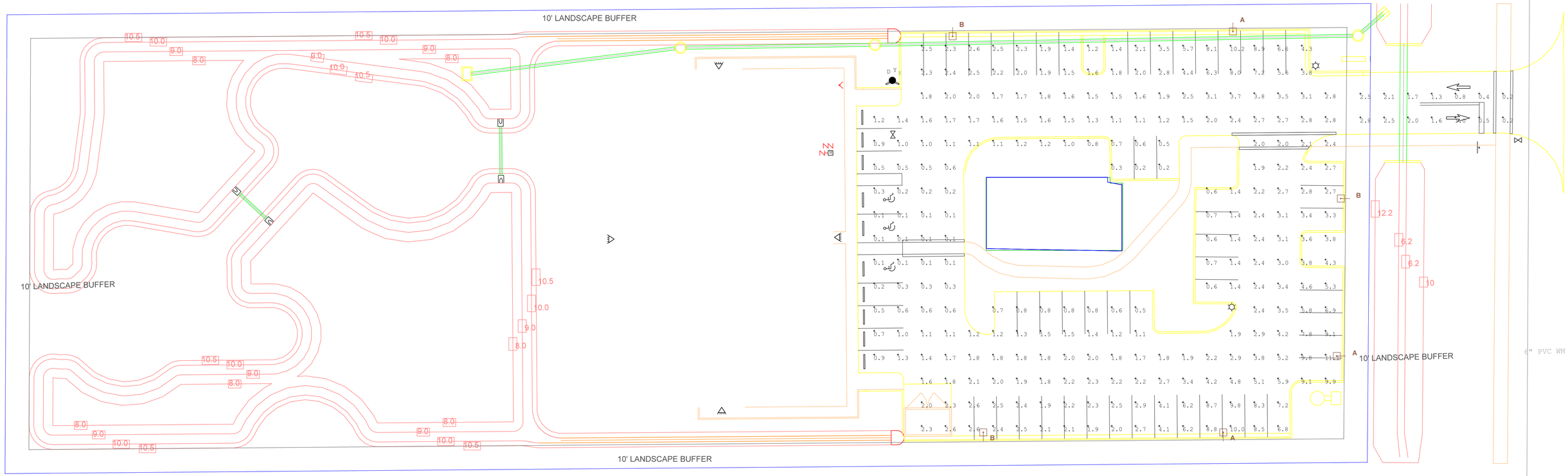



# Part#: SP3225TII

## Project:

| Pole O.A. | Burial Depth | Wind Speed | Gust | EPA Capacity |
|---|---|---|---|---|
| 32' | 7' | 140mph | 3 sec. | 9.0 |

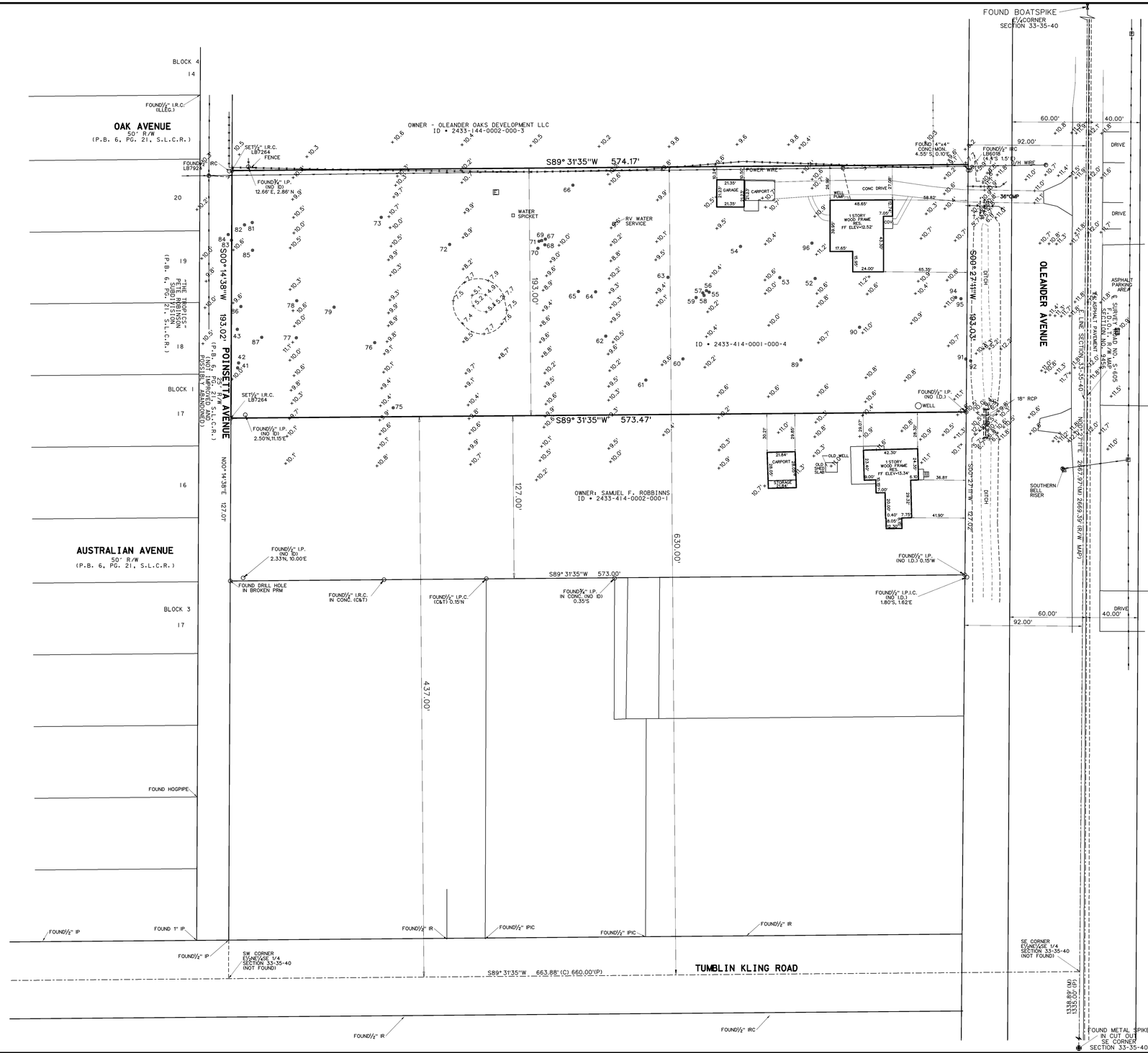
| Min. Brk. Strength | Strand Info | Concrete | Pole Weight (lb) |
|---|---|---|---|
| 3,500# | 0.5" Diameter 270 ksi | 6,500psi | 1,900 |




| Luminaire Schedule | | | | | | |
|---|---|---|---|---|---|---|
| Symbol | Qty | Label | Arrangement | Lumens | LLF | Description |
| | 3 | A | SINGLE | 20430.57 | 1.000 | GL3-20H-3RM-750 @ 25' MTG. HT. |
| | 3 | B | SINGLE | 20617.21 | 1.000 | GL3-20H-5QS-750 @ 25' MTG. HT. |
| LIGHTING TO BE SUPPLIED BY WAMPLER LIGHTING GROUP. CONTACT BRAD @ 256.996.2560 OR BRAD@WAMPLERLIGHTINGGROUP.COM | | | | | | |

| Calculation Summary | | | | | | | |
|---|---|---|---|---|---|---|---|
| Label | CalcType | Units | Avg | Max | Min | Avg/Min | Max/Min |
| CalcPts | Illuminance | Fc | 2.54 | 11.1 | 0.1 | 25.40 | 111.00 |
| Entrance | Illuminance | Fc | 1.40 | 2.8 | 0.2 | 7.00 | 14.00 |

MARGARITAVILLAS




## LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY.

SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

## NOTES

1. REPRODUCTIONS OF THIS SKETCH ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. EASEMENTS AND RIGHTS-OF-WAY SHOWN ARE TAKEN FROM TITLE COMMITMENT NUMBER 24394655CA, AS PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY. EFFECTIVE DATE: JANUARY 18, 2006 AT 8:00 A.M. PROPERTY IS SUBJECT TO THE AGREEMENT WITH FT. PIERCE UTILITIES AUTHORITY, AS RECORDED IN OFFICIAL RECORDS BOOK 424, AT PAGE 8776 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.
3. NO UNDERGROUND IMPROVEMENTS ARE SHOWN HEREON.
4. ELEVATIONS SHOWN HEREON ARE RELATIVE TO NAVD 1988, BASED ON ST. LUCIE COUNTY BENCHMARK "FRENCH" - ST. LUCIE COUNTY DISK IN CONC. 214' S OF FRENCH CREEK LANE, 29' W OF W.E.O.P. OLEANDER BLVD. ELEVATION = 11.32' NAVD 1988.
5. BEARINGS SHOWN HEREON ARE BASED ON THE STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR FLORIDA EAST ZONE, WITH THE EAST LINE OF THE SOUTHEAST ONE-QUARTER OF SECTION 33-35-40 HAVING A BEARING OF NORTH 00°27'11" EAST. N.G.S. CONTROL MONUMENTS Y403, STL4 AND GCY WERE USED TO DETERMINE THIS BEARING.
6. TREE TYPES LISTED TO THE BEST OF OUR ABILITY. FOR A MORE EXACT SPECIES DETERMINATION, A BOTANIST OR SIMILAR PROFESSIONAL SHOULD BE CONSULTED.
7. THIS SURVEY IS CERTIFIED TO:
   A. 4101 OLEANDER GROUP LLC
   B. LAW OFFICES OF DAVID DUEBELLI, P.A.
   C. OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
   D. AVJ DEVELOPMENT LLC, ISAOA/ATIMA

## LEGEND

- GUY ANCHOR WIRE
- WOOD UTILITY POLE
- CABLE TV BOX
- FENCE
- OVERHEAD POWER LINES
- SIGN
- 61 TREE
- E ELECTRIC SERVICE

## TREE LIST

| | | |
|---|---|---|
| 41 | 18" | CABBAGE PALM |
| 42 | 14" | CABBAGE PALM |
| 43 | 16" | CABBAGE PALM |
| 52 | 56" | LIVE OAK |
| 53 | 36" | LIVE OAK |
| 54 | 42" | LIVE OAK |
| 55 | 16" | CABBAGE PALM |
| 56 | 20" | CABBAGE PALM |
| 57 | 16" | CABBAGE PALM |
| 58 | 8" | LIVE OAK |
| 59 | 18" | CABBAGE PALM |
| 60 | 42" | LIVE OAK |
| 61 | 44" | LIVE OAK |
| 62 | 54" | LIVE OAK |
| 63 | 30" | LAUREL OAK |
| 64 | 18" | CABBAGE PALM |
| 65 | 18" | CABBAGE PALM |
| 66 | 36" | LIVE OAK |
| 67 | 36" | LIVE OAK |
| 68 | 8" | QUEEN PALM |
| 69 | 8" | QUEEN PALM |
| 70 | 42" | LIVE OAK |
| 71 | 24" | LIVE OAK |
| 72 | 56" | LIVE OAK |
| 73 | 26" | LIVE OAK |
| 75 | 46" | LIVE OAK |
| 76 | (2)20" | LIVE OAK |
| 77 | 48" | LIVE OAK |
| 78 | 24" | LIVE OAK |
| 79 | 24" | LIVE OAK |
| 81 | 30" | LIVE OAK |
| 82 | 16" | CABBAGE PALM |
| 83 | 16" | CABBAGE PALM |
| 84 | 16" | CABBAGE PALM |
| 85 | (2)24" | LIVE OAK |
| 86 | 20" | CABBAGE PALM |
| 87 | 26" | LIVE OAK |
| 89 | 64" | ROYAL POINCIANA |
| 90 | 30" | ROYAL POINCIANA |
| 91 | 20" | LIVE OAK |
| 92 | (2)18" | CABBAGE PALM |
| 94 | 48" | LIVE OAK |
| 95 | 20" | CABBAGE PALM |
| 96 | 46" | LIVE OAK |

## FLOOD INFORMATION

| | | |
|---|---|---|
| COMMUNITY NUMBER | : | 120286 |
| PANEL NUMBER | : | 12111C0189K |
| DATE OF FIRM | : | FEBRUARY 19, 2020 |
| ZONE | : | X |

## ABBREVIATIONS

| | | |
|---|---|---|
| L | - | ARC |
| ASPH | - | ASPHALT |
| C | - | CALCULATED |
| C&G | - | CURB & GUTTER |
| C.L.F. | - | CHAIN LINK FENCE |
| CONC. | - | CONCRETE |
| COR. | - | CORNER |
| C.U.P. | - | CONCRETE UTILITY POLE |
| D | - | DELTA (CENTRAL ANGLE) |
| D.E. | - | DRAINAGE EASEMENT |
| I.R. | - | IRON ROD |
| I.R.C. | - | IRON ROD AND CAP |
| L.B. | - | LICENSED BUSINESS |
| L.S. | - | LICENSED SURVEYOR |
| L.W.D.D. | - | LAKE WORTH DRAINAGE DISTRICT |
| MON. | - | MONUMENT |
| O.R.B. | - | OFFICIAL RECORDS BOOK |
| P.B. | - | PLAT BOOK |
| S.L.C.R. | - | ST. LUCIE COUNTY RECORDS |
| PG. | - | PAGE |
| P.S.M. | - | PROFESSIONAL SURVEYOR & MAPPER |
| U.E. | - | UTILITY EASEMENT |
| W.F. | - | WOOD FENCE |
| W.U.P. | - | WOOD UTILITY POLE |
| IP | - | IRON PIPE |
| RES | - | RESIDENCE |
| (C) | - | CALCULATED |
| (P) | - | PLAT |
| (M) | - | MEASURED |
| R/W | - | RIGHT-OF-WAY |

## SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON COMPLIES WITH STANDARDS OF PRACTICE FOR SURVEYS AS CONTAINED IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES, AND THAT SAID SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS SURVEYED UNDER MY DIRECTION.

_____
JEFF S. HODAPP
SURVEYOR AND MAPPER
FLORIDA LICENCE NO. LS5111

LAST DATE OF FIELD WORK : FEBRUARY 28, 2023


PERIMETER
SURVEYING & MAPPING
947 Clint Moore Road
Boca Raton, Florida
33487
Certificate of Authorization No. LB7264
Tel: (561) 241-9988
Fax: (561) 241-5182


# 4101 OLEANDER AVENUE
# FT. PIERCE, FL

## BOUNDARY, TOPOGRAPHIC AND TREE SURVEY

| NO. | DATE | BY | CK'D | REVISIONS: | FB/PG |
|---|---|---|---|---|---|
| 1 | 4/25/06 | JSH | | BOUNDARY, TREE & TOPOGRAPHIC SURVEY | |
| 2 | 6/5/06 | JSH | | RECERTIFY | |
| 3 | 6/5/06 | JSH | | RECERTIFY | |
| 4 | 2/28/23 | JSH | AJR | UPDATE BOUNDARY, TREE & TOPOGRAPHIC SURVEY | |
| 5 | | | | | |
| 6 | | | | | |

SEAL

JOB NO. 06122
SCALE 1"=40'
FB/PG AT/1
DRAWN JSH
CHECKED JS

SHEET 1 OF 1

SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

September 18, 2024

Kimley-Horn and Associates, Inc.
200 South Orange Avenue, Suite 600
Orlando, Florida 32801

Attention: Mr. Alex Memering, P.E.
Mr. Alex Campano, E.I.

Reference: 4101 Oleander Avenue Multifamily
Palm Beach County, Florida

Dear Mr. Memering and Mr. Campano:

We are in receipt of your comment letter dated June 5, 2024 for the above referenced project and offer the following responses to your numbered comments:

1. **Please provide a copy of the site plan.**

   A copy of the Site Plan is now provided.

2. **Please perform a turn lane analysis to assess the need for ingress turn lanes at the project driveway.**

   A turn lane analysis using the FDOT Multimodal Access Management Guidebook and NCHRP 457 has now been provided.

3. **Please evaluate the adjacent roadway segment of Oleander Avenue.**

   A roadway segment analysis has now been provided for Oleander Avenue.

If you have any questions or require any additional information, please let our office know. Thank you for your help with this matter.

Sincerely,

SIMMONS & WHITE, INC.

Bryan G. Kelley, P.E.

BGK/dh x:/docs/miscltr/kelley/23103.memeringcmnts

SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

# 4101 OLEANDER AVENUE MULTIFAMILY

Fort Pierce, Florida

# INSIGNIFICANT TRAFFIC IMPACT STATEMENT

PREPARED FOR:

4101 Oleander Group
17555 Collins Avenue, Apt. 2006
Sunny Isles, Florida 33160

JOB NO. 23-103

DATE: August 10, 2023
REVISED: September 17, 2024

| | |
|---|---|
| Bryan G. Kelley, Professional Engineer, State of Florida, License No. 74006<br><br>This item has been digitally signed and sealed by Bryan G. Kelley, P.E., on 09/18/24.<br><br>Printed Copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies. | |

2581 Metrocentre Blvd. West, Ste 3 | West Palm Beach, FL 33407
561.478.7848 | simmonsandwhite.com | Certificate of Authorization #3452

# TABLE OF CONTENTS

## PAGE 3


1.0 SITE DATA
2.0 TRAFFIC GENERATION
3.0 TRAFFIC ANALYSIS


## PAGE 4


3.0 TRAFFIC ANALYSIS (CONT.)
4.0 CONCLUSION

## 1.0 SITE DATA

The subject parcel is located on the west side of Oleander Avenue north of Midway Road and contains approximately 2.58 acres. The proposed plan of development includes 30 multifamily dwelling units with an estimated build out year of 2028. The purpose of this traffic impact statement is to address the traffic impacts of the proposed development plan. Access to the site is proposed via a full driveway connection to Oleander Avenue. A site location map depicting the location of the project is attached to the report. For more information concerning site layout and geometry, please refer to the Site Plan prepared by MBV Engineering, Inc.

## 2.0 TRAFFIC GENERATION

The traffic to be generated by the proposed development is calculated in accordance with the rates provided in the ITE Trip Generation Manual, 11th Edition as shown on Table 1, Table 2, and Table 3 attached with this report. Table 1 shows the daily traffic generation associated with the proposed use. Tables 2 and 3 show the A.M. and P.M. peak hour traffic generation, respectively. The traffic generation associated with the proposed 32 multifamily dwelling units may be summarized as follows:

**Proposed Development**

| | | |
|---|---|---|
| Daily Traffic Generation | = | 136 tpd |
| A.M. Peak Hour Traffic Generation | = | 11 pht (3 In/8 Out) |
| P.M. Peak Hour Traffic Generation | = | 12 pht (7 In/5 Out) |

## 3.0 TRAFFIC ANALYSIS

**Roadway Link Analysis**

Figure 2 attached to the report depicts the estimated trip distribution for the proposed development. Based on City Code Section 105-5 and the trip generation of 12 peak hour trips, the radius of development shall be 1 mile.

Tables 4 and 5 calculate the project's significance for each of the roadway segments within the radius of influence for the A.M. and P.M. peak hours, respectively. The project was considered to have an insignificant impact if the project trips represented less than 1.0% of the LOS D volume threshold for each roadway segment. As shown in Tables 4 and 5, the impact to all roadway segments was considered insignificant. However, a roadway segment analysis was completed for the directly accessed roadway. Tables 6 and 7 show Oleander Avenue adjacent to the site will continue to meet Level of Service standards. Note a 2.5% historical growth rate was used based on historical population growth in the County.

## 3.0 TRAFFIC ANALYSIS (CONT.)

**Driveway Volumes**
The AM and PM peak hour volumes at the project entrances for the overall development with no reduction for pass by credits are shown in Tables 2 and 3 and may be summarized as follows:

| | | **DIRECTIONAL DISTRIBUTION (TRIPS IN/OUT)** |
|---|---|---|
| AM | = | 3 / 8 |
| PM | = | 7 / 5 |

As previously mentioned, site access is proposed via a full access driveway connection to Oleander Avenue. A driveway analysis was performed utilizing the FDOT Multimodal Access Management Guidebook 2023 for right turn lanes and the NCHRP Report 457 for left turn lanes. The posted speed limit on Oleander Avenue at the subject site is 35 mph. The turn lane analysis is attached and demonstrates the driveway volumes are significantly below the applicable turn lane thresholds and therefore no turn lanes are warranted or proposed.

## 4.0 CONCLUSION

The proposed plan of development will result in an increase of 136 trips per day, 11 AM peak hour trips, and 12 PM peak hour trips at project build out in 2028. A review of the traffic data revealed the project will have an insignificant impact to the surrounding roadway network and meets the requirements outlined in City Code Section 105-5 (Management and monitoring program).

bk/dh: x:\Documents\Traffic Drainage&Structural/it is.23103

Figure 1 – Site Location Map
4101 Oleander Avenue
Project # 23-103

SIMMONS & WHITE

# 4101 OLEANDER AVENUE

08/08/2023
Revised: 09/17/2024

## PROPOSED DEVELOPMENT

### TABLE 1 - Daily Traffic Generation

| Landuse | ITE Code | Intensity | | Rate/Equation | Dir Split In | Dir Split Out | Gross Trips | Internalization % | Internalization Total | External Trips | Pass-by % | Pass-by Trips | Net Trips |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multifamily Mid-Rise Housing 4-10 stories (Apartment/Condo/TH) | 221 | 30 | Dwelling Units | 4.54 | | | 136 | 0.0% | 0 | 136 | 0% | 0 | 136 |
| | | | **Grand Totals:** | | | | **136** | **0.0%** | **0** | **136** | **0%** | **0** | **136** |

### TABLE 2 - AM Peak Hour Traffic Generation

| Landuse | ITE Code | Intensity | | Rate/Equation | Dir Split In | Dir Split Out | Gross Trips In | Gross Trips Out | Gross Trips Total | Internalization % | Internalization In | Internalization Out | Internalization Total | External Trips In | External Trips Out | External Trips Total | Pass-by % | Pass-by Trips | Net Trips In | Net Trips Out | Net Trips Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multifamily Mid-Rise Housing 4-10 stories (Apartment/Condo/TH) | 221 | 30 | Dwelling Units | 0.37 | 0.23 | 0.77 | 3 | 8 | 11 | 0.0% | 0 | 0 | 0 | 3 | 8 | 11 | 0% | 0 | 3 | 8 | 11 |
| | | | **Grand Totals:** | | | | **3** | **8** | **11** | **0.0%** | **0** | **0** | **0** | **3** | **8** | **11** | **0%** | **0** | **3** | **8** | **11** |

### TABLE 3 - PM Peak Hour Traffic Generation

| Landuse | ITE Code | Intensity | | Rate/Equation | Dir Split In | Dir Split Out | Gross Trips In | Gross Trips Out | Gross Trips Total | Internalization % | Internalization In | Internalization Out | Internalization Total | External Trips In | External Trips Out | External Trips Total | Pass-by % | Pass-by Trips | Net Trips In | Net Trips Out | Net Trips Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multifamily Mid-Rise Housing 4-10 stories (Apartment/Condo/TH) | 221 | 30 | Dwelling Units | 0.39 | 0.61 | 0.39 | 7 | 5 | 12 | 0.0% | 0 | 0 | 0 | 7 | 5 | 12 | 0% | 0 | 7 | 5 | 12 |
| | | | **Grand Totals:** | | | | **7** | **5** | **12** | **0.0%** | **0** | **0** | **0** | **7** | **5** | **12** | **0%** | **0** | **7** | **5** | **12** |

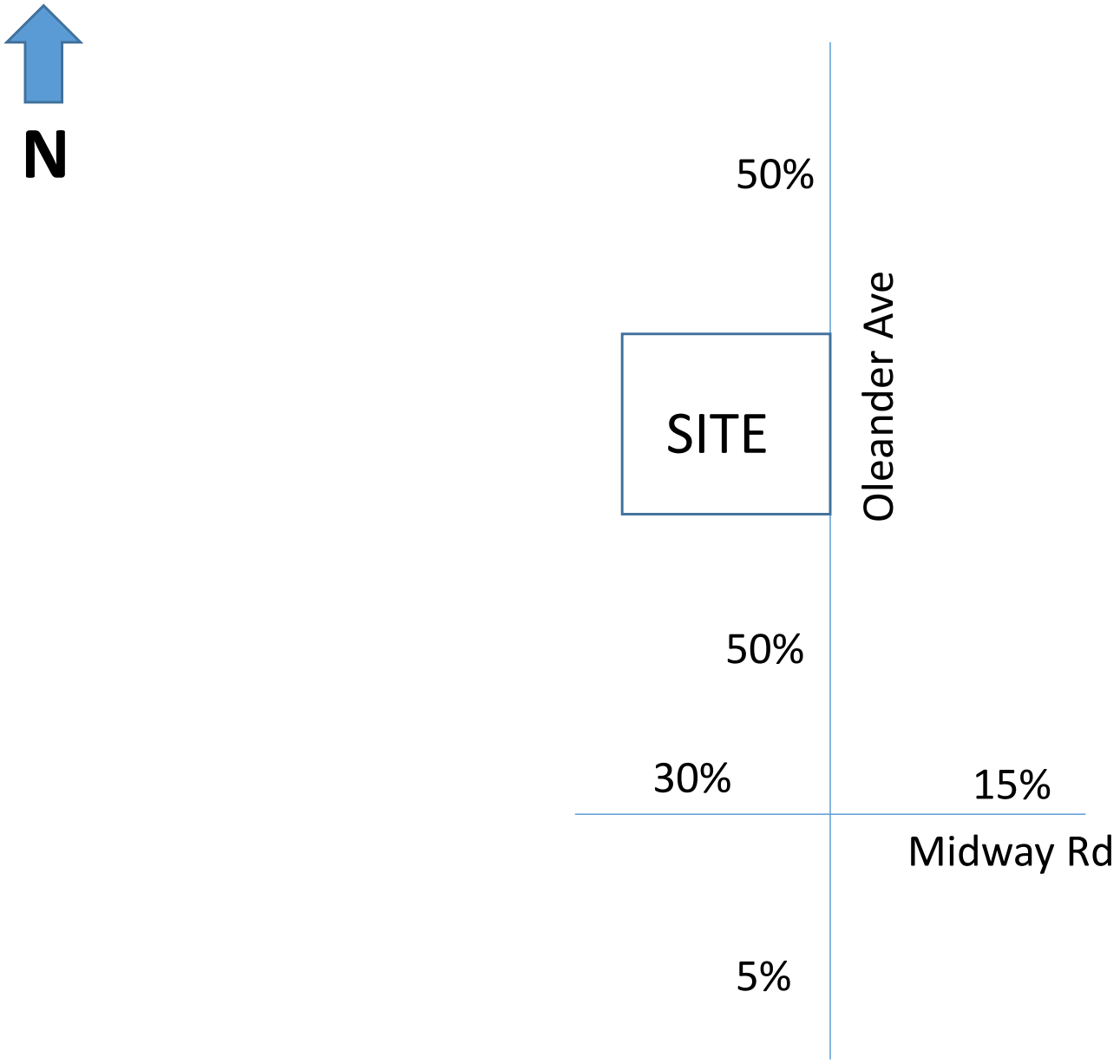



Figure 2 – Trip Distribution
4101 Oleander Avenue
Project # 23-103

SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

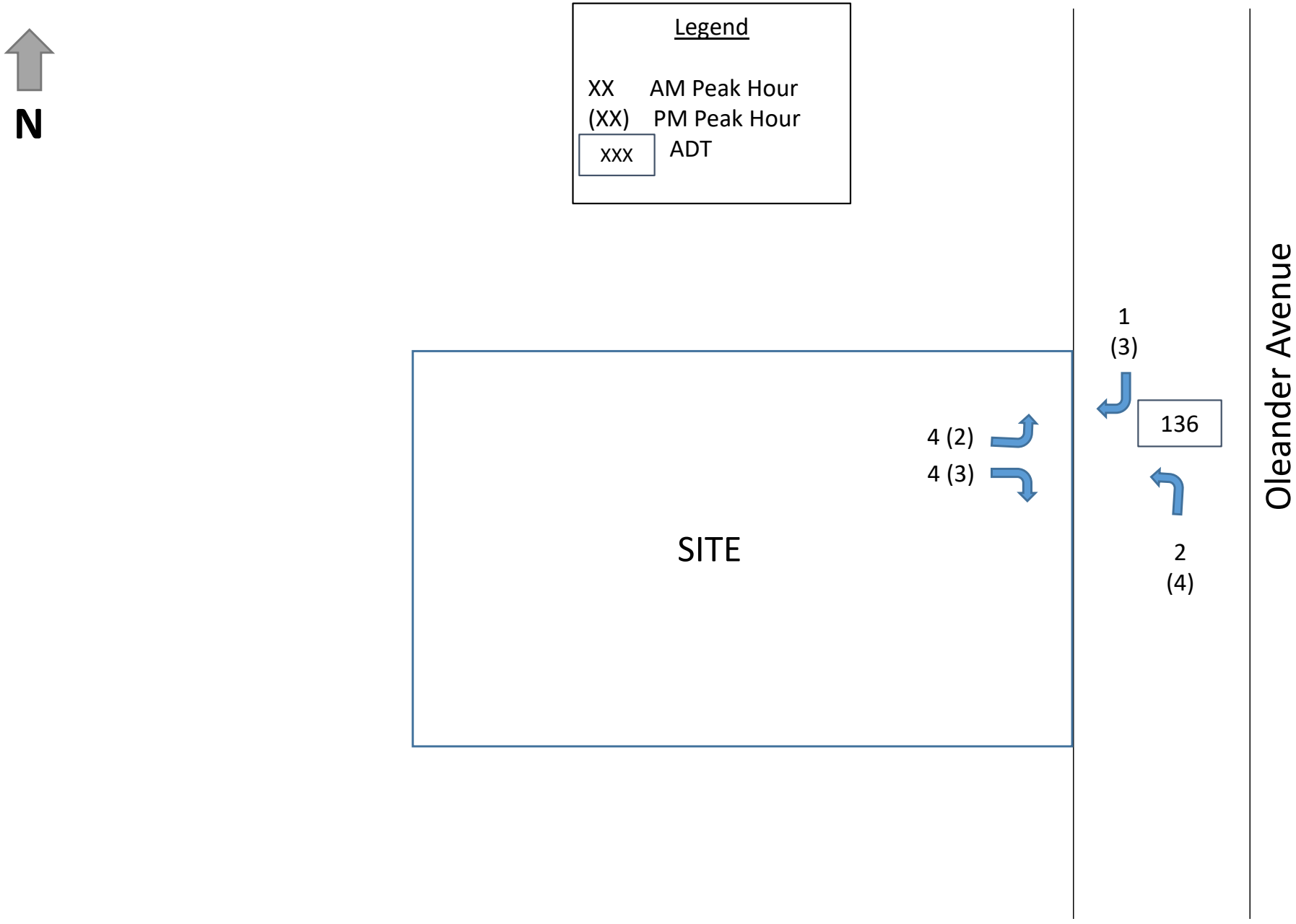
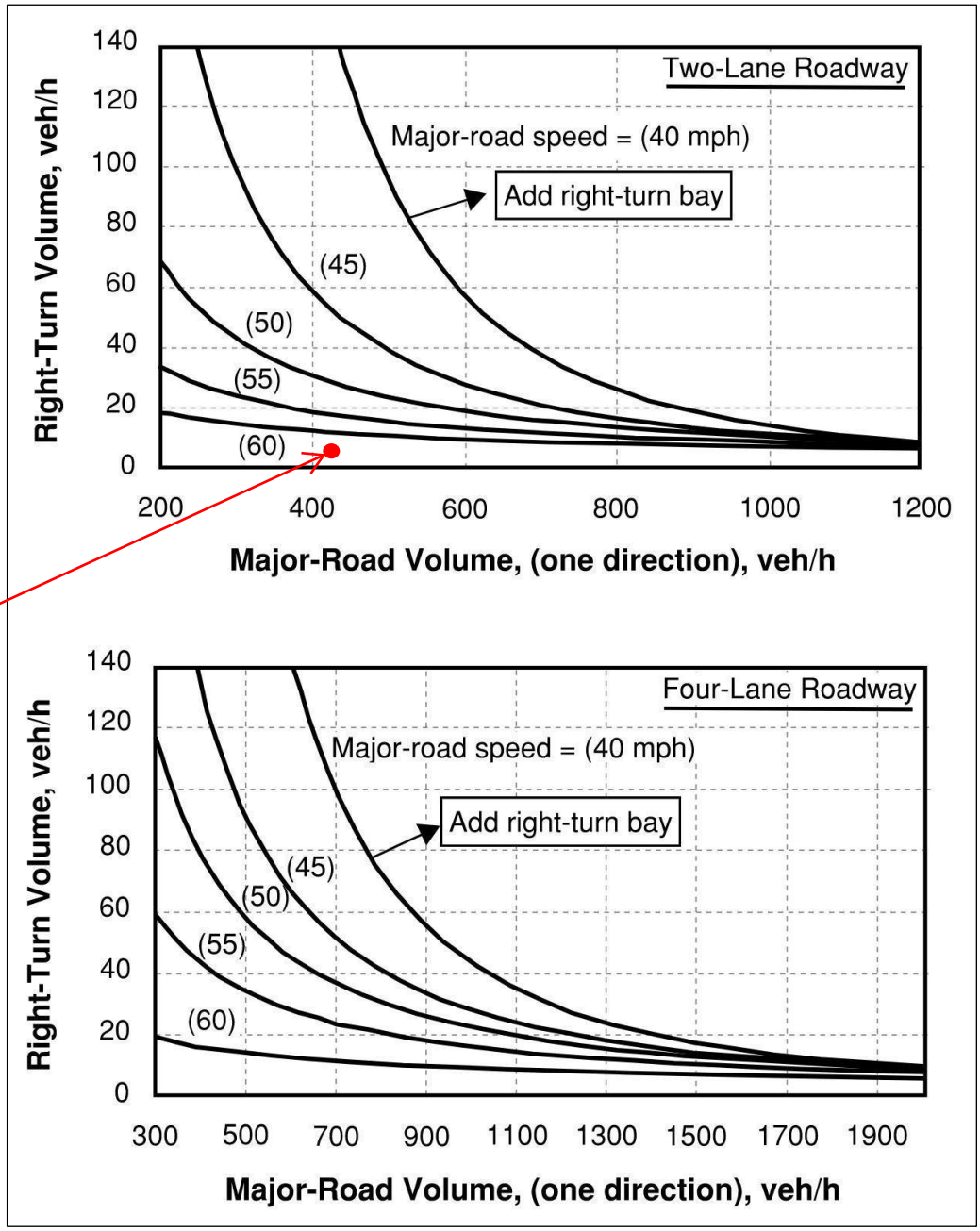



Figure 3 – Driveway Volumes
4101 Oleander Avenue
Project # 23-103

SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

***Figure 74 | Recommended Guidelines for Exclusive Right-Turn Lanes to Unsignalized Driveway/Intersection***

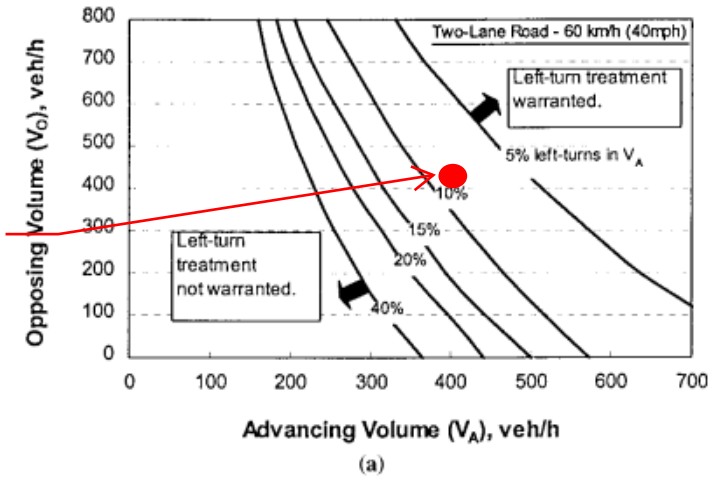


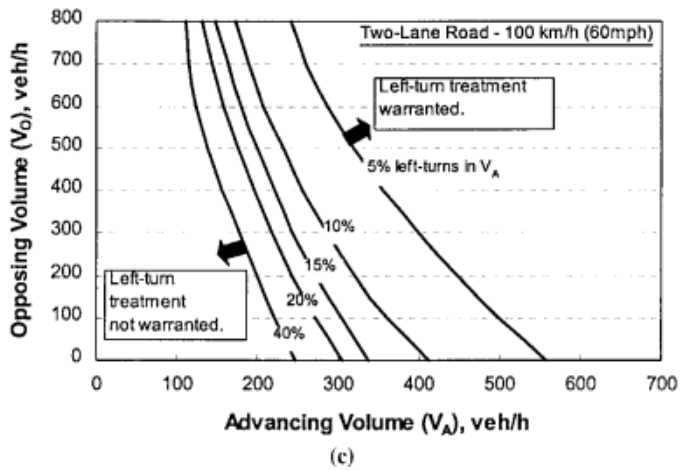

Right turns below threshold

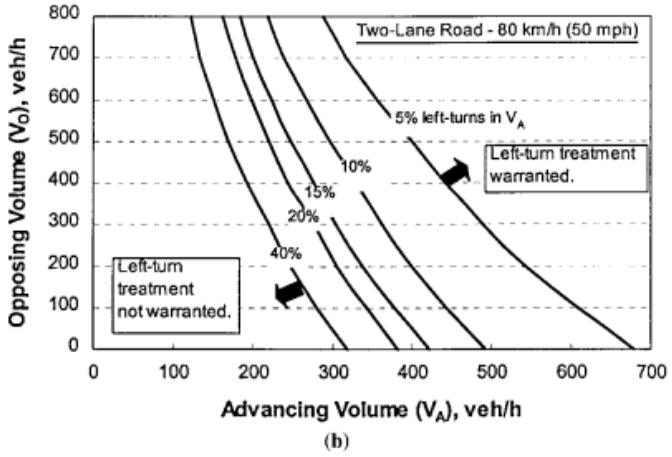
*Source: NCHRP Report 457, TDOT Highway System Access Manual*

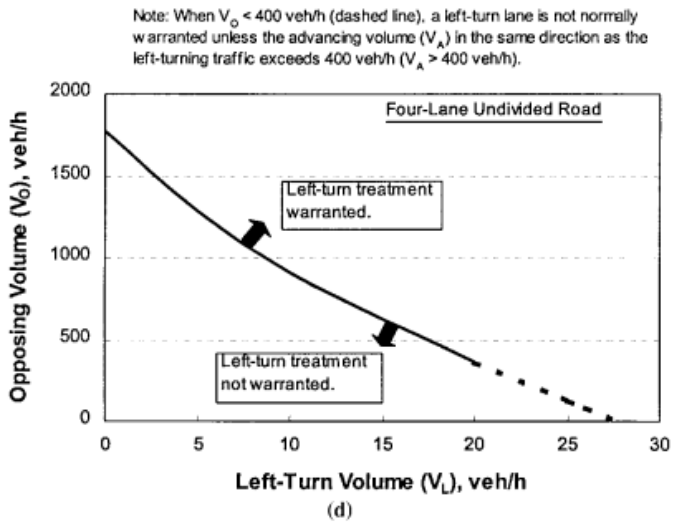
*Figure 81 | Left-Turn Lane Warrants (Unsignalized Intersections) – Alternate Method*

Assume Advancing Volume = Opposing Volume to be conservative. Left turn % is 4/417 or 1%. Therefore, a left turn lane is not warranted.




Source: NCHRP Report 457

# TABLE 4
## PROJECT SIGNIFICANCE CALCULATION
## AM PEAK HOUR

**2028 BUILD OUT**
**TOTAL AM PEAK HOUR PROJECT TRIPS (ENTER|3**
**TOTAL AM PEAK HOUR PROJECT TRIPS (EXITIN(8**

| ROADWAY | FROM | TO | PROJECT DISTRIBUTION | AM PEAK HOUR DIRECTIONAL PROJECT TRIPS | EXISTING LANES | LOS D STANDARD | TOTAL PROJECT IMPACT | PROJECT SIGNIFICANT |
|---|---|---|---|---|---|---|---|---|
| OLEANDER AVENUE | BEACH AVENUE | KITTERMAN ROAD | 5% | 0 | 2 | 540 | 0.00% | NO |
| OLEANDER AVENUE | KITTERMAN ROAD | MIDWAY ROAD | 5% | 0 | 2 | 750 | 0.00% | NO |
| OLEANDER AVENUE | MIDWAY ROAD | WEATHERBEE ROAD | 50% | 4 | 2 | 750 | 0.53% | NO |
| OLEANDER AVENUE | WEATHERBEE ROAD | SITE | 50% | 4 | 2 | 540 | 0.74% | NO |
| OLEANDER AVENUE | SITE | BELL AVENUE | 50% | 4 | 2 | 540 | 0.74% | NO |
| OLEANDER AVENUE | BELL AVENUE | FARMERS MARKET ROAD | 50% | 4 | 2 | 540 | 0.74% | NO |
| OLEANDER AVENUE | FARMERS MARKET ROAD | EDWARDS ROAD | 50% | 4 | 2 | 750 | 0.53% | NO |
| | | | | | | | | |
| MIDWAY ROAD | SUNRISE BOULEVARD | OLEANDER AVENUE | 30% | 2 | 4D | 2100 | 0.10% | NO |
| MIDWAY ROAD | OLEANDER AVENUE | US-1 | 15% | 1 | 4D | 2100 | 0.05% | NO |

# TABLE 5
## PROJECT SIGNIFICANCE CALCULATION
## AM PEAK HOUR

**2028 BUILD OUT**
**TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERIN 7**
**TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) 5**

| ROADWAY | FROM | TO | PROJECT DISTRIBUTION | PM PEAK HOUR DIRECTIONAL PROJECT TRIPS | EXISTING LANES | LOS D STANDARD | TOTAL PROJECT IMPACT | PROJECT SIGNIFICANT |
|---|---|---|---|---|---|---|---|---|
| OLEANDER AVENUE | BEACH AVENUE | KITTERMAN ROAD | 5% | 0 | 2 | 540 | 0.00% | NO |
| OLEANDER AVENUE | KITTERMAN ROAD | MIDWAY ROAD | 5% | 0 | 2 | 750 | 0.00% | NO |
| OLEANDER AVENUE | MIDWAY ROAD | WEATHERBEE ROAD | 50% | 4 | 2 | 750 | 0.53% | NO |
| OLEANDER AVENUE | WEATHERBEE ROAD | SITE | 50% | 4 | 2 | 540 | 0.74% | NO |
| OLEANDER AVENUE | SITE | BELL AVENUE | 50% | 4 | 2 | 540 | 0.74% | NO |
| OLEANDER AVENUE | BELL AVENUE | FARMERS MARKET ROAD | 50% | 4 | 2 | 540 | 0.74% | NO |
| OLEANDER AVENUE | FARMERS MARKET ROAD | EDWARDS ROAD | 50% | 4 | 2 | 750 | 0.53% | NO |
| | | | | | | | | |
| MIDWAY ROAD | SUNRISE BOULEVARD | OLEANDER AVENUE | 30% | 2 | 4D | 2100 | 0.10% | NO |
| MIDWAY ROAD | OLEANDER AVENUE | US-1 | 15% | 1 | 4D | 2100 | 0.05% | NO |

# TABLE 6
## AM PEAK HOUR - LINK ANALYSIS

**2028 BUILD OUT**
**AREA WIDE GROWTH RATE =** **2.50%**
**TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERING) =** **3**
**TOTAL AM PEAK HOUR PROJECT TRIPS (EXITING) =** **8**

| ROADWAY | FROM | TO | TRAFFIC COUNT YEAR | AM PEAK HOUR TRAFFIC[1] | PROJECT DISTRIBUTION | AM PEAK HOUR PROJECT TRIPS | LINK GROWTH | 2028 TRAFFIC WITHOUT PROJECT | 2028 TOTAL TRAFFIC | ASSURED LANES | LOS D[2] | 2028 WITHOUT PROJECT MEETS LOS STD. | MEETS LOS STD. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OLEANDER AVENUE | WEATHERBEE ROAD | SITE | 2023 | 362 | 50% | 4 | 48 | 410 | 414 | 2 | 540 | YES | YES |
| OLEANDER AVENUE | SITE | BELL AVENUE | 2023 | 362 | 50% | 4 | 48 | 410 | 414 | 2 | 540 | YES | YES |

**NOTES:**
1. The Peak Hour traffic volumes were obtained from the 2023 St. Lucie County TPO Traffic Counts and Level of Service Report.
2. The LOS D service volumes were based on the 2023 St. Lucie County Traffic Counts and Level of Service Report.

## TABLE 7
### PM PEAK HOUR - LINK ANALYSIS

**2028 BUILD OUT**
**AREA WIDE GROWTH RATE =** **2.50%**
**TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERING) =** **7**
**TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) =** **5**

| ROADWAY | FROM | TO | TRAFFIC COUNT YEAR | PM PEAK HOUR TRAFFIC[1] | PROJECT DISTRIBUTION | PM PEAK HOUR PROJECT TRIPS | LINK GROWTH | 2028 TRAFFIC WITHOUT PROJECT | 2028 TOTAL TRAFFIC | ASSURED LANES | LOS D[2] | 2028 WITHOUT PROJECT MEETS LOS STD. | MEETS LOS STD. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OLEANDER AVENUE | WEATHERBEE ROAD | SITE | 2023 | 365 | 50% | 4 | 48 | 413 | 417 | 2 | 540 | YES | YES |
| OLEANDER AVENUE | SITE | BELL AVENUE | 2023 | 365 | 50% | 4 | 48 | 413 | 417 | 2 | 540 | YES | YES |

**NOTES:**
1. The Peak Hour traffic volumes were obtained from the 2023 St. Lucie County TPO Traffic Counts and Level of Service Report.
2. The LOS D service volumes were based on the 2023 St. Lucie County Traffic Counts and Level of Service Report.

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

# Traffic Counts and Level of Service Report
# 2023

| Roadway Name | Location | AADT | Pk Hr Service Capacity | AM Pk Hr Pk Dir | | | PM Pk Hr Pk Dir | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Volume | LOS | V/C | Volume | LOS | V/C |
| OKEECHOBEE RD | FLORIDA'S TURNPIKE to KINGS HWY | 9,733 | 2,100 | 490 | C | 0.23 | 490 | C | 0.23 |
| OKEECHOBEE RD | KINGS HWY to CROSSROADS PKWY | 23,734 | 4,240 | 1,195 | C | 0.28 | 1,195 | C | 0.28 |
| OKEECHOBEE RD | CROSSROADS PKWY to I-95 | 26,375 | 4,240 | 1,327 | C | 0.31 | 1,327 | C | 0.31 |
| OKEECHOBEE RD | I-95 to JENKINS RD | 32,142 | 4,240 | 1,569 | C | 0.37 | 1,569 | C | 0.37 |
| OKEECHOBEE RD | JENKINS RD to MCNEIL RD | 32,142 | 4,040 | 1,569 | C | 0.39 | 1,569 | C | 0.39 |
| OKEECHOBEE RD | MCNEIL RD to VIRGINIA AVE | 31,230 | 3,170 | 1,524 | C | 0.48 | 1,524 | C | 0.48 |
| OKEECHOBEE RD | VIRGINIA AVE to HARTMAN RD | 15,500 | 2,100 | 802 | C | 0.38 | 791 | C | 0.38 |
| OKEECHOBEE RD | HARTMAN RD to 35TH ST | 15,500 | 1,630 | 802 | D | 0.49 | 791 | D | 0.49 |
| OKEECHOBEE RD | 35TH ST to 33RD ST | 16,500 | 1,630 | 859 | D | 0.53 | 822 | D | 0.50 |
| OKEECHOBEE RD | 33RD ST to 25TH ST | 16,500 | 1,630 | 859 | D | 0.53 | 822 | D | 0.50 |
| OKEECHOBEE RD | 25TH ST to GEORGIA AVE | 12,000 | 1,630 | 695 | C | 0.43 | 616 | C | 0.38 |
| OKEECHOBEE RD | GEORGIA AVE to DELAWARE AVE | 12,000 | 1,710 | 695 | C | 0.41 | 616 | C | 0.36 |
| OLD DIXIE HWY | US 1 to SR A1A NORTH | 830 | 790 | 129 | C | 0.16 | 123 | C | 0.16 |
| OLD DIXIE HWY | SR A1A NORTH to ST LUCIE BLVD | 1,753 | 750 | 82 | C | 0.11 | 82 | C | 0.11 |
| OLD DIXIE HWY | ST LUCIE BLVD to INDRIO RD | 2,125 | 790 | 172 | C | 0.22 | 126 | C | 0.16 |
| OLD DIXIE HWY | INDRIO RD to INDIAN RIVER C.L. | 1,340 | 870 | 63 | C | 0.07 | 63 | C | 0.07 |
| OLEANDER AVE | BEACH AVE to KITTERMAN RD | 2,970 | 540 | 172 | C | 0.32 | 194 | C | 0.36 |
| OLEANDER AVE | KITTERMAN RD to MIDWAY RD | 6,162 | 750 | 358 | C | 0.48 | 358 | C | 0.48 |
| OLEANDER AVE | MIDWAY RD to WEATHERBEE RD | 6,400 | 750 | 362 | C | 0.48 | 365 | C | 0.49 |
| OLEANDER AVE | WEATHERBEE RD to BELL AVE | 6,400 | 540 | 362 | D | 0.67 | 365 | D | 0.68 |
| OLEANDER AVE | BELL AVE to FARMER'S MARKET RD | 12,703 | 540 | 613 | F | 1.14 | 581 | F | 1.08 |
| OLEANDER AVE | FARMER'S MARKET RD to EDWARDS RD | 12,703 | 750 | 613 | D | 0.82 | 581 | D | 0.78 |
| OLEANDER AVE | EDWARDS RD to WISTERIA AVE | 9,907 | 750 | 601 | D | 0.80 | 500 | D | 0.67 |
| OLEANDER AVE | WISTERIA AVE to GARDENIA AVE | 9,907 | 540 | 601 | F | 1.11 | 500 | D | 0.93 |
| OLEANDER AVE | GARDENIA AVE to VIRGINIA AVE | 9,907 | 790 | 601 | D | 0.76 | 500 | D | 0.63 |
| OLEANDER AVE | VIRGINIA AVE to SUNRISE BLVD | 5,500 | 600 | 309 | D | 0.52 | 320 | D | 0.53 |
| ORANGE AVE | OKEECHOBEE C.L. to SNEED RD | 5,195 | 670 | 303 | C | 0.45 | 289 | C | 0.43 |
| ORANGE AVE | SNEED RD to HEADER CANAL RD | 5,195 | 670 | 303 | C | 0.45 | 289 | C | 0.43 |
| ORANGE AVE | HEADER CANAL RD to SHINN RD | 5,195 | 670 | 303 | C | 0.45 | 289 | C | 0.43 |

* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

# Traffic Counts and Level of Service Report
# 2023

| Roadway Name | Location | AADT | Pk Hr Service Capacity | AM Pk Hr Pk Dir | | | PM Pk Hr Pk Dir | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Volume | LOS | V/C | Volume | LOS | V/C |
| MIDWAY RD | OKEECHOBEE RD to SHINN RD | 6,581 | 760 | 331 | C | 0.44 | 331 | C | 0.44 |
| MIDWAY RD | SHINN RD to MCCARTY RD | 6,581 | 630 | 331 | C | 0.53 | 331 | C | 0.53 |
| MIDWAY RD | MCCARTY RD to I-95 | 6,581 | 700 | 331 | C | 0.47 | 331 | C | 0.47 |
| MIDWAY RD | I-95 to GLADES CUT-OFF RD | 20,913 | 2,100 | 1,021 | C | 0.49 | 1,021 | C | 0.49 |
| MIDWAY RD | GLADES CUT-OFF RD to EAST TORINO PKWY | 23,000 | 2,100 | 1,190 | C | 0.57 | 1,256 | C | 0.60 |
| MIDWAY RD | W OF SELVITZ RD to SELVITZ RD | 25,000 | 2,100 | 1,245 | C | 0.59 | 1,298 | C | 0.62 |
| MIDWAY RD | SELVITZ RD to CHRISTENSEN RD | 23,000 | 2,100 | 1,176 | C | 0.56 | 1,166 | C | 0.56 |
| MIDWAY RD | CHRISTENSEN RD to 25TH ST | 23,000 | 2,100 | 1,176 | C | 0.56 | 1,166 | C | 0.56 |
| MIDWAY RD | 25TH ST to SUNRISE BLVD | 23,000 | 2,100 | 1,245 | C | 0.59 | 1,147 | C | 0.55 |
| MIDWAY RD | SUNRISE BLVD to OLEANDER AVE | 23,000 | 2,100 | 1,245 | C | 0.59 | 1,147 | C | 0.55 |
| MIDWAY RD | OLEANDER AVE to US 1 | 20,000 | 2,100 | 1,011 | C | 0.48 | 974 | C | 0.46 |
| MIDWAY RD | US 1 to WALLACE ST | 3,690 | 790 | 183 | C | 0.23 | 183 | C | 0.23 |
| MIDWAY RD | WALLACE ST to WEATHERBEE RD | 3,690 | 920 | 183 | C | 0.20 | 183 | C | 0.20 |
| MIDWAY RD | WEATHERBEE RD to INDIAN RIVER DR | 3,690 | 630 | 183 | C | 0.29 | 183 | C | 0.29 |
| MORNINGSIDE BLVD | WESTMORELAND BLVD to PORT ST LUCIE BLVD | 2,289 | 920 | 123 | C | 0.13 | 123 | C | 0.13 |
| MORNINGSIDE BLVD | PORT ST LUCIE BLVD to LYNGATE DR | 3,728 | 880 | 296 | C | 0.34 | 314 | C | 0.36 |
| NEBRASKA AVE | 25TH ST to 13TH ST | 3,752 | 1,710 | 249 | C | 0.15 | 192 | C | 0.11 |
| OAKRIDGE DR | MOUNTWELL ST to OAKLYN ST | 7,113 | 700 | 442 | C | 0.63 | 385 | C | 0.55 |
| OHIO AVE | SUNRISE BLVD to COLONIAL RD | 3,875 | 540 | 205 | C | 0.38 | 227 | C | 0.42 |
| OHIO AVE | COLONIAL RD to US 1 | 3,875 | 750 | 205 | C | 0.27 | 227 | C | 0.30 |
| OKEECHOBEE RD | OKEECHOBEE C.L. to BLUEFIELD RD | 11,835 | 1,580 | 618 | B | 0.39 | 665 | B | 0.42 |
| OKEECHOBEE RD | BLUEFIELD RD to CARLTON RD | 11,835 | 2,000 | 618 | B | 0.31 | 665 | B | 0.33 |
| OKEECHOBEE RD | CARLTON RD to SNEED RD | 8,931 | 2,100 | 449 | B | 0.21 | 449 | B | 0.21 |
| OKEECHOBEE RD | IDEAL HOLDING RD to HEADER CANAL RD | 8,931 | 2,100 | 449 | B | 0.21 | 449 | B | 0.21 |
| OKEECHOBEE RD | SNEED RD to IDEAL HOLDING RD | 8,931 | 2,100 | 449 | B | 0.21 | 449 | B | 0.21 |
| OKEECHOBEE RD | HEADER CANAL RD to MIDWAY RD | 8,931 | 2,450 | 449 | B | 0.18 | 449 | B | 0.18 |
| OKEECHOBEE RD | MIDWAY RD to SHINN RD | 8,931 | 3,110 | 449 | B | 0.14 | 449 | B | 0.14 |
| OKEECHOBEE RD | SHINN RD to MCCARTY RD | 7,079 | 3,240 | 335 | B | 0.10 | 335 | B | 0.10 |
| OKEECHOBEE RD | MCCARTY RD to FLORIDA'S TURNPIKE | 9,733 | 3,240 | 490 | B | 0.15 | 490 | B | 0.15 |

* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic

MBV
ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
www.mbveng.com CA #3728

February 18, 2025

Ms. Kerry Driver, Planner
City of Fort Pierce
100 N. US Hwy. 1
Fort Pierce, FL 34982

***Submitted via email and hand delivery***

Subject: Margareta Villas – 4101 Oleander Avenue
City of Fort Pierce, Florida
Engineer's Project Number: 23-0060

Dear Ms. Driver:

In accordance with your second round of TRC comments dated December 13, 2024, please see our below responses and attachments as listed in the enclosures:

PLANNING DEPARTMENT

The proposed increase in density is being justified under the Innovative development design code. Acknowledging the innovative bioswale, please note that per the City's Innovative Community Development Sec. 125-243, innovative designs are inclusive to landscape, architectural designs and colors, and community amenities. Based on your design submission and site plan, it does not satisfy the innovative standards.

- Please resubmit and inform if your will apply for a Site Plan under straight zoning for R-4. **The project proposes an increase in density from 10 units per acre to 12 units per acre under the Innovative Community Development ordinance. The justification is included that aligns with the ordinance requirements.**
- If you choose to pursue the additional bonus density under the Innovative Design code, please resubmit a site plan and designs to reflect (staff is here to provide additional guidance. Attachments provided. **The site plan, landscape plan, and architectural rendering & color palette have been updated to provide upgrades and consistency with the intent of Innovative Community Development.**

Advisory Comments:

1. Prior to the issuance of any site clearing permits, the applicant shall provide a Tree Mitigation Survey and coordinate with the City of Fort Pierce Arborist (Paul Bertram: 772-467-3821) for the required mitigation of the City regulated trees proposed to be removed as a result of this site's development/construction activity. **Acknowledged.**

2. A notarized Landscape Maintenance Agreement shall note that all landscaping shall be installed, irrigated, and maintained in perpetuity in accordance with section 123-7 of the City Code of Ordinances, in order that it continues to present a healthy, neat, and orderly appearance free of refuse and debris (agreement provided by City of Fort Pierce Planning Department). **Acknowledged.**

ENGINEERING DEPARTMENT
Recommendation: Site Plan Approval

Advisory Comments:
1. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application. **Acknowledged.**
2. The electronic copy of the survey was not signed and sealed; please provide the required certified survey in electronic format at time of DPCR application. **Acknowledged.**
3. The project shall have all State and Federal permits in place prior to conducting any land clearing operations as the submitted Environmental Impact Report indicates that wetlands and gopher tortoise burrows are present on the site. **Acknowledged.**
4. Tree mitigation calculations will be reviewed at the time of DPCR submittal and are not approved as part of this submittal. **Acknowledged.**

SLC PW / ENGINEERING:
Advisory:
1. Additional comments may be provided during the site development permit review. **Acknowledged.**
2. A Site Development Permit is required prior to performing site improvement activities. **Acknowledged.**
3. A 6-foot sidewalk is required along Oleander Avenue. **Provided.**

FDEP - SOUTHEAST DISTRICT
Due to the proposed activity this project will need to be reviewed by SFWMD for ERP. Any other permit related to the project as wastewater, drinking water and UOC will require to submit an application to Florida Department of Environmental Protection (FDEP). **Understood.**

SLC FIRE DISTRICT***
Site Plan Requires Re-submittal

The following conditions/revisions are necessary:

1. Please submit a completed application for Development/Site Plan Review (St. Lucie County Fire District Development & Site Plan Review Application). **The application was submitted online with a copy submitted with the fee.**
2. Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form. **The fee was overnighted to your office on November 22, 2024.**
3. Please provide an electronic revised copy of the site plan (pdf format). **The pdf copy of the plans has been uploaded with the online application submittal.**

Should you have any questions regarding the above subject, please feel free to contact our office at any time.

Sincerely,

Angelena N. Vitter, P.E.
Project Manager

AV/jeh

**ENCLOSURES:**

- Revised Civil Plans
- Revised Landscape Plans
- Innovative Community Development Justification
- Architectural Rendering and Color Palette
- Architect Response to Comments

# Staffan H. Lundberg Architect, LLC.

**1341 Sea Hawk Lane, Vero beach, Florida 32963**

Phone 772-538-5130

E-mail: staffanarchitect@gmail.com


02-13-25

Angie Vitter
MBV Engineering

RE: Margareta Villas
Response to comments

SITE PLAN

By designing a four story building we manage to save 14 beautiful full grown oak trees.

By orienting the main axis of the building north to south we minimized the view from the building towards the neighbors on the S & N side. We minimized the number of windows on the south and north side for the same reason

Adding a Gazebo with picnic table west of the building

A gravel walkway surrounding the rear of the property.

BUILDING

The long side of the building was designed with protruding elements (balconies) to minimize the visual length of the building including the covered entry.

The bottom half of the building to have a stucco façade and the upper half lap siding with contrasting colors to visually reduce the height of the building.

For colors see rendering and color chart. Changes has been made to comply with the color chart, though soft white (bottom of building) is not included in the color chart but have been approved by staff.

ECONOMIC SUSTAINABILITY

Concrete column and beam frame construction with Hollow Core or EPICOR floor and roof Systems. Exterior walls with ICF (Insulated concrete forms)

Standing seam metal roof at roof perimeter over steel frame

Recycled rigid foam insulation with recyclable roofing membrane

Exterior Vinyl Plastic Window shutters - reusable

ENERGY EFFICIENCY

ICF is a unit with rigid insulation inside and out side with poured concrete in between. It stops the heat entering from outside and keeps the cool air inside.
All glass windows and door on E, S and West side with Low-e glass
to reduce radiant heat from entering building.
Rainwater from the roof could be collected with gutters and downspouts and piped to a storage tank to be used for irrigation.
Recyclable rigid roof insulation and roofing membrane.

MBV
ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
www.mbveng.com CA #3728

# Margareta Villas

## INNOVATIVE COMMUNITY DEVELOPMENT (SEC 125-243)

(a) PURPOSE

*Innovative community developments are primarily creative and imaginative housing, mixed-use and community-oriented development. Innovation is achieved by use of material, solar juxtaposition, clustering, positive environmental impacts, energy efficiency, economic sustainability and by employing methods to achieve distinctiveness and excellence in siting, design, pedestrian accessibility, and landscaping. Reductions in required on-site parking, adoption of reduced and zero setbacks, expedited planning review and reductions in various building siting requirements are used to encourage these developments.*

**This project has been designed to meet Innovative Community Development Standards by clustering the building, preserving large oaks on site, adding bioswales for a low impact development method, and enhancing the landscaping and architectural design to a higher standard than the code minimum. This request is for 5 additional bonus units beyond zoning regulations, taking the total from 25 to 30 units. This document addresses how the criteria in the land development code is addressed with the proposed site plan.**

(b) GENERAL STANDARDS FOR APPROVAL

*The city commission shall consider the approval of an innovative community development only if the commission determines that the development fulfills the purpose of this section and complies with applicable standards referred to in this section and section 125-236, additional zoning ordinance provisions not in conflict with the intent of this section and other city laws.*

*(1) Single-family dwellings and townhomes, with or without Accessory Dwelling Units.*

*(2) Duplexes, quadraplexes, triplexes, and multifamily housing developments, when permitted in the zone.*

*(3) Nonresidential uses permitted in the Future Land Use when these will provide a suitable mixed-use living environment for residents of the innovative community development.*

*(4) Meantime Uses permitted in the Future Land Use, including performances, art exhibitions, and hobbyist gatherings, as well as transient commercial opportunities such as markets or food sales that are held a single time or regularly.*

**The City Commission should consider this project for approval because it fulfills the development intent of innovative community development ordinance and the zoning regulations. The responses below outline the various aspects of this unique project.**

(c) POTENTIAL USES

**The proposed use is multi-family, an approved use for innovative community development.**

(d) MINIMUM LOT SIZE

*Minimum lot size and lot area are determined by the maximum density authorized in the comprehensive plan.*

**Minimum lot size and width are exceeded.**

| | R-4 ZONING | PROPOSED |
|---|---|---|
| LOT SIZE | 20,000 SF | 110,747 SF |
| MIN. LOT WIDTH | 75-FT | 193-FT |

(e) RESIDENTIAL DENSITIES

*Maximum densities will not exceed the density allocated within the city's comprehensive plan for the underlying Future Land Use.*

**Per the Future Land Use Element of the City of Fort Pierce Code, the land use category of RM for this project allows for dwelling units per gross acre between 6.5 to 12 units per acre.**

**The project's proposed density is 11.8 units/acre which is within the allowable density within the Future Land Use of RM for this site:**

**30 proposed dwelling units x 2.54 acres = 11.8 units/acre**

**Note that an innovative design has been chosen to obtain 5 additional units since the R-4 Zoning code allows for a maximum gross density of 10 units per acre or 25 units for this site.**

(f) DEVELOPMENT STANDARDS

(1) *Area, width, depth, yard, and lot coverage requirements for lost in an innovative community development have the following considerations:*

a. *Compatibility with surrounding development:*

**Scale and Massing: The apartment complex is designed to complement the surrounding homes with a Florida vernacular architectural style. This structure is set back from the road to provide visual relief, and the enhanced landscaping provides additional buffering.**

**Community Amenities: This site is designed to mimic a neighborhood park by incorporating walking paths, tree preservation, park benches and passive recreational area spaces. The park like atmosphere and upgraded landscaping, along with the preserved trees can provide the ambience of a long-established neighborhood.**

**Density and Population: By providing concurrency for the area roads, schools, public buildings, etcetera; this is a step that will ensure that the apartment complex doesn't introduce impacts on the surrounding area. The neighborhood is historically a mix of single-family homes and duplex/triplex units. Additionally, there was previously an Assisted Living Facility (ALF) a few lots away.**

b. *Constraints of existing physical features:*
**This two and half acre site does not have many existing features that constrain the design. But rather, this site currently has several large specimen trees that are an asset and are to be preserved as part of the design. The goal of this site was to minimize the impact to the trees to be the best degree possible, and that was best achieved by placing a single building on the lot rather than several smaller multistory buildings.**

c. *Availability of utilities:*
**Both potable water and sanitary sewer are available for this site.**

d. *Traffic Management:*
**To provide planning for traffic flow, parking, and pedestrian access, we have coordinated with St. Lucie County as well as the City of Fort Pierce in evaluating the traffic. A traffic report has been reviewed and approved by both the City and County. Per the traffic impact statement, this project will have an insignificant impact to the surrounding roadway network and meets the requirements outlined in City Code section 105-5.**

e. *Enhance landscaping, streetscape, open spaces, and recreation areas:*
**Setbacks and Landscaping: The primary structure was purposely and thoughtfully setback from the street and neighboring homes with a front set back that exceeds the City's requirements. Combined with upgraded landscaping and an enhanced architectural design that helps to mitigate the visual impact of the complex. Trees, shrubs, and green spaces act as buffers to preserve privacy and reduce impacts.**

f. *Creative site design, such as, but not limited to, visual focal points, variation in building setbacks, and use of existing site features:*
**The building meets the architectural style in the guidebook through a number of elements that incorporate an aesthetic style into a seamless finish. The landscaping showcases preserved mature trees, a stark difference to the sites that clear cut and replant with significantly smaller species. The site will have enhanced landscaping and pedestrian amenities, including sidewalks, benches and paths throughout. The paths will be lit with pedestrian height soft lighting, and the preserved trees will be showcased with uplighting. The west (rear yard) also includes a social patio with pavers and seating area for the residents to enjoy.**

g. *Architectural styles, building materials, variation of building types:*
**The architectural style of the apartment complex incorporates Florida vernacular styles, including the roofline and roof articulation, materials, and colors, to create visual harmony.**

**The building seamlessly merges elements Florida Vernacular with Anglo Caribbean style, incorporating both styles into the finished product. The**

**symmetrical façade features a horizontally articulated entry gabled façade in the center that is accented with split stone that offers a deep roof overhang to shield its residents from the elements. The windows and doors are vertically proportioned, and the windows feature shutters. The upper floors have lapboard siding.**

**The balconies provide additional articulation in the design and are placed so that residents have views onto either Oleander or the rear of the property. This is purposeful so that there are not balconies on either the south or north sides of the building where they are closest to adjacent properties, which helps to provide additional privacy. The balconies and columns offer both horizontal articulation with recessed as well as protruding architectural features.**

**Vertically, columns and gabled roof peaks assist to provide visual impact. The colors utilized are from the color palette in the City's Architectural Design Standards booklet, utilizing a soft white as well as the upper exterior walls in Pantone 290C, the shutters in Pantone 7455C, and railings in dark bronze. The roof itself is a standing seam metal roof in a cool gray color.**

h. *Character of proposed development within the street scene:*
**Oleander functions as a minor arterial roadway offering north and south connections. This site interfaces to Oleander by providing vehicular access and a sidewalk connection. This area is predominately automobile focused, but the sidewalk connections will assist in providing pedestrian and bicycle access, and bike racks. Additionally, there is an area with bike racks for storage.**

i. *Economic resilience - Workforce, multi-generational, and affordable housing:*
**The apartments proposed are targeted to provide options in housing for essential workers including teachers, healthcare and retail employees. The apartments offered are a mix of one- and two-bedroom apartments to help meet the housing needs of entry level workers, young professionals, and/or older adults looking to downsize from a traditional single-family home but still stay in the area.**

j. *Increased stormwater percolation, use, cleaning, and/or sequestration:*
**This project proposes to install two bioswales as an innovative alternative to traditional inlets and pipes. The bioswales are narrow vegetated strips that collect and filter stormwater from the parking lot prior to entering the stormwater management system. The swales will provide a filtration system to aid in removing pollutants before they reach offsite waterways, and they also provide biodiversity. Low impact design elements offer innovative and aesthetically pleasing treatment options for storm water attenuation, as well as providing for nutrient reduction that is key to meeting state goals for reduction of nitrogen and phosphorus.**
+

k. *Energy sustainability and cost management:*

**A large number of trees are being preserved on the property that will help with the energy costs of heating and cooling the apartments by providing natural shade and solar filtering. Additionally, the building materials utilized in the construction are selected for energy efficiency and helping to keep energy costs low. These include:**

- **Concrete column and beam frame construction with hollow core or EPICOR floors/roof systems;**
- **Exterior walls with ICF (insulated concrete forms);**
- **Recycled rigid foam insulation with recyclable roofing membrane;**
- **Apartments will feature energy efficient appliances; and**
- **Glass windows the feature low-e glass to reduce radiant heat.**

l. *Passive heating and cooling techniques:*

**As indicated in k, the tree preservation on site, particularly on the western edge of the site will provide an immense amount of passive cooling for the building. Trees help lower heating and cooling costs by providing shade, windbreaks and evapotranspiration. Evapotranspiration happens as trees release water vapor through their leaves. This can assist in absorbing heat from the surrounding area and reducing the temperature. Other trees will be strategically planted on site to help further reduce costs of heating and cooling.**

m. *Proximity to neighbors (light, ventilation, privacy):*

**This site is well buffered from the adjacent properties on the north, west, and south boundaries. Site lighting is shielded and does not spill over the property lines. The existing trees on site and proposed landscaping help provide privacy.**

n. *Building height shall not exceed those building heights of the applicable zoning district.*

**Per R-4 Zoning, no building shall exceed 45 feet above grade. The proposed building is 45 feet in height and does not exceed the City's requirements.**

(g) COMMON OPEN SPACE

*If buildings or structures are to be constructed in the common open space, the developer will provide a bond or other adequate assurances that the buildings and structures will be completed. The planning director shall release the bond or other assurances when the buildings and structures have been completed according to the development plan.*

**This site has a large amount of open space from the increased setback to the trees preserved on site. No buildings or structures beyond the multifamily building and supporting infrastructure are proposed. The common open space includes rain garden/bio swales on the north and south property lines, dry retention ponds, walking paths, pedestrian sidewalks, pedestrian level lighting, benches, and a shared patio area to the west of the proposed buildings.**

(h) COMPATIBILITY WIITH ADJACENT DEVELOPMENT

*If topographical or other barriers near the innovative community development do not provide reasonable privacy for existing or potential uses adjacent to the development, the city commission shall require buildings in the innovative community development to be set back an adequate distance from the perimeter of the innovative community development or require an attractively designed and maintained buffer in the form of vegetation, fencing, walls and/or berms.*

**The proposed building has been located to exceed minimum setbacks to aid in compatibility with adjacent development and enhanced landscaping is provided within the south buffer.**

| BUILDING SETBACKS | R-4 ZONING | PROPOSED |
|---|---|---|
| FRONT | 25-FT | 225-FT |
| SIDE | 10-FT | 25-FT |
| REAR | 20-FT | 253-FT |

(i) UNIFIED CONTROL

*All land intended to be included in the innovative community development shall be under the legal control of the applicant, whether that applicant be an individual, partnership or corporation or group of individuals, partnerships and/or corporations.*

**The entire project site is under unified legal control of the applicant.**

(j) MAINTENANCE OF COMMON AREAS

*Common open space, streets and any area or facility designated by the city commission as a shared area will comply with the following provisions:*

(1) *The property will be conveyed under one of the following options:*

*a. To a public agency which agrees to maintain the property and buildings or structures placed on it; or*

*b. To an association of owners and/or tenants, created as a nonprofit corporation under the laws of the state, which shall adopt and impose articles of incorporation and bylaws and adopt and impose a declaration of covenants and restrictions that are acceptable to the city commission as providing for the continuing care of the property.*

**Maintenance of common areas will be conveyed to a property association, as required, at the time of building permit.**

(2) *The property may not be put to a use not specified in the development plans unless the development plans are first amended to permit the use. However, no change of use may be considered as a waiver of any of the covenants limiting the use of the property, and all rights to enforce these covenants against any use permitted are expressly reserved.*

**Property will be used per the development plans.**

(3) *If the property is not conveyed to a public agency, the covenants and restrictions that govern the association of owners and/or tenants will at least include the following provisions:*

*a. Membership must be mandatory for each home buyer or tenant and each successive buyer or tenant.*

*b. The association must be responsible for liability insurance, local taxes and the maintenance of property.*

*c. Owners and tenants must pay their pro rata share of the cost.*

*d. The association must be able to adjust assessments to meet changing needs.*

*e. The city must be authorized to enforce these and other provisions governing the use, improvement and maintenance of the property.*

*The building official shall thereafter issue permits in accordance with what is set forth in the aforesaid instrument provided all other requirements of this chapter are met and thereafter no further permits shall be issued for any additional units on the tract described. The instrument shall be recorded to place all persons on notice of its contents and limitations upon further building.*

**The covenants and restrictions will include these requirements at the time of building permit.**

(4) *If the property is not conveyed to a public agency, then, in addition to those requirements set forth hereinabove, there shall be delivered to the building official at or before the time the first building permit is obtained an instrument in recordable form containing:*

*a. A legal description of the property upon which the dwelling units are to be constructed;*

*b. A statement of the total area contained within such description;*

*c. A statement of the number of existing or proposed units located on the subject property;*

*d. A statement of the number of dwelling units for which the application is made;*

*e. A restriction prohibiting any further development or construction beyond what is set forth in the instrument.*

**These required documents will be provided at the time of building permit.**

(k) UTILITY EASEMENTS

*Easements necessary for the orderly extension and maintenance of public utilities may be required as a condition of approval.*

**Easements will be provided as necessary.**

(l) OTHER STANDARDS

*All innovative community developments will comply with regulations affecting signs referred to in section 125-310, and applicable portions of the city's regulations governing subdivisions. The city commission may also establish additional requirements which it considers necessary to ensure that an innovative community development conforms to the intent of this section.*

**The community signage will meet Section 125-310, as required.**

(m) SPECIAL APPLICATION REQUIREMENTS

*When an application is submitted for conditional use approval of an innovative community development, the following items will be submitted in addition to other information submitted in accordance with section 125-236, the city's subdivision regulations or other city laws:*

(1) *Statements describing in detail the character and intended use of the development.*
**Refer to the response to (a) PURPOSE and subsequent sections above.**

(2) *Material which presents firm evidence of unified control of the entire area within the proposed innovative community development, including a certificate of apparent ownership and encumbrance with the opinion of counsel representing the applicant establishing that the applicant has the unrestricted right to impose all of the covenants and conditions upon the land as are contemplated by the provisions of these regulations.*
**This site is owned by a single entity, so there is unified control as evidenced by the deed.**

(3) *A statement of the applicant's intentions with regard to the future selling or leasing of all or portions of the innovative community development, such as land areas and dwelling units.*
**It is the applicant's intention to maintain unified control of the property and to rent the individual dwelling units.**

(4) *A statement indicating the justification for any desired density bonuses.*
**The justification for the desired 5 dwelling unit density bonus is meeting the requirements for Innovative Community Development described throughout the sections above.**

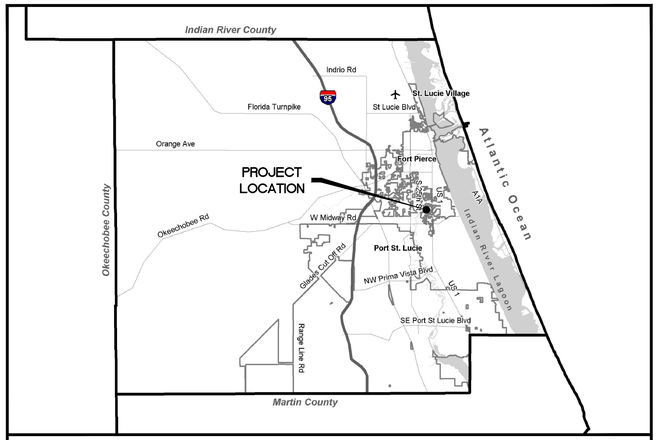
(5) *Agreements, provisions and covenants which govern the use, maintenance and continued protection of the innovative community development and any of its common open space or other shared areas. This material shall include material which binds successors in title to any commitments concerning completion of the project and its maintenance and operation.*
**The property owner's association document or other legal document will be provided prior to Certificate of Occupancy to meet this requirement, as required.**

(6) *Additional information needed to demonstrate compliance with the standards in this section and those referred to in section 125-242.*
**The information provided in the sections above demonstrates compliance.**

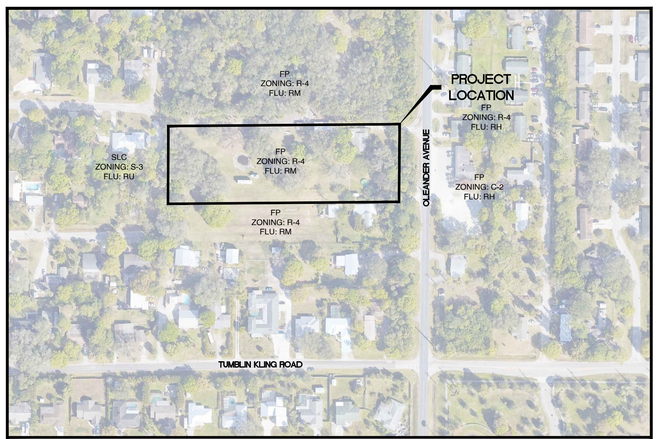
# MARGARETA VILLAS
# MULTI-FAMILY

## SECTION 33, TOWNSHIP 35S, RANGE 40E
## CITY OF FORT PIERCE, FLORIDA

SEPTEMBER 2023




LOCATION MAP




VICINITY MAP

## OWNER


4101 OLEANDER GROUP, LLC
17555 COLLINS AVENUE, APT. 2006
SUNNY ISLES, FLORIDA 33160
PH: (305) 337-0183


## APPLICANT


MR. GEZA SZINI-SEBO
ABANDEL GROUP, LTD.
51 WIGTON PLACE
THORNHILL, ON, CANADA L4J8C6
PH: (305) 337-0183


## 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


## SURVEYOR


PERIMETER SURVEYING & MAPPING
947 CLINT MOORE ROAD
BOCA RATON, FLORIDA 33487
PH: (561) 241-9988


## ARCHITECT


STAFFAN H. LUNDBERG
1341 SEA HAWK LANE
VERO BEACH, FLORIDA 32963
PH: (772) 538-5130


## INDEX OF DRAWINGS


| | |
|---|---|
| C1 | COVER SHEET |
| C2 | GENERAL NOTES |
| C3 | EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN |
| C4 | SITE AND UTILITY PLAN |
| C5 | PAVING, GRADING AND DRAINAGE PLAN |
| C6 | CROSS SECTIONS |
| C7 | GENERAL DETAILS |
| C8 | WATER AND SEWER DETAILS |
| C9 | EROSION CONTROL DETAILS |


## LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY. SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's **below.**
**Call** before you dig.

ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950

DATE: 2/18/2025

PROJECT: 23-0060

SHEET
C1

This item has been digitally signed & sealed by Angelena Vitter, P.E. on the date adjacent to the seal.

Printed copies of this document are not considered signed & sealed and the signature must be verified on any electronic copies.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 COVER - DETAILS.dwg 2/4/2025 3:56 PM
GREGG REED

## PRE-CONSTRUCTION REQUIREMENTS:

1. THE CONTRACTOR IS REQUIRED TO PERFORM HIS WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE VARIOUS PERMITS WHICH WILL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.
2. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE (SEQUENCE OF OPERATIONS) PRIOR TO THE PRE-CONSTRUCTION MEETING.
3. CONTRACTOR WILL ATTEND A PRE-CONSTRUCTION MEETING WITH THE DESIGN ENGINEER, MUNICIPALITY AND/ OR OWNER PRIOR TO LAND DISTURBANCE.
4. SHOP DRAWINGS SHALL BE SUBMITTED BEFORE ORDERING MATERIAL FOR PLANNED PROJECT. CORRESPONDING SHALL BE BETWEEN THE DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

## CONSTRUCTION NOTES:

1. THE CONTRACTOR IS ADVISED TO THOROUGHLY REVIEW THIS PLAN PACKAGE SO AS TO BE TOTALLY PREPARED TO PRESENT HIS BID PRICES IN THE CONTRACT DOCUMENTS. THE PLAN PACKAGE SUFFICIENTLY DELINEATES THE SCOPE AND INTENT OF THE WORK TO BE ACCOMPLISHED. IT WILL, THEREFORE, BE INCUMBENT ON THE CONTRACTOR TO ADJUST HIS FEE DOLLARS TO REFLECT ANY AND ALL ITEMS WHICH MAY NOT BE CLEARLY OUTLINED OR THOSE ITEMS WHICH MAY NOT BE INDICATED BUT WHICH ARE NECESSARY FOR THE SUCCESSFUL COMPLETION OF THIS PROJECT WITHOUT ADDITIONAL COSTS TO THE OWNER.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF FORT PIERCE AND FDOT STANDARDS AND SPECIFICATIONS.
3. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND IS RESPONSIBLE FOR THE COORDINATION OF UTILITY RELOCATION.
4. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN THE FIELD WITH UTILITY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION, AS REQUIRED BY THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT. NOTIFY SUNSHINE AT 811.
6. CONTRACTOR SHALL TAKE EXTREME CAUTION WHEN EXCAVATING NEARBY EXISTING UTILITIES.
7. CONTRACTOR SHALL INFORM ENGINEER OF ANY CONFLICT BEFORE ANY FURTHER WORK IS COMPLETED.
8. UTILITIES ARE TO BE ADJUSTED BY UTILITY OWNER OR AS DIRECTED BY THE ENGINEER.
9. SURFACE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INQUIRE OF THE ENGINEER IF ADDITIONAL INFORMATION IS AVAILABLE. TO MAKE ARRANGEMENTS TO REVIEW SAME PRIOR TO BIDDING, AND IS TO MAKE HIS OWN DETERMINATION AS TO ALL SURFACE & SUBSURFACE CONDITIONS.
10. CONTRACTOR SHALL NOTIFY THE ENGINEER IF SOIL OR SUBSURFACE CONDITIONS UNSUITABLE FOR CONSTRUCTION ARE ENCOUNTERED.
11. ALL EXCAVATED SOILS DEEMED SUITABLE AS FILL MATERIAL AS DETERMINED BY THE ENGINEER SHALL BE UTILIZED ON SITE BY THE CONTRACTOR AT HIS OWN EXPENSE. THE LOCATION OF DELIVERY ON SITE SHALL BE PER CITY REQUIREMENTS. ALL EXCAVATED SOILS DEEMED UNSUITABLE SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.
12. ITEM IN CONFLICT WITH DESIGN SUCH AS EXISTING CURBS AND GUTTERS, SIDEWALKS, DRAINAGE STRUCTURES, PAVEMENT AND EXCESS EXCAVATIONS ARE TO BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A LEGAL AND PROPER MANNER AWAY FROM THE JOB SITE AT HIS OWN EXPENSE IF ALLOWABLE.
13. CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR CONSTRUCTION.
14. IT SHOULD BE NOTED THAT THE OCCUPATIONAL SAFETY AND HEALTH ACT PROHIBITS THE OPERATING OF EQUIPMENT OR MACHINES CLOSER THAN TEN (10) FEET TO ENERGIZED ELECTRIC LINES RATES AT FIFTY KILOVOLTS OR BELOW. ALSO, NO EXCAVATION IS PERMITTED WITHIN FIVE (5) FEET OF POWER POLE FACILITIES.
15. ALL IRONS AND MONUMENTS (P.R.M.'S) SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
16. ANY PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED, THE CONTRACTOR WILL NOTIFY THE ENGINEER.
17. ALL EXISTING TREES WITHIN THE RIGHT OF WAY ARE TO BE REMOVED AS CLEARING AND GRUBBING UNLESS OTHERWISE NOTED.
18. WHEN REFERENCED TO, FDOT REFERS TO FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS,CURRENT EDITION.
19. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO A CONDITION EQUAL TO, OR BETTER THAN THAT WHICH IS NOW EXISTING.
20. BACKFILL, GRADE AND SOD AS REQUIRED AROUND ALL NEW CONSTRUCTION TO PREVENT EROSION. SEED AND MULCH WILL ONLY BE ALLOWED TO RESTORE UNDEVELOPED AREAS AFFECTED BY CONSTRUCTION OR AS DIRECTED BY THE ENGINEER OR LANDSCAPE ARCHITECT.
21. SODDING TO BE USED AT LOCATIONS AS DIRECTED BY THE ENGINEER OR LANDSCAPE ARCHITECT. SOD ALL DISTURBED AREAS UPON COMPLETION.
22. ALL EXCESS CONSTRUCTION MATERIAL AND WASTE TO BE HAULED OFF-SITE AND DISPOSED OF PROPERLY AT CONTRACTOR'S EXPENSE.
23. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH FDOT STANDARDS FOR TRAFFIC CONTROL THROUGH WORK ZONES AND MUTCD (PART VI).
24. PROPERTY OWNERS AND BUSINESSES WITHIN THE AREA OF CONSTRUCTION SHALL BE GIVEN ACCESS TO THEIR PROPERTY AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.
25. ALL MAILBOXES SHALL BE RELOCATED BY THE CONTRACTOR AS DIRECTED BY THE U.S. POSTAL MAIL CARRIER.
26. THE CONTRACTOR SHALL REMOVE, COVER OR OBLITERATE EXISTING ROADWAY SIGN AND PAVEMENT MARKINGS THAT CONFLICT WITH THE CONSTRUCTION TRAFFIC CONTROL PLANS.
27. CONTRACTOR TO PROTECT ALL SPRINKLER HEADS NOT IN CONFLICT WITH DESIGN AND RELOCATE ALL THOSE WHICH ARE IN CONFLICT TO A LOCATION DETERMINED IN FIELD.
28. SOD TWO (2) FEET MINIMUM ALONG SIDE PROPOSED EDGE OF PAVEMENT.
29. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY DRAINAGE MEASURES AS REQUIRED TO ADEQUATELY DRAIN THE PROJECT AND ANY TEMPORARILY TRAVELED ROADWAYS. TEMPORARY DRAINAGE DESIGN, CONSTRUCTION AND MAINTENANCE IS THE CONTRACTOR'S RESPONSIBILITY; HOWEVER, ALL SUCH MEASURES MUST BE APPROVED BY THE ENGINEER.
30. THE EXISTING SIDEWALK SHALL NOT BE DISTURBED UNLESS OTHERWISE NOTED.
31. GRADES SHOWN ARE FINISHED GRADES.
32. SAWCUT CONCRETE OR ASPHALT DRIVEWAYS AS REQUIRED FOR REPLACEMENT.
33. ALL ABANDONED UTILITIES (INCLUDING PIPES, CABLES AND STRUCTURES) FOUND IN THE RIGHT OF WAY AND NOT SHOWN ON THE PLANS, ARE TO BE REMOVED AND PROPERLY DISPOSED OF AT THE EXPENSE OF THE CONTRACTOR. THIS INCLUDES ALL EXOTIC PIPES LIKE ASBESTOS-CEMENT PIPE. COST TO BE INCLUDED IN CLEARING AND GRUBBING ITEM.
34. SHOULD THE DRIVEWAY LOCATION OR WIDTH BE REQUIRED TO BE ADJUSTED , COORDINATE WITH THE ENGINEER AND CITY PRIOR TO ADJUSTMENTS.
35. BENCHMARK DATUM IN NAVD 88.
36. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ℄ (BASELINE) AND ℄ (CENTERLINE) CONSTRUCTION THROUGHOUT THE PROJECT.
37. THE CONTRACTOR SHALL PERFORM UTILITY WORK WITHIN RIGHT-OF-WAY PER ST. LUCIE COUNTY AND FDOT STANDARDS.
38. EXISTING SWALES OR DITCHES TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. ANY DAMAGE TO THE SWALE OR DITCH SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE.
39. PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN THE INDIVIDUAL BID ITEMS SHALL BE INCLUDED IN THE CONTRACT PRICES FOR BID ITEMS.
40. MAINTAIN A MINIMUM OF ONE (1) FOOT CLEARANCE BETWEEN POWER POLE AND EDGE OF SIDEWALK.
41. WHEN ALL OTHER PERMANENT CONSTRUCTION IS COMPLETE, THE FINAL SURFACE COURSE SHALL BE PLACED.
42. CONSTRUCTION OPERATIONS FOR PLACEMENT OF THE FINAL SURFACE COURSE SHALL BE LIMITED TO A DISTANCE, AS DIRECTED BY THE ENGINEER, THE CONTRACTOR CAN COMPLETE IN ONE (1) DAY.
43. THE CONTRACTOR SHALL IMPLEMENT TEMPORARY PAVEMENT MARKINGS UNTIL THE FINAL SURFACE COURSE HAS CURED (MINIMUM THIRTY (30) DAYS AFTER FINAL SURFACE COURSE PLACEMENT). ANY TEMPORARY PAINTED MARKINGS SHALL BE REPLACED ON THE FINAL.
44. PAVEMENT TRANSITION SHALL BE MADE IN ACCORDANCE WITH PAVEMENT TRANSITION DETAIL.
45. ALL APPROVED PERMIT CONDITIONS, INCLUDING BUT NOT LIMITED TO FDOT, FDEP AND CITY OF FORT PIERCE, SHALL BE MET BY CONTRACTOR PRIOR TO CERTIFICATION OF COMPLETION BY ENGINEER.

## ROADWAY SPECIFICATIONS

### GENERAL

IT IS INTENDED THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" MOST CURRENT EDITION 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.

IF WITHIN THAT PARTICULAR SECTION ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE A PART OF THE STANDARD SPECIFICATIONS ALSO.

THE CONTRACTOR SHALL GIVE THE ENGINEER 48 HOURS NOTICE PRIOR TO REQUESTING 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 TWO YEARS FROM THE DATE OF PROJECT ACCEPTANCE, DURING WHICH ALL FAULTY CONSTRUCTION AND/OR MATERIALS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

### GRADING

THE CONTRACTOR SHALL PERFORM ALL GRADING NECESSARY TO ACHIEVE THE PROPOSED PLAN GRADES INCLUDING TYPICAL SECTIONS.

ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 120 OF THE STANDARD SPECIFICATIONS.

### STAKING

CONSTRUCTION STAKING WILL BE PERFORMED BY THE CONTRACTOR.

### STABILIZING

STABILIZED SUBGRADE SHALL BE CONSTRUCTED TO THE FLORIDA BEARING VALUE AS PER PLAN FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, AND IN ACCORDANCE WITH SECTION 160 OF THE STANDARD SPECIFICATIONS.

(TYPE C STABILIZATION). ALL STABILIZED AREAS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

### 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 AND CEMENTED COQUINA SHELL BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ROCK PIT CERTIFICATION FOR CEMENTED COQUINA SHELL MATERIAL. BASE SHALL BE COMPACTED BY AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. BASE SHALL BE APPROVED PRIOR TO PRIME COAT.

### PRIME AND TACK COAT

PRIME AND TACK COAT FOR THE BASE SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

### ASPHALTIC CONCRETE SURFACE COURSE (A.C.S.C.)

TYPE S-III ACSC SHALL BE CONSTRUCTED FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, IN ACCORDANCE WITH SECTIONS 320, AND 330 OF THE STANDARD SPECIFICATIONS.

### TESTING

THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN APPROVED INDEPENDENT TESTING LABORATORY TO CONDUCT ALL REQUIRED TESTS ON SUBGRADE, BASE AND SURFACE COURSE MATERIALS. TEST RESULTS MUST BE SUBMITTED PRIOR TO ANY REQUEST FOR PAYMENT ON THE ABOVE ITEMS.

THE SCHEDULE FOR TESTING OF THE ROAD CONSTRUCTION SHALL BE AS FOLLOWS:

A. SUBGRADE:
1. FLORIDA BEARING VALUE TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET, OR CLOSER AS MIGHT BE NECESSARY IN THE EVENT OF VARIATIONS IN SUBSOIL CONDITIONS.
2. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET OR CLOSER AS MIGHT BE NECESSARY.

B. BASE:
1. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 500 FEET OR CLOSER AS MIGHT BE NECESSARY.

ALL TESTING SHALL BE TAKEN IN A STAGGERED SAMPLING PATTERN FROM A POINT 1 1/2 INCHES INSIDE THE LEFT EDGE, TO THE CENTER, TO A POINT 12 INCHES INSIDE THE RIGHT EDGE OF THE ITEM TESTED.

IF ANY TEST INDICATES THAT THE WORK DOES NOT MEET THE SPECIFICATIONS, THE SUBSTANDARD AREA SHALL BE REWORKED OR CORRECTED AND RETESTED, AT THE CONTRACTOR'S EXPENSE, UNTIL THE PROVISIONS OF THESE SPECIFICATIONS ARE MET.

ALL PASSING TESTS SHALL BE PAID FOR BY THE OWNER. ALL FAILING 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.

### CONSTRUCTION IN STREETS AND ROAD RIGHT-OF-WAYS

1. OPEN ROAD CUTS REQUIRE PRIOR APPROVAL OF THE CITY, COUNTY, STATE OR ANY OTHER AGENCY WHICH MAY HAVE JURISDICTION.
2. ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND STANDARDS.
3. ALL AREAS IN EXISTING RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION SHALL RECEIVE SOLID SOD.
4. STREET RESTORATION TO BE DONE AS PER ST. LUCIE COUNTY STANDARDS.
5. 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.
6. TRAFFIC CONTROL ON ALL COUNTY AND STATE HIGHWAY RIGHT-OF-WAYS 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.

## DRAINAGE 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 STRENGTH OF 3000 PSI.

ALL REINFORCING STEEL TO BE ASTM A 615-72 GRADE 40, FYP = 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.

STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 430 AND RELATED SECTIONS OF THE STANDARD SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.

### 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.

### CULVERT PIPES

REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE STANDARD SPECIFICATIONS.

### PRECAST CONCRETE DRAINAGE PRODUCTS

ALL PRECAST CONCRETE DRAINAGE PRODUCTS (INCLUDING BUT NOT LIMITED TO ROUND CONC. PIPE. ELLIPTICAL CONC. PIPE, UNDERDRAINS, MANHOLES, INLETS, ENDWALLS, JUNCTION BOXES, THREE SIDED CONC. CULVERTS, AND CONC. BOX CULVERTS) SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE STANDARD SPECIFICATIONS.

### GROUNDWATER

GROUNDWATER MAY BE ENCOUNTERED ON THIS SITE. THE CONTRACTOR IS TO PLAN ACCORDINGLY.

### 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 NOT LIMITED TO, INVERT AND TOP ELEVATIONS OF CULVERTS AND INLET STRUCTURES. CONTRACTOR SHALL SUBMIT COMPLETE AND FINAL RECORD DRAWINGS TO ENGINEER UPON COMPLETION OF PROJECT AND PRIOR TO FINAL INSPECTION AND FINAL PAYMENT.

### INSPECTION

MINIMUM CONSTRUCTION INSPECTION CHECKPOINTS

THE ENGINEER SHALL BE NOTIFIED:
1. PRIOR TO ANY MAJOR DEVIATION FROM THE APPROVED PLANS.
2. PRIOR TO BACKFILLING ANY PIPE TRENCHES.
3. UPON COMPLETION OF SUBGRADE GRADING AND COMPACTION.
4. UPON BEGINNING OF SPREADING OF ROCK BASE MATERIAL.
5. UPON COMPLETION OF GRADING AND COMPACTION OF THE BASE MATERIAL AND PRIOR TO PRIMING.
6. IMMEDIATELY PRIOR TO AND UPON APPLICATION OF A.C.S.C.
7. UPON COMPLETION OF CONSTRUCTION.

## FDEP SEPARATION CRITERIA:

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER, FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610,F.A.C.
(B)NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
(C) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610,F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
(D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2),F.S., AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUME-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(C) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL THE WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER 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.

(3) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES

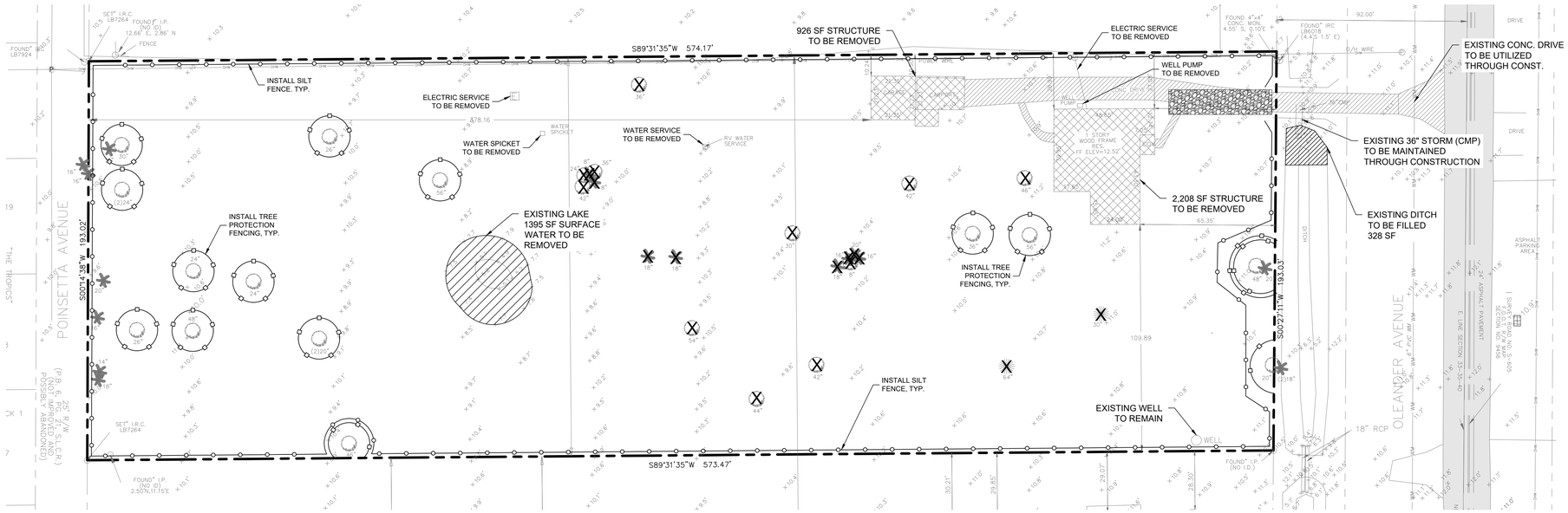
(A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
(B)EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY-OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

## GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CHECKING ACTUAL SITE CONDITIONS BEFORE STARTING CONSTRUCTION.
2. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK.
3. ALL WORK SHALL BE IN 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.
4. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH REQUIREMENTS OF THE CITY OF FORT PIERCE, WATER MANAGEMENT DISTRICT, FDEP , ST LUCIE COUNTY AND THESE PLANS AND SPECIFICATIONS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST 48 HOURS IN ADVANCE FOR CONSTRUCTION OPERATIONS.
6. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
7. CONTRACTOR SHALL SUPPLY DENSITY TESTS TO ENGINEER ON ALL SUB-GRADE AND BASE. TESTS SHALL BE PREPARED PER AASHTO T-180 METHOD.
8. SLOPE GRADES FROM ELEVATIONS SHOWN TO EXISTING GRADE AT PROPERTY LINE. MAXIMUM SLOPE 4:1.
9. ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE FOR ANY INSPECTION.
10. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH M.U.T.C.D. STANDARDS, ST. LUCIE COUNTY AND FDOT.
11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.
12. THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTORS BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE. WHEN GROUNDWATER IS ENCOUNTERED THE CONTRACTOR SHALL PLAN ACCORDINGLY.
13. ALL INLETS SHALL HAVE A 6" MIN. SUMP BELOW LOWEST INVERT.
14. EROSION CONTROL FENCING MUST BE IN PLACE PRIOR TO GRADING.
15. PIPE LENGTHS AND SLOPES SHOWN ARE APPROXIMATE.
16. 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.
17. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
18. CONTRACTOR SHALL ADJUST INLET/STRUCTURE OR CONNECTION LOCATION AS REQUIRED TO ENSURE PROPOSED STRUCTURES AND PIPES ARE IN PROPER ALIGNMENT AND MATCH SLOPE OF EXISTING PIPES OR CONNECTIONS.
19. THIS PLAN CONTEMPLATES ACCESS CONNECTIONS TO ADJACENT ROADS AS SHOWN.
20. FILL MATERIAL MAY NOT BE STOCKPILED HIGHER THAN SIX (6) VERTICAL FEET ONSITE PER CITY OF FORT PIERCE CODE.
21. DIMENSIONS SHOWN ARE TO EDGE OF GUTTER OR PAVEMENT. RADII SHOWN ARE TO FACE OF CURB.
22. ALL SIGNS SHALL BE PER M.U.T.C.D. STANDARDS.
23. ALL PAVEMENT MARKINGS, EXCEPT PARKING STALL STRIPING, SHALL BE THERMOPLASTIC PER CITY OF FORT PIERCE REQUIREMENTS.
24. THE USES PROPOSED AS PART OF THIS PLAN DO NOT REQUIRE A SUBMITTAL OF A RISK MANAGEMENT PLAN PURSUANT TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGULATIONS AND SHALL NOT EXCEED THE EPA'S RMP THRESHOLD QUANTITIES OF LISTED SUBSTANCES.
25. WATER FOR FIRE FIGHTING PURPOSES SHALL BE INDICATED WITH A BLUE ROADWAY REFLECTOR, PLACE ONE FOOT OFF OF THE CENTERLINE OF THE ROAD FACING THE FIRE HYDRANT. THIS INCLUDES NEW AND EXISTING SOURCES.
26. REGARDLESS OF PRIVATE OR PUBLIC DEDICATIONS, THERE SHALL BE NO UTILITY CONNECTIONS, METER BOXES OR VALVE BOXES IN EXISTING OR PROPOSED SIDEWALK OR DRIVEWAY AREAS.
27. ANY STATE AND FEDERAL PERMITS THAT MAY BE REQUIRED AS A RESULT OF LAND CLEARING AND LANDSCAPING




# EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN

SCALE: 1" = 30'

GRAPHIC SCALE
0 30 60
( IN FEET )
1 inch = 30 ft.

## LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- EXISTING BUILDING DEMO
- EXISTING CONCRETE DEMO
- SILT FENCE
- TREE PROTECTION FENCE
- EXISTING TREE TO BE REMOVED

TREE LEGEND
- OAK
- PALM
- ROYAL POINCIANA

## LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY.

SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

## NOTES

1. REPRODUCTIONS OF THIS SKETCH ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. EASEMENTS AND RIGHTS-OF-WAY SHOWN ARE TAKEN FROM TITLE COMMITMENT NUMBER 24394655CA, AS PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, EFFECTIVE DATE: JANUARY 18, 2006 AT 8:00 A.M. PROPERTY IS SUBJECT TO THE AGREEMENT WITH FT. PIERCE UTILITIES AUTHORITY, AS RECORDED IN OFFICIAL RECORDS BOOK 424, AT PAGE 8776 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.
3. NO UNDERGROUND IMPROVEMENTS ARE SHOWN HEREON.
4. ELEVATIONS SHOWN HEREON ARE RELATIVE TO NAVD 1988, BASED ON ST. LUCIE COUNTY BENCHMARK "FRENCH" – ST. LUCIE COUNTY DISK IN CONC. 214' S OF FRENCH CREEK LANE, 29' W OF W E.O.P. OLEANDER BLVD. ELEVATION = 11.32' NAVD 1988.
5. BEARINGS SHOWN HEREON ARE BASED ON THE STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR FLORIDA EAST ZONE, WITH THE EAST LINE OF THE SOUTHEAST ONE-QUARTER OF SECTION 33-35-40 HAVING A BEARING OF NORTH 00°27'11" EAST. N.G.S. CONTROL MONUMENTS Y403, STL4 AND GCY WERE USED TO DETERMINE THIS BEARING.
6. TREE TYPES LISTED TO THE BEST OF OUR ABILITY. FOR A MORE EXACT SPECIES DETERMINATION, A BOTANIST OR SIMILAR PROFESSIONAL SHOULD BE CONSULTED.
7. THIS SURVEY IS CERTIFIED TO:

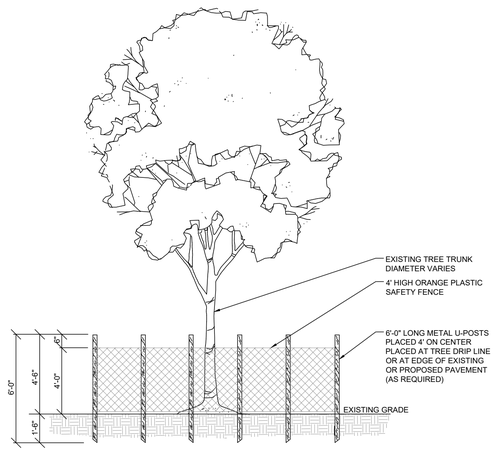
## FLOOD INFORMATION

COMMUNITY NUMBER : 120286
PANEL NUMBER : 12111C0189K
DATE OF FIRM : FEBRUARY 19, 2020
ZONE : X

## ABBREVIATIONS

| | | |
|---|---|---|
| L | = | ARC |
| ASPH | = | ASPHALT |
| C | = | CALCULATED |
| C&G | = | CURB & GUTTER |
| C.L.F. | = | CHAIN LINK FENCE |
| CONC. | = | CONCRETE |
| COR. | = | CORNER |
| C.U.P. | = | CONCRETE UTILITY POLE |
| D | = | DELTA (CENTRAL ANGLE) |
| D.E. | = | DRAINAGE EASEMENT |
| I.R. | = | IRON ROD |
| I.R.C. | = | IRON ROD AND CAP |
| L.B. | = | LICENSED BUSINESS |
| L.S. | = | LICENSED SURVEYOR |
| L.W.D.D. | = | LAKE WORTH DRAINAGE DISTRICT |
| MON. | = | MONUMENT |
| O.R.B. | = | OFFICIAL RECORDS BOOK |
| P.B. | = | PLAT BOOK |
| S.L.C.R. | = | ST. LUCIE COUNTY RECORDS |
| PG. | = | PAGE |
| P.S.M. | = | PROFESSIONAL SURVEYOR & MAPPER |
| U.E. | = | UTILITY EASEMENT |
| W.F. | = | WOOD FENCE |
| W.U.P. | = | WOOD UTILITY POLE |
| IP | = | IRON PIPE |
| RES | = | RESIDENCE |
| (C) | = | CALCULATED |
| (P) | = | PLAT |
| (M) | = | MEASURED |
| R/W | = | RIGHT-OF-WAY |

LEGEND
- GUY ANCHOR WIRE
- WOOD UTILITY POLE
- CABLE TV BOX
- FENCE
- OVERHEAD POWER LINES
- SIGN
- TREE
- ELECTRIC SERVICE




ELEVATION

TREE PROTECTION 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. FENCES/BARRICADE SHALL BE INSTALLED AT DRIPLINE OF ALL TREES OR GROUP OF TREES TO BE PRESERVED UNLESS OTHERWISE APPROVED BY STAFF. FENCE SHALL BE MAINTAINED DURING CONSTRUCTION.




PLAN VIEW

## TREE PROTECTION BARRIER DETAIL

NTS

## DEMOLITION NOTES

1. ALL EXOTIC AND INVASIVE SPECIES TO BE REMOVED CONGRUENT WITH DEVELOPMENT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE ATTAINMENT OF ALL DEMOLITION PERMITS NECESSARY FOR PROPOSED CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY / ALL NECESSARY EROSION CONTROL MEASURES AS PRESENTED ON THIS SHEET AND INCLUDED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
4. ALL BARRIERS AND PROTECTION MEASURES FOR TREES BEING SAVED SHALL BE PLACED BEFORE ANY DEMOLITION ACTIVITY BEGINS. LARGE TREES ON ADJACENT PROPERTIES, NEAR THE PROPERTY LINE, SHOULD ALSO BE PROTECTED.
5. ALL IMPACTS TO THE IRC R/W SHALL BE SODDED WITHIN (3) DAYS OF FINAL GRADING.
6. "TRUCKS ENTERING ROADWAY" SIGNS SHALL BE INSTALLED IN ADVANCE BOTH DIRECTIONS OF CONSTRUCTION ENTRANCE PER MUTCD STANDARDS.

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 C3 EX COND,DEMO,EROSION.dwg

| | DATE |
|---|---|
| 8 – | |
| 7 – | |
| 6 – | |
| 5 – | |
| 4 – | |
| 3 – | |
| 2 – | |
| 1 PER CITY COMMENTS | 9/20/24 |

REVISIONS

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 2/4/2025 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1855 39TH STREET
VERO BEACH, FL 32960
PH (321) 231-3100
FT PIERCE, FL PH (772) 468-9055

EXISTING CONDITIONS, DEMOLITION AND EROSION CONTROL PLAN

MARGARETA VILLAS
MULTI-FAMILY

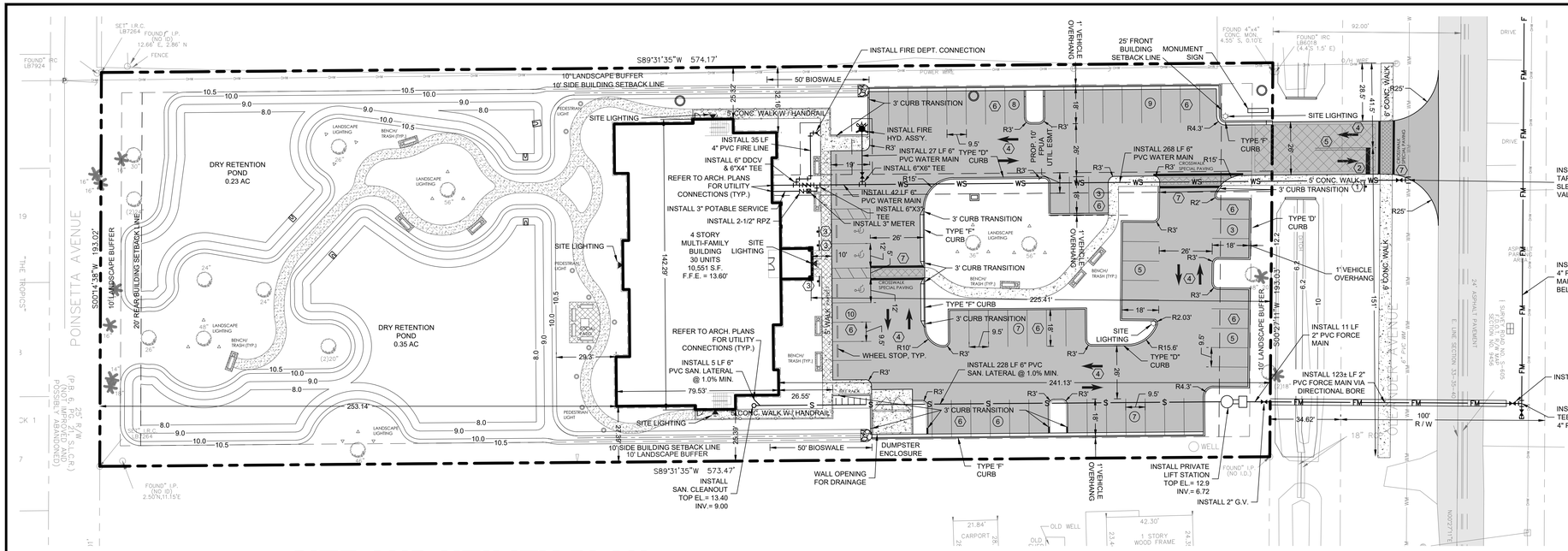
CITY OF FORT PIERCE FLORIDA

ANGELENA N. VITTER LICENSE No. 62950 STATE OF FLORIDA PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950 2/18/2025

SHEET
C3

23-0060




# SITE AND UTILITY PLAN

SCALE: 1" = 30'

GRAPHIC SCALE

0 30 60

( IN FEET )

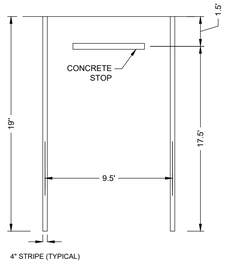
1 inch = 30 ft.

## LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE

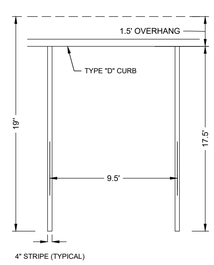
## SITE, SIGNAGE & PAVEMENT MARKING SCHEDULE

| SIGN ID NUMBER | SIZE | DESIGNATION / NOTES |
|---|---|---|
| ① | 30" | R1-1 "STOP" SIGN |
| ② | 24" | SOLID WHITE STOP BAR- THERMOPLASTIC |
| ③ | 12" | FTP-20-06 HC PARKING SIGN |
| ④ | | PAINTED PAVEMENT MARKINGS PER FDOT INDEX #711-001 |
| ⑤ | 6" | 25 LF DOUBLE YELLOW STRIPE - THERMOPLASTIC |
| ⑥ | 4" | PAINTED WHITE STRIPE |
| ⑦ | | 6' CROSS WALK WITH 12" SOLID WHITE STRIPES |



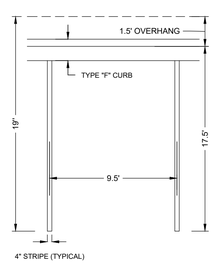

TYPICAL PARKING SPACE DETAIL

N.T.S.




PARKING SPACE DETAIL WITH "D" CURB AND OVERHANG

N.T.S.




PARKING SPACE DETAIL WITH "F" CURB AND OVERHANG

N.T.S.

NOTE:

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF FORT PIERCE CODE OF ORDINANCES SECTIONS 119 AND 125.

## PROJECT INFORMATION

### SITE ADDRESS

4101 OLEANDER AVENUE
FORT PIERCE, FL 34982

### OWNER

4101 OLEANDER GROUP, LLC
17555 COLLINS AVENUE, APT. 2006
SUNNY ISLES, FLORIDA 33160
PHONE (305) 337-0183

### ENGINEER

MBV ENGINEERING, INC.
1835 20TH STREET
VERO BEACH, FLORIDA 32960
PHONE (772) 569-0035

### APPLICANT

MR. GEZA SZINI-SEBO
ABANDEL GROUP, LTD.
51 WIGTON PLACE
THORNHILL, ON, CANADA L4J8C6
PHONE (305) 337-0183

### ARCHITECT

STAFFAN H. LUNDBERG
1341 SEA HAWK LANE
VERO BEACH, FLORIDA
PHONE (772) 538-5130

### SURVEYOR

PERIMETER SURVEYING & MAPPING
947 CLINT MOORE ROAD
BOCA RATON, FLORIDA
PHONE (561) 241-9988

### TAX PARCEL I.D NUMBER(S)

2433-414-0001-000-4

| ZONING | LAND USE |
|---|---|
| R-4 | RM |

| LATITUDE | LONGITUDE |
|---|---|
| 27°23'12.02" N | 80°20'05.75" W |

### PROJECT DESCRIPTION

THIS PROJECT PROPOSES A 30 UNIT MULTI FAMILY RESIDENTIAL BUILDING WITH RELATED STORMWATER IMPROVEMENTS, PARKING AND LANDSCAPING. THE SITE SEEKS TO PRESERVE TREES WHERE POSSIBLE AND HAS CONFIGURED THE PARKING AND STORWATER TO TRY TO PRESERVE THE TREE CANOPY.

### SITE DATA

EXISTING SITE DATA

| | SF | AC | % |
|---|---|---|---|
| SITE AREA | 110,747 SF | 2.54 AC | 100% |
| AREA OF DEVELOPMENT | 110,747 SF | 2.54 AC | 100.00% |
| IMPERVIOUS AREA | 4,954 SF | 0.11 AC | 4.47% |
| EXISTING BUILDING | 3,136 SF | 0.07 AC | 2.83% |
| EXISTING CONCRETE | 1,818 SF | 0.04 AC | 1.64% |
| EXISTING PAVEMENT | 0 SF | 0.00 AC | 0.00% |
| PERVIOUS AREA | 105,793 SF | 2.43 AC | 95.53% |

PROPOSED SITE DATA

| | | | |
|---|---|---|---|
| SITE AREA | 110,747 SF | 2.54 AC | 100% |
| IMPERVIOUS AREA | 43,026 SF | 0.99 AC | 38.85% |
| PROPOSED BUILDING | 10,551 SF | 0.24 AC | 9.53% |
| PROPOSED CONCRETE | 2,985 SF | 0.07 AC | 2.70% |
| PROPOSED ASPHALT | 24,592 SF | 0.56 AC | 22.21% |
| WET POND AREA | 4,898 SF | 0.11 AC | 4.42% |
| PERVIOUS AREA | 67,721 SF | 1.55 AC | 61.15% |
| OPEN SPACE | 67,721 SF | 1.55 AC | 61.15% |
| NET NEW IMPERVIOUS | + 38,072 SF | 0.87 AC | |

### ZONING DATA

| | R-4 ZONING | EXISTING | PROPOSED |
|---|---|---|---|
| LOT SIZE | 20,000 SF | 110,747 SF | 110,747 SF |
| MIN. LOT WIDTH | 75-FT | 193-FT | 193-FT |
| BUILDING SETBACKS | | | |
| FRONT | 25-FT | 59-FT | 225-FT |
| SIDE | 10-FT | 110-FT | 25-FT |
| CORNER SIDE | 15-FT | 10-FT | 25-FT |
| REAR | 20-FT | 378-FT | 253-FT |
| BUILDING COVERAGE | 50% | 2.83% | 9.53% |
| OPEN SPACE | 10% | 95.53% | 61.15% |
| BUILDING HEIGHT | 45-FT | -- | 45-FT |

### PARKING DATA

MULTIFAMILY HOUSING DEVELOPMENTS

| | | | | | |
|---|---|---|---|---|---|
| 2 SP/ | 1 UNIT | 30 UNITS | = | 60 | SPACES REQUIRED |
| | | | | 63 | SPACES PROVIDED |
| | | | | 3 | ADA SPACES |
| | | | | 60 | STANDARD SPACES |

### TRAFFIC STATEMENT

PER ITE, 11TH EDITION:
USE 1: (MULTIFAMILY HOUSING (MID-RISE)) = 2.93 ADT PER DWELLING UNIT
2.93 X 30.0 DU = 88 ADDT

### DRAINAGE STATEMENT

STORMWATER IS TO BE COLLECTED IN THE BIO SWALE AND DRY RETENTION POND LOCATED TO THE REAR OF THE PROPERTY. THE SITE INCORPORATES LOW IMPACT DESIGN (L / D) BY UTILIZING A BIO SWALE OFFERING AN AESTHETIC AMENITY, IN ADDITION TO THE DRY POND'S RETENTION AND ATTENUATION FOR NUTRIENT REDUCTION.

### PERMITS REQUIRED

CoFP DEVELOPMENT REVIEW APPLICATION
CoFP DESIGN REVIEW APPLICATION
CoFP CONCURRENCY CAPACITY ANALYSIS FORM
CoFP DPCR
SLC FIRE REVIEW
FORT PIERCE UTILITIES AUTHORITY (FPUA)
NSLWCD CONNECTION PERMIT
SFWMD/FDEP 10-2 CERTIFICATION
FDEP WATER DISTRIBUTION PERMIT
FDEP WASTEWATER COLLECTION PERMIT
FDEP NPDES NOI PERMIT

### FLOOD ZONE

THE SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE X PER FLOOD INSURANCE RATE MAP #12111C0189K, DATED FEB 19, 2020.

### LEGAL DESCRIPTION

THE NORTH 193 FEET OF THE SOUTH 630 FEET OF THE EAST ONE-HALF OF THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 40 EAST, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA, LESS CANAL AND ROAD RIGHTS OF WAY. SAID LANDS SITUATE IN THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA AND CONTAIN 2.542 ACRES, MORE OR LESS.

### WASTEWATER SOURCE

FPUA

### POTABLE WATER SOURCE

FPUA

### CONSTRUCTON SCHEDULE

START: JANUARY 2025
FINISH: DECEMBER 2026

| DATE | REVISIONS |
|---|---|
| 9/20/24 | 1 PER CITY COMMENTS |
| - | 2 - |
| - | 3 - |
| - | 4 - |
| - | 5 - |
| - | 6 - |
| - | 7 - |
| - | 8 - |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 2/4/2025 |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1835 20TH STREET
VERO BEACH, FL 32960
TEL. (772) 569-0035
FAX. (772) 778-7617
MELBOURNE, FL. PH (321) 253-4100
FT.PIERCE, FL. PH (772) 468-9055

SITE AND UTILITY PLAN

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF FLORIDA
PROFESSIONAL ENGINEER

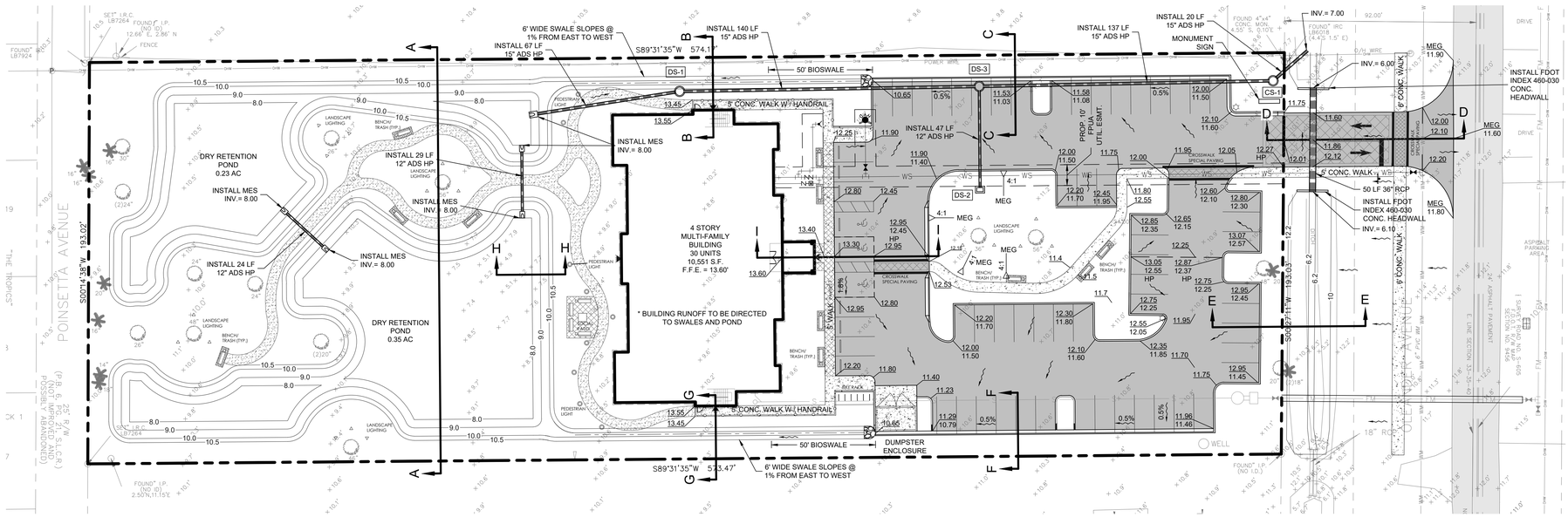
ANGELENA N. VITTER
F.L. P.E. #62950
2/18/2025

SHEET
C4

23-0060

72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's below.
Call before you dig.

C:\CIVIL 3D\HABS DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 C4 SITE UTIL PLAN.dwg 2/4/2025 4:24 PM




# PAVING, GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

GRAPHIC SCALE

0 30 60

( IN FEET )

1 inch = 30 ft.

## LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- EXISTING ELEVATION
- PROPOSED ELEVATION
- PROPOSED DIRECTIONAL FLOW

**DRAINAGE STRUCTURE SCHEDULE**

| | STRUCTURE NUMBER | DS-1 | DS-2 | DS-3 | CS-1 | STRUCTURE NUMBER |
|---|---|---|---|---|---|---|
| | FDOT INDEX # | # 425-001 | # 425-052 | # 425-001 | # 425-001 | FDOT INDEX # |
| | DESCRIPTION | STORM MH (4' DIA.) | TYPE "C" DITCH BOTTOM INLET | STORM MH (4' DIA.) | CONTROL STRUCTURE STORM MH (4' DIA.) * | DESCRIPTION |
| | RIM ELEV. | 10.90 | 10.40 | 10.90 | 10.70 | RIM ELEV. |
| | PIPE DIA. | 15.00 " | 12.00 " | 15.00 " | 15.00 " | PIPE DIA. |
| | COVER | 1.65 ' | 1.80 ' | 2.21 ' | 2.38 ' | COVER |
| INVERT ELEVATION | N | - | 7.91 N | - | - | N |
| | S | - | - | 7.44 S | - | S |
| | E | 7.82 E | - | 7.44 E | 7.06 E | E |
| | W | 7.82 W | - | 7.44 W | 7.06 W | W |
| | BOTTOM ELEV. | 6.82 | 6.91 | 6.44 | 6.06 | BOTTOM ELEV. |

DRAINAGE STRUCTURE SCHEDULE

* 4' WIDE WEIR WALL INSIDE MANHOLE. WEIR ELEVATION IS 10' NAVD

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 CS PGD PLAN.dwg 2/4/2025 4:39 PM

| DATE | REVISIONS |
|---|---|
| 9/20/24 | 1 PER CITY COMMENTS |
| | 2 – |
| | 3 – |
| | 4 – |
| | 5 – |
| | 6 – |
| | 7 – |
| | 8 – |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 2/4/2025 |

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1935 39TH STREET
VERO BEACH, FL 32960
PH (772) 778-5940
FX (772) 778-5917
MELBOURNE, FL - PH (321) 253-4100
FT PIERCE, FL - PH (772) 468-9055

PAVING, GRADING AND DRAINAGE PLAN

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

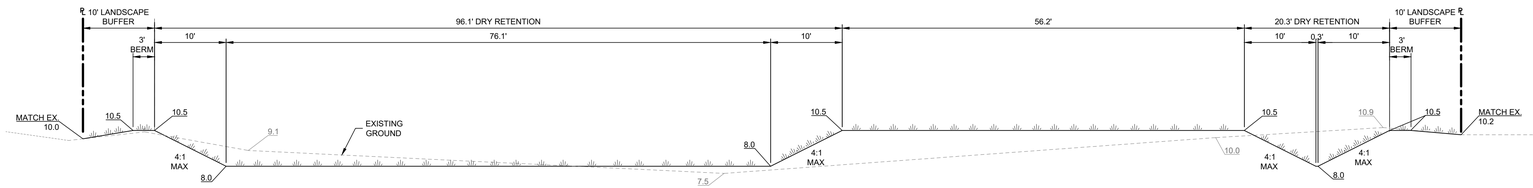
ANGELENA N. VITTER LICENSE No. 62950 STATE OF FLORIDA PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950 2/18/2025

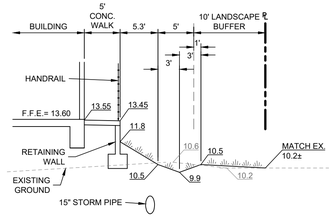
SHEET

C5

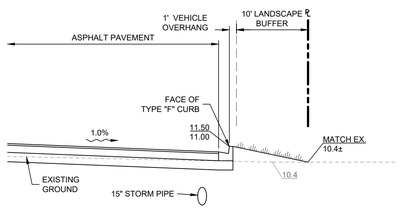
23-0060



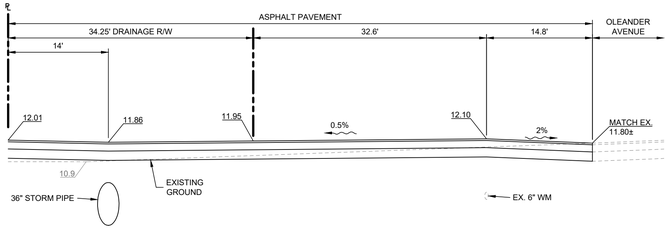

## SECTION A-A
N.T.S.



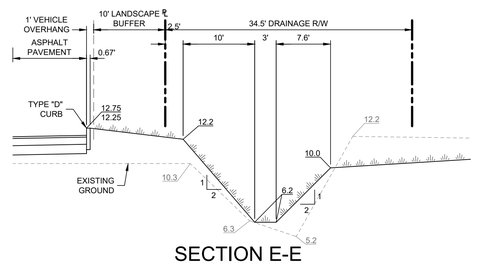

## SECTION B-B
N.T.S.



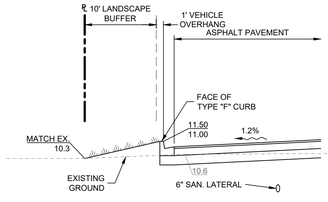

## SECTION C-C
N.T.S.



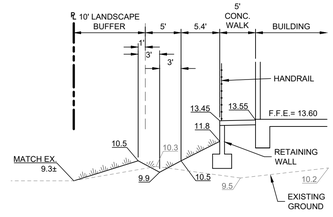

## SECTION D-D
N.T.S.



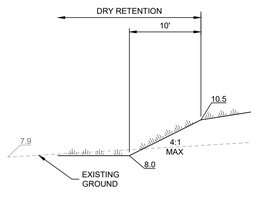

## SECTION E-E
N.T.S.



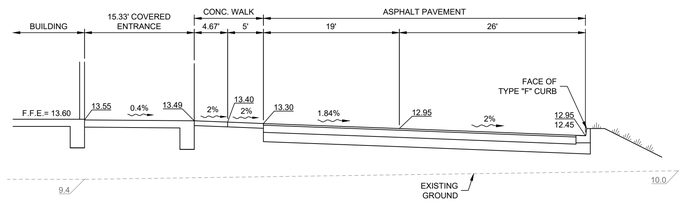

## SECTION F-F
N.T.S.




## SECTION G-G
N.T.S.




## SECTION H-H
N.T.S.




## SECTION I-I
N.T.S.

72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
Know what's below.
Call before you dig.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander mutli family\DWG\23-0060 CS PKD PLAN.dwg 2/4/2025 3:59 PM

| DATE | REVISIONS |
|---|---|
| 9/20/24 | 1 PER CITY COMMENTS |
| = | 2 = |
| = | 3 = |
| = | 4 = |
| = | 5 = |
| = | 6 = |
| = | 7 = |
| = | 8 = |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 2/4/2025 |

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA-#3728
1835 39TH STREET
VERO BEACH, FL 32960
TEL. (772) 778-3900
FX. (772) 778-3917
HEADQUARTERS: PH (321) 315-3105
FT PIERCE FL: PH (772) 468-9055

CROSS SECTIONS

MARGARETA VILLAS
MULTI-FAMILY

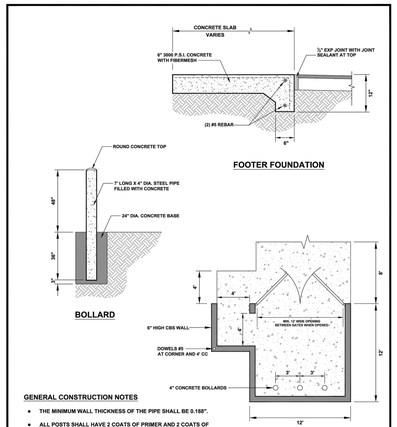
CITY OF FORT PIERCE FLORIDA

ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

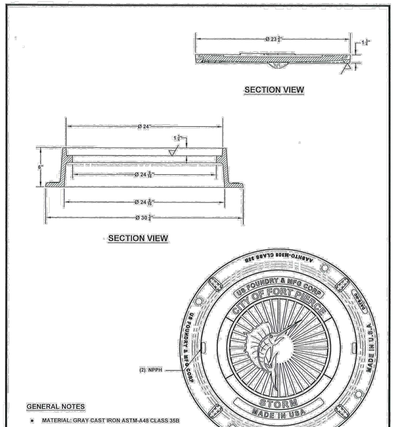
ANGELENA N. VITTER
F.L. P.E. #62950
2/18/2025

SHEET
C6

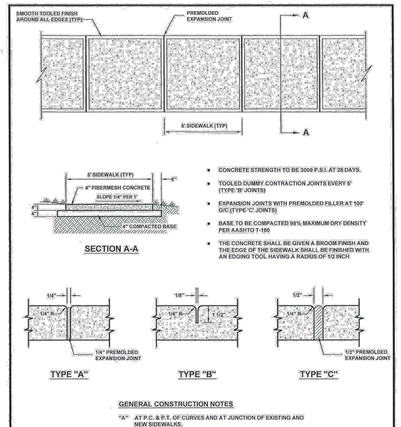
23-0060



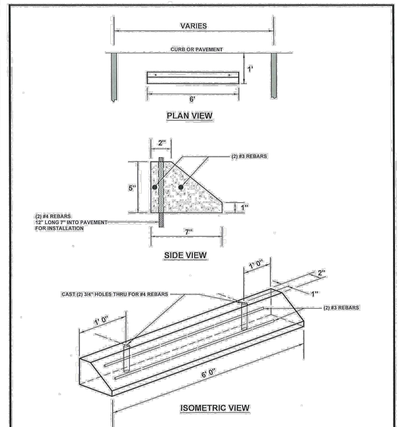

FORT PIERCE | DUMPSTER ENCLOSURE DETAIL | DATE: MAY, 2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET _



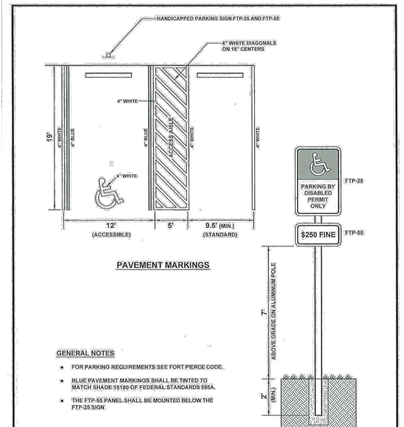

FORT PIERCE | MANHOLE COVER DETAIL | DATE: APRIL 2021 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET ?




FORT PIERCE | STANDARD SIDEWALK DETAIL | DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 6




FORT PIERCE | CONCRETE BUMPER DETAIL | DATE: AUGUST 2015 | SCALE: 3/4"=1' | DRAWN: S.SUNKER | SHEET 10




FORT PIERCE | HANDICAPPED AND STANDARD PARKING DETAIL | DATE: AUGUST 2015 | SCALE: 3/16" | DRAWN: S.SUNKER | SHEET 11




FORT PIERCE | PAVING DETAIL WITHOUT CURB AND GUTTER | DATE: MARCH 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 14




FORT PIERCE | PAVEMENT WITH CURB AND GUTTER | DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 15




FORT PIERCE | TYPE "D" CURB AND GUTTER DETAILS | DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 22




FORT PIERCE | TYPE "F" CURB AND GUTTER DETAILS | DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 24




FORT PIERCE | TERMINAL CURB WITH JOINT DETAILS | DATE: FEBRUARY 2020 | SCALE: 3/16"=1' | DRAWN: S.SUNKER | SHEET 26




FORT PIERCE | TRENCH DETAIL | DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 29




FORT PIERCE | MITERED END DETAIL | DATE: OCTOBER 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 31

| | DATE |
|---|---|
| 8 | |
| 7 | |
| 6 | |
| 5 | |
| 4 | |
| 3 | |
| 2 | |
| 1 | PER CITY COMMENTS 9/20/2024 |
| △ | REVISIONS |

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
PREDOMINE EL - PH (772) 233-3150
VERO BEACH, FL 32960 FX (772) 778-3417
EMAIL: INFO@MBVENGINEERING.COM

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 2/4/2025 |

GENERAL DETAILS

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

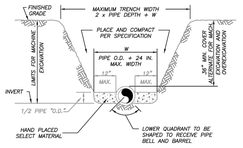
ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950 2/18/2025

SHEET
C7

23-0060

C:\DEVIL_ON_HARD DRIVE\2023\23-0060 4 101 Character multi family\DWG\23-0060 COVER - DETAILS.dwg 2/4/2025 3:56 PM
Angelena Vitter

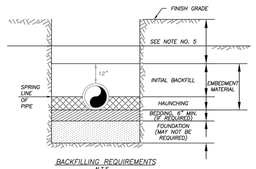



NOTES:

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 | TYPICAL TRENCH DETAIL | | M-1 |
|---|---|---|---|
| 12-08 CONCRETE SLAB | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | MISC. DETAILS 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: AJC | | | |
| CHECKED: AJC | DATE: 2019 | | SHEET 1 OF 1 |

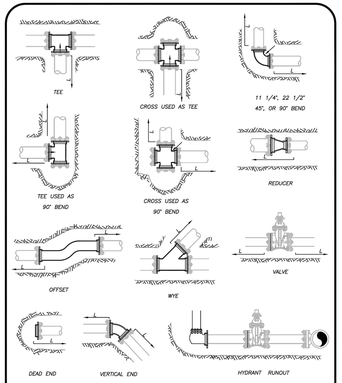



BACKFILLING REQUIREMENTS
N.T.S.

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 | BACKFILLING REQUIREMENTS | | M-2 |
|---|---|---|---|
| 12-08 CONCRETE SLAB | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | MISC. DETAILS 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: AJC | | | |
| CHECKED: AJC | DATE: 2019 | | SHEET 1 OF 1 |




MECHANICAL JOINT ANCHORING REQUIREMENTS
N.T.S.

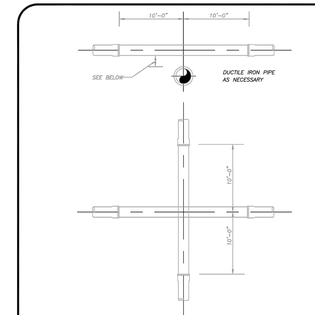
| FPUA COMMUNITY PROUD | MECHANICAL JOINT ANCHORING REQUIREMENTS | | M-3 |
|---|---|---|---|
| 12-08 CONCRETE SLAB | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | MISC. DETAILS 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: AJC | | | |
| CHECKED: AJC | DATE: 2019 | | 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 | MECHANICAL JOINT RESTRAINT NOTES | | M-4 |
|---|---|---|---|
| 12-08 CONCRETE SLAB | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | MISC. DETAILS 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: AJC | | | |
| CHECKED: AJC | DATE: 2019 | | SHEET 1 OF 1 |

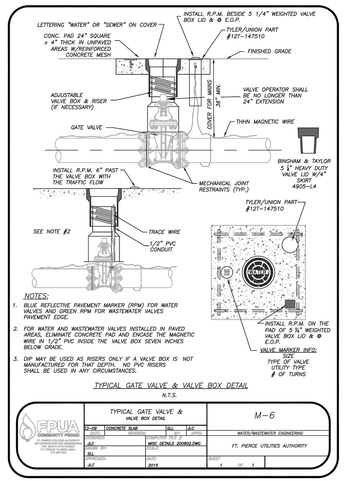



NOTE:

PLEASE REFER TO FORT PIERCE UTILITIES STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS.

UTILITY CROSSING DETAIL
N.T.S.

| FPUA COMMUNITY PROUD | UTILITY CROSSING DETAIL | | M-5 |
|---|---|---|---|
| 12-08 CONCRETE SLAB | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | MISC. DETAILS 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: AJC | | | |
| CHECKED: AJC | DATE: 2019 | | SHEET 1 OF 1 |

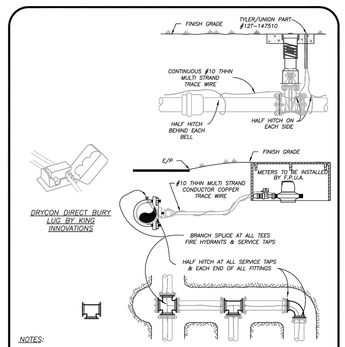



NOTES:

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 MANUFACTURERS FOR THAT DEPTH. NO PVC RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

TYPICAL GATE VALVE & VALVE BOX DETAIL
N.T.S.

| FPUA COMMUNITY PROUD | TYPICAL GATE VALVE & VALVE BOX DETAIL | | M-6 |
|---|---|---|---|
| 12-08 CONCRETE SLAB | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | MISC. DETAILS 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: AJC | | | |
| CHECKED: AJC | DATE: 2019 | | SHEET 1 OF 1 |

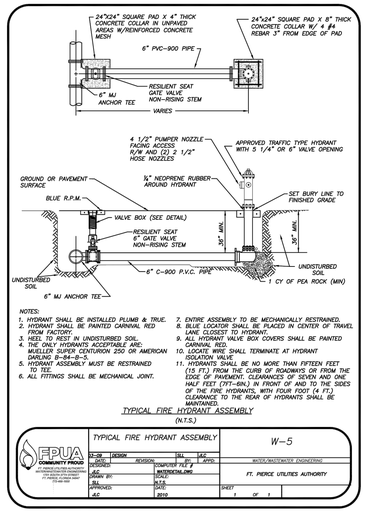



NOTES:

1) TRACE WIRE IS REQUIRED ON ALL PIPE AS NOTED BY UTILITIES ENGINEER AND SHOWN IN STANDARD DETAILS.
2) INCLUDE ALL COST OF MATERIAL & LABOR IN PRICE OF PIPE.
3) CONTRACTOR IS RESPONSIBLE FOR CONTINUITY OF ALL TRACE WIRE.

TRACE WIRE
(N.T.S.)

| FPUA COMMUNITY PROUD | TRACE WIRE DETAIL | | M-11 |
|---|---|---|---|
| 12-08 CONCRETE SLAB | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | MISC. DETAILS 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: AJC | | | |
| CHECKED: AJC | DATE: 2019 | | SHEET 1 OF 1 |

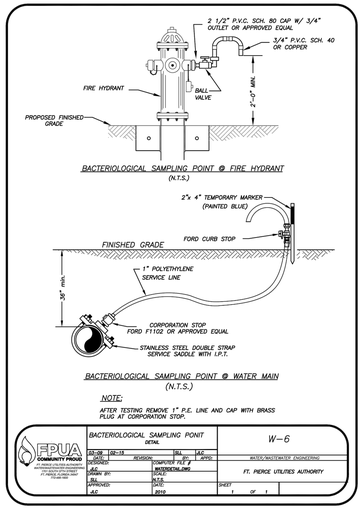



NOTES:

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. 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. ALL HYDRANTS 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 |
|---|---|---|---|
| 12-08 UDESIGN | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | COMPOSITE FILE # MATERIETAL.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: | | | |
| CHECKED: AJC | DATE: 2010 | | SHEET 1 OF 1 |



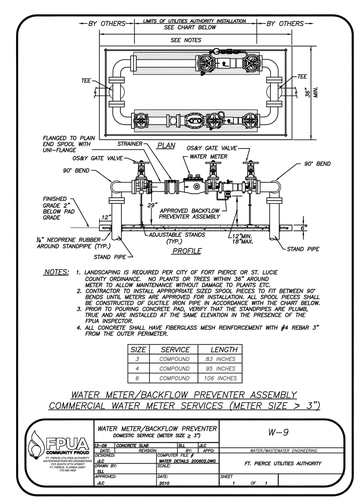

BACTERIOLOGICAL SAMPLING POINT @ FIRE HYDRANT
(N.T.S.)

NOTE

AFTER TESTING REMOVE 1" P.E. LINE AND CAP WITH BRASS PLUG AT CORPORATION STOP.

BACTERIOLOGICAL SAMPLING PONIT DETAIL

| FPUA COMMUNITY PROUD | BACTERIOLOGICAL SAMPLING PONIT DETAIL | | W-6 |
|---|---|---|---|
| 12-08 UDESIGN | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | COMPOSITE FILE # MATERIETAL.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: | | | |
| CHECKED: AJC | DATE: 2010 | | SHEET 1 OF 1 |



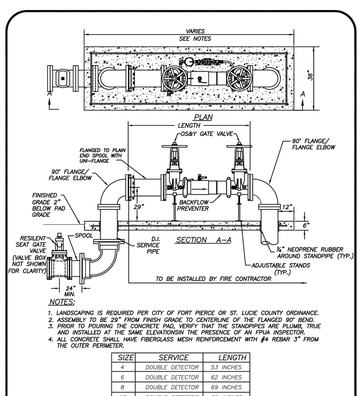

NOTES:

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 FURNISHED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
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 | WATER METER/BACKFLOW PREVENTER DOMESTIC SERVICE (METER SIZE ≥ 1") | | W-9 |
|---|---|---|---|
| 12-08 CONCRETE SLAB | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | COMPOSITE FILE # WATER DETAILS 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: | | | PCPUC |
| CHECKED: AJC | DATE: 2010 | | SHEET 1 OF 1 |



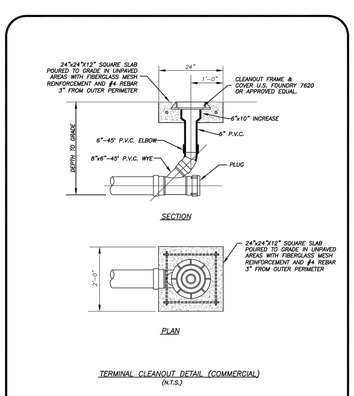

NOTES:

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 ELEVATION IN 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 |

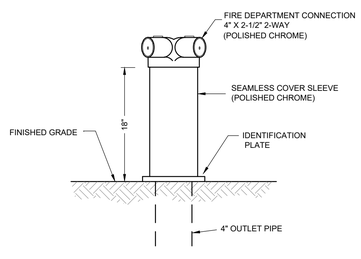
BACKFLOW PREVENTER ASSEMBLY-4"-10" FIRE SERVICE
(N.T.S.)

| FPUA COMMUNITY PROUD | BACKFLOW PREVENTER ASSEMBLY 4"-10" FIRE SERVICE | | W-10 |
|---|---|---|---|
| 12-08 CONCRETE SLAB | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | WATER DETAILS 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: AJC | | | |
| CHECKED: AJC | DATE: 2010 | | SHEET 1 OF 1 |




TERMINAL CLEANOUT DETAIL (COMMERCIAL)
(N.T.S.)

| FPUA COMMUNITY PROUD | TERMINAL CLEANOUT DETAIL WASTEWATER | | S-4B |
|---|---|---|---|
| 12-08 UDESIGN | REVISION | BY | APP'D | WATER/WASTEWATER ENGINEERING |
| DESIGNED: AJC | | | SEWER DETAIL 2009052.DWG | FT. PIERCE UTILITIES AUTHORITY |
| DRAWN BY: | | | PCPUC |
| CHECKED: AJC | DATE: 2010 | | SHEET 2 OF 3 |




**FDC (FIRE DEPT. CONNECTION) DETAIL**
**N.T.S.**

| NO. | DATE | REVISIONS |
|---|---|---|
| 8 | | |
| 7 | | |
| 6 | | |
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | 9/20/24 | PER CITY COMMENTS |
| △ | | |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 2/4/2025 |

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1055 W. GRANADA BLVD.
ORMOND BEACH, FL 32360
PH. (772) 539-3317
FX. (772) 778-3417
PRESIDENT: L. PHILIP BOWLES
LICENSED ELECTRICAL ENGINEER

# WATER AND SEWER DETAILS

MARGARETA VILLAS
MULTI-FAMILY

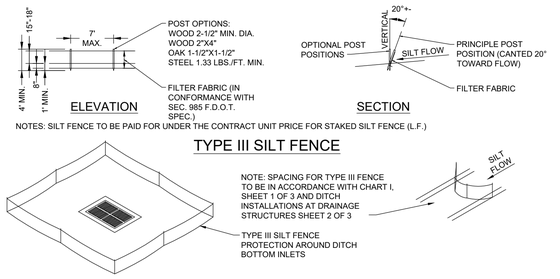
CITY OF FORT PIERCE — FLORIDA

ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
ANGELENA N. VITTER
F.L. P.E. #62950 — 2/18/2025

SHEET
C8

23-0060

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander- multi family\DWG\23-0060 COVER - DETAILS.dwg 2/4/2025 3:56 PM
ajacobs




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



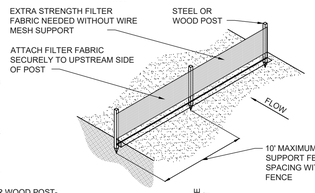

TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

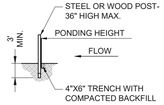
DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

## SILT FENCE APPLICATIONS

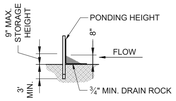
N.T.S.

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.



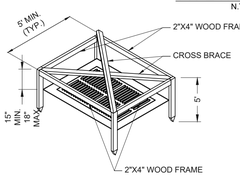

TRENCH DETAIL



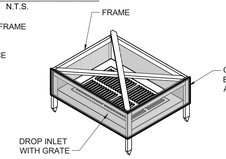

INSTALLATION WITHOUT TRENCHING

## TYPE IV SILT FENCE

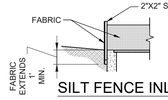
N.T.S.




VIEW OF FRAME WITHOUT SILT FENCE

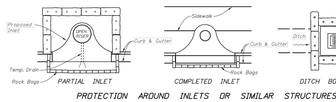



VIEW OF FRAME WITH SILT FENCE

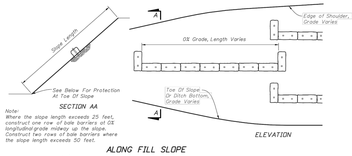



SILT FENCE INLET PROTECTION

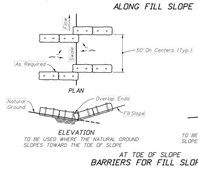
N.T.S.

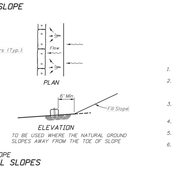



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



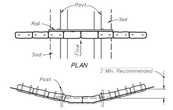

ALONG FILL SLOPE



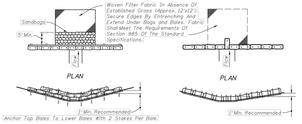




AT TOE OF SLOPE

BARRIERS FOR FILL SLOPES




SYNTHETIC BALES OR BALE TYPE BARRIERS FOR PAVED DITCHES




SYNTHETIC BALES OR BALE TYPE BARRIERS FOR UNPAVED DITCHES

NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

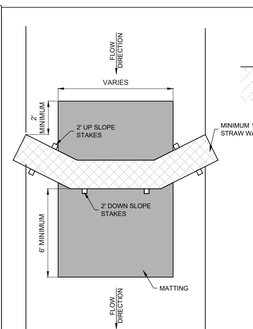
1. Type I and II Synthetic Barrier should be spaced in accordance with Chart I, Sheet 1.
2. Bales shall be anchored with 2"-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivalent strength may be used if approved by the Engineer.
4. Adjacent bales shall be butted firmly together.
5. Where used in conjunction with silt fence, bales shall be placed on the upstream side of the fence.
6. Bales to be paid for under the contract unit price for Synthetic Bales, LF. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sandbags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.

## EROSION AND SEDIMENTATION CONTROL NOTES

CONSTRUCTION ACTIVITIES CAN RESULT IN THE GENERATION OF SIGNIFICANT AMOUNTS OF POLLUTANTS WHICH MAY REACH SURFACE OR GROUND WATERS. ONE OF THE PRIMARY POLLUTANTS OF SURFACE WATERS IS SEDIMENT DUE TO EROSION. EXCESSIVE QUANTITIES OF SEDIMENT WHICH REACH WATER BODIES OF FLOOD PLAINS HAVE BEEN SHOWN TO ADVERSELY AFFECT THEIR PHYSICAL, BIOLOGICAL AND CHEMICAL PROPERTIES. TRANSPORTED SEDIMENT CAN OBSTRUCT STREAM CHANNELS, REDUCE HYDRAULIC CAPACITY OF WATER BODIES OF FLOOD PLAINS, REDUCE THE DESIGN CAPACITY OF CULVERTS AND OTHER WORKS, AND ELIMINATE BENTHIC INVERTEBRATES AND FISH SPAWNING SUBSTRATES BY SILTATION. EXCESSIVE SUSPENDED SEDIMENTS REDUCE LIGHT PENETRATION AND THEREFORE, REDUCE PRIMARY PRODUCTIVITY.

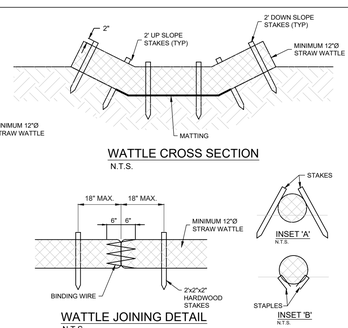
## MINIMUM STANDARDS

1. SEDIMENT BASIN 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 UNSLOPE 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 STOCKPILES 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. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE REVIEWER, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
6. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
7. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE SEDIMENT BASIN SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREA FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN.
8. AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
9. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
10. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
11. 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.
12. BEFORE TEMPORARY OR NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
13. 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. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
14. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
16. 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 LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
17. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
    A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
    B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
    C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
    D. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
18. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE, WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE WITH CURBS AND GUTTERS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISON LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
19. 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, IN THE OPINION OF THE REVIEWER. DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
20. PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITE SHALL BE PROTECTED FROM SEDIMENT DISPOSITION AND EROSION.
21. PHASED PROJECTS SHOULD BE CLEARED IN CONJUNCTION WITH CONSTRUCTION OF EACH PHASE.
22. EROSION CONTROL DESIGN AND CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS IN INDEX NOS. 104 AND 105 OF FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS.
23. THE REVIEWER MAY APPROVE MODIFICATIONS OR ALTER PLANS TO THESE EROSION CONTROL CRITERIA DUE TO SITE SPECIFIC CONDITIONS.




WATTLE TOP VIEW

N.T.S.




WATTLE CROSS SECTION

N.T.S.

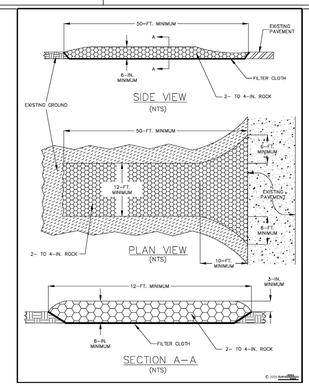
WATTLE JOINING DETAIL

N.T.S.

NOTES:
1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2"-3" DEEP x 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD OVERLAP 24" - SHINGLE IN DIRECTION OF FLOW.
3. SECURE THE WATTLE WITH 18"-24" STAKES EVERY 3'-4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE, LEAVING AT LEAST 2"-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKE SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.
4. USE MINIMUM 12"Ø COIR (COCONUT FIBER)/STRAW WATTLE.
5. USE 2' WOODEN STAKES WITH A 2"x2" NOMINAL CROSS SECTION.
6. ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AS DIRECTED.
7. INSTALL A MINIMUM OF 2 UP SLOPE STAKES AND 4 DOWN SLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
8. PROVIDE STAPLES MADE OF 0.125"Ø STEEL SIRE FORMED INTO A 'U; SHAPE NOT LESS THAN 12" IN LENGTH.
9. INSTALL STAPLES APPROX. EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

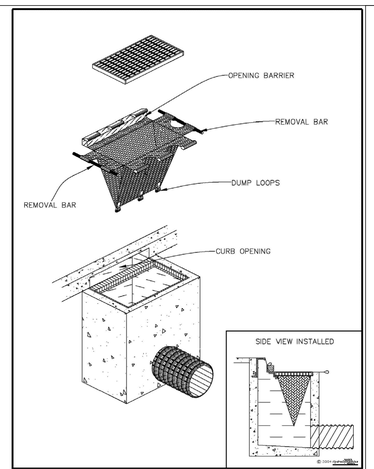
WATTLE DETAILS

N.T.S.



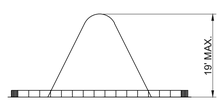

SOIL TRACKING PREVENTION DEVICE DETAIL

N.T.S.



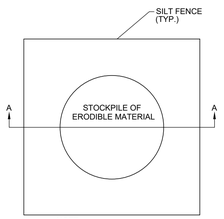

INLET INSERT SEDIMENT CONTAINMENT SYSTEM

N.T.S.




NOTE:
ALL STOCKPILES SHALL BE A MAXIMUM OF 25' HIGH.

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.

CITY OF FORT PIERCE NOTES (EROSION CONTROL)

(a) THE CITY ENGINEERING DEPARTMENT SHALL MAKE INSPECTIONS AS HEREINAFTER REQUIRED AND NOTIFY THE BUILDING OFFICIAL UPON INSPECTION APPROVAL OR IF THE WORK FAILS TO COMPLY WITH THE EROSION AND SEDIMENT CONTROL PLAN AS APPROVED TO REQUEST A STOP-WORK ORDER. PLANS FOR GRADING / STRIPPING / EXCAVATING AND FILLING WORK BEARING THE STAMP OF APPROVAL OF THE CITY ENGINEER SHALL BE MAINTAINTED AT THE SITE DURING THE DURATION OF WORK. TO OBTAIN INSPECTIONS, THE PERMITTEE SHALL NOTIFY THE CITY ENGINEERING DEPARTMENT AT LEAST TWO WORKING DAYS BEFORE THE FOLLOWING:
(1) START OF CONSTRUCTION
(2) INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES
(3) COMPLETION OF SITE CLEARING
(4) COMPLETION OF ROUGH GRADING
(5) COMPLETION OF FINAL GRADING
(6) CLOSE OF THE CONSTRUCTION SEASON
(7) COMPLETION OF FINAL LANDSCAPING.
(b) THE PERMITTEE SHALL BE RESPONSIBLE FOR THE FUNCTIONALITY OF ALL CONTROL MEASURES IN ACCORDANCE WITH THE INSPECTION SCHEDULE OUTLINED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
THE PURPOSE OF SUCH INSPECTIONS WILL BE TO DETERMINE THE OVERALL EFFECTIVENESS OF THE CONTROL PLAN AND POSSIBLE NEED FOR ADDITIONAL CONTROL MEASURES.
(c) THE CITY ENGINEER OR HIS DESIGNEE SHALL ENTER THE PROPERTY OF THE APPLICANT AS DEEMED NECESSARY TO MAKE REGULAR INSPECTIONS TO ENSURE THE EFFECTIVENESS OF THE CONTROL PLAN AND THE POSSIBLE NEED FOR ADDITIONAL CONTROL MEASURES.

| | DATE | REVISIONS |
|---|---|---|
| 1 | 9/20/24 | PER CITY COMMENTS |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |

| | |
|---|---|
| JOB NO. | 23-0060 |
| DESIGNED | GWR |
| DRAWN | GWR |
| DATE | JANUARY 2024 |
| CHECKED | AJB |
| DATE ISSUED | 2/4/2025 |

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
PRELIMINARY NOT FOR CONSTRUCTION
1800 COLLEGE BLVD. SUITE 200
VIRO BEACH, FL 32960
PH. (772) 778-3317
FX. (772) 778-3417

# EROSION CONTROL DETAILS

MARGARETA VILLAS
MULTI-FAMILY

FLORIDA
CITY OF FORT PIERCE

ANGELENA N. VITTER
LICENSE
No. 62950
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950
2/18/2025

SHEET
C9

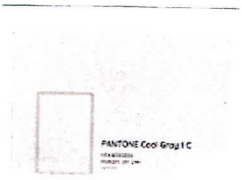
23-0060

© 2024 MBV ENGINEERING, INC.

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander- multi family\DWG\23-0060 COVER - DETAILS dwg 2/4/2025 3:56 PM
Angelena Vitter

UPPER WALLS, LAP SIDING
IN PANTONE 290 C
STANDING SEAM METAL ROOF
IN PANTONE COOL GRAY 1C
SHUTTERS
IN PANTONE 7455C
METAL RAILINGS
IN DARK BRONZE
BALCONIES TO
FACE NORTH SOUTH
AND TO BREAK UP
LONG FACADE
LOWER WALLS,
STUCCO
IN SOFT WHITE
COVERED ENTRANCE
WITH ROCK PATTERN
COLUMNS FOR DYNAMIC
VISUAL CHANGE
MARGARITAVILLAS

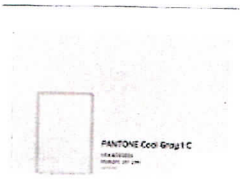
# COLOR SCHEME
## MARGERITA VILLAS

| | |
|---|---|
| **BOTTOM HALF STUCCO WALLS, COLUMNS, WINDOW TRIM & ENTRY** | **WHITE SOFT** |
| **UPPER WALLS STUCCO LAP SIDING** | **PANTONE 290 C** |
| **WINDOW SHUTTERS** | **PANTONE 7455 C** |
| **METAL RAILINGS** | **ESP DARK BRONZE PANTONE 7644 C ?** Pantone 7644 C |
| **ROOFING STANDING SEAM METAL** | **METAL GRAY PANTONE COOL GRAY 1 C**   |
| **STAIR WELL BOTTOM HALF** | **WHITE SOFT** |
| **STAIR WELL TOP HALF STUCCO LAP SIDING** | **PANTONE 290 C** Pantone 290 C |

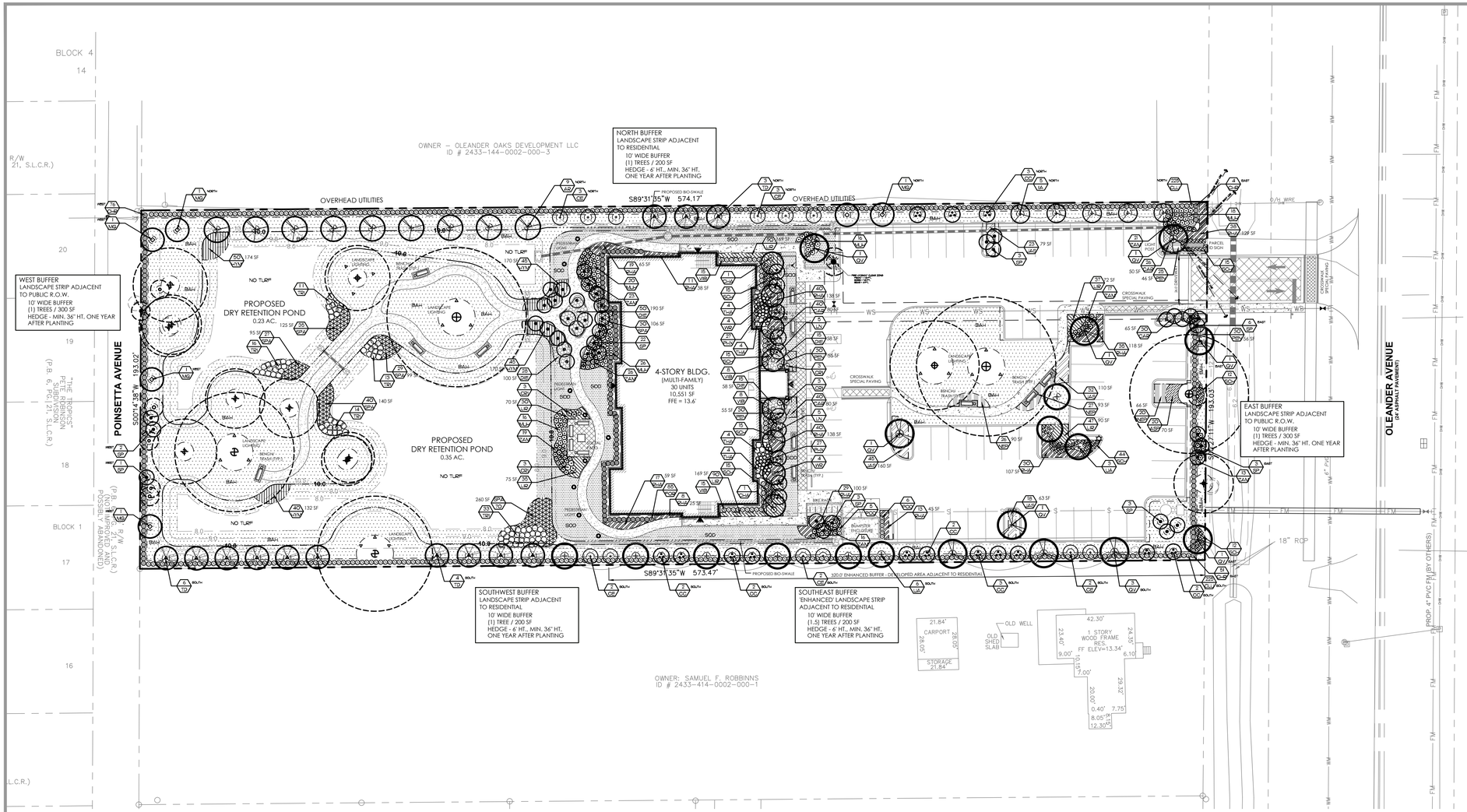
# COLOR SCHEME
## MARGERITA VILLAS

| | |
|---|---|
| **BOTTOM HALF STUCCO WALLS, COLUMNS, WINDOW TRIM & ENTRY** | **WHITE SOFT** |
| **UPPER WALLS STUCCO LAP SIDING** | **PANTONE 290 C** |
| **WINDOW SHUTTERS** | **PANTONE 7455 C** |
| **METAL RAILINGS** | **ESP DARK BRONZE PANTONE 7644 C ?** |
| **ROOFING STANDING SEAM METAL** | **METAL GRAY PANTONE COOL GRAY 1 C** |
| **STAIR WELL BOTTOM HALF** | **WHITE SOFT** |
| **STAIR WELL TOP HALF STUCCO LAP SIDING** | **PANTONE 290 C** |

Pantone 7644 C



Pantone 290 C




## Landscape Calculations

| | REQUIRED/ PERMITTED | PROVIDED |
|---|---|---|
| LANDSCAPE STRIPS ADJACENT TO PUBLIC R.O.W. | | |
| EAST - OLEANDER AVENUE - 166 LF ( 193' LESS 27' DRIVEWAYS) | | |
| 10' WIDE LANDSCAPE STRIP (166 X 10 = 1,660 SF) | | |
| TREES: 1 / 300 SF | 6 TREES | 6 TREES |
| INCLUDES (2) EXISTING TREES | | |
| (1) EXISTING PALMS | | |
| (2) PROPOSED TREES | | |
| (6) PROPOSED PALMS = 2 TREES | | |
| PLUS 24" HT, HEDGE, 36" AFTER ONE YEAR | | |
| WEST - POINSETTA AVENUE - 193 LF | | |
| 10' WIDE LANDSCAPE STRIP (193 X 10 = 1,930 SF) | | |
| TREES: 1 / 300 SF | 7 TREES | 8 TREES |
| INCLUDES (2) EXISTING TREES-ADJACENT | | |
| (6) EXISTING PALMS = 2 TREES | | |
| (3) PROPOSED TREES | | |
| (3) PROPOSED PALMS = 1 TREE | | |
| PLUS 24" HT, HEDGE, 36" AFTER ONE YEAR | | |
| LANDSCAPE STRIPS ADJACENT TO RESIDENTIAL | | |
| NORTH - 575 LF | | |
| 10' WIDE LANDSCAPE STRIP (575 X 10 = 2,540 SF) | | |
| TREES: 1 / 200 SF | 29 TREES | 29 TREES |
| INCLUDES (29) PROPOSED TREES | | |
| PLUS 24" HT, HEDGE, 36" AFTER ONE YEAR | | |
| SOUTHWEST - 254 LF | | |
| 10' WIDE LANDSCAPE STRIP (254 X 10 = 5,740 SF) | | |
| TREES: 1 / 200 SF | 13 TREES | 13 TREES |
| INCLUDES (1) EXISTING TREE | | |
| (12) PROPOSED TREES | | |
| PLUS 24" HT, HEDGE, 36" AFTER ONE YEAR | | |
| SOUTHEAST - 320 LF *** | | |
| 10' WIDE LANDSCAPE STRIP (320 X 10 = 3,200 SF) | | 'ENHANCED' |
| TREES: 1.5 / 200 SF | 24 TREES | 24 TREES |
| INCLUDES (24) PROPOSED TREES | | |
| PLUS 24" HT, HEDGE, 36" AFTER ONE YEAR | | |
| INTERIOR VEHICULAR USE LANDSCAPE AREA | | |
| VEHICULAR USE AREA: | | 26,032 SF |
| 1 SF / 15 SF OF VUA = | 1,736 SF | 8,242 SF |
| (1) CANOPY TREE / 100 SF = | 18 TREES | 18 TREES |
| INCLUDES (2) EXISTING TREES | | |
| (12) PROPOSED PALMS = 4 TREES | | |
| (12) PROPOSED TREES | | |

*** PLEASE NOTE: THE ENHANCED BUFFER IS PROVIDED UNDER THE ENCOURAGEMENT OF STAFF PER THE STAFF REPORT DATED 03.21.2024

## General Notes

1. PLANT AND LANDSCAPE MATERIALS SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. I, AS GIVEN IN THE GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I & II AS PREPARED BY FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
2. ALL UTILITIES THAT ARE KNOWN TO THE LANDSCAPE ARCHITECT ARE LOCATED ON THE PLAN, FOR EXISTING OR PROPOSED UTILITIES:
   A. NO TREE SHALL BE PLANTED WHERE IT COULD CONFLICT WITH OVER-HEAD POWER LINES AT MATURE HEIGHT.
   B. 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.
   C. LARGE TREES (HEIGHT AT MATURITY OF MORE THAN 30 FEET SHALL BE PLANTED NO CLOSER THAN A HORIZONTAL DISTANCE OF 30 FEET FROM THE NEAREST OVER-HEAD POWERLINE.
   D. MEDIUM HEIGHT TREE (HEIGHT AT MATURITY BETWEEN 20 AND 30 FEET) SHALL BE OFFSET AT LEAST TWENTY 20 FEET.
   E. SMALL TREES (HEIGHT AT MATURITY OF LESS THAN 20 FEET) REQUIRE NO OFFSET.
   F. PALMS SHOULD BE PLANTED AT A DISTANCE EQUAL TO OR GREATER THAN THE AVERAGE FROND LENGTH PLUS 2 FEET FROM POWER LINES.
3. THE CONTRACTOR SHALL ENSURE THAT ALL PLANTING ISLANDS AND OTHER AREAS SHALL BE CLEAN OF TRASH, CONSTRUCTION DEBRIS, OR OTHER WASTE MATERIALS TO A DEPTH OF 24 INCHES PRIOR TO LANDSCAPE INSTALLATION.
4. IT IS THE CONTRACTORS RESPONSIBILITY TO INSURE THAT ALL PLANT BED AREAS HAVE PROPER DRAINAGE FOR OPTIMUM GROWTH OF LANDSCAPE MATERIAL BEFORE INSTALLATION BEGINS. EXISTING DRAINAGE PATTERN SHALL NOT BE ALTERED OR EFFECTED BY NEW LANDSCAPING.
5. PLANT ALL TREES AND PALMS (2 INCH - 4 INCH) ABOVE FINISHED GRADE. TREES INSTALLED OR BURIED TOO DEEP SHALL BE RESET TO THIS STANDARD. REMOVE THE TOP ONE-THIRD (1/3) OF THE WIRE BASKETS ON ALL B & B MATERIAL.
6. ALL HEDGES AND GROUNDCOVERS TO BE PLANTED LEAVING SPACE BETWEEN PLANTS AND BUILDINGS, WALLS AND FENCES.
7. ALL PLANT BEDS AND TREE RINGS SHALL BE TREATED WITH PRE-EMERGENT HERBICIDE AND THEN, TOP-DRESSED WITH 3-INCH DEEP LAYER OF COMMERCIAL PINE BARK NUGGETS. CONTRACTOR SHALL INSTALL WOVEN WEED BARRIER FABRIC IN ALL SHRUB/GROUNDCOVER BEDS.
8. HAND DIGGING HOLES FOR INSTALLING PROPOSED TREES IN CLOSE PROXIMITY TO UTILITIES IS REQUIRED TO AVOID CONFLICTS.
9. ALL NUISANCE EXOTIC VEGETATION WITHIN DEVELOPMENT PROJECT SITE PROPERTY MUST BE REMOVED IN CONJUNCTION WITH HE SITE DEVELOPMENT, (SECTION 929.06)
10. EXISTING AND PROPOSED LANDSCAPING IS TO BE MAINTAINED PER JURISDICTION'S CLEAR SIGHT TRIANGLE REGULATIONS.
11. NEW SOD SHALL BE ST. AUGUSTINE FLORITAM AND ARGENTINE BAHIA AS SHOWN ON THE PLAN. THE QUANTITY SHOWN ON THE PLANT LIST IS AN ESTIMATE AND CONTRACTOR SHALL DETERMINE EXACT QUANTITIES IN THE FIELD. SOD AREAS TO BE MAINTAINED BY THE CONTRACTOR FROM THE TIME OF INSTALLATION TO THE TIME OF FINAL ACCEPTANCE.
12. THE LANDSCAPE ARCHITECT MAY INSPECT TREES AND SHRUBS WHETHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING, FOR COMPLIANCE WITH THE REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE AND QUALITY. LANDSCAPE ARCHITECT RETAINS 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. REMOVE REJECTED TREES OR SHRUBS IMMEDIATELY FROM PROJECT SITE.
13. NO SUBSTITUTIONS WILL BE ACCEPTABLE IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY TO LANDSCAPE ARCHITECT AND JURISDICTION, TOGETHER WITH THE PROPOSAL FOR USE OF EQUIVALENT MATERIAL.
14. IN EVENT OF DISCREPANCY, THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT LIST.
15. ALL MINIMUMS FOR EACH PLANT SPECIFIED WITHIN THE PLANT LIST ARE REQUIRED TO BE MET, HEIGHT AND SPREAD WILL PREVAIL OVER CALIPER AND CONTAINER SIZE.

    IF ANY OF THE MINIMUMS ARE NOT MET, THE INSTALLED MATERIAL MAY OR MAY NOT BE REJECTED ON A CASE BY CASE BASIS BY THE LANDSCAPE ARCHITECT, OWNER, OR JURISDICTION. FOR EXAMPLE, ALL TREE CALIPER AND CONTAINER SIZES NOTED ON THE PLANT LIST ARE A MINIMUM, CONTRACTOR TO INCREASE THE SIZE IF NECESSARY TO CONFORM TO THE PLANT SIZES AND SPECIFICATIONS.
16. TREES TO BE STAKED ONLY IF REQUIRED AS DEEMED NECESSARY BY OWNER AND LANDSCAPE ARCHITECT TO ASSURE HEALTH, SAFETY AND WELFARE (INCLUDES BUT NOT LIMITED TO CURVED CARRIAGE, TALL ROYAL CURVED AND LEANING SPECIMEN). ALL WOOD STAKES TO BE PAINTED FOREST GREEN. STAKING PROCEDURES SHALL BE STANDARD CONTRACTOR PRACTICE CREATING NO TRUNK DAMAGE OR FUTURE STRANGULATION OF TREE.
17. ALL PLANT MATERIAL SHALL BE PLANTED WITH "TERRA-SORB AG" OR AN APPROVED EQUAL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE RATE OF APPLICATION.
18. AN AUTOMATIC IRRIGATION SYSTEM WILL BE PROVIDED WHICH MEETS OR EXCEEDS THE FULL REQUIREMENTS OF THE LAND DEVELOPMENT REGULATIONS. THE OWNER WILL SUPPLY ALL PROPOSED PLANT MATERIAL WITH 100% IRRIGATION (AUTOMATIC) COVERAGE (WITH 50% OVERLAP MINIMUM) WITHIN TEN DAYS OF INITIAL INSTALLATION.
19. CONTRACTOR TO INSTALL THE IRRIGATION SYSTEM PER THE JURISDICTIONS REGULATIONS TO CONFORM TO THE LANDSCAPE DESIGN.

## Key

PLANT QUANTITY → 11 (MATURE SIZE) ← MAINTAIN *36-IN. HT.
PLANT SPECIES (REFER TO PLANT LIST) → VIB (DIRECTION) ← EAST
SPECIAL INSTRUCTIONS / BED AREA
REQUIRED CODE CATEGORY (REFER TO LANDSCAPE REQUIREMENTS)
OPEN - OPEN SPACE
VUA - VEHICULAR USE AREA
BLDG - FOUNDATION PLANTING AREA (N/A)
NORTH - NORTH BUFFER
EAST - EAST BUFFER
SOUTH - SOUTH BUFFER
WEST - WEST BUFFER
____ - ADDITIONAL PLANT MATERIAL
SABAL PALM (CLEAR TRUNK (CT.) (AT INSTALL) → 12'

## Plant List

| SYM | KEY | BOTANICAL NAME/ COMMON NAME | HEIGHT/ SPREAD | SPECIFICATION | NATIVE | DROUGHT TOLERANT | TOTAL |
|---|---|---|---|---|---|---|---|
| TREES AND PALMS | AR | ACER RUBRUM RED MAPLE | 12' HT. 4' SPR. | FIELD GROWN B&B | Y | M | 9 |
| | CC | CALLISTEMON CITRINUS RED BOTTLEBRUSH | 12' HT. 4' SPR. | FIELD GROWN B&B 2.5" CAL., 5' C.T. MIN. | N | H | 14 |
| | CE | CONOCARPUS ERECTUS 'SERICEUS' SILVER BUTTONWOOD | 12' HT. 4' SPR. | 45 GAL. MIN. 2.5 CAL. TREE FORM, 5' CT. MIN. | Y | M | 12 |
| | IA | ILEX X 'ATTENUATA' EAST PALATKA HOLLY | 12' HT. 4' SPR. | 45 GAL. MIN. 2.5 CAL. TREE FORM, 5' CT. MIN. | Y | M | 5 |
| | LN | LAGERSTROEMIA INDICA 'NATCHEZ' NATCHEZ CRAPE MYRTLE | 12' HT | FIELD GROWN, B&B TREE FORM, 5' C.T. | N | H | 10 |
| | MG | MAGNOLIA GRANDIFLORA SOUTHERN MAGNOLIA | 14' HT. 4' SPR. | FIELD GROWN B&B 3" CAL., 5' C.T. MIN. | Y | H | 6 |
| | QV | QUERCUS VIRGINIANA LIVE OAK | 14' HT. 5' SPR. | FIELD GROWN, B&B 3" CAL. 5' CT. MIN. | Y | H | 10 |
| | SP | SABAL PALMETTO SABAL PALM | 10 - 14' CT. | AS SHOWN, SLICKS STAGGER HEIGHTS | Y | H | 43 |
| | TD | TAXODIUM DISTICHUM BALD CYPRESS | 12' HT. 4' SPR. | 45 GAL. MIN. 2.5 CAL. TREE FORM, 5' CT. MIN. | Y | M | 13 |
| | UA | ULMUS ALATA WINDGED ELM | 14' HT. 6' SPR. | FIELD GROWN B&B, 3" CAL. 5' CT. MIN. | Y | M | 9 |
| | WR | WASHINGTONIA ROBUSTA WASHINGTONIA PALM | 16' CT. | MATCHED | N | H | 8 |
| HEDGES AND SHRUBS | CHA | CHAMAEROPS HUMILIS EUROPEAN FAN PALM | 4 HT. MIN. | TRIPLE | N | H | 2 |
| | CHR | CHRYSOBALANUS ICACO 'RED TIP' 'RED TIP' COCOPLUM | 24" X 24" | 30" O.C. FULL TO BASE | Y | H | 130 |
| | CLU | CLUSIA GUTTIFERA SMALL LEAF CLUSIA | 24" X 24" | 30" O.C. FULL TO BASE | Y | H | 450 |
| | CRI | CRINUM ASIATICUM CRINUM LILY | 24" X 24" | FULL | N | H | 12 |
| | FOR | FORESTIERA SEGREGATA FLORIDA PRIVET | 24" X 24" | FULL, 30" O.C. | Y | H | 85 |
| | THA | THAUMATOPHYLLUM BIPINNATIFIDUM SPLIT LEAF PHILODENDRON | 24" X 24" | FULL, AS SHOWN | N | M | 16 |
| | POD | PODOCARPUS MACROPHYLLUS PODOCARPUS | 30" X 18" | 24" O.C. FULL TO BASE | N | H | 11 |
| | VIB | VIBURNUM SUSPENSUM SANDANKWA VIBURNUM | 24" X 24" | FULL, 30" O.C. | N | H | 46 |

| SYM | KEY | BOTANICAL NAME/ COMMON NAME | HEIGHT/ SPREAD | SPECIFICATION | NATIVE | DROUGHT TOLERANT | TOTAL |
|---|---|---|---|---|---|---|---|
| SMALL SHRUBS & GROUNDCOVERS | ASP | ASPIDISTRA ELATIOR CAST-IRON PLANT | 14" X 14" | 24" O.C., FULL | N | H | 12 |
| | CAR | CARISSA MACROCARPA 'EMERALD BLANKET' CARISSA | 14" SPR | 18" O.C., FULL | N | H | 136 |
| | DIE | DIETES BICOLOR YELLOW AFRICAN IRIS | 14" X 14" | 24" O.C., FULL | N | H | 108 |
| | HYM | HYMENOCALIS LATIFOLIA SPIDER LILY | 14" X 14" | 24" O.C., FULL | Y | H | 180 |
| | JAS | JASMINUM VOLUBILE WAX JASMINE | 14" X 14" | 24" O.C., FULL | N | H | 118 |
| | LIR | LIRIOPE MUSCARI LILLY TURF | 12" X 12" | 18" O.C., FULL | N | H | 329 |
| | MUH | MUHLENBERGIA CAPPILARIS PINK MUHLY GRASS | 14" X 14" | 24" O.C., FULL | N | H | 96 |
| | NEP | NEPHROLEPIS EXALTATA SWORD FERN | 14" X 14" | 24" O.C., FULL | Y | H | 73 |
| | PEN | PENTAS LANCEOLATA PENTAS | 14"X14" | 1 GAL., 18" O.C. | N | L | 115 |
| | PHX | PHILODENDRON XANADU DWARF PHILODENDRON | 14"X14" | 24" O.C., FULL | N | H | 54 |
| | RHA | RHAPHOLEPIS INDICA INDIAN HAWTHORN | 14"X14" | 24" O.C., FULL | N | H | 280 |
| | SCH | SCHEFFLERA ARBORICOLA 'TRINETTE' DWARF VARIEGATED SCHEFFLERA | 14"X14" | 24" O.C., FULL | N | H | 143 |
| | SPA | SPARTINA BAKERI SAND CORD GRASS | 14"X14" | 24" O.C., FULL | Y | H | 231 |
| | TRI | TRIPSACUM DACTYLOIDES FAKAHATCHEE GRASS | 14"X14" | 36" O.C., FULL | Y | H | 87 |
| | ZAM | ZAMIA PUMILA COONTIE | 14"X14" | 30" O.C., FULL | Y | H | 135 |
| | BAH | PASPALUM NOTATUM 'FLUGGE'' ARGENTINE BAHIA GRASS | ` | DISEASE FREE, LAID TIGHTLY, EVEN UNIFORM | N | M | T.B.D. |
| | SOD | STENOTAPHRUM SECUNDATUM ST. AUGUSTINE SOD | | DISEASE FREE, LAID TIGHTLY, EVEN UNIFORM | N | M | T.B.D. |
| | | EXISTING TREES TYP | | | | | |
| | | EXISTING PALMS TYP | | | | | |

48 HOURS BEFORE DIGGING CALL TOLL FREE 8-1-1 SUNSHINE811.COM NOTIFICATION CENTER


Patrick D. Cunningham, LLC
land planning
landscape architecture
519 Sapphire Drive
Sarasota, FL 34234
o: 941.351.8915
pcunningham.LLC@gmail.com


LANDSCAPE PLAN

MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

| | | |
|---|---|---|
| 5 | | |
| 4 | | |
| 3 | 2. INNOVATIVE DESIGN | 02.13.2025 |
| 2 | 1. PER CITY COMMENTS | 09.20.2024 |
| 1 | SUBMITTAL | 12.08.2023 |

SCALE: 1"=30'-0"

PATRICK D. CUNNINGHAM FL REG #: LA0001669 SEAL

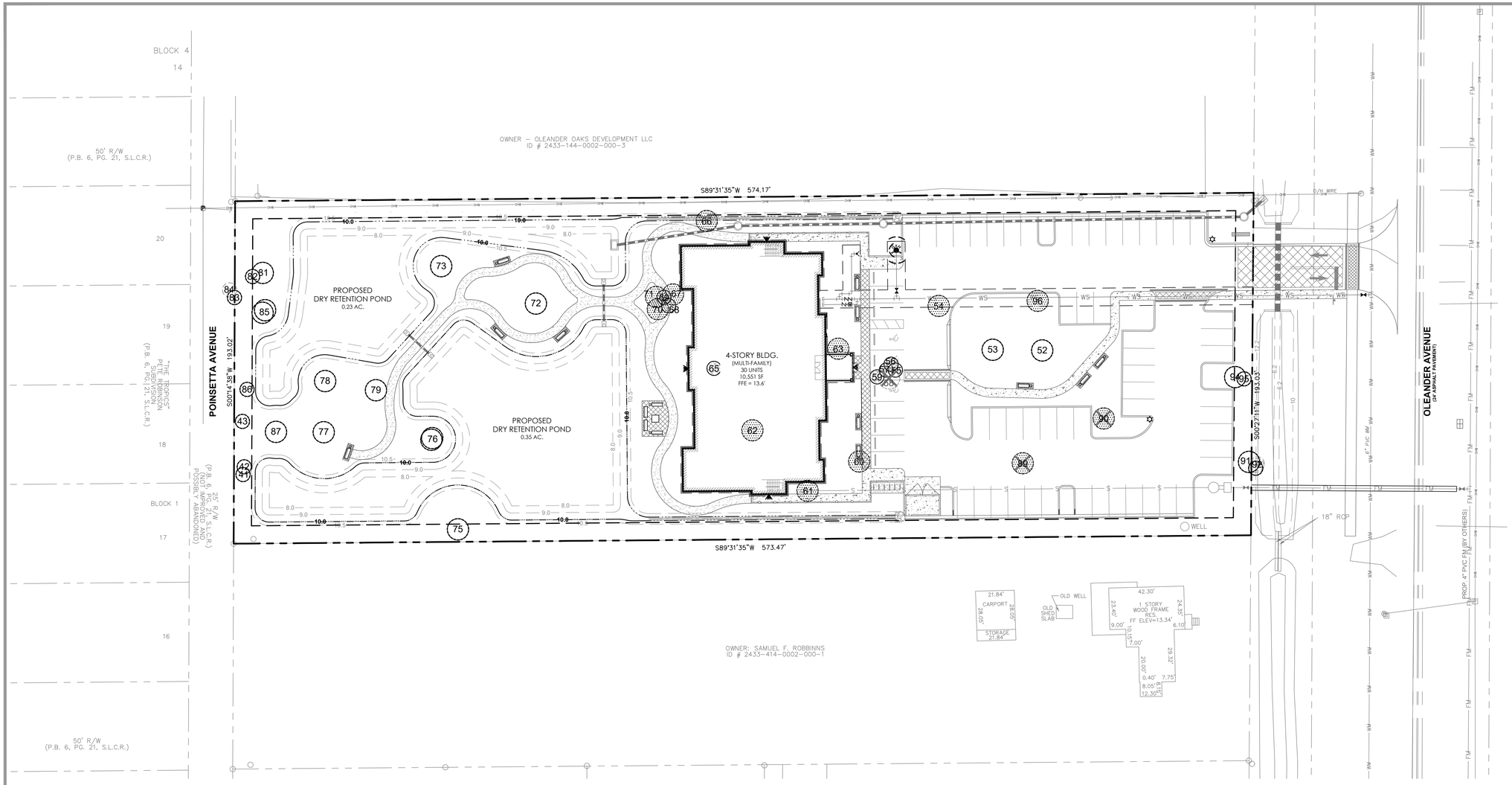
0 30 60

SHEET NO. L-1

plot date:
file name:



▪ COPYRIGHT © ▪ PATRICK D. CUNNINGHAM, LLC ▪ 519 Sapphire Drive ▪ Sarasota, Florida 34243 ▪ 941.351.8915 ▪ ALL RIGHTS RESERVED ▪




48 HOURS BEFORE DIGGING
CALL TOLL FREE
8-1-1
SUNSHINE811.COM
NOTIFICATION CENTER


Patrick D. Cunningham, LLC
land planning
landscape architecture
519 Sapphire Drive
Sarasota, FL 34234
o: 941.351.8915
pcunningham.LLC@gmail.com


# EXISTING TREE INVENTORY PLAN

# MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

| | | |
|---|---|---|
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | PER CITY COMMENTS | 09.20.2024 |
| | SUBMITTAL | 12.08.2023 |

SCALE: 1"=30'-0"

PATRICK D. CUNNINGHAM
FL REG #: LA0001669
SEAL

0 30 60
NORTH

SHEET
L-2

## Existing Tree Inventory List

| TREE# | SPECIES | SIZE " | STATUS | ACTION | CREDITS |
|---|---|---|---|---|---|
| 41 | Cabbage | 18 " | Specimen | Remain | + 1 Palm |
| 42 | Cabbage | 14 " | Specimen | Remain | + 1 Palm |
| 43 | Cabbage | 16 " | Specimen | Remain | + 1 Palm |
| | OUT OF SEQUENCE | | | | |
| 52 | Live Oak | 56 " | Specimen | Remain | + 53.5" |
| 53 | Live Oak | 36 " | Specimen | Remain | + 33.5" |
| ● 54 | Live Oak | 42 " | Specimen | Remove | - 42" |
| ▽ 55 | Cabbage | 16 " | Specimen | Remove | - 1 Palm |
| ▽ 56 | Cabbage | 20 " | Specimen | Remove | - 1 Palm |
| ▽ 57 | Cabbage | 16 " | Specimen | Remove | - 1 Palm |
| 58 | Live Oak | 8 " | Protected | Remove | - - |
| ▽ 59 | Cabbage | 18 " | Specimen | Remove | - 1 Palm |
| ● 60 | Live Oak | 42 " | Specimen | Remove | - 42" |
| ● 61 | Live Oak | 44 " | Specimen | Remove | - 44" |
| ● 62 | Live Oak | 54 " | Specimen | Remove | - 54" |
| ● 63 | Laurel Oak | 30 " | Specimen | Remove | - 30" |
| ▽ 64 | Cabbage | 18 " | Specimen | Remove | - 1 Palm |
| ▽ 65 | Cabbage | 18 " | Specimen | Remove | - 1 Palm |
| ● 66 | Live Oak | 36 " | Specimen | Remove | - 36" |
| ● 67 | Live Oak | 36 " | Specimen | Remove | - 36" |

| TREE# | SPECIES | SIZE " | STATUS | ACTION | CREDITS |
|---|---|---|---|---|---|
| 68 | Queen Palm | 8 " | Non-Native | Remove | N/A |
| 69 | Queen Palm | 8 " | Non-Native | Remove | N/A |
| ● 70 | Live Oak | 42 " | Specimen | Remove | - 42" |
| ● 71 | Live Oak | 24 " | Specimen | Remove | - 24" |
| 72 | Live Oak | 56 " | Specimen | Remain | + 53.5" |
| 73 | Live Oak | 26 " | Specimen | Remain | + 23.5" |
| | OUT OF SEQUENCE | | | | |
| 75 | Live Oak | 46 " | Specimen | Remain | + 43.5" |
| 76 double | Live Oak | 20 " | Specimen | Remain | + 17.5" |
| | Live Oak | 20 " | Specimen | Remain | + 17.5" |
| 77 | Live Oak | 48 " | Specimen | Remain | + 45.5" |
| 78 | Live Oak | 24 " | Specimen | Remain | + 21.5" |
| 79 | Live Oak | 24 " | Specimen | Remain | + 21.5" |
| | OUT OF SEQUENCE | | | | |
| 81 | Live Oak | 30 " | Specimen | Remain | + 27.5" |
| 82 | Cabbage | 16 " | Specimen | Remain | + 1 Palm |
| 83 | Cabbage | 16 " | Specimen | Remain | + 1 Palm |
| 84 | Cabbage | 16 " | Specimen | Remain | N/A-Off Site |
| 85 double | Live Oak | 24 " | Specimen | Remain | + 21.5" |
| | Live Oak | 24 " | Specimen | Remain | + 21.5" |

| TREE# | SPECIES | SIZE " | STATUS | ACTION | CREDITS |
|---|---|---|---|---|---|
| 86 | Cabbage | 20 " | Specimen | Remain | + 1 Palm |
| 87 | Live Oak | 26 " | Specimen | Remain | + 23.5" |
| | OUT OF SEQUENCE | | | | |
| 89 | Royal Poinciana | 64 " | Non-Native | Remove | N/A |
| 90 | Royal Poinciana | 30 " | Non-Native | Remove | N/A |
| 91 | Live Oak | 20 " | Specimen | Remain | |
| 92 double | Cabbage | 18 " | Specimen | Remain | N/A-Off Site |
| | Cabbage | 18 " | Specimen | Remain | N/A-Off Site |
| | OUT OF SEQUENCE | | | | |
| 94 | Live Oak | 48 " | Specimen | Remain | + 45.5" |
| 95 | Cabbage | 20 " | Specimen | Remain | + 1 Palm |
| ● 96 | Live Oak | 46 " | Specimen | Remove | - 46" |

EXISTING NATIVE TREES
PROTECTED TREES TO BE REMOVED
*(8-IN. DBH TO LESS THAN 14-IN. DBH - NO MITIGATION REQUIRED)*

● SPECIMEN TREES TO BE REMOVED
*(14-IN. DBH OR GREATER - MITIGATION REQUIRED @ 1-IN. : 1-IN.)*

▽ SPECIMEN CABBAGE PALMS TO BE REMOVED
*(10-FT. C.T MIN. - MITIGATION REQUIRED @ 1 P.A.M. : 1 PALM*

*TREE CREDITS ARE CALCULATED AT (DBH PRESERVED LESS 2.5-IN. MIN. TREE CAL.) PER TREE SAVED.*
*PALM CREDITS ARE CALCULATED AT (1) PALM SAVED = (1) PALM REMOVED.*
*OFF-SITE TREES AND PALMS DO NOT COUNT TOWARDS AND MITIGATION AND/OR CREDITS*

## Tree Mitigation Calculations

| | QUANTITY | DBH (INCHES) | MITIGATION REQ. |
|---|---|---|---|
| TO BE REMOVED | | | |
| PROTECTED | | | |
| LIVE OAKS (LESS THAN 14" DBH) | 1 TREE | 8 " | 0" |
| NON-NATIVE | | | |
| ROYAL POINCIANA | 2 TREES | 94 " | 0" |
| QUEEN PALM | 2 PALMS | N/A | 0" |
| OFF-SITE | | | |
| CABBAGE PALMS | 3 PALMS | N/A | N/A |
| SPECIMEN | | | |
| LIVE OAKS (GREATER THAN 14" DBH) | 10 TREES | 396 " | - 396 " DBH |
| SABAL PALMS | 6 PALMS | N/A | - 6 PALMS |

| MITIGATION (REPLACEMENT) | REQUIRED | EXISTING | DIFFERENCE | |
|---|---|---|---|---|
| TOTAL TREE MITIGATION REQUIRED | - 396 " DBH | + 488 " DBH | + 92 " DBH | (00' SHORTFALL) |
| INCL. (16) EXISTING NATIVE OAKS (12) OAKS = (2) DOUBLE OAKS = | | | | |
| TOTAL PALM MITIGATION REQUIRED | - 6 PALMS | + 7 PALMS | + 1 PALM | (00' SHORTFALL) |
| INCL. (7) EXISTING SABAL PALMS @ 10' C.T. MIN. | | | | |

## Key

| | |
|---|---|
| EXISTING TREES - TO BE REMOVED LESS THAN 14-IN. DBH, THEREFORE DO NOT REQUIRE MITIGATION. | TO BE REMOVED |
| EXISTING TREES - TO BE REMOVED NON-NATIVE TREE, THEREFORE DO NOT REQUIRE MITIGATION. | TO BE REMOVED |
| EXISTING TREES - TO BE REMOVED GREATER THAN 14-IN. DBH AND REQUIRE MITIGATION. | TO BE MITIGATED |
| EXISTING PALMS - TO BE REMOVED REQUIRE MITIGATION | TO REMAIN |
| EXISTING TREES AND PALMS - TO REMAIN USED FOR TREE CREDITS TOWARDS REQUIRED LANDSCAPING. | |

## General Notes:

1. THE EXISTING TREE LOCATIONS AND SIZES (DBH) DEPICTED WITHIN THE LANDSCAPE PLAN SET ARE TAKEN FROM THE CERTIFIED SURVEY DATED MAY 1, 2024, PREPARED BY PERIMETER SURVEYING & MAPPING, (561) 241-9988.
2. THE TREE CANOPY SHOWN ON THE PLANS ARE GRAPHIC AND ARE DRAWN AT 1-FT. RADIUS PER 1-IN DBH, ALTHOUGH RELATIVELY ACCURATELY, ON-SITE VERIFICATION MAY BE REQUIRED.
3. CALCULATIONS ABOVE ARE PER TREE REPLACEMENT CHART IN THE JURISDICTIONS LAND DEVELOPMENT REGULATIONS.
4. A TREE REMOVAL PERMIT WILL BE REQUIRED PRIOR COMMENCEMENT OF DEVELOPMENT ACTIVITY.
5. THE CONDITION OF THE TREES LISTED ARE BASED ON A VARIETY OF MATERIALS, AS WELL AS FIELD OBSERVATIONS, AND ARE TO BE USED AS REFERENCE ONLY AND IS NOT TO BE USE FOR TREE PERMITTING. A CERTIFIED ARBORIST, NOT THE LANDSCAPE ARCHITECT IS RESPONSIBLE FOR ANY TREE EVALUATION REQUIRED BY THE CITY.
6. A CERTIFIED ARBORIST IS TO PROVIDE THE FINAL TREE DISPOSITION PLAN AT TIME OF TREE PERMITTING. THE VALUATION OF TREES SHALL BE APPRAISED USING THE COUNCIL OF TREE AND LANDSCAPE APPRAISERS GUIDE FOR PLANT APPRAISAL, LATEST EDITION.

## Additional Notes:

1. TREE BARRICADES FOR TREES TO BE PRESERVED DURING CONSTRUCTION SHALL BE LOCATED AT THE DRIP LINE, UNLESS OTHERWISE APPROVED BY THE ENVIRONMENTAL REVIEW STAFF, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE AREA WITHIN THE DRIP LINE SHALL REMAIN UNDISTURBED.
3. THE FOLLOWING ACTIVITIES ARE PROHIBITED WITHIN TECH DRIP LINE OF PRESERVED TREES:
   - A. IMPROVEMENTS, FILL, MACHINERY AND VEHICLE TRAVEL OR PARKING
   - B. UNDERGROUND UTILITIES
   - C. GRADE CHANGES, COMPACTION OF SOIL, OR EXCAVATION
   - D. STORAGE OR CONSTRUCTION MATERIALS.
4. THE TREE PROTECTION BARRICADES SHALL CONSIST OF CHAIN LINK FENCE (NEW OR USED) OR ORANGE SAFETY FENCE WITH A MINIMUM 5-FOOT HEIGHT, UNLESS OTHERWISE APPROVED BY THE BUILDING AND DEVELOPMENT SERVICES.
5. A TREE PERMIT WILL BE REQUIRED PRIOR TO ANY CONSTRUCTION, NATIVE VEGETATION REMOVAL WITHIN THE DRIP LINE OF A TREE, AND/OR TREE REMOVAL.
6. NO CLEARING WITH HEAVY EQUIPMENT, FILLING, OR PLACEMNT OF IMPROVEMENTS OR UTILITY LINES SHALL OCCUR WITHIN THE PROTECTED ROOT ZONE OF ANY CANOPY TREE TO BE SAVED.
7. THE PROTECTED ROOT ZONE IS DEFINED AS THE DRIPLINE OF THE TREE. ONLY HAND CLEARING OR MOWING IS PERMITTED WITHIN THE PROTECTED ROOT ZONE OF A CANOPY TREES TO BE SAVED IF AUTHORIZED BY THE ADMINISTRATOR.

plot date:
file name:



■ COPYRIGHT © ■ PATRICK D. CUNNINGHAM, LLC ■ 519 Sapphire Drive ■ Sarasota, Florida 34243 ■ 941.351.8915 ■ ALL RIGHTS RESERVED ■

## Additional Notes

1. QUALITY
PLANT MATERIALS USED SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER, AS GIVEN IN THE MOST CURRENT EDITION OF 'GRADES AND STANDARDS FOR NURSERY PLANTS' PART I AND PART II, STATE OF FLORIDA.

2. DROUGHT TOLERANCE REQUIREMENTS
A MINIMUM OF 75% TO 100% OF TOTAL CUMULATIVE LANDSCAPE PLANT MATERIAL USED TO MEET THE PROVISIONS OF THE I.R.C. L.D.R., CHAPTER 926, SHALL BE 'HIGH DROUGHT TOLERANT,' AS CLASSIFIED AND LISTED IN THE MOST RECENT EDITION OF THE 'WATERWISE - FLORIDA LANDSCAPES - LANDSCAPING TO PROMOTE WATER CONSERVATION USING PRINCIPLES OF XERISCAPE' - FROM FLORIDA'S WATER MANAGEMENT DISTRICTS.

3. TREES:
A. CANOPY TREES SHALL BE SPECIES HAVING AN AVERAGE MATURE SPREAD OF CROWN GREATER THAN FIFTEEN (15) FEET IN DIAMETER, AND HAVING A TRUNK WITH OVER FIVE (5) FEET OF CLEAR WOOD.
B. CANOPY TREES SHALL HAVE A 2" DIAMETER AT 0.5' ABOVE GRADE AND BE A MIN. 12' IN HEIGHT WITH A MINIMUM CROWN SPREAD OF 4.5' AT TIME OF PLANTING.
C. PALMS SHALL BE CONSIDERED 1/3 OF A TREE AND, IF USED, THEY SHALL CONSIST OF NO MORE THAN ONE-THIRD OF THE TOTAL NEW TREE REQUIREMENT. ADDITIONALLY, 3 PALMS = 1 CANOPY TREE. SINGLE DATE PALMS (NOT PYGMY DATE PALMS) MAY BE SUBSTITUTED FOR A CANOPY TREE.
D. AT LEAST 50% OF ALL NEW REQUIRED TREES SHALL BE OF A NATIVE SPECIES, AND AT LEAST 75% - 100% OF ALL TREES SHALL BE RATED 'DROUGHT TOLERANT'.
E. REQUIRED UNDERSTORY TREES SHALL BE A MINIMUM OF SIX (6) FEET OVERALL IN HEIGHT AND ONE- AND ONE-HALF (1.5) INCHES DIAMETER AT ONE-HALF (0.5) FEET ABOVE GRADE AT THE TIME OF PLANTING. MULTI-TRUNK TREES SHALL HAVE A COMBINED ONE- AND ONE-HALF-INCH CALIPER FOR ALL TRUNKS AT SIX (6) INCHES ABOVE GRADE. PALM TREES USED AS UNDERSTORY TREES SHALL HAVE A MINIMUM OVERALL HEIGHT OF SIX (6) FEET AND SHALL NOT COMPRISE MORE THAN 25% OF THE TOTAL UNDERSTORY TREE REQUIREMENT.
F. A ROOT BARRIER IS REQUIRED FOR CANOPY TREES WITHIN 6-FT. OF A SIDEWALK, PAVED AREA, BUILDING, OR UNDERGROUND UTILITY .

4. SHRUBS/ HEDGES:
A. SHRUBS SHALL BE A MINIMUM OF EIGHTEEN (18) INCHES IN HEIGHT WHEN MEASURED IMMEDIATELY AFTER PLANTING, EXCEPT THAT SHRUBS OF NON-NATIVE VIBURNUM AND LIGUSTRUM SPECIES SHALL BE A MINIMUM OF TWENTY-FOUR (24) INCHES IN HEIGHT IMMEDIATELY AFTER PLANTING.
B. SHRUBS, WHERE REQUIRED, SHALL BE PLANTED IN AN OFFSET DOUBLE ROW AND MAINTAINED SO AS TO FORM A CONTINUOUS, UNBROKEN, SOLID SCREEN, WHERE REQUIRED TO FORM A CONTINUOUS SCREEN, TO SATISFY A BUFFER OR OPAQUE FEATURE REQUIREMENT, SHRUBS SHALL BE PLANTED ON TWENTY-FOUR (24)-TO-THIRTY (30) INCH CENTERS, UNLESS A GREATER SPACING IS NECESSARY TO ACCOMMODATE LARGER SHRUBS AND IS APPROVED BY PLANNING DIVISION STAFF.
C. EXCLUDING SHRUBS USED IN OPAQUE FEATURES, AT LEAST 50% OF THE REQUIRED NUMBER OF SHRUBS SHALL BE OF NATIVE SPECIES.

5. MULCH AND GROUND COVERS
THE USE OF CYPRESS MULCH IS PROHIBITED. MULCH THAT IS NOT CYPRESS MAY BE USED. GROUND COVERS (NOT INCLUDING SOD GRASS) SHALL BE PLANTED IN SUCH A MANNER AS TO PRESENT A FINISHED APPEARANCE AND REASONABLY COMPLETE COVERAGE WITHIN ONE YEAR AFTER PLANTING. AT LEAST 50% OF THE AREA COVERED BY LIVING MATERIAL SHALL BE OF NATIVE SPECIES. REFER TO IRC LDC FOR A LIST OF NATIVE GROUND COVERS AND FLOWERS. THE COMPLETE COVERAGE OF AN AREA BY GROUND COVERS PRECLUDES THE USE OF MULCH THEREAFTER.

6. TURF GRASS
TURF GRASS AREAS SHALL BE IDENTIFIED ON THE LANDSCAPE PLAN AND SHALL BE LIMITED TO A MAXIMUM OF 50% OF THE TOTAL IRRIGATED, LANDSCAPED AND VEGETATED PROJECT AREA, EXCLUDING RIGHTS-OF-WAY, ACTIVE RECREATION AREAS (E.G. PLAYFIELDS), AND SLOPES WITHIN DRY RETENTION AREAS. TURF GRASS SHALL BE PLACED SO THAT IT CAN BE IRRIGATED IN A SEPARATE ZONE. PREFERRED TURF GRASSES ARE THOSE QUALIFYING AS NATIVE.

7. IRRIGATION USAGE ZONES SHALL BE AS FOLLOWS:
A. GRASS AREA SHALL BE IN HIGH USAGE ZONES.
B. TREES & SHRUBS SHALL BE IN LOW USAGE ZONES.

8. THERE SHALL BE (6) DIFFERENT SPECIES OF TREES USED, AND (9) DIFFERENT SPECIES OF SHRUBS WITH (4) BEING NATIVE PER I.R.C. ORDINANCE, CHAPTER 926.

9. THE CONTRACTOR SHALL ATTEMPT TO PRESERVE AS MANY EXISTING TREES AS POSSIBLE AND FEASIBLE. TREES THAT ARE PRESERVED MAY BE CREDITED TOWARDS THE SITE TREE REQUIREMENT IF THEY MEET THE SPECIFICATIONS.

10. THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF TREES, SIGNS AND LIGHTS SUCH THAT ALL SIGNAGE IS EASILY SEEN AND LIGHTING WORKS FOR ITS INTENDED PURPOSE. TREE PLACEMENT MAY VARY FROM THIS PLAN TO ACHIEVE THIS REQUIREMENT.

11. LANDSCAPE ISLANDS SHALL BE BACKFILLED AT LEAST TO TOP OF CURB, AND MAY BE BERMED TO A MAXIMUM HEIGHT OF 24" ABOVE ADJACENT PARKING LOT GRADE.

12. ALL LANDSCAPE MATERIAL IN SHOCK WILL BE REPLACED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.

LAND CLEARING NOTES
A. ALL NATIVE UPLAND VEGETATION CONTRIBUTING TO THE STABILIZATION OF BANKS OR EXISTING CANALS, DITCHES OR NATURAL WATERCOURSES SHALL BE RETAINED.

B. ALL NUISANCE EXOTIC VEGETATION EXISTING ON SITE SHALL BE REMOVED IN CONJUNCTION WITH ANY SITE DEVELOPMENT.

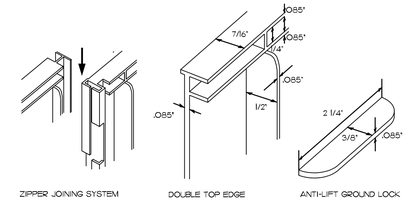
C. ANY ABANDONED FLOW WELLS EXISTING ON SITE SHALL BE PLUGGED IN CONJUNCTION WITH SITE DEVELOPMENT.

48 HOURS BEFORE DIGGING
CALL TOLL FREE
811
SUNSHINE811.COM
NOTIFICATION CENTER

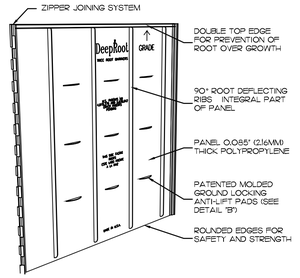
NOTES:
SPECIFIED TREE ROOT BARRIERS ARE A MECHANICAL BARRIER AND ROOT DEFLECTOR TO PREVENT TREE ROOTS FROM DAMAGING HARDSCAPES AND LANDSCAPES, ASSEMBLED IN 2' LONG MODULES TO CREATE VARYING SIZES OF CYLINDERS FOR SURROUNDING ROOT BALLS (SURROUND PLANTING STYLE) OR FOR LINEAR APPLICATIONS DIRECTLY BESIDE A HARDSCAPE ADJACENT TO ONE SIDE OF THE TREES (LINEAR PLANTING STYLE).

A. MATERIALS
1. THE CONTRACTOR SHALL FURNISH AND INSTALL TREE ROOT BARRIERS AS SPECIFIED. THE TREE ROOT BARRIERS SHALL BE PRODUCT # UB 24-2, # UB 36-2 AND # UB 48-2 AS MANUFACTURED BY DEEP ROOT PARTNERS, L.P. 345 LORTON AVE. #103, BURLINGAME, CA. (800-458-7668), OR APPROVED EQUAL. THE BARRIER SHALL BE BLACK, INJECTION MOLDED PANELS, OF 0.065" WALL THICKNESS IN MODULES 24" LONG BY 24" & 48" DEEP, MANUFACTURED WITH A MINIMUM 50% POST CONSUMER RECYCLED POLYPROPYLENE PLASTIC WITH ADDED ULTRAVIOLET INHIBITORS, RECYCLABLE. EACH PANEL SHALL HAVE:

B. CONSTRUCTION AND INSTALLATION
1. THE CONTRACTOR SHALL INSTALL THE TREE ROOT BARRIERS WITH THE NUMBER OF PANELS AND IN THE MANNER SHOWN ON THE DRAWINGS. THE VERTICAL ROOT DEFLECTING RIBS SHALL BE FACING INWARDS TO THE ROOT BALL AND THE TOP OF THE DOUBLE EDGE SHALL BE 1/2" ABOVE GRADE. EACH OF THE REQUIRED NUMBER OF PANELS SHALL BE CONNECTED TO FORM A CIRCLE AROUND THE ROOT BALL OR WHERE SPECIFIED JOINED IN A LINEAR FASHION AND PLACED ALONG THE ADJACENT HARDSCAPE. ALL STREET TREES WITH TRUNKS CLOSER THAN 4 FT. TO PAVED SURFACES SHALL BE PLANTED WITH ROOT BARRIER BETWEEN THE ROOT BALL AND PAVING. PLANTINGS WITHIN TREE WELLS REQUIRE ROOT BARRIERS ALONG ALL SIDES OF THE TREE WELL.
2. EXCAVATION AND SOIL PREPARATION SHALL CONFORM TO THE DRAWINGS.
3. THE TREE ROOT BARRIERS SHALL BE BACKFILLED ON THE OUTSIDE WITH 3/4" TO 1 1/2" GRAVEL OR CRUSHED ROCK AS SHOWN ON THE DRAWINGS. NO GRAVEL BACKFILL IS REQUIRED FOR A LINEAR PLANTING



ZIPPER JOINING SYSTEM | DOUBLE TOP EDGE | ANTI-LIFT GROUND LOCK




**24" DEEPROOT TREE ROOT BARRIERS**
NOT TO SCALE

ALL EXISTING TREES TO BE PROTECTED DURING ANY LAND CLEARING AND/OR CONSTRUCTION AS FOLLOWS:

(A) PRIOR TO ANY LAND CLEARING OPERATIONS, TEMPORARY BARRIERS SHALL BE INSTALLED AROUND ALL TREES TO REMAIN WITHIN THE LIMITS OF LAND CLEARING OR CONSTRUCTION AND SHALL REMAIN UNTIL THE COMPLETION OF THE WORK.

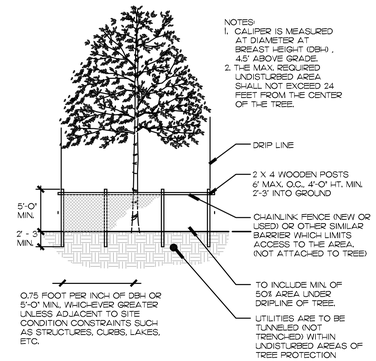
TREE PROTECTION SHALL COMPLY WITH THE JURISDICTIONS REGULATIONS.

(B) NO MATERIALS, TRAILERS, EQUIPMENT OR CHEMICALS SHALL BE STORED, OPERATED DUMPED, BURIED OR BURNED WITHIN THE PROTECTED AREAS.

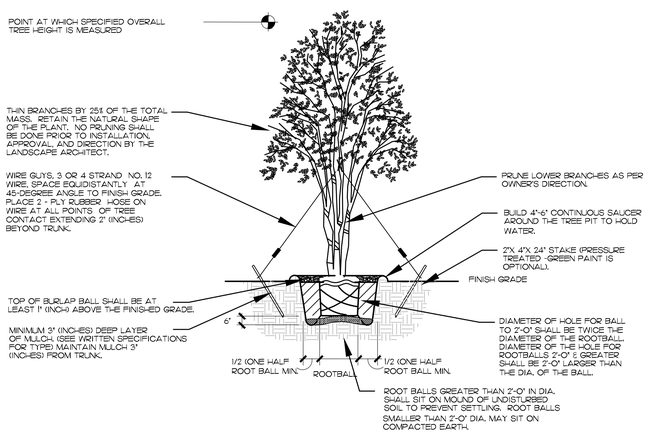
NO ATTACHMENT, WIRES (OTHER THAN PROTECTIVE GUY WIRES), SIGNS OR PERMITS SHALL BE ATTACHED TO A PROTECTED TREE.

(C) PROTECTED TREES SHALL BE PRUNED TO RESTORE THIS NATURAL SHAPE AND FERTILIZED AS NECESSARY TO COMPENSATE FOR ANY LOSS OF ROOTS AND TO STIMULATE ROOT GROWTH.

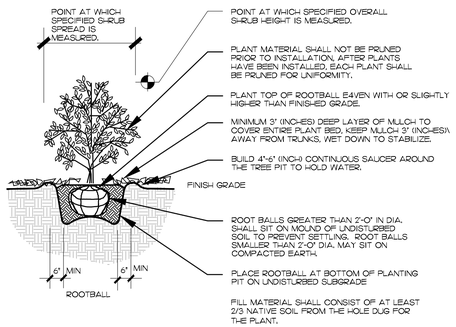
ANY DAMAGE TO TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY AFTER DAMAGE OCCURS.



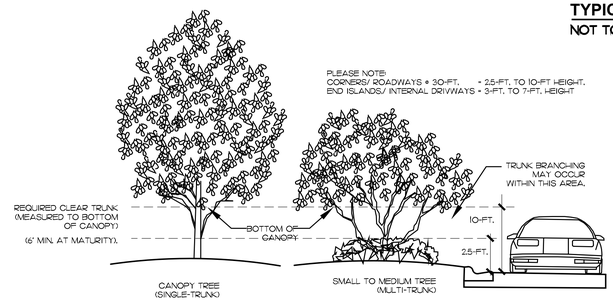

**TYPICAL TREE PROTECTION DETAIL**
NOT TO SCALE



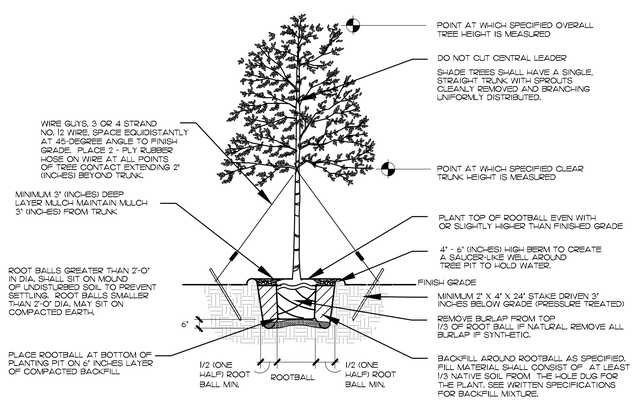

**TYPICAL IRRIGULAR/MULTI-TRUNK TREE PLANTING DETAIL**
NOT TO SCALE



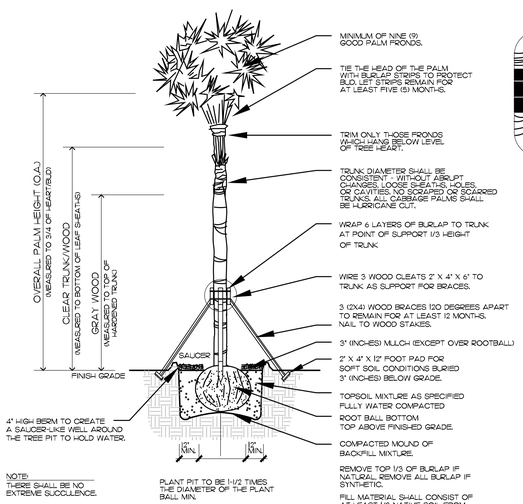

**TYPICAL SHRUB/ GROUNDCOVER PLANTING DETAIL**
NOT TO SCALE




**CLEAR TRUNK WITHIN SIGHT TRIANGLE DETAIL**
NOT TO SCALE

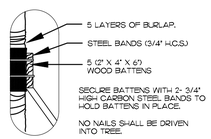


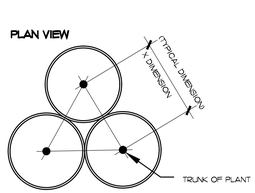

**TYPICAL TREE PLANTING DETAIL**
NOT TO SCALE



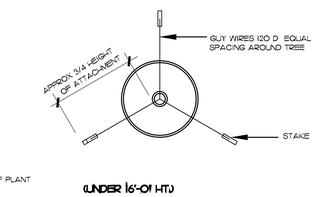

NOTE:
THERE SHALL BE NO EXTREME SUCCULENCE.

**TYPICAL PALM PLANTING DETAIL**
NOT TO SCALE




**TYPICAL PLANT SPACING DETAIL**
NOT TO SCALE




(UNDER 16'-0" HT.)

**TYPICAL TREE GUYING DETAIL**
NOT TO SCALE


Patrick D. Cunningham, LLC
land planning
landscape architecture
519 Sapphire Drive
Sarasota, FL 34234
o: 941.351.8915
pcunningham.LLC@gmail.com


LANDSCAPE DETAILS

MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

| | | |
|---|---|---|
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | SUBMITTAL | 12.08.2023 |

SCALE: N.T.S.

PATRICK D. CUNNINGHAM
FL REG #: LA0001669

SEAL

NORTH

SHEET
L-3

plot date:
file name:



▪ COPYRIGHT © ▪ PATRICK D. CUNNINGHAM, LLC ▪ 519 Sapphire Drive ▪ Sarasota, Florida 34243 ▪ 941.351.8915 ▪ ALL RIGHTS RESERVED ▪